



# Danfoss Hansen® Quick Disconnect Couplings



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# Introduction to Danfoss Quick Disconnect Couplings

Since the invention of the quick-release coupling by Fred Hansen in 1915, the Hansen name has been known for setting new industry standards in fluid conveyance—building a strong global reputation for performance, resilience and reliability.

The innovative design of Danfoss Hansen quick disconnect couplings enables higher flow rates with an optimized flow path, reducing pressure drops and increasing overall system efficiency. In turn, this decreases component wear and tear, lowers application energy consumption, and reduces system space and weight—all of which can slash both fuel consumption and cost of ownership.

Danfoss Hansen quick disconnect couplings also come with Dura-Kote™ plating as standard, offering exceptional corrosion protection that prevents red rust for up to 1000 hours, extending their lifespan and reducing maintenance demands.

“Danfoss Hansen quick disconnect couplings are well known for outstanding performance and robust design, driving leak-free operations.” “Our Danfoss Hansen brand recalls this long heritage of application excellence across a multitude of different markets.”

At the same time, it also marks the opening of a new chapter in engineering tomorrow for hydraulic, pneumatic, and fluid transfer applications. Our experts will continue pioneering new improvements to ensure Danfoss Hansen couplings remain a clear market leader long into the future.

The updated Danfoss Hansen product line also offers customers a plethora of options. Available in a wide variety of materials and sizes, along with optimized sealing solutions, the couplings are highly customizable based on the performance and cost demands of a customer’s specific application.



# Safety Information for Danfoss Quick Disconnect Couplings

## 1.0 General Instructions.

- 1.1 Scope.** The scope of this safety bulletin is to warn against improper selection, use, installation, etc. of Danfoss coupling products.
- 1.2 Distribution.** A copy of this safety bulletin should be distributed to all individuals responsible for using and/or selecting Danfoss coupling products.
- 1.3 Fail-Safe.** Design all systems and equipment for fail-safe operation such that failure of any component does not result in personal injury and/or property damage.
- 1.4 User Responsibility.** It is the sole responsibility of the user to select and determine that the Danfoss product is compatible with the end use application. The user is responsible for reading and following this safety bulletin as well as any instructions or literature on the Danfoss product being used. The user must provide necessary product warnings for Danfoss couplings products, used with systems or equipment, to the operators of the systems or equipment.
- 1.5 Usage with other Manufacturers' Products.** When using Danfoss coupling products with other manufacturers' adapters, hoses, etc., do not exceed the lowest pressure rating of any of the components being used or rupture may result.
- ## 2.0 Selection of Danfoss Couplings.
- 2.1 Pressure.** Ensure that the maximum operating pressure of the system or equipment does not exceed the rated operating pressure of the Danfoss coupling product or rupture may result.
- 2.2 Fluid Compatibility.** Verify that all components (seals, metals, etc.) are compatible with the fluid being conveyed. Failure to do so may result in high speed fluid discharge and/or leakage of fluids which may be flammable, toxic, at extreme temperatures, or otherwise harmful.
- 2.3 Temperature.** Ensure that the maximum operating temperature of the system or equipment does not exceed the rated operating temperature of the Danfoss coupling product (including seals) or rupture may result.
- 2.4 Coupling Size.** Use properly sized couplings such that there is not a large pressure drop across them thus avoiding system damage due to excessive heat generation or failure of internal components.
- 2.5 Sleeve Lock.** Use sleeve locks or threaded couplings where there is the possibility of accidental disconnection. Failure to utilize sleeve locks or threaded couplings in these applications may result in hose whip, expelled components, high speed fluid discharge, system damage, or leakage of fluids which may be flammable, toxic, at extreme temperatures, or otherwise harmful.

## 2.6 Connect or Disconnect Under Pressure.

If connection and/or disconnection of couplings under pressure is a requirement, only use couplings designed for connection/disconnection under pressure. Failure to utilize this type of coupling in that application may result in hose whip, expelled components, high speed fluid discharge, and/or system damage. Be certain not to confuse the rated operating pressure with the rated connect/disconnect under pressure.

- 2.7 Environment.** Ensure that Danfoss couplings are compatible with the surrounding environment. The surrounding environment may be heat, salt water, moisture, chemicals, and the like. Failure to protect against an adverse environment may cause system damage, premature failure, and/or leakage of fluids which may be flammable, toxic, at extreme temperatures, or otherwise harmful.

- 2.8 External Loads.** Avoid any external loads such as side loads, tensile loads, vibration, etc. Failure to do so may result in accidental disconnection, premature failure, system damage, and/or leakage of fluids which may be flammable, toxic, at extreme temperatures, or otherwise harmful.

- 2.9 Welding & Brazing.** Extreme heating of plated products above +450°F (+232°C) such as welding, brazing, baking, etc., where the plating is burned off, may result in the release of deadly gases.

## 3.0 Installation of Danfoss Couplings.

- 3.1 Inspection of Product.** Prior to installation, ensure that the Danfoss product meets all of the requirements of the system and/or equipment it is to be used on. Ensure you have the correct part number, function test the coupling by connecting it with a mating half. The function test should result in smooth, non-binding operation or premature failure may result.
- 3.2 Cleanliness.** Use end caps and plugs to reduce the risk of system contamination or damage to critical sealing surfaces. Failure to do so may result in leakage of fluids which may be flammable, toxic, at extreme temperatures, or otherwise harmful. Caps and plugs are not a secondary seal unless explicitly noted.
- 3.3 Location.** Place Danfoss couplings in a safe location such as not to expose the user to personal injury (slippage, tripping, falling, etc.) during installation, connection, disconnection and maintenance.
- 4.0 Product Maintenance.** A maintenance schedule should be put in place to ensure that Danfoss couplings are functioning properly. Danfoss is not responsible for product failures resulting from modification or improper maintenance.
- 4.1 Inspection.** Visually inspect to ensure that there is no leakage, cracked components, corrosion build-up, contamination build-up, wear, etc. If any abnormality is encountered, the coupling should be replaced immediately.

# Fluid Compatibility

This chart indicates the suitability of various elastomers and metals for use with fluids to be conveyed. It is intended for use with Danfoss couplings and should not be used to determine compatibility for other products. It is intended as a guide only and is not a guarantee. Final selection of the proper seal or material of metal components is further dependent on many factors including pressure, fluid and ambient temperature, concentration, duration of exposure, etc.

## How to Use the Chart

- Both the elastomer and the metal must be considered when determining suitability of combination for a coupling.
- Locate the fluid to be conveyed and determine the suitability of the elastomeric and metal components according to the resistance rating shown for each.
- Dimensional and operation specifications for each coupling can be found on the catalog pages.
- Information on seal options for couplings, and how to specify them, are shown in the respective sections of this catalog.
- Be sure to check the table below for maximum operating temperature range of the elastomer desired.
- For further details on the products shown in this catalog, and their applications, consult your Danfoss Sales Representative or Danfoss Technical Support.
- Coupling component materials may differ from body material. Refer to specific catalog pages.

## Resistance Rating Key

- E = Excellent – Fluid has little or no effect
- G = Good – Fluid has minor to moderate effect
- C = Conditional – Service conditions should be described to Danfoss for determination of suitability for application
- U = Unsatisfactory

The differences between ratings “E” and “G” are relative. Both indicate satisfactory service. Where there is a choice, the materials rated “E” may be expected to give better or longer service than those rated “G”.

The charts below are intended for reference use only. The information in this chart pertains strictly to material compatibility and is not intended to be used as an application guide.

E=Excellent  
G=Good  
C=Conditional  
U=Unsatisfactory

| Fluid                     | Seals         |          |           |     | Metal |       |                 |          |
|---------------------------|---------------|----------|-----------|-----|-------|-------|-----------------|----------|
|                           | Nitrile (NBR) | Neoprene | FPDM/EPDM | FKM | Steel | Brass | Stainless Steel | Aluminum |
| Acetaldehyde              | U             | C        | C         | U   | G     | E     | E               | E        |
| Acetic Acid, 10%          | U             | U        | E         | G   | U     | U     | C               | C        |
| Acetic Acid, Glacial      | U             | U        | C         | U   | U     | U     | C               | C        |
| Acetone                   | U             | U        | G         | U   | E     | E     | E               | E        |
| Acetophenone              | U             | U        | E         | U   | E     | E     | E               | C        |
| Acetyl Acetone            | U             | U        | G         | U   | U     | C     | C               | C        |
| Acetyl Chloride           | U             | U        | U         | E   | C     | C     | C               | U        |
| Acetylene (1)             | G             | U        | G         | E   | E     | E     | E               | E        |
| Air, Hot (Up to +160°F)   | E             | E        | E         | E   | E     | E     | E               | E        |
| Air, Hot (161°F – 200°F)  | C             | G        | E         | E   | E     | E     | E               | E        |
| Air, Hot (201°F – 300°F)  | U             | U        | G         | E   | E     | E     | E               | E        |
| Air Wet, below 160°F      | E             | E        | E         | E   | U     | G     | E               | E        |
| Aluminum Chloride, 10% aq | E             | E        | E         | E   | U     | U     | U               | U        |
| Aluminum Fluoride, 10% aq | E             | E        | E         | E   | U     | U     | U               | E        |
| Aluminum Nitrate, 10% aq  | E             | E        | E         | E   | U     | U     | C               | C        |

| Fluid                            | Seals         |          |           |     | Metal |       |                 |          |
|----------------------------------|---------------|----------|-----------|-----|-------|-------|-----------------|----------|
|                                  | Nitrile (NBR) | Neoprene | FPDM/EPDM | FKM | Steel | Brass | Stainless Steel | Aluminum |
| Aluminum Sulfate, 10% aq         | E             | E        | E         | E   | U     | C     | E               | C        |
| Alums, 10% aq                    | E             | E        | E         | E   | U     | C     | E               | C        |
| Ammonia, Cold                    | E             | E        | E         | U   | E     | U     | E               | E        |
| Ammonia, Hot                     | U             | G        | G         | U   | E     | U     | E               | E        |
| Ammonia, Anhydrous               | G             | G        | E         | U   | E     | U     | E               | E        |
| Ammonia, Aqueous                 | E             | E        | E         | U   | E     | U     | E               | E        |
| Ammonium Carbonate, 10% aq       | U             | E        | E         | U   | C     | U     | C               | C        |
| Ammonium Chloride, 10% aq        | E             | E        | E         | U   | U     | U     | C               | U        |
| Ammonium Hydroxide, 10% aq       | C             | C        | E         | C   | G     | U     | C               | C        |
| Ammonium Nitrate, 10% aq         | E             | G        | E         | U   | G     | U     | G               | G        |
| Ammonium Phosphate, 10% aq       | E             | E        | E         | -   | U     | C     | G               | U        |
| Ammonium Sulfate/Sulfide, 10% aq | E             | E        | E         | U   | U     | U     | G               | U        |
| Amyl Acetate                     | U             | U        | G         | U   | E     | E     | E               | E        |
| Amyl Alcohol                     | G             | C        | E         | G   | G     | G     | E               | U        |
| Aniline, Aniline Oil             | U             | U        | G         | U   | E     | U     | E               | G        |

# Fluid Compatibility

E=Excellent  
 G=Good  
 C=Conditional  
 U=Unsatisfactory

Nitrile (NBR)  
 Neoprene  
 FPDM/EPDM  
 FKM  
 Steel  
 Brass  
 Stainless Steel  
 Aluminum

| Fluid                        | Seals |   |   |   | Metal |   |   |   |
|------------------------------|-------|---|---|---|-------|---|---|---|
| Aniline Dyes                 | U     | G | G | G | U     | C | G | C |
| Asphalt, < 200°F             | G     | C | U | E | E     | G | E | C |
| IRM 901 Oil                  | E     | E | C | E | E     | E | E | E |
| IRM 902 Oil                  | E     | G | U | E | E     | E | E | E |
| IRM 903 Oil                  | E     | C | U | E | E     | E | E | E |
| Automatic Trans. Fluid       | E     | C | U | E | E     | E | E | E |
| Barium Chloride, 10% aq      | E     | E | E | E | U     | G | G | G |
| Barium Hydroxide, 105 aq     | E     | E | E | E | G     | U | G | U |
| Barium Sulfide, 10% aq       | E     | E | E | E | C     | U | G | U |
| Benzene, Benzol              | U     | U | U | E | G     | E | E | G |
| Benzoic Acid                 | U     | U | U | E | U     | G | G | G |
| Benzyl Alcohol               | U     | G | G | E | E     | G | E | G |
| BioDiesel (<B20)             | G     | C | U | E |       |   |   |   |
| BioDiesel (>B20)             | G     | C | U | E |       |   |   |   |
| Black Sulfate Liquor         | C     | C | C | E | E     | C | E | U |
| Blast Furnace Gas            | U     | U | U | E | E     | C | E | U |
| Borax, 10% aq                | G     | G | E | E | E     | E | E | G |
| Boric Acid, 10% aq           | G     | G | G | E | U     | G | C | C |
| Brine                        | E     | G | E | E | U     | G | G | U |
| Bromine, Dry                 | U     | U | U | E | U     | C | U | C |
| Butane                       | E     | C | U | E | E     | E | E | E |
| Butyl Acetate                | U     | U | G | U | E     | E | E | E |
| Butyl Alcohol                | E     | E | G | E | G     | G | G | G |
| Butyl Cellosolve             | U     | U | G | U | E     | E | E | E |
| Butylene (Butene)            | C     | U | U | E | E     | E | E | E |
| Butyl Stearate               | G     | U | U | E | G     | G | G | G |
| Butyraldehyde                | U     | U | G | U | E     | E | E | E |
| Calcium Acetate, 10% aq      | G     | G | E | U | G     | G | G | C |
| Calcium Bisulfate, 10% aq    | E     | E | U | E | U     | C | C | U |
| Calcium Chloride, 10% aq     | E     | E | E | E | G     | G | G | C |
| Calcium Hydroxide, 10% aq    | E     | E | E | E | G     | G | G | U |
| Calcium Hypochlorite, 10% aq | U     | U | E | E | U     | G | C | U |
| Calcium Nitrate, 10% aq      | E     | E | E | E | G     | G | G | G |
| Carbitol                     | G     | G | G | G | E     | E | E | E |
| Carbolic Acid (Phenol)       | U     | U | G | E | U     | E | E | - |
| Carbonic Acid                | G     | E | E | E | U     | C | E | G |
| Carbon Dioxide, Dry Gas      | G     | G | E | E | E     | E | E | E |
| Carbon Disulfide             | U     | U | U | E | G     | G | G | E |
| Carbon Monoxide              | G     | G | E | E | E     | E | E | E |
| Carbon Tetrachloride         | U     | U | U | E | U     | G | G | U |
| Castor Oil                   | E     | E | G | E | E     | E | E | E |
| Cellosolve Acetate           | U     | U | G | U | U     | U | E | G |
| China Wood Oil (Tung Oil)    | G     | G | U | E | E     | G | E | E |
| Chlorine Gas, Dry            | U     | U | U | G | C     | C | C | C |
| Chloroacetic Acid            | U     | U | G | U | U     | U | U | U |
| Chloroacetone                | U     | U | E | U | G     | G | G | U |
| Chlorobenzene                | U     | U | U | G | G     | G | G | G |
| Chloroform                   | U     | U | U | E | G     | G | G | G |
| O-Chlorophenol               | U     | U | U | E | G     | G | G | U |
| Chlosulfonic Acid            | U     | U | U | U | G     | U | G | G |
| Chrome Plating Solution      | U     | U | G | E | C     | U | U | U |
| Chromic Acid                 | U     | U | C | E | C     | U | U | U |
| Citric Acid                  | E     | E | E | E | C     | C | C | C |
| Coke Oven Gas                | U     | U | U | E | E     | C | E | U |
| Copper Chloride, 10% aq      | E     | E | E | E | U     | U | U | U |
| Copper Cyanide, 10% aq       | E     | E | E | E | E     | U | G | U |
| Copper Sulfate, 10% aq       | E     | E | E | E | U     | C | G | U |

Nitrile (NBR)  
 Neoprene  
 FPDM/EPDM  
 FKM  
 Steel  
 Brass  
 Stainless Steel  
 Aluminum

| Fluid                           | Seals |   |   |   | Metal |   |   |   |
|---------------------------------|-------|---|---|---|-------|---|---|---|
| Cotton Seed Oil                 | E     | G | C | E | E     | E | E | E |
| Creosote (Coal Tar)             | G     | C | U | E | E     | C | E | E |
| Crude Oil                       | E     | G | U | E | G     | U | G | U |
| Cyclohexanol                    | E     | G | U | E | E     | E | E | C |
| Cyclohexanone                   | U     | U | G | U | E     | E | E | C |
| Detergent/Water Solution        | E     | E | E | E | G     | E | E | E |
| Diacetone Alchohol (Acetol)     | U     | U | E | U | E     | E | E | E |
| Dibenzyl Ether                  | U     | U | G | U | G     | G | G | G |
| Diesel Oil                      | E     | C | U | E | E     | E | E | E |
| Diethylamine                    | G     | G | G | U | E     | U | E | - |
| Diocyl Phthalate (DOP)          | U     | U | G | G | E     | E | E | E |
| DOT #3 / #4 Brake fluid         | C     | U | E | U | E     | C | E | E |
| Dowtherm A&E                    | U     | U | U | E | G     | U | E | E |
| Ethyl Alcohol (Ethanol)         | E     | E | E | E | E     | E | E | G |
| Ethyl Acetate                   | U     | U | G | U | E     | E | E | E |
| Ethyl Benzene                   | U     | U | U | E | E     | G | G | G |
| Ethyl Cellulose                 | G     | G | G | U | E     | G | G | G |
| Ethyl Chloride                  | U     | U | U | E | E     | E | E | G |
| Ethylene Dichloride             | U     | U | U | G | G     | C | G | G |
| Ethylene Glycol                 | E     | E | E | E | U     | G | E | E |
| Ferric Chloride, 10% aq         | E     | G | E | E | U     | U | U | U |
| Ferric Nitrate, 10% aq          | E     | E | E | E | U     | U | G | U |
| Ferric Sulfate, 10% aq          | G     | G | G | E | U     | U | E | U |
| Formaldehyde                    | C     | C | G | G | E     | E | E | G |
| Formic Acid                     | C     | G | E | U | U     | C | C | C |
| Fuel Oil                        | E     | C | U | E | E     | E | E | E |
| Furfural                        | C     | C | G | U | G     | G | E | G |
| Gallic Acid, Solution           | G     | G | G | E | U     | - | G | C |
| Gasoline                        | E     | U | U | E | E     | E | E | E |
| Gasohol                         | G     | U | U | E | E     | E | E | G |
| Glycerine/Glycerol              | E     | E | E | E | E     | G | E | E |
| Green Sulfate Liquor            | G     | G | E | E | U     | U | E | U |
| Helium (1)                      | E     | E | E | E | E     | E | E | E |
| Heptane                         | E     | G | U | E | E     | E | E | E |
| Hexaldehyde                     | U     | G | G | U | G     | G | E | E |
| Hexane                          | E     | G | U | E | E     | E | E | E |
| Hydraulic Oils, petroleum based | G     | C | U | E | E     | E | E | E |
| Ester Blend                     | E     | U | U | E | E     | E | E | E |
| Phos. Ester/Petroleum Blend     | U     | U | U | C | E     | E | E | E |
| Silicone Oils                   | E     | E | E | E | E     | E | E | E |
| Straight Petroleum Base         | E     | C | U | E | E     | E | E | E |
| Straight Phosphate Ester        | U     | U | G | C | E     | E | E | E |
| Water Glycol                    | E     | E | E | E | E     | E | E | G |
| Water Petroleum Emulsion        | E     | G | U | E | C     | E | E | G |
| Hydrobromic Acid                | U     | U | E | E | E     | U | E | E |
| Hydrochloric Acid, Cold         | U     | U | G | E | U     | U | U | U |
| Hydrocyanic Acid                | C     | C | E | E | E     | E | G | E |
| Hydrofluoric Acid               | U     | U | C | U | U     | U | U | U |
| Hydrofluorosilic Acid           | G     | G | E | E | U     | U | U | U |
| Hydrogen                        | E     | E | E | E | E     | E | E | E |
| Hydrogen Peroxide               | G     | G | G | E | U     | U | G | E |
| Hydrogen Sulfide, Dry           | U     | G | E | U | E     | G | G | G |
| Iso cyanate                     | U     | U | G | E | G     | - | G | - |
| Iso Octane                      | E     | G | U | E | E     | E | E | E |
| Isopropyl Acetate               | U     | U | G | U | E     | - | E | E |
| Isopropyl Alcohol               | G     | G | E | E | E     | E | E | G |
| Isopropyl Ether                 | G     | U | U | U | G     | G | G | - |

# Fluid Compatibility

E=Excellent  
 G=Good  
 C=Conditional  
 U=Unsatisfactory

Nitrile (NBR)  
 Neoprene  
 FPDM/EPDM  
 FKM  
 Steel  
 Brass  
 Stainless Steel  
 Aluminum

| Fluid                       | Seals |   |   |   | Metal |   |   |   |
|-----------------------------|-------|---|---|---|-------|---|---|---|
| JP-4, JP-5                  | E     | U | U | E | E     | E | E | E |
| Kerosene                    | E     | U | U | E | E     | E | E | E |
| Lacquer/Lacquer Solvents    | U     | U | U | U | U     | E | E | E |
| Lime Sulfur                 | U     | E | E | E | G     | U | G | - |
| Linseed Oil                 | E     | G | U | E | E     | E | E | E |
| LPG                         | E     | G | U | E | E     | E | E | E |
| Magnesium Chloride, 10% aq  | E     | E | E | E | E     | C | C | G |
| Magnesium Hydroxide, 10% aq | G     | G | E | E | E     | G | E | G |
| Magnesium Sulfate, 10% aq   | E     | E | E | E | E     | E | E | E |
| Maleic Acid                 | U     | U | U | E | E     | G | G | G |
| Maleic Anhydride            | U     | U | U | E | G     | U | E | G |
| Malic Acid                  | G     | G | U | G | U     | - | E | G |
| Mercuric Chloride           | E     | E | E | E | U     | U | U | U |
| Mercury                     | E     | E | E | E | E     | U | E | U |
| Methanol                    | G     | G | E | U | G     | G | E | C |
| Methyl Bromide              | G     | U | U | E | E     | E | G | U |
| Methyl Chloride             | U     | U | U | E | E     | E | E | U |
| Methyl Butyl Ketone         | U     | U | E | U | E     | E | E | - |
| Methyl Ethyl Ketone         | U     | U | E | U | G     | G | G | G |
| Methylene Chloride          | U     | U | U | G | G     | G | G | G |
| Methyl Isobutyl Ketone      | U     | U | U | U | G     | G | G | G |
| Methyl Isopropyl Ketone     | U     | U | U | U | G     | G | G | G |
| Methyl Salicylate           | U     | U | C | U | E     | G | G | E |
| MIL-L-2104                  | E     | G | U | E | E     | E | E | - |
| MIL-H-5606                  | E     | G | U | E | E     | E | E | E |
| MIL-H-6083                  | E     | E | U | E | E     | E | E | - |
| MIL-L-7808                  | G     | U | U | E | G     | G | E | - |
| MIL-L-23699                 | G     | U | U | E | E     | E | E | E |
| MIL-H-46170                 | E     | G | U | E | E     | E | E | - |
| MIL-H-83282                 | E     | U | U | E | E     | E | E | - |
| Mineral Oils                | E     | C | U | E | E     | E | E | E |
| Naphtha                     | C     | U | U | E | -     | - | - | - |
| Naphthalene                 | U     | U | U | E | E     | G | E | G |
| Naphthenic Acid             | C     | U | U | E | -     | G | E | G |
| Natural Gas                 | E     | E | U | E | G     | G | G | G |
| Nickel Acetate, 10% aq      | C     | C | E | G | G     | C | E | G |
| Nickel Chloride, 10% aq     | E     | G | E | E | U     | U | G | U |
| Nickel Sulfate, 10% aq      | E     | E | E | E | U     | G | G | U |
| Nitric Acid, to 10%         | U     | U | U | E | U     | U | E | U |
| Nitric Acid, over 10%       | U     | U | U | G | U     | U | E | C |
| Nitrobenzene                | U     | U | U | G | E     | G | E | E |
| Nitrogen                    | E     | E | E | E | E     | E | E | E |
| Octyl Alcohol               | E     | E | E | E | E     | E | E | E |
| Oleic Acid                  | U     | U | C | G | C     | E | G | C |
| Oleum, fuming sulfuric acid | U     | U | U | E | E     | E | E | E |
| Ortho-Dichlorobenzene       | U     | U | U | E | G     | G | G | G |
| Oxalic Acid, 10% aq         | G     | G | E | E | U     | C | C | C |
| Oxygen                      | -     | - | E | E | G     | G | G | G |
| Palmitic Acid               | E     | G | G | E | G     | - | E | G |
| Para-Dichlorobenzene        | U     | U | U | E | G     | G | G | G |
| Pentane                     | E     | E | U | E | G     | G | G | E |
| Perchloric Acid             | E     | G | G | E | U     | U | U | U |
| Perchloroethylene           | U     | U | U | E | C     | G | G | G |
| Petroleum Base Oils         | E     | G | U | E | E     | E | E | E |
| Phenol (Carbolic Acid)      | U     | U | G | E | U     | E | E | E |
| Phosphate Ester             | U     | U | G | C | E     | E | E | E |
| Phosphoric Acid 20%         | U     | U | G | E | U     | E | U | C |

Nitrile (NBR)  
 Neoprene  
 FPDM/EPDM  
 FKM  
 Steel  
 Brass  
 Stainless Steel  
 Aluminum

| Fluid                         | Seals |   |   |   | Metal |   |   |   |
|-------------------------------|-------|---|---|---|-------|---|---|---|
| Phosphorous Trichloride       | U     | U | E | E | C     | U | C | E |
| Potassium Acetate, 10% aq     | G     | G | E | U | C     | G | C | U |
| Potassium Chloride, 10% aq    | E     | E | E | E | E     | C | E | U |
| Potassium Cyanide, 10% aq     | E     | E | E | E | C     | U | G | U |
| Potassium Dichromate, 10% aq  | E     | E | E | E | C     | C | C | C |
| Potassium Hydroxide, to 10%   | G     | G | E | G | G     | G | G | U |
| Potassium Hydroxide, over 10% | C     | C | E | U | G     | G | G | U |
| Potassium Nitrate, 10% aq     | E     | E | E | E | G     | G | E | G |
| Potassium Sulfate, 10% aq     | E     | E | E | E | -     | - | - | - |
| Propane (Liquified)           | C     | G | - | E | E     | E | E | E |
| Propyl Acetate                | U     | U | G | U | E     | - | E | E |
| Propyl Alcohol                | E     | E | E | E | E     | E | E | E |
| Propylene                     | U     | U | U | E | E     | E | E | E |
| Rapeseed oil (B100)           | G     | C | U | E | -     | - | - | - |
| Refrigerant R-12              | G     | E | C | E | E     | E | E | E |
| Refrigerant R-13              | G     | E | C | E | E     | E | E | E |
| Refrigerant R-22              | U     | E | C | U | E     | E | E | E |
| Refrigerant R-134a            | E     | C | G | U | E     | E | E | E |
| Sewage                        | E     | E | E | E | G     | G | G | G |
| Silicone Oils                 | E     | E | E | E | E     | E | E | E |
| Soap (Water Solutions)        | E     | E | E | E | E     | E | E | U |
| Sodium Acetate, 10% aq        | G     | G | E | U | E     | E | G | E |
| Sodium Bicarbonate, 10% aq    | E     | E | E | E | G     | G | E | G |
| Sodium Borate, 10% aq         | E     | E | E | E | E     | E | E | G |
| Sodium Carbonate, 10% aq      | E     | E | E | E | E     | G | E | U |
| Sodium Chloride, 10% aq       | E     | E | E | E | U     | C | C | C |
| Sodium Cyanide, 10% aq        | E     | E | E | E | E     | - | C | U |
| Sodium Hydroxide, to 10%      | U     | G | E | E | C     | G | C | U |
| Sodium Hydroxide, over 10%    | U     | U | G | E | C     | C | C | U |
| Sodium Hypochlorite, 10% aq   | C     | C | E | C | U     | U | U | U |
| Sodium Metaphosphate, 10% aq  | E     | E | E | E | E     | G | G | U |
| Sodium Nitrate, 10% aq        | G     | G | E | - | E     | C | E | E |
| Sodium Perborate, 10% aq      | G     | G | E | E | C     | U | C | U |
| Sodium Peroxide, 10% aq       | G     | G | E | E | U     | U | C | C |
| Sodium Phosphates, 10% aq     | E     | E | E | E | U     | E | G | U |
| Sodium Silicate, 10% aq       | E     | E | E | E | E     | E | E | E |
| Sodium Sulfate, 10% aq        | E     | E | E | E | C     | G | G | G |
| Sodium Sulfide, 10% aq        | E     | E | E | E | C     | U | C | U |
| Sodium Thiosulfate, 10% aq    | G     | E | E | E | U     | U | C | G |
| Soy Bean Oil (B100)           | E     | C | U | E | E     | E | E | E |
| Stannic Chloride              | E     | G | E | E | U     | U | U | U |
| Steam (up to 388°F)           | U     | U | C | C | E     | E | E | G |
| Stearic Acid                  | G     | G | G | E | C     | C | E | C |
| Stoddard Solvent              | E     | G | U | E | E     | E | E | E |
| Styrene                       | U     | U | U | G | E     | E | E | E |
| Sulfur, Slurry                | U     | E | E | E | E     | U | G | E |
| Sulfur Chloride, Wet          | U     | U | U | E | G     | - | G | G |
| Sulfur Dioxide, Dry           | U     | U | G | E | E     | G | G | E |
| Sulfur Trioxide               | U     | U | G | E | G     | C | G | G |
| Sulfuric Acid, to 10%         | U     | G | U | E | U     | G | C | - |
| Sulfuric Acid, over 10%       | U     | U | U | G | C     | C | C | U |
| Sulfurous Acid                | C     | C | U | G | U     | C | C | C |
| Tannic Acid                   | G     | E | E | E | E     | E | E | C |
| Tar (Bituminous)              | G     | U | U | E | E     | G | E | E |
| Tartaric Acid                 | E     | G | G | E | U     | C | C | E |
| Tertiary Butyl Alcohol        | G     | G | G | E | G     | G | G | G |
| Titanium Tetrachloride        | C     | U | U | E | E     | U | G | U |

# Fluid Compatibility

E=Excellent  
 G=Good  
 C=Conditional  
 U=Unsatisfactory

| Fluid               | Seals         |          |           |     | Metal |       |                 |          |
|---------------------|---------------|----------|-----------|-----|-------|-------|-----------------|----------|
|                     | Nitrile (NBR) | Neoprene | FPDM/EPDM | FKM | Steel | Brass | Stainless Steel | Aluminum |
| Toluene (Toluol)    | U             | U        | U         | E   | E     | E     | E               | E        |
| Trichlorethylene    | U             | U        | U         | E   | E     | G     | E               | E        |
| Tricresyl Phosphate | U             | U        | E         | G   | E     | -     | C               | -        |
| Triethanolamine     | E             | U        | E         | U   | E     | U     | E               | E        |
| Tung Oil            | G             | G        | U         | E   | E     | G     | E               | E        |
| Turpentine          | G             | U        | U         | E   | G     | G     | G               | G        |
| Varnish             | G             | U        | U         | E   | E     | G     | E               | E        |
| Vinyl Chloride      | U             | U        | U         | E   | E     | U     | C               | E        |

| Fluid                    | Seals         |          |           |     | Metal |       |                 |          |
|--------------------------|---------------|----------|-----------|-----|-------|-------|-----------------|----------|
|                          | Nitrile (NBR) | Neoprene | FPDM/EPDM | FKM | Steel | Brass | Stainless Steel | Aluminum |
| Water (to +150°F)        | E             | E        | E         | E   | C     | G     | E               | G        |
| Water (+151°F to +200°F) | E             | E        | E         | E   | C     | G     | E               | G        |
| Water (+201°F to +350°F) | U             | U        | G         | G   | C     | G     | E               | G        |
| Water Glycol             | E             | E        | E         | E   | E     | E     | E               | G        |
| Water Petroleum Emulsion | E             | G        | U         | E   | C     | E     | E               | G        |
| Xylene                   | U             | U        | U         | E   | E     | E     | E               | E        |
| Zinc Chloride, 10% aq    | E             | E        | E         | E   | E     | U     | U               | C        |
| Zinc Sulfate, 10% aq     | E             | E        | E         | E   | U     | C     | G               | C        |

## Seal information

### Seal Information for Danfoss Hansen and Gromelle Products

| Dash Number | Compound                     | Max. Operation temperature range |
|-------------|------------------------------|----------------------------------|
| -***        | Nitrile (NBR) – 70 Durometer | -25°C +100°C/-13°F +212°F        |
| -115        | PTFE                         | --                               |
| -118        | Neoprene                     | -54°C +100°C/-65°F +212°F        |
| -143        | FKM                          | -29°C +204°C/-15°F +400°F        |
| -146        | Nitrile (NBR) – 70 Durometer | -25°C +100°C/-13°F +212°F        |
| -192*       | EPDM – 75 Durometer          | -54°C +149°C/-65°F +300°F        |
| -235†       | Kalrez® 4079 – 78 Durometer  | -20°C +275°C/-4°F +527°F         |
| -236*       | EPDM – 90 Durometer          | -54°C +260°C/-65°F +500°F        |
| -242        | (Kalrez 6375 – 75 Durometer) | -20°C +275°C/-4°F +527°F         |
| -503        | (FFKM - 75 Durometer)        | -15°C +275°C/+5°F +527°F         |
| -292        | (EPDM- 70 Durometer)         | -54°C +149°C/-65°F +300°F        |

\*\*\*No Dash Number required for standard seal material.

\*-192 and -236 compounds are not compatible with mineral-based greases or oils.

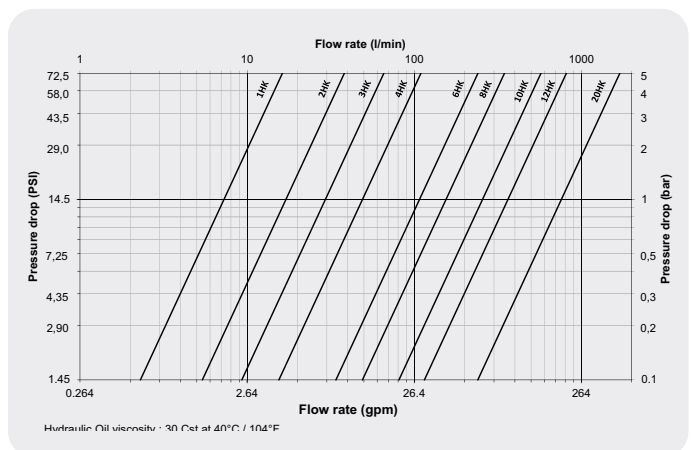
†Kalrez seals available by special quotation.

## Flow data information

For each series presented in our Danfoss Hansen quick disconnect catalog, there is a Flow chart.

Please note that the flow rate data is given for an optimal situation. The data may therefore vary depending on the type of adapter used.

On the right is an example of a flow chart (given for the HK series).



# Couplings for fluid transfer and hydraulic applications



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# H15000 Series ISO 7241-1 A Interchange

Fluid transfer & Hydraulic application



The H15000 Series is a general purpose industrial interchange coupling that meets the ISO 7241-1 Series A standard. The H15000 Series features a rugged ball latch mechanism with self-sealing poppet valves.

## Product Features

- Meets the requirements of ISO 7241-1 Series A
- Designed and manufactured under Article 4.3 of the European Pressure Equipment Directive 2014/68/EU.
- 1/2" size available in push-pull version (double acting sleeve, bulkhead-mounted)
- Double shut off valves with ball locking
- Standard body material: Zinc trivalent plated steel
- Standard seal material: Buna-N

## Physical characteristics

| ISO Size | Coupling Size | Nominal Flow Diameter | Max. Operating Pressure |       | Rated Flow** |       | Fluid Loss |
|----------|---------------|-----------------------|-------------------------|-------|--------------|-------|------------|
|          | (in)          | (mm)                  | (bar)                   | (psi) | (lpm)        | (gpm) | ml max     |
| 6.3      | 1/4           | 5.3                   | 315                     | 4,565 | 10           | 2.6   | 0.35       |
| 10       | 3/8           | 7.3                   | 315                     | 4,565 | 20           | 5.3   | 1.5        |
| 12.5     | 1/2           | 10.2                  | 250                     | 3,625 | 40           | 10.6  | 2.6        |
| 20       | 3/4           | 13                    | 250                     | 3,625 | 75           | 19.8  | 8.5        |
| 25       | 1             | 16.9                  | 200                     | 2,900 | 140          | 37    | 13         |

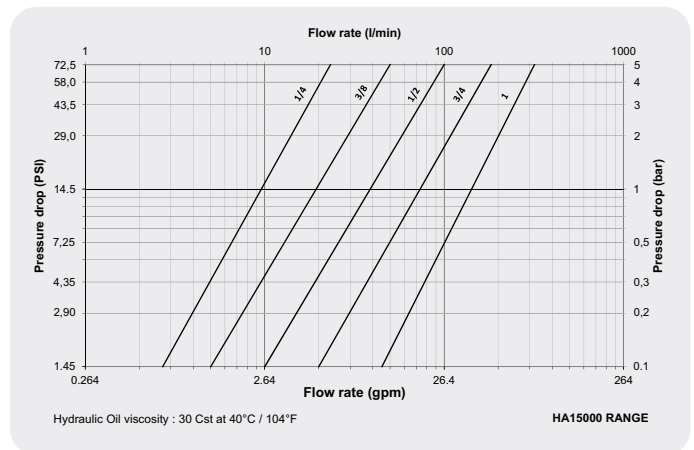
\*The ISO size corresponds to the internal diameter of the hose or the external diameter of the rigid tube (as defined in ISO 4397 Standard).

\*\*Indicated values refer to a 1 bar/14.5 psi pressure drop.

## Applications & Markets

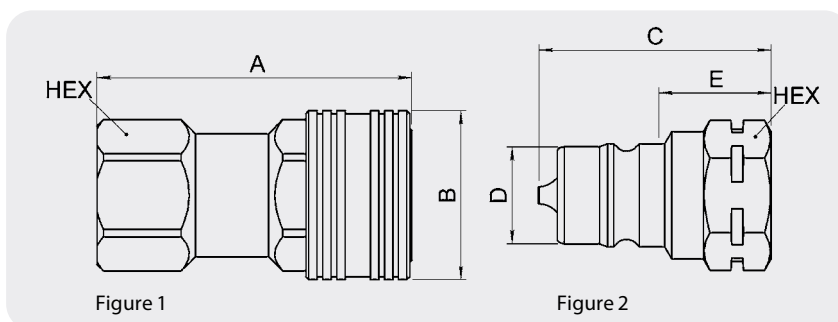
- Data Centers
- Mobile Battery Cooling
- Thermal Management Systems
- Industrial Fluid Transfer
- Not intended for two-phase cooling

## Flow Data



# H15000 Series ISO 7241-1 A Interchange

EMEA region



| Part/Order Number | Nominal Flow Diameter | ISO  | Size | Coupling Type | Thread Size | Fig. | Dimensions |    |     | Weight |
|-------------------|-----------------------|------|------|---------------|-------------|------|------------|----|-----|--------|
|                   | (mm)                  |      |      |               |             |      | A          | B  | Hex |        |
| HA1501100         | 5.3                   | 6.3  | ¼    | Socket/Female | G ¼         | 1    | 48         | 25 | 19  | 94     |
| HA1521100         | 5.3                   | 6.3  | ¼    | Socket/Female | ¼ NPT       | 1    | 48         | 25 | 19  | 94     |
| HA1502100         | 7.3                   | 10   | ⅜    | Socket/Female | G3/8        | 1    | 56         | 30 | 23  | 139    |
| HA1522100         | 7.3                   | 10   | ⅜    | Socket/Female | 3/8 NPT     | 1    | 56         | 30 | 23  | 139    |
| HA1503100         | 10.2                  | 12.5 | ½    | Socket/Female | G ½         | 1    | 67         | 38 | 27  | 238    |
| HA1503600         | 10.2                  | 12.5 | ½    | Socket/Female | G ½ push-   | 1    | 67         | 38 | 27  | 238    |
| HA1523100         | 10.2                  | 12.5 | ½    | Socket/Female | ½ NPT       | 1    | 67         | 38 | 27  | 238    |
| HA1504100         | 13                    | 20   | ¾    | Socket/Female | G ¾         | 1    | 83         | 48 | 35  | 484    |
| HA1524100         | 13                    | 20   | ¾    | Socket/Female | ¾ NPT       | 1    | 83         | 48 | 35  | 484    |
| HA1505100         | 16.9                  | 25   | 1    | Socket/Female | G 1         | 1    | 98         | 53 | 41  | 670    |
| HA1525100         | 16.9                  | 25   | 1    | Socket/Female | 1 NPT       | 1    | 98         | 53 | 41  | 670    |

| Part/Order Number | Nominal Flow Diameter | ISO  | Size | Coupling Type | Thread Size | Fig. | Dimensions |      |    | Hex | Weight |
|-------------------|-----------------------|------|------|---------------|-------------|------|------------|------|----|-----|--------|
|                   | (mm)                  |      |      |               |             |      | C          | D    | E  |     |        |
| HA1501200         | 5.3                   | 6.3  | ¼    | Plug/Male     | G ¼         | 2    | 36         | 11.8 | 20 | 19  | 36     |
| HA1521200         | 5.3                   | 6.3  | ¼    | Plug/Male     | ¼ NPT       | 2    | 36         | 11.8 | 20 | 19  | 36     |
| HA1502200         | 7.3                   | 10   | ⅜    | Plug/Male     | G3/8        | 2    | 41.5       | 17.3 | 20 | 23  | 62     |
| HA1522200         | 7.3                   | 10   | ⅜    | Plug/Male     | 3/8 NPT     | 2    | 41.5       | 17.3 | 20 | 23  | 62     |
| HA1503200         | 10.2                  | 12.5 | ½    | Plug/Male     | G½          | 2    | 49         | 20.5 | 24 | 27  | 88     |
| HA1523200         | 10.2                  | 12.5 | ½    | Plug/Male     | ½NPT        | 2    | 49         | 20.5 | 24 | 27  | 88     |
| HA1504200         | 13                    | 20   | ¾    | Plug/Male     | G ¾         | 2    | 61.5       | 29.1 | 23 | 35  | 194    |
| HA1524200         | 13                    | 20   | ¾    | Plug/Male     | ¾ NPT       | 2    | 61.5       | 29.1 | 27 | 35  | 194    |
| HA1505200         | 16.9                  | 25   | 1    | Plug/Male     | G 1         | 2    | 71.5       | 34.3 | 30 | 41  | 306    |
| HA1525200         | 16.9                  | 25   | 1    | Plug/Male     | 1 NPT       | 2    | 71.5       | 34.3 | 30 | 41  | 306    |

To obtain connected length of coupling, add dimensions A (Fig. 1) and E (Fig. 2) together.

## Dust Plugs and Dust Caps

| Series | Dust Plug | Dust Cap  |
|--------|-----------|-----------|
| 6.3    | HP1511100 | HP1511200 |
| 10     | HP1512100 | HP1512200 |
| 12.5   | HP1513100 | HP1513200 |
| 20     | HP1514100 | HP1514200 |
| 25     | HP1515100 | HP1515200 |

## Seal Kit for Servicing Sockets (Female)

| Body size (in) | Seal & Back-up Ring Kit*                      | Qty                          |
|----------------|---|------------------------------|
| 1/4            | HG 15011 00<br>NBR seals & PTFE back-up rings | 50 O-rings + 50 Backup rings |
| 3/8            | HG 15021 00                                   | 50 O-rings + 50 Backup rings |
| 1/2            | HG 05031 00                                   | 50 O-rings + 50 Backup rings |
| 3/4            | HG 15041 00                                   | 50 O-rings + 50 Backup rings |
| 1              | HG 15051 00                                   | 50 O-rings + 50 Backup rings |

\*The valve seal is not included in our repair kits.



# IA Series ISO 7241-1 A Interchange

Fluid transfer & Hydraulic application



The IA Series meets ISO 7241-1 A Standard requirements and has a push-pull design, which allows the socket to be bulkhead-mounted. This configuration provides automatic connection or disconnection via a simple push or pull of the plug. Our IA Series is available in 1/2", with female or male end connections such as tube fittings, NPT, metric or SAE threads. It is widely used in agriculture and forestry applications.

## Product Features

- ISO size: 12.5 mm (1/2")
- Standard body material: Zinc trivalent plated steel
- Wide offering of end connections, among which metric threads designed in accordance with ISO Standard 8434/1
- Standard seal material: NBR
- Optional PVC dust caps and plugs
- Meets dimensional requirements of ISO Standard 7241/1 Series A
- Designed and manufactured in accordance with Article 3.3 of the European Pressure Equipment Directive PED 201468/EU
- Push-to-connect: the push-pull sleeve on the bulkhead-mounted socket provides automatic connection or disconnection via a simple push or pull of the plug. In the event of pull on the hose, the double-action sleeve gives immediate and automatic disconnection

## Physical characteristics

| Body Size<br>(in) | ISO Size*<br>(mm) | Nominal Flow Diameter<br>(mm) | Max. Operating Pressure |       | Rated Flow** |       | Fluid Loss<br>ml max |
|-------------------|-------------------|-------------------------------|-------------------------|-------|--------------|-------|----------------------|
|                   |                   |                               | (bar)                   | (psi) | (lpm)        | (gpm) |                      |
| 1/2               | 12.5              | 6                             | 250                     | 3,625 | 45           | 11.9  | 2.6                  |
|                   |                   | 8                             |                         |       |              |       |                      |
|                   |                   | 10                            |                         |       |              |       |                      |
|                   |                   | 10.3                          |                         |       |              |       |                      |

\*The ISO size corresponds to the internal diameter of the hose or the external diameter of the rigid tube (as defined in ISO 4397 Standard).

\*\*Indicated values refer to a 1 bar/14.5 psi pressure drop.

## Applications & Markets

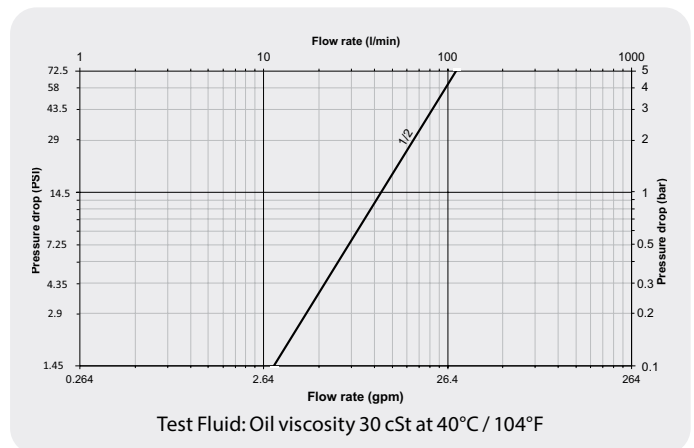
- Agriculture
- Forestry Machinery

## Seal Elastomer Data\*

| Seal Elastomer | Max. Operation Temperature |
|----------------|----------------------------|
| Buna-N         | -20°C +100°C / -4°F +212°F |

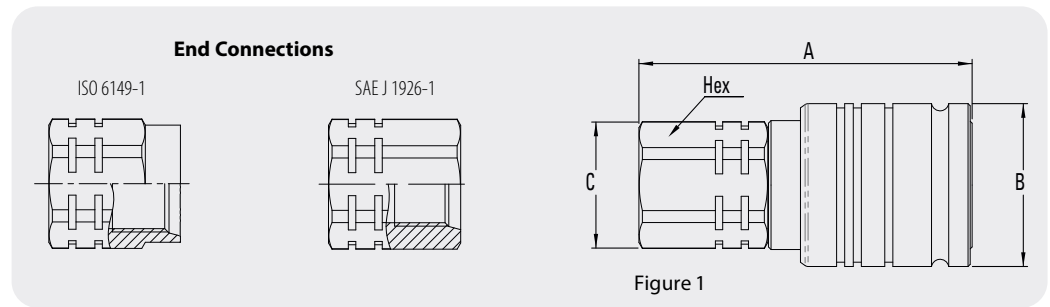
\*For reference only, based on Danfoss recommended temperatures. Contact Danfoss technical support for further information on fluid compatibility.

## Flow Data



# IA Series ISO 7241-1 A Interchange

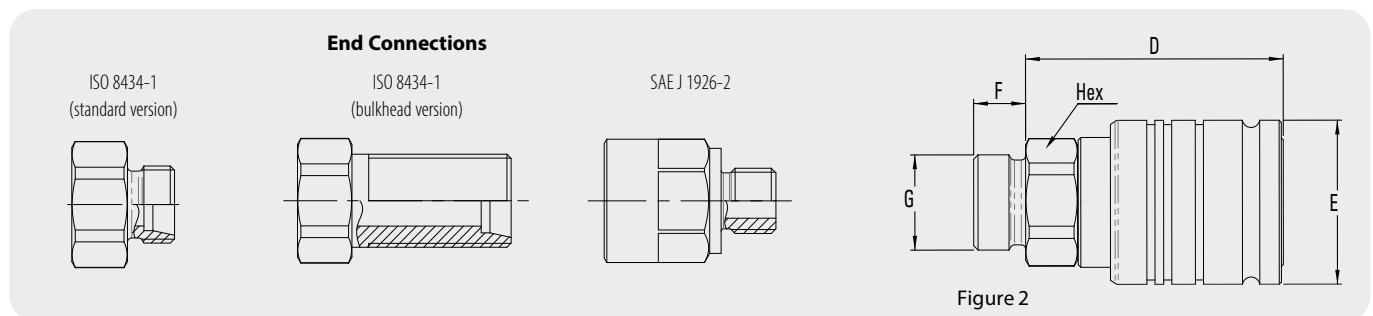
EMEA region



## Sockets (Female) with Internal Thread

| Part/Order Number | Body Size | ISO Size | Nominal Flow Diameter | Thread Size (Female) |        |            |              | Fig. | Dimensions |      |      |      |      |      | Weight |       |      |     |
|-------------------|-----------|----------|-----------------------|----------------------|--------|------------|--------------|------|------------|------|------|------|------|------|--------|-------|------|-----|
|                   |           |          |                       | NPT                  | BSPP   | ISO 6149-1 | SAE J 1926-1 |      | A          | B    | C    |      | Hex  |      | lbs    | grams |      |     |
| NBR               | (in)      | (mm)     | (mm)                  |                      |        |            |              | (mm) | (in)       | (mm) | (in) | (mm) | (in) | (mm) | (in)   |       |      |     |
| 12IAS37BS         |           |          |                       | -                    | 3/8-19 | -          | -            | 1    | 75         | 2.95 | 38   | 1.50 | 29.5 | 1.20 | 27     | 1.06  | 0.67 | 305 |
| 12IAS37           |           |          |                       | 3/8-18               | -      | -          | -            | 1    | 75         | 2.95 | 38   | 1.50 | 29.5 | 1.20 | 27     | 1.06  | 0.67 | 305 |
| 12IAS50BS         |           |          |                       | -                    | 1/2-14 | -          | -            | 1    | 78         | 3.07 | 38   | 1.50 | 29.5 | 1.20 | 27     | 1.06  | 0.66 | 300 |
| 12IAS50           |           |          |                       | 1/2-14               | -      | -          | -            | 1    | 78         | 3.07 | 38   | 1.50 | 29.5 | 1.20 | 27     | 1.06  | 0.67 | 305 |
| 12IAS16FMET       | 1/2       | 12.5     | 12.5                  | -                    | -      | M16x1.5    | -            | 1    | 75         | 2.95 | 38   | 1.50 | 29.5 | 1.20 | 27     | 1.06  | 0.66 | 300 |
| 12IAS56UN         |           |          |                       | -                    | -      | -          | 3/16 18f UNF | 1    | 78         | 3.07 | 38   | 1.50 | 29.5 | 1.20 | 27     | 1.06  | 0.71 | 320 |
| 12IAS75UN         |           |          |                       | -                    | -      | -          | 3/4 16f UNF  | 1    | 78         | 3.07 | 38   | 1.50 | 29.5 | 1.20 | 27     | 1.06  | 0.67 | 305 |
| 12IAS87UN         |           |          |                       | -                    | -      | -          | 7/8 14f UNF  | 1    | 81         | 3.19 | 38   | 1.50 | 33.0 | 1.30 | 30     | 1.18  | 0.74 | 335 |

To obtain connected length of coupling add dimensions A (Fig. 1) and K (Fig. 3) or P (Fig. 4) together.



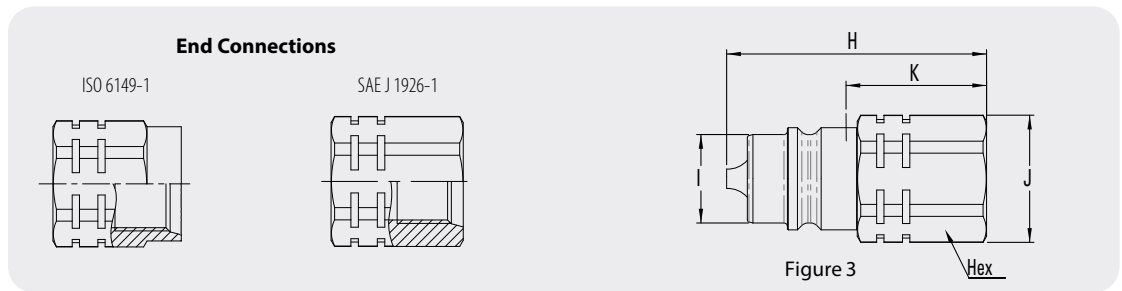
## Sockets (Female) with Internal Thread

| Part/Order Number | Body Size | ISO Size | Nominal Flow Diameter | Thread Size (Male)     |              | Fig. | Dimensions |      |      |      |      |      | Weight |      |       |      |      |     |
|-------------------|-----------|----------|-----------------------|------------------------|--------------|------|------------|------|------|------|------|------|--------|------|-------|------|------|-----|
|                   |           |          |                       | ISO 8434-1             | SAE J 1926-2 |      | D          | E    | F    | G    |      | Hex  |        | lbs  | grams |      |      |     |
| NBR               | (in)      | (mm)     | (mm)                  |                        |              |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) | (mm)   | (in) |       |      |      |     |
| 12IAS56ORM        |           |          | 10.3                  | -                      | 3/16 18f UNF | 2    | 73         | 2.87 | 38   | 1.50 | 12   | 0.47 | 14.2   | 0.56 | 23.8  | 0.94 | 0.67 | 305 |
| 12IAS75ORM        |           |          | 10.3                  | -                      | 3/4 16f UNF  | 2    | 73         | 2.87 | 38   | 1.50 | 14   | 0.55 | 19     | 0.75 | 23.8  | 0.94 | 0.68 | 310 |
| 12IAS8L           |           |          | 6                     | 8L - M14x1.5           | -            | 2    | 62         | 2.44 | 38   | 1.50 | 10   | 0.39 | 14     | 0.55 | 27    | 1.06 | 0.61 | 275 |
| 12IAS10L          |           |          | 8                     | 10L - M16x1.5          | -            | 2    | 61         | 2.40 | 38   | 1.50 | 11   | 0.43 | 16     | 0.63 | 27    | 1.06 | 0.60 | 270 |
| 12IAS10LBH        |           |          | 8                     | 10L - M16x1.5 Bulkhead | -            | 2    | 62         | 2.44 | 38   | 1.50 | 35   | 1.38 | 16     | 0.63 | 27    | 1.06 | 0.68 | 310 |
| 12IAS12L          | 1/2       | 12.5     | 10                    | 12L - M18x1.5          | -            | 2    | 61         | 2.40 | 38   | 1.50 | 11   | 0.43 | 18     | 0.71 | 27    | 1.06 | 0.61 | 275 |
| 12IAS12LBH        |           |          | 10                    | 12L - M18x1.5 Bulkhead | -            | 2    | 61         | 2.40 | 38   | 1.50 | 36   | 1.42 | 18     | 0.71 | 27    | 1.06 | 0.70 | 316 |
| 12IAS12S          |           |          | 8                     | 12S - M20x1.5          | -            | 2    | 61         | 2.40 | 38   | 1.50 | 12   | 0.47 | 20     | 0.79 | 27    | 1.06 | 0.62 | 282 |
| 12IAS15L          |           |          | 10.3                  | 15L - M22x1.5          | -            | 2    | 60         | 2.36 | 38   | 1.50 | 12   | 0.47 | 22     | 0.87 | 27    | 1.06 | 0.61 | 275 |
| 12IAS15LBH        |           |          | 10.3                  | 15L - M22x1.5 Bulkhead | -            | 2    | 61         | 2.40 | 38   | 1.50 | 38   | 1.50 | 22     | 0.87 | 27    | 1.06 | 0.75 | 340 |
| 12IAS16S          |           |          | 10.3                  | 16S - M24x1.5          | -            | 2    | 60         | 2.36 | 38   | 1.50 | 14   | 0.55 | 24     | 0.94 | 27    | 1.06 | 0.62 | 280 |

To obtain connected length of coupling add dimensions D (Fig. 2) and K (Fig. 3) or P (Fig. 4) together.

# IA Series ISO 7241-1 A Interchange

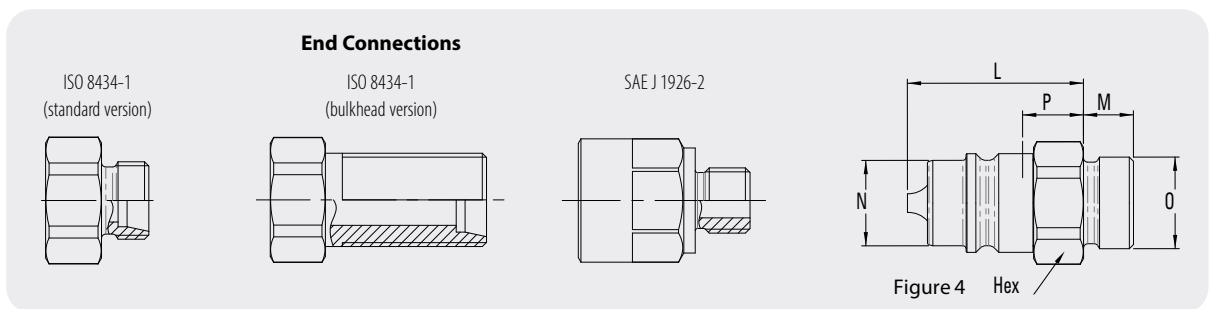
EMEA region



## Plugs (Male) with Internal Thread

| Part/Order Number | Body Size (in) | ISO Size (mm) | Nominal Flow Diameter (mm) | Thread Size (Female) |        | Fig.    | Dimensions  |      |      |      |      |      |       |      |      |      | Weight |      |      |     |
|-------------------|----------------|---------------|----------------------------|----------------------|--------|---------|-------------|------|------|------|------|------|-------|------|------|------|--------|------|------|-----|
|                   |                |               |                            | NPT                  | BSP    |         | H           | I    | J    | K    | Hex  | lbs  | grams |      |      |      |        |      |      |     |
| 12IAP37BS         |                |               |                            | -                    | 3/8-19 | -       | 3           | 57.0 | 2.24 | 20.5 | 0.84 | 29.5 | 1.20  | 31.0 | 1.22 | 27.0 | 1.06   | 0.28 | 125  |     |
| 12IAP37           |                |               |                            | 3/8                  | -18    | -       | 3           | 57.0 | 2.24 | 20.5 | 0.84 | 29.5 | 1.20  | 31.0 | 1.22 | 27.0 | 1.06   | 0.29 | 130  |     |
| 12IAP50           |                |               |                            | 1/2                  | -14    | -       | 3           | 60.0 | 2.36 | 20.5 | 0.84 | 29.5 | 1.20  | 34.0 | 1.34 | 27.0 | 1.06   | 0.28 | 125  |     |
| 12IAP16FMET       | 1/2            | 12.5          | 10.3                       | -                    | -      | M16x1.5 | -           | 3    | 57.0 | 2.24 | 20.5 | 0.84 | 29.5  | 1.20 | 31.0 | 1.22 | 27.0   | 1.06 | 0.26 | 120 |
| 12IAP56UN         |                |               |                            | -                    | -      | -       | 3/8 18F UNF | 3    | 60.0 | 2.36 | 20.5 | 0.84 | 29.5  | 1.20 | 34.0 | 1.34 | 27.0   | 1.06 | 0.31 | 140 |
| 12IAP75UN         |                |               |                            | -                    | -      | -       | 3/4 16F UNF | 3    | 60.0 | 2.36 | 20.5 | 0.84 | 29.5  | 1.20 | 34.0 | 1.34 | 27.0   | 1.06 | 0.28 | 125 |
| 12IAP87UN         |                |               |                            | -                    | -      | -       | 7/8 14F UNF | 3    | 63.0 | 2.48 | 20.5 | 0.84 | 33.0  | 1.30 | 37.0 | 1.46 | 30.0   | 1.18 | 0.34 | 155 |

To obtain connected length of coupling add dimensions K (Fig. 3) and A (Fig. 1) or D (Fig. 2) together.



## Plugs (Male) with External Thread

| Part/Order Number | Body Size (in) | ISO Size (mm) | Nominal Flow Diameter (mm) | Thread Size (Male)     |              | Fig. | Dimensions |      |      |      |      |      |      |       |      |      | Weight |      |      |     |
|-------------------|----------------|---------------|----------------------------|------------------------|--------------|------|------------|------|------|------|------|------|------|-------|------|------|--------|------|------|-----|
|                   |                |               |                            | ISO 8434-1             | SAE J 1926-2 |      | L          | M    | N    | O    | P    | Hex  | lbs  | grams |      |      |        |      |      |     |
| 12IAP56ORM        |                |               | 10.3                       | -                      | 3/8 18F UNF  | 4    | 56.0       | 2.20 | 12.0 | 0.47 | 20.5 | 0.84 | 14.2 | 0.56  | 30.0 | 1.18 | 23.8   | 0.94 | 0.28 | 125 |
| 12IAP75ORM        |                |               | 10.3                       | -                      | 3/4 16F UNF  | 4    | 56.0       | 2.20 | 14.0 | 0.55 | 20.5 | 0.84 | 19.0 | 0.75  | 30.0 | 1.18 | 23.8   | 0.94 | 0.29 | 130 |
| 12IAP8L           |                |               | 6                          | 8L - M14x1.5           | -            | 4    | 44.5       | 1.75 | 10.0 | 0.39 | 20.5 | 0.84 | 14.0 | 0.55  | 18.0 | 0.71 | 27.0   | 1.06 | 0.21 | 95  |
| 12IAP10L          |                |               | 8                          | 10L - M16x1.5          | -            | 4    | 43.5       | 1.71 | 11.0 | 0.43 | 20.5 | 0.84 | 16.0 | 0.63  | 17.0 | 0.67 | 27.0   | 1.06 | 0.21 | 95  |
| 12IAP10LBH        |                |               | 8                          | 10L - M16x1.5 Bulkhead | -            | 4    | 44.5       | 1.75 | 35.0 | 1.38 | 20.5 | 0.84 | 16.0 | 0.63  | 18.0 | 0.71 | 27.0   | 1.06 | 0.30 | 135 |
| 12IAP12L          | 1/2            | 12.5          | 10                         | 12L - M18x1.5          | -            | 4    | 43.5       | 1.71 | 11.0 | 0.43 | 20.5 | 0.84 | 18.0 | 0.71  | 17.0 | 0.67 | 27.0   | 1.06 | 0.21 | 95  |
| 12IAP12LBH        |                |               | 10                         | 12L - M18x1.5 Bulkhead | -            | 4    | 43.5       | 1.71 | 36.0 | 1.42 | 20.5 | 0.84 | 18.0 | 0.71  | 17.0 | 0.67 | 27.0   | 1.06 | 0.30 | 136 |
| 12IAP12S          |                |               | 8                          | 12S - M20x1.5          | -            | 4    | 43.5       | 1.71 | 12.0 | 0.47 | 20.5 | 0.84 | 20.0 | 0.79  | 17.0 | 0.67 | 27.0   | 1.06 | 0.22 | 102 |
| 12IAP15L          |                |               | 10.3                       | 15L - M22x1.5          | -            | 4    | 42.5       | 1.67 | 12.0 | 0.47 | 20.5 | 0.84 | 22.0 | 0.87  | 16.0 | 0.63 | 27.0   | 1.06 | 0.21 | 95  |
| 12IAP15LBH        |                |               | 10.3                       | 15L - M22x1.5 Bulkhead | -            | 4    | 43.5       | 1.71 | 38.0 | 1.50 | 20.5 | 0.84 | 22.0 | 0.87  | 17.0 | 0.67 | 27.0   | 1.06 | 0.35 | 160 |
| 12IAP16S          |                |               | 10.3                       | 16S - M24x1.5          | -            | 4    | 42.5       | 1.67 | 14.0 | 0.55 | 20.5 | 0.84 | 24.0 | 0.94  | 16.0 | 0.63 | 27.0   | 1.06 | 0.22 | 100 |

To obtain connected length of coupling add dimensions P (Fig. 4) and A (Fig. 1) or D (Fig. 2) together.

## Dust Plugs and Dust Caps

| Body Size (in) | Socket Dust Plug Part/Order Number | Plug Dust Cap Part/Order Number |
|----------------|------------------------------------|---------------------------------|
| 1/2            | HP1513100                          | HP1513200                       |



# 5600 Series (Carbon Steel) ISO 7241-1 A Interchange

Fluid transfer & Hydraulic application



Danfoss Hansen 5600 Series features a rugged ball latch mechanism with self-sealing poppet valves in a wide array of port configurations and multiple valved and non-valved configurations.

AMER region

## Product Features

- Meets dimensional requirements to ISO standard 7241-1 Series A
- Self-sealing poppet valve provides excellent high and low pressure sealing
- Streamlined valving provides minimum pressure drop
- Standard seal materials: Buna-N, EPDM and FKM
- Standard body material: High resistance carbon steel with zinc trivalent plating (Brass poppet guide in -04 size)

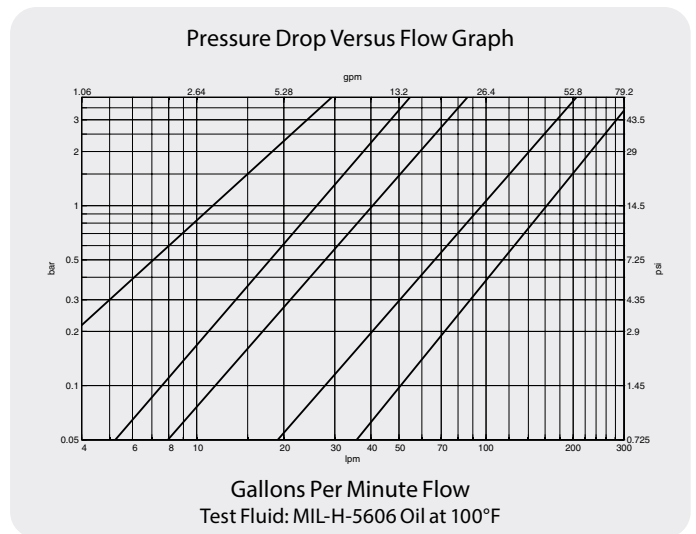
## Physical characteristics

| Body Size<br>(in) | Max. Operating Pressure |       | Min. Burst Pressure Connected |        | Vacuum Connected Only | Rated Flow |       | Air Inclusion | Fluid Loss |
|-------------------|-------------------------|-------|-------------------------------|--------|-----------------------|------------|-------|---------------|------------|
|                   | (bar)                   | (psi) | (bar)                         | (psi)  | (in./Hg)              | (lpm)      | (gpm) | cc. max.      | cc. max.   |
| 1/4               | 350                     | 5,000 | 1,050                         | 15,000 | 28                    | 4          | 1     | 0.50          | 0.50       |
| 3/8               | 280                     | 4,000 | 840                           | 12,000 | 28                    | 23         | 6     | 1.5           | 1.3        |
| 5/8               | 280                     | 4,000 | 840                           | 12,000 | 28                    | 45         | 12    | 2.8           | 2.8        |
| 3/4               | 280                     | 4,000 | 840                           | 12,000 | 28                    | 106        | 28    | 10.0          | 8.2        |
| 1                 | 280                     | 4,000 | 840                           | 12,000 | 28                    | 189        | 50    | 14.2          | 14.2       |

## Applications & Markets

- Hydraulic fluid transfer
- Agricultural equipment
- Construction equipment
- Dump, snow plow and maintenance vehicles
- In-plant manufacturing

## Flow Data



## 5600 Series (Carbon Steel) ISO 7241-1 A Interchange

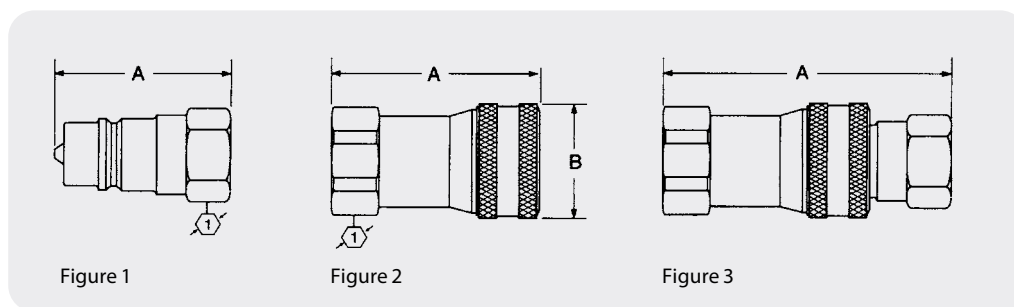


Figure 1

Figure 2

Figure 3

### Dimensions (Female NPT, Valved)

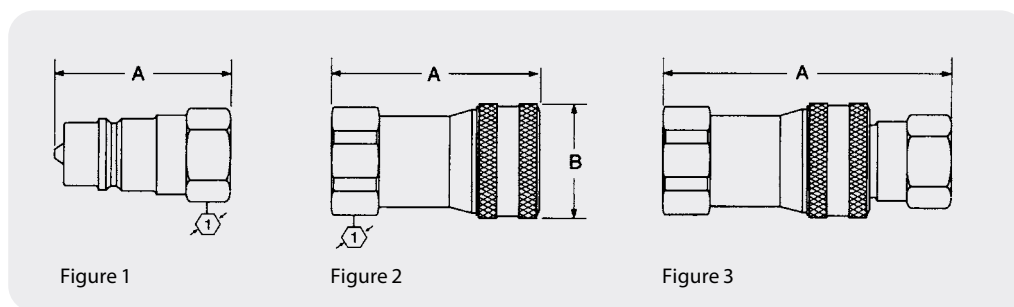
| Part/Order Number |                 | Coupling Type | Body Size     | Port Size | Thread | Type     | Fig.       | Dimensions |       |      |      |      |      |      |
|-------------------|-----------------|---------------|---------------|-----------|--------|----------|------------|------------|-------|------|------|------|------|------|
| Buna-N            | FKM             |               |               |           |        |          |            | EPDM       | A     |      | B    |      | Hex  |      |
|                   |                 |               |               |           |        |          | (mm)       | (in)       | (mm)  | (in) | (mm) | (in) |      |      |
| 5602-2-4S         | FD56-1062-02-04 | 5644-2-4S     | Plug/Male     | 1/4       | 1/8    | 1/8-27   | Female NPT | 1          | 31.5  | 1.24 | -    | -    | 14.2 | 0.56 |
| 5601-2-4S         | FD56-1064-02-04 | 5643-2-4S     | Socket/Female | 1/4       | 1/8    | 1/8-27   | Female NPT | 2          | 46.0  | 1.81 | 27.4 | 1.08 | 22.4 | 0.88 |
| 5600-2-4S         | FD56-1065-02-04 | 5642-2-4S     | Complete      | 1/4       | 1/8    | 1/8-27   | Female NPT | 3          | 61.5  | 2.42 | -    | -    | -    | -    |
| 5602-4-4S         | FD56-1062-04-04 | 5644-4-4S     | Plug/Male     | 1/4       | 1/4    | 1/4-18   | Female NPT | 1          | 33.3  | 1.31 | -    | -    | 19.1 | 0.75 |
| 5601-4-4S         | FD56-1064-04-04 | 5643-4-4S     | Socket/Female | 1/4       | 1/4    | 1/4-18   | Female NPT | 2          | 46.0  | 1.81 | 27.4 | 1.08 | 22.4 | 0.88 |
| 5600-4-4S         | FD56-1065-04-04 | 5642-4-4S     | Complete      | 1/4       | 1/4    | 1/4-18   | Female NPT | 3          | 63.2  | 2.49 | -    | -    | -    | -    |
| 5602-6-6S         | FD56-1062-06-06 | 5644-6-6S     | Plug/Male     | 3/8       | 3/8    | 3/8-18   | Female NPT | 1          | 37.3  | 1.47 | -    | -    | 22.4 | 0.88 |
| 5601-6-6S         | FD56-1064-06-06 | 5643-6-6S     | Socket/Female | 3/8       | 3/8    | 3/8-18   | Female NPT | 2          | 54.6  | 2.15 | 31.2 | 1.23 | 25.4 | 1.00 |
| 5600-6-6S         | FD56-1065-06-06 | 5642-6-6S     | Complete      | 3/8       | 3/8    | 3/8-18   | Female NPT | 3          | 71.1  | 2.80 | -    | -    | -    | -    |
| 5602-8-10S        | FD56-1062-08-10 | 5644-8-10S    | Plug/Male     | 5/8       | 1/2    | 1/2-14   | Female NPT | 1          | 51.3  | 2.02 | -    | -    | 26.9 | 1.06 |
| 5601-8-10S        | FD56-1064-08-10 | 5643-8-10S    | Socket/Female | 5/8       | 1/2    | 1/2-14   | Female NPT | 2          | 66.3  | 2.61 | 38.1 | 1.50 | 30.2 | 1.19 |
| 5600-8-10S        | FD56-1065-08-10 | 5642-8-10S    | Complete      | 5/8       | 1/2    | 1/2-14   | Female NPT | 3          | 96.0  | 3.78 | -    | -    | -    | -    |
| 5602-12-10S       | FD56-1062-12-10 | 5644-12-10S   | Plug/Male     | 5/8       | 3/4    | 3/4-14   | Female NPT | 1          | 54.9  | 2.16 | -    | -    | 35.1 | 1.38 |
| 5601-12-10S       | FD56-1064-12-10 | 5643-12-10S   | Socket/Female | 5/8       | 3/4    | 3/4-14   | Female NPT | 2          | 66.3  | 2.61 | 38.1 | 1.50 | 33.3 | 1.31 |
| 5600-12-10S       | FD56-1065-12-10 | 5642-12-10S   | Complete      | 5/8       | 3/4    | 3/4-14   | Female NPT | 3          | 103.1 | 4.06 | -    | -    | -    | -    |
| 5602-12-12S       | FD56-1062-12-12 | 5644-12-12S   | Plug/Male     | 3/4       | 3/4    | 3/4-14   | Female NPT | 1          | 64.8  | 2.55 | -    | -    | 35.1 | 1.38 |
| 5601-12-12S       | FD56-1064-12-12 | 5643-12-12S   | Socket/Female | 3/4       | 3/4    | 3/4-14   | Female NPT | 2          | 82.6  | 3.25 | 46.0 | 1.81 | 38.1 | 1.50 |
| 5600-12-12S       | FD56-1065-12-12 | 5642-12-12S   | Complete      | 3/4       | 3/4    | 3/4-14   | Female NPT | 3          | 115.8 | 4.56 | -    | -    | -    | -    |
| 5602-16-16S       | FD56-1062-16-16 | 5644-16-16S   | Plug/Male     | 1         | 1      | 1-11 1/2 | Female NPT | 1          | 78.7  | 3.10 | -    | -    | 41.1 | 1.62 |
| 5601-16-16S       | FD56-1064-16-16 | 5643-16-16S   | Socket/Female | 1         | 1      | 1-11 1/2 | Female NPT | 2          | 97.0  | 3.82 | 53.3 | 2.10 | 42.9 | 1.69 |
| 5600-16-16S       | FD56-1065-16-16 | 5642-16-16S   | Complete      | 1         | 1      | 1-11 1/2 | Female NPT | 3          | 123.4 | 4.86 | -    | -    | -    | -    |

### Dimensions (Female NPT, Valved with Sleeve Lock)

| Part/Order Number |   | Coupling Type | Body Size | Port Size | Thread   | Type       | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---|---------------|-----------|-----------|----------|------------|------|------------|------|------|------|------|------|
| Buna-N            | A |               |           |           |          |            |      | B          |      | Hex  |      |      |      |
|                   |   |               |           |           |          |            | (mm) | (in)       | (mm) | (in) | (mm) | (in) |      |
| FD56-1239-08-10   |   | Socket/Female | 5/8       | 1/2       | 1/2-14   | Female NPT | 2    | 66.3       | 2.61 | 38.1 | 1.50 | 30.2 | 1.19 |
| FD56-1239-12-12   |   | Socket/Female | 3/4       | 3/4       | 3/4-14   | Female NPT | 2    | 82.6       | 3.25 | 46.7 | 1.84 | 38.1 | 1.50 |
| FD56-1239-16-16   |   | Socket/Female | 1         | 1         | 1-11 1/2 | Female NPT | 2    | 97.0       | 3.82 | 54.1 | 2.13 | 42.9 | 1.69 |

# 5600 Series (Carbon Steel) ISO 7241-1 A Interchange

AMER region



## Dimensions (Female NPT, Non-Valved)

| Part/Order Number |                 | Coupling Type   | Body Size     | Port Size | Thread | Type     | Fig.       | Dimensions |       |      |      |      |      |      |
|-------------------|-----------------|-----------------|---------------|-----------|--------|----------|------------|------------|-------|------|------|------|------|------|
| Buna-N            | FKM             |                 |               |           |        |          |            | A          | B     | Hex  |      |      |      |      |
|                   |                 |                 |               |           |        |          |            | (mm)       | (in)  | (mm) | (in) | (mm) | (in) |      |
| FD56-1037-04-04   | FD56-1037-04-04 | FD56-1037-04-04 | Plug/Male*    | 1/4       | 1/4    | 1/4-18   | Female NPT | 1          | 31.5  | 1.24 | -    | -    | 19.1 | 0.75 |
| FD56-1225-04-04   | FD56-1207-04-04 | FD56-1204-04-04 | Socket/Female | 1/4       | 1/4    | 1/4-18   | Female NPT | 2          | 46.0  | 1.81 | 27.4 | 1.08 | 22.4 | 0.88 |
| FD56-1226-04-04   | FD56-1208-04-04 | FD56-1205-04-04 | Complete*     | 1/4       | 1/4    | 1/4-18   | Female NPT | 3          | 63.2  | 2.49 | -    | -    | -    | -    |
| FD56-1037-06-06   | FD56-1037-06-06 | FD56-1037-06-06 | Plug/Male*    | 3/8       | 3/8    | 3/8-18   | Female NPT | 1          | 35.6  | 1.40 | -    | -    | 22.4 | 0.88 |
| FD56-1225-06-06   | FD56-1207-06-06 | FD56-1204-06-06 | Socket/Female | 3/8       | 3/8    | 3/8-18   | Female NPT | 2          | 54.6  | 2.15 | 31.2 | 1.23 | 25.4 | 1.00 |
| FD56-1226-06-06   | FD56-1208-06-06 | FD56-1205-06-06 | Complete*     | 3/8       | 3/8    | 3/8-18   | Female NPT | 3          | 71.1  | 2.80 | -    | -    | -    | -    |
| FD56-1037-08-10   | FD56-1037-08-10 | FD56-1037-08-10 | Plug/Male*    | 5/8       | 1/2    | 1/2-14   | Female NPT | 1          | 48.0  | 1.89 | -    | -    | 26.9 | 1.06 |
| FD56-1225-08-10   | FD56-1207-08-10 | FD56-1204-08-10 | Socket/Female | 5/8       | 1/2    | 1/2-14   | Female NPT | 2          | 66.3  | 2.61 | 38.1 | 1.50 | 30.2 | 1.19 |
| FD56-1226-08-10   | FD56-1208-08-10 | FD56-1205-08-10 | Complete*     | 5/8       | 1/2    | 1/2-14   | Female NPT | 3          | 96.0  | 3.78 | -    | -    | -    | -    |
| FD56-1037-12-12   | FD56-1037-12-12 | FD56-1037-12-12 | Plug/Male*    | 3/4       | 3/4    | 3/4-14   | Female NPT | 1          | 57.9  | 2.28 | -    | -    | -    | -    |
| FD56-1225-12-12   | FD56-1207-12-12 | FD56-1204-12-12 | Socket/Female | 3/4       | 3/4    | 3/4-14   | Female NPT | 2          | 82.6  | 3.25 | 46.0 | 1.81 | 38.1 | 1.50 |
| FD56-1226-12-12   | FD56-1208-12-12 | FD56-1205-12-12 | Complete*     | 3/4       | 3/4    | 3/4-14   | Female NPT | 3          | 113.3 | 4.46 | -    | -    | -    | -    |
| FD56-1037-16-16   | FD56-1037-16-16 | FD56-1037-16-16 | Plug/Male*    | 1         | 1      | 1-11 1/2 | Female NPT | 1          | 70.4  | 2.77 | -    | -    | 41.1 | 1.62 |
| FD56-1225-16-16   | FD56-1207-16-16 | FD56-1204-16-16 | Socket/Female | 1         | 1      | 1-11 1/2 | Female NPT | 2          | 97.0  | 3.82 | 53.3 | 2.10 | 42.9 | 1.69 |
| FD56-1226-16-16   | FD56-1208-16-16 | FD56-1205-16-16 | Complete*     | 1         | 1      | 1-11 1/2 | Female NPT | 3          | 140.7 | 5.54 | -    | -    | -    | -    |

Note: Will not operate with valved coupling halves; no valve actuator. \*Male halves contain no seals.

## Dimensions (Female NPT, Pusher-Style Valving)

| Part/Order Number |                 | Coupling Type   | Body Size     | Port Size | Thread | Type     | Fig.       | Dimensions |      |      |      |      |      |      |
|-------------------|-----------------|-----------------|---------------|-----------|--------|----------|------------|------------|------|------|------|------|------|------|
| Buna-N            | FKM             |                 |               |           |        |          |            | A          | B    | Hex  |      |      |      |      |
|                   |                 |                 |               |           |        |          |            | (mm)       | (in) | (mm) | (in) | (mm) | (in) |      |
| FD56-1125-04-04   | FD56-1125-04-04 | FD56-1125-04-04 | Plug/Male     | 1/4       | 1/4    | 1/4-18   | Female NPT | 1          | 31.5 | 1.24 | -    | -    | 19.0 | 0.75 |
| FD56-1123-04-04   | FD56-1201-04-04 | FD56-1196-04-04 | Socket/Female | 1/4       | 1/4    | 1/4-18   | Female NPT | 2          | 46.0 | 1.81 | 27.4 | 1.08 | 22.4 | 0.88 |
| FD56-1125-06-06   | FD56-1125-06-06 | FD56-1125-06-06 | Plug/Male     | 3/8       | 3/8    | 3/8-18   | Female NPT | 1          | 35.6 | 1.40 | -    | -    | 22.4 | 0.88 |
| FD56-1123-06-06   | FD56-1201-06-06 | FD56-1196-06-06 | Socket/Female | 3/8       | 3/8    | 3/8-18   | Female NPT | 2          | 54.6 | 2.15 | 31.2 | 1.23 | 25.4 | 1.00 |
| FD56-1125-08-10   | FD56-1125-08-10 | FD56-1125-08-10 | Plug/Male     | 5/8       | 1/2    | 1/2-14   | Female NPT | 1          | 48.0 | 1.89 | -    | -    | 26.9 | 1.06 |
| FD56-1123-08-10   | FD56-1201-08-10 | FD56-1196-08-10 | Socket/Female | 5/8       | 1/2    | 1/2-14   | Female NPT | 2          | 66.3 | 2.61 | 38.1 | 1.50 | 30.2 | 1.19 |
| FD56-1125-12-12   | FD56-1125-12-12 | FD56-1125-12-12 | Plug/Male     | 3/4       | 3/4    | 3/4-14   | Female NPT | 1          | 57.9 | 2.28 | -    | -    | 35.1 | 1.38 |
| FD56-1123-12-12   | FD56-1201-12-12 | FD56-1196-12-12 | Socket/Female | 3/4       | 3/4    | 3/4-14   | Female NPT | 2          | 82.6 | 3.25 | 46.0 | 1.81 | 38.1 | 1.50 |
| FD56-1125-16-16   | FD56-1125-16-16 | FD56-1125-16-16 | Plug/Male     | 1         | 1      | 1-11 1/2 | Female NPT | 1          | 70.4 | 2.77 | -    | -    | 41.1 | 1.62 |
| FD56-1123-16-16   | FD56-1201-16-16 | FD56-1196-16-16 | Socket/Female | 1         | 1      | 1-11 1/2 | Female NPT | 2          | 97.0 | 3.82 | 53.3 | 2.10 | 42.9 | 1.69 |

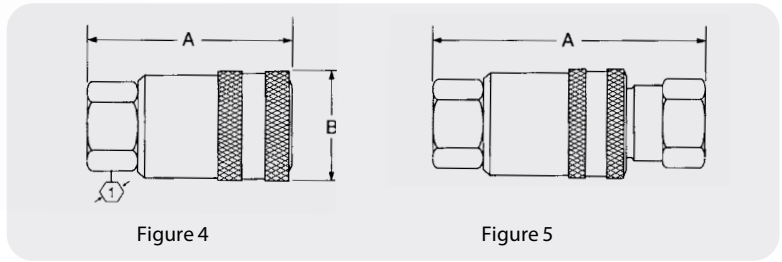
Note: Incorporates a pusher device to open mating valved coupling halves.

## Dimensions (Plug/Male Half, Female BSP/Valved)

| Part/Order Number | Body Size | Thread | Fig. | Dimensions |      | B    | Hex  |      |      |
|-------------------|-----------|--------|------|------------|------|------|------|------|------|
| Buna-N            |           |        |      | A          |      | (mm) | (in) | (mm) | (in) |
|                   |           |        |      | (mm)       | (in) |      |      | (mm) | (in) |
| G5623-4-4         | 1/4       | G 1/4  | 1    | 34.0       | 1.34 | -    | -    | 19.0 | 0.75 |
| G5623-6-6         | 3/8       | G 3/8  | 1    | 38.0       | 1.50 | -    | -    | 23.0 | 0.91 |
| G5623-8-10        | 5/8       | G 1/2  | 1    | 44.0       | 1.73 | -    | -    | 27.0 | 1.06 |
| G5623-12-12       | 3/4       | G 3/4  | 1    | 55.0       | 2.17 | -    | -    | 35.0 | 1.38 |
| G5623-16-16       | 1         | G 1    | 1    | 64.0       | 2.52 | -    | -    | 41.0 | 1.61 |

# 5600 Series (Carbon Steel) ISO 7241-1 A Interchange

AMER region



## Dimensions (Socket/Female Half, Female BSP/Valved)

| Part/Order Number | Buna-N | Body Size | Thread | Fig. | Dimensions |      |      |      |                  |      |
|-------------------|--------|-----------|--------|------|------------|------|------|------|------------------|------|
|                   |        |           |        |      | A          |      | B    |      | Hex <sup>①</sup> |      |
|                   |        |           |        |      | (mm)       | (in) | (mm) | (in) | (mm)             | (in) |
| G5622-4-4         |        | 1/4       | G 1/4  | 2    | 48.0       | 1.89 | 26.3 | 1.04 | 22.0             | 0.87 |
| G5622-6-6         |        | 3/8       | G 3/8  | 2    | 56.0       | 2.20 | 30.0 | 1.18 | 27.0             | 1.06 |
| G5622-8-10        |        | 5/8       | G 1/2  | 2    | 66.0       | 2.60 | 38.3 | 1.51 | 27.0             | 1.06 |
| G5622-12-12       |        | 3/4       | G 3/4  | 2    | 82.5       | 3.25 | 48.0 | 1.89 | 40.0             | 1.57 |
| G5622-16-16       |        | 1         | G 1    | 2    | 98.0       | 3.86 | 53.0 | 2.09 | 50.0             | 1.97 |

## Dimensions (Female NPT, Connect Under Pressure Style)

| Part/Order Number | Buna-N | FKM             | EPDM          | Coupling Type | Body Size | Port Size | Thread | Type       | Fig. | Dimensions |      |      |      |                  |      |
|-------------------|--------|-----------------|---------------|---------------|-----------|-----------|--------|------------|------|------------|------|------|------|------------------|------|
|                   |        |                 |               |               |           |           |        |            |      | A          |      | B    |      | Hex <sup>①</sup> |      |
|                   |        |                 |               |               |           |           |        |            |      | (mm)       | (in) | (mm) | (in) | (mm)             | (in) |
| 5602-8-10S        |        | FD56-1062-08-10 | 5644-8-10S    | Plug/Male     | 5/8       | 1/2       | 1/2-14 | Female NPT | 1    | 51.3       | 2.02 | -    | -    | 26.9             | 1.06 |
| 5651-8-10S        |        | FD56-1070-08-10 | 565007-8-10S  | Socket/Female | 5/8       | 1/2       | 1/2-14 | Female NPT | 4    | 73.2       | 2.88 | 38.1 | 1.50 | 26.9             | 1.06 |
| 5650-8-10S        |        | FD56-1071-08-10 | 565006-8-10S  | Complete      | 5/8       | 1/2       | 1/2-14 | Female NPT | 5    | 98.8       | 3.89 | -    | -    | -                | -    |
| 5602-12-10S       |        | FD56-1062-12-10 | 5644-12-10S   | Plug/Male     | 5/8       | 3/4       | 3/4-14 | Female NPT | 1    | 54.9       | 2.16 | -    | -    | 35.1             | 1.38 |
| 5651-12-10S       |        | FD56-1070-12-10 | 565007-12-10S | Socket/Female | 5/8       | 3/4       | 3/4-14 | Female NPT | 4    | 83.8       | 3.30 | 38.1 | 1.50 | 31.8             | 1.25 |
| 5650-12-10S       |        | FD56-1071-12-10 | 565006-12-10S | Complete      | 5/8       | 3/4       | 3/4-14 | Female NPT | 5    | 113.0      | 4.45 | -    | -    | -                | -    |

## Dimensions (Female NPT, Non-Valved)

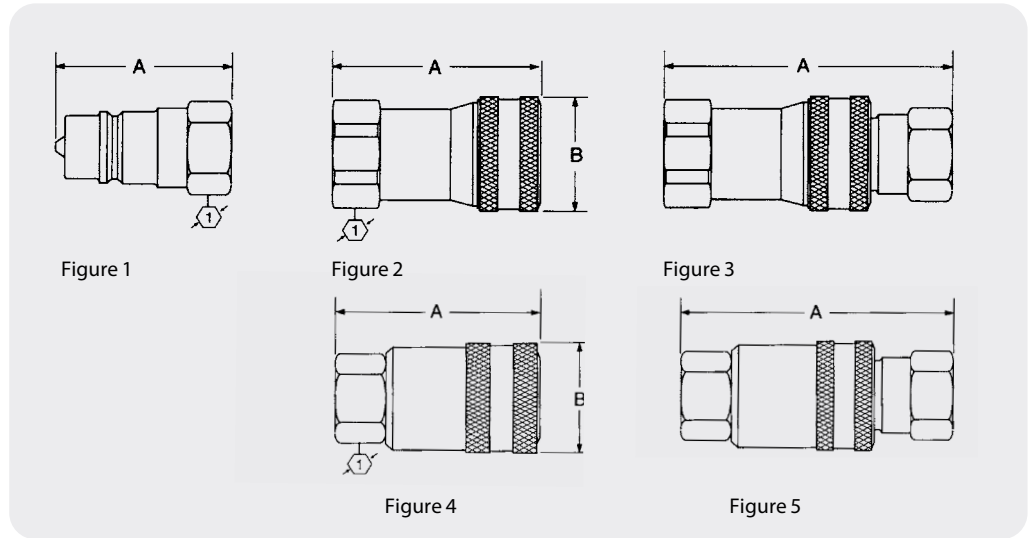
| Part/Order Number | Buna-N | FKM             | EPDM             | Coupling Type | Body Size | Port Size | Thread    | Type       | Fig. | Dimensions |      |      |      |                  |      |
|-------------------|--------|-----------------|------------------|---------------|-----------|-----------|-----------|------------|------|------------|------|------|------|------------------|------|
|                   |        |                 |                  |               |           |           |           |            |      | A          |      | B    |      | Hex <sup>①</sup> |      |
|                   |        |                 |                  |               |           |           |           |            |      | (mm)       | (in) | (mm) | (in) | (mm)             | (in) |
| 5610-4-4S         |        | FD56-1072-04-04 | 560078-4-4S      | Plug/Male     | 1/4       | 7/16      | 7/16-20   | Female SAE | 1    | 32.5       | 1.28 | -    | -    | 15.7             | 0.62 |
| 5608-4-4S         |        | FD56-1074-04-04 | FD56-1012-04-04S | Socket/Female | 1/4       | 7/16      | 7/16-20   | Female SAE | 2    | 46.0       | 1.81 | 27.4 | 1.08 | 22.4             | 0.88 |
| 5606-4-4S         |        | FD56-1075-04-04 | FD56-1009-04-04S | Complete      | 1/4       | 7/16      | 7/16-20   | Female SAE | 3    | 64.3       | 2.53 | -    | -    | -                | -    |
| 5610-6-6S         |        | FD56-1072-06-06 | 560078-6-6S      | Plug/Male     | 3/8       | 9/16      | 9/16-18   | Female SAE | 1    | 38.1       | 1.50 | -    | -    | 22.4             | 0.88 |
| 5608-6-6S         |        | FD56-1074-06-06 | FD56-1012-06-06S | Socket/Female | 3/8       | 9/16      | 9/16-18   | Female SAE | 2    | 54.6       | 2.15 | 31.2 | 1.23 | 25.4             | 1.00 |
| 5606-6-6S         |        | FD56-1075-06-06 | FD56-1009-06-06S | Complete      | 3/8       | 9/16      | 9/16-18   | Female SAE | 3    | 72.1       | 2.84 | -    | -    | -                | -    |
| 5610-8-10S        |        | FD56-1072-08-10 | 560078-8-10S     | Plug/Male     | 5/8       | 3/4       | 3/4-16    | Female SAE | 1    | 51.6       | 2.03 | -    | -    | 26.9             | 1.06 |
| 5608-8-10S        |        | FD56-1074-08-10 | FD56-1012-08-10S | Socket/Female | 5/8       | 3/4       | 3/4-16    | Female SAE | 2    | 66.3       | 2.61 | 38.1 | 1.50 | 30.2             | 1.19 |
| 5606-8-10S        |        | FD56-1075-08-10 | FD56-1009-08-10S | Complete      | 5/8       | 3/4       | 3/4-16    | Female SAE | 3    | 96.0       | 3.78 | -    | -    | -                | -    |
| 5610-10-10S       |        | FD56-1072-10-10 | 560078-10-10S    | Plug/Male     | 5/8       | 7/8       | 7/8-14    | Female SAE | 1    | 52.8       | 2.08 | -    | -    | 28.4             | 1.12 |
| 5608-10-10S       |        | FD56-1074-10-10 | FD56-1012-10-10S | Socket/Female | 5/8       | 7/8       | 7/8-14    | Female SAE | 2    | 66.3       | 2.61 | 38.1 | 1.50 | 30.2             | 1.19 |
| 5606-10-10S       |        | FD56-1075-10-10 | FD56-1009-10-10S | Complete      | 5/8       | 7/8       | 7/8-14    | Female SAE | 3    | 98.6       | 3.88 | -    | -    | -                | -    |
| 5610-12-12S       |        | FD56-1072-12-12 | 560078-12-12S    | Plug/Male     | 3/4       | 1         | 1 1/16-12 | Female SAE | 1    | 64.8       | 2.55 | -    | -    | 35.1             | 1.38 |
| 5608-12-12S       |        | FD56-1074-12-12 | FD56-1012-12-12S | Socket/Female | 3/4       | 1         | 1 1/16-12 | Female SAE | 2    | 82.6       | 3.25 | 46.0 | 1.81 | 38.1             | 1.50 |
| 5606-12-12S       |        | FD56-1075-12-12 | FD56-1009-12-12S | Complete      | 3/4       | 1         | 1 1/16-12 | Female SAE | 3    | 115.8      | 4.56 | -    | -    | -                | -    |
| 5610-16-16S       |        | FD56-1072-16-16 | 560078-16-16S    | Plug/Male     | 1         | 1         | 1 5/16-12 | Female SAE | 1    | 78.7       | 3.10 | -    | -    | 41.1             | 1.62 |
| 5608-16-16S       |        | FD56-1074-16-16 | FD56-1012-16-16S | Socket/Female | 1         | 1         | 1 5/16-12 | Female SAE | 2    | 97.3       | 3.83 | 53.3 | 2.10 | 42.9             | 1.69 |
| 5606-16-16S       |        | FD56-1075-16-16 | FD56-1009-16-16S | Complete      | 1         | 1         | 1 5/16-12 | Female SAE | 3    | 140.7      | 5.54 | -    | -    | -                | -    |

## Dimensions (Female SAE O-Ring, Valved with Sleeve Lock)

| Part/Order Number | Buna-N | FKM | EPDM | Coupling Type | Body Size | Port Size | Thread    | Type       | Fig. | Dimensions |      |      |      |                  |      |
|-------------------|--------|-----|------|---------------|-----------|-----------|-----------|------------|------|------------|------|------|------|------------------|------|
|                   |        |     |      |               |           |           |           |            |      | A          |      | B    |      | Hex <sup>①</sup> |      |
|                   |        |     |      |               |           |           |           |            |      | (mm)       | (in) | (mm) | (in) | (mm)             | (in) |
| FD56-1270-06-06   | -      | -   | -    | Socket/Female | 3/8       | 9/16      | 9/16-18   | Female SAE | 3    | 54.6       | 2.15 | 31.8 | 1.23 | 25.4             | 1.00 |
| FD56-1270-08-10   | -      | -   | -    | Socket/Female | 5/8       | 3/4       | 3/4-16    | Female SAE | 3    | 66.3       | 2.61 | 38.1 | 1.50 | 30.2             | 1.19 |
| FD56-1270-12-12   | -      | -   | -    | Socket/Female | 3/4       | 1         | 1 1/16-12 | Female SAE | 3    | 82.6       | 3.25 | 46.7 | 1.81 | 38.1             | 1.50 |
| FD56-1270-16-16   | -      | -   | -    | Socket/Female | 1         | 1         | 1 5/16-12 | Female SAE | 3    | 97.0       | 3.82 | 54.1 | 2.10 | 42.9             | 1.69 |

# 5600 Series (Carbon Steel) ISO 7241-1 A Interchange

AMER region



### Dimensions (Female, SAE O-Ring Non-Valved)

| Part/Order Number | Buna-N          | FKM             | EPDM            | Coupling Type | Body Size | Port Size | Thread    | Type              | Fig. | Dimensions |      |      |      |              |      |
|-------------------|-----------------|-----------------|-----------------|---------------|-----------|-----------|-----------|-------------------|------|------------|------|------|------|--------------|------|
|                   |                 |                 |                 |               |           |           |           |                   |      | A          |      | B    |      | Hex $\nabla$ |      |
|                   |                 |                 |                 |               |           |           |           |                   |      | (mm)       | (in) | (mm) | (in) | (mm)         | (in) |
| 5620-8-10S        | FD56-1221-08-10 | FD56-1221-08-10 | FD56-1221-08-10 | Plug/Male     | 5/8       | 3/4       | 3/4-16    | Female SAE O-Ring | 1    | 48.0       | 1.89 | 25.9 | 1.02 | 26.9         | 1.06 |
| 5691-8-10S        | FD56-1233-08-10 | FD56-1209-08-10 | FD56-1209-08-10 | Socket/Female | 5/8       | 3/4       | 3/4-16    | Female SAE O-Ring | 2    | 66.3       | 2.61 | 38.1 | 1.50 | 30.2         | 1.19 |
| 5690-8-10S        | FD56-1234-08-10 | FD56-1210-08-10 | FD56-1210-08-10 | Complete      | 5/8       | 3/4       | 3/4-16    | Female SAE O-Ring | 3    | 96.0       | 3.78 | -    | -    | -            | -    |
| 5620-12-12S       | FD56-1221-12-12 | FD56-1221-12-12 | FD56-1221-12-12 | Plug/Male     | 3/4       | 1         | 1 1/16-12 | Female SAE O-Ring | 1    | 57.9       | 2.28 | 30.7 | 1.21 | 35.1         | 1.38 |
| 5691-12-12S       | FD56-1233-12-12 | FD56-1209-12-12 | FD56-1209-12-12 | Socket/Female | 3/4       | 1         | 1 1/16-12 | Female SAE O-Ring | 2    | 82.6       | 3.25 | 46.0 | 1.81 | 38.1         | 1.50 |
| 5690-12-12S       | FD56-1234-12-12 | FD56-1210-12-12 | FD56-1210-12-12 | Complete      | 3/4       | 1         | 1 1/16-12 | Female SAE O-Ring | 3    | 115.8      | 4.56 | -    | -    | -            | -    |
| 5620-16-16S       | FD56-1221-16-16 | FD56-1221-16-16 | FD56-1221-16-16 | Plug/Male     | 1         | 1         | 1 5/16-12 | Female SAE O-Ring | 1    | 70.4       | 2.77 | 36.8 | 1.45 | 41.1         | 1.62 |
| 5691-16-16S       | FD56-1233-16-16 | FD56-1209-16-16 | FD56-1209-16-16 | Socket/Female | 1         | 1         | 1 5/16-12 | Female SAE O-Ring | 2    | 103.9      | 4.09 | 54.6 | 2.15 | 47.8         | 1.88 |
| 5690-16-16S       | FD56-1234-16-16 | FD56-1210-16-16 | FD56-1210-16-16 | Complete      | 1         | 1         | 1 5/16-12 | Female SAE O-Ring | 3    | 140.0      | 5.51 | -    | -    | -            | -    |

### Dust Caps

| Part/Order Number | Body Size (in) |
|-------------------|----------------|
| 5657-4            | 1/4            |
| 5657-6            | 3/8            |
| 5657-10           | 5/8            |
| 5657-12           | 3/4            |
| 5657-16           | 1              |



### Break Away Frame

| Part/Order Number | Body Size (in) |
|-------------------|----------------|
| 5603              | 5/8            |



### Dust Plugs

| Part/Order Number | Body Size (in) |
|-------------------|----------------|
| 5659-4            | 1/4            |
| 5659-6            | 3/8            |
| 5659-10           | 5/8            |
| 5659-12           | 3/4            |
| 5659-16           | 1              |



# 5600 Series (Stainless Steel) ISO 7241-1 A Interchange

Fluid transfer & Hydraulic application



The Danfoss Hansen 5600 Series is a rugged poppet style ball locking quick disconnect coupling. As the original manufacturer of the ISO 7241-1 A style coupling, Danfoss has reinvented this quick disconnect coupling series to meet your application needs by offering a new stainless steel construction.

## Product Features

- Self-sealing poppet valve provides excellent high and low pressure sealing
- Stainless steel construction offers excellent corrosion resistance in tough environments
- Standard body material: 303 stainless steel
- Standard body material: Nitrile (NBR). EPDM and FKM seals are available upon request
- Available sizes include: 5/8, 3/4, 1"\*
- Female NPTF thread ends

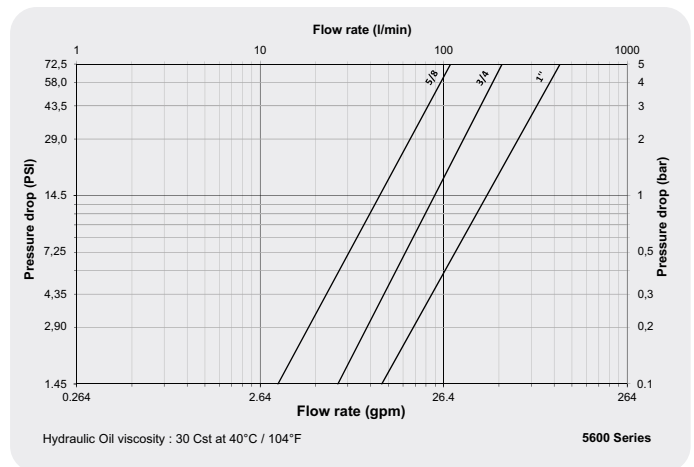
## Physical characteristics

| Body Size<br>(in) | Max. Operating Pressure Connected |       | Min. Burst Pressure |       | Rated Flow |       | Air Inclusion | Fluid Loss |
|-------------------|-----------------------------------|-------|---------------------|-------|------------|-------|---------------|------------|
|                   | (bar)                             | (psi) | (bar)               | (psi) | (lpm)      | (gpm) | cc. max.      | cc. max.   |
| 5/8               | 207                               | 3,000 | 621                 | 9,000 | 45         | 12    | 2.8           | 2.8        |
| 3/4               | 207                               | 3,000 | 621                 | 9,000 | 106        | 28    | 10            | 8.2        |
| 1                 | 207                               | 3,000 | 621                 | 9,000 | 189        | 50    | 14.2          | 14.2       |

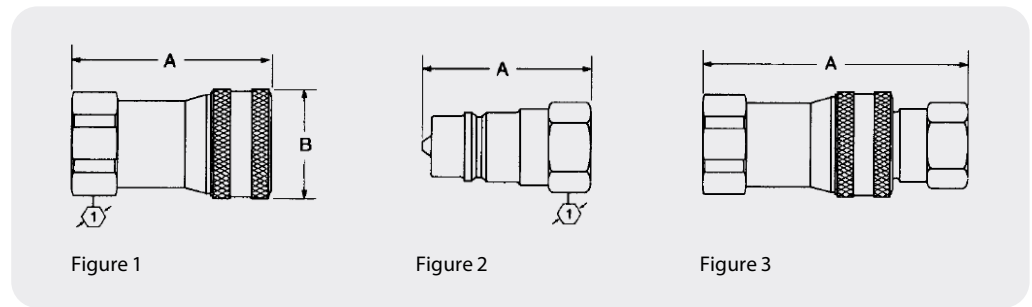
## Applications & Markets

- Hydraulic and Fluid Transfer
- Agricultural Equipment
- Construction Equipment
- Steel Mills
- Plant Manufacturing and Processing Equipment
- Dump, Snow Plow, and Maintenance Vehicles

## Flow Data



# H15000 Series ISO 7241-1 A Interchange



## Female (socket)

| Part/Order Number | Coupling Type | Body Size | Thread        | Fig. | Dimensions A |      | B    |      | Hex ① |      |
|-------------------|---------------|-----------|---------------|------|--------------|------|------|------|-------|------|
|                   |               |           |               |      | (mm)         | (in) | (mm) | (in) | (mm)  | (in) |
| 560024-8-10       | Socket/Female | 5/8       | 1/2-14 NPTF   | 1    | 66.3         | 2.61 | 38.1 | 1.5  | 30.2  | 1.19 |
| 560024-12-12      | Socket/Female | 3/4       | 3/4-14 NPTF   | 1    | 82.6         | 3.25 | 46.0 | 1.81 | 38.1  | 1.50 |
| 560024-16-16      | Socket/Female | 1         | 1 1/2-14 NPTF | 1    | 97.0         | 3.82 | 53.3 | 2.1  | 42.9  | 1.69 |

## Plugs (Male)

| Part/Order Number | Coupling Type | Body Size | Thread        | Fig. | Dimensions A |      | B    |      | Hex ① |      |
|-------------------|---------------|-----------|---------------|------|--------------|------|------|------|-------|------|
|                   |               |           |               |      | (mm)         | (in) | (mm) | (in) | (mm)  | (in) |
| 560049-8-10       | Plug/Male     | 5/8       | 1/2-14 NPTF   | 2    | 51.3         | 2.02 | –    | –    | 26.9  | 1.06 |
| 560049-12-12      | Plug/Male     | 3/4       | 3/4-14 NPTF   | 2    | 64.8         | 2.55 | –    | –    | 35.1  | 1.38 |
| 560049-16-16      | Plug/Male     | 1         | 1 1/2-14 NPTF | 2    | 78.7         | 3.1  | –    | –    | 41.1  | 1.62 |

## Complete Sets\*

| Part/Order Number | Coupling Type | Body Size | Thread        | Fig. | Dimensions A |      |
|-------------------|---------------|-----------|---------------|------|--------------|------|
|                   |               |           |               |      | (mm)         | (in) |
| FD56-1001-08-10   | Complete      | 5/8       | 1/2-14 NPTF   | 3    | 96.0         | 3.78 |
| FD56-1001-12-12   | Complete      | 3/4       | 3/4-14 NPTF   | 3    | 115.8        | 4.56 |
| FD56-1001-16-16   | Complete      | 1         | 1 1/2-14 NPTF | 3    | 123.4        | 4.86 |

\*Includes one socket/female and one plug/male half in the outlined size.

# H5000 Series (Steel)

Fluid transfer & Hydraulic application



Danfoss Gromelle H5000 Series steel quick disconnect coupling is a pull to connect double shut-off coupling. Featuring the original profile, it remains as the series users prefer when it comes to severe hydraulic application such as high pressure, pressure impulses, heavy mechanical loads and frequent connection and disconnection cycles. The unique sleeve lock option offers a reliable solution and benefit to the end user when safety is a concern.

## Product Features

- Proprietary profile
- Pull-to-connect with double shut-off valving
- Ball-locking
- Optional safety sleeve lock prevents accidental disconnections
- Optional dust caps and plugs (made of anodized aluminum)
- Pressure performance
- Standard body material: Zinc trivalent steel
- Standard seal material: NBR, FKM, EPDM
- The heat treatment of the plug and use of high strength steel for the socket sleeve provide superior mechanical and hydraulic performance. The design of the valve gives the coupling increased robustness when disconnected.

## Physical characteristics

| Body Size<br>(in) | Nominal Flow Diameter<br>(mm) | Max. Operating Pressure*                 |        |                                      |        | Rated Flow** |       | Fluid Loss<br>ml-cc. |
|-------------------|-------------------------------|--|--------|--------------------------------------|--------|--------------|-------|----------------------|
|                   |                               | Non hazardous liquids & gases in Group 2 |        | Hazardous liquids & gases in Group 1 |        | (lpm)        | (gpm) |                      |
|                   |                               | (bar)                                    | (psi)  | (bar)                                | (psi)  |              |       |                      |
| 1/8               | 3.8                           | 1,000                                    | 14,500 | 1,000                                | 14,500 | 6.1          | 1.61  | 0.4                  |
| 1/4               | 5.7                           | 700                                      | 10,150 | 700                                  | 10,150 | 11.6         | 3.06  | 1                    |
| 3/8               | 7.6                           | 600                                      | 8,700  | 600                                  | 8,700  | 16.7         | 4.41  | 2                    |
| 1/2               | 10.3                          | 500                                      | 7,250  | 500                                  | 7,250  | 25.5         | 6.74  | 2.5                  |
| 3/4               | 14.2                          | 400                                      | 5,800  | 400                                  | 5,800  | 55           | 14.53 | 5.5                  |
| 1                 | 16.5                          | 300                                      | 4,350  | 300                                  | 4,350  | 87           | 22.98 | 9                    |
| 1 1/4             | 20.5                          | 200                                      | 2,900  | 200                                  | 2,900  | 140          | 36.98 | 23                   |
| 1 1/2             | 25.8                          | 150                                      | 2,175  | 38                                   | 550    | 208          | 54.95 | 36                   |
| 2                 | 34.7                          | 100                                      | 1,450  | 28                                   | 405    | 357          | 94.3  | 70                   |

\* For pulsating pressures when disconnected apply a multiplier of 0.5

\*\* Indicated values refer to a 1 bar/14.5 psi pressure drop.

## European Pressure Equipment Directive

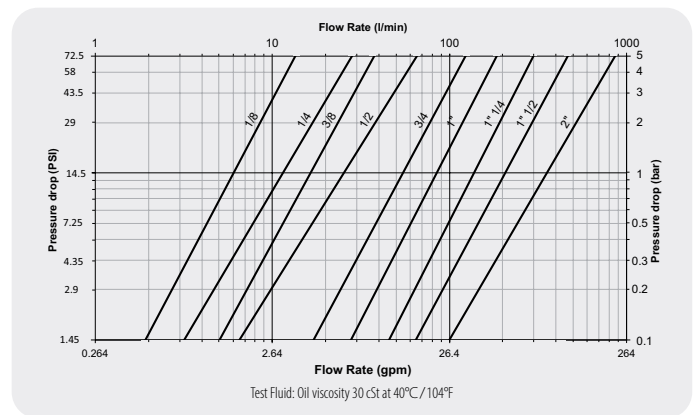
Couplings with nominal diameters up to and including 25 mm are designed and manufactured under Article 4.3 of the European Pressure Equipment Directive 2014/68/EU. Couplings with nominal diameters greater than 25 mm are designed and manufactured in accordance with the stipulations of Module A of the European Pressure Equipment Directive 2014/68/ EU. They should not be used to convey unstable gases.

Group 1 = Hazardous media / Group 2 = Other media

## Applications & Markets

- Automobile
- Agriculture
- Construction
- Oil and Gas
- Railway
- Aeronautics
- Food Processing
- Iron and Steel Industry
- Electronics
- Laboratories
- General Hydraulic Applications

## Flow Data



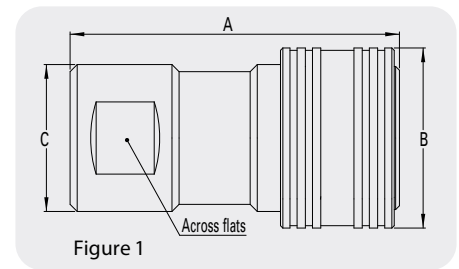
| Seal Elastomer Data*        |                                  |
|-----------------------------|----------------------------------|
| Seal Elastomer              | Max. Operation Temperature Range |
| NBR (Nitrile)               | -20°C +100°C/- 4°F +212°F        |
| FKM                         | -20°C +200°C/- 4°F +392°F        |
| EPDM (Ethylene-Propylene)** | -40°C +150°C/- 40°F +302°F       |

\* For reference only, based on Danfoss recommended temperatures.

\*\* In accordance with NF L 17-241 or NAS 1613 rev. 5

Contact Danfoss technical support for further information on fluid compatibility.

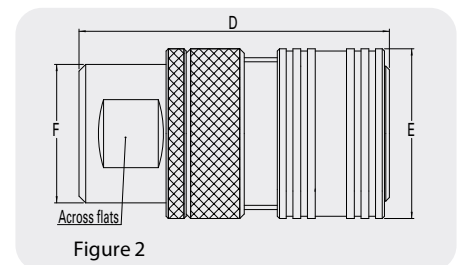
# H5000 Series (Steel)



## Sockets (Female)

| Part/Order Number |           |           | Body Size | Nominal Flow Diameter | Thread Size** (Female) |          |         | Fig. | Dimensions |      |      |      |              |      | Weight |       |       |       |
|-------------------|-----------|-----------|-----------|-----------------------|------------------------|----------|---------|------|------------|------|------|------|--------------|------|--------|-------|-------|-------|
| NBR*              | FKM       | EPDM      |           |                       | NPT                    | BSP      | Metric  |      | A          | B    | C    |      | Across flats |      | lbs    | grams |       |       |
|                   |           |           | (in)      | (mm)                  |                        |          |         | (mm) | (in)       | (mm) | (in) | (mm) | (in)         | (mm) | (in)   |       |       |       |
| HA0500100         | HA05001V0 | HA05001E0 | 1/8       | 3.8                   | -                      | 1/8-28   | -       | 1    | 42         | 1.65 | 24   | 0.94 | 21           | 0.83 | 16     | 0.63  | 0.19  | 88    |
| HA0520100         | HA05201V0 | HA05201E0 | 1/8       | 3.8                   | 1/8-27                 | -        | -       | 1    | 42         | 1.65 | 24   | 0.94 | 21           | 0.83 | 16     | 0.63  | 0.19  | 88    |
| HA0530100         | HA05301V0 | HA05301E0 | 1/8       | 3.8                   | -                      | -        | M10x100 | 1    | 42         | 1.65 | 24   | 0.94 | 21           | 0.83 | 16     | 0.63  | 0.19  | 88    |
| HA0501100         | HA05011V0 | HA05011E0 | 1/4       | 5.7                   | -                      | 1/4-19   | -       | 1    | 50         | 1.97 | 28   | 1.10 | 24           | 0.94 | 19     | 0.75  | 0.27  | 122   |
| HA0521100         | HA05211V0 | HA05211E0 | 1/4       | 5.7                   | 1/4-18                 | -        | -       | 1    | 50         | 1.97 | 28   | 1.10 | 24           | 0.94 | 19     | 0.75  | 0.27  | 122   |
| HA0531100         | HA05311V0 | HA05311E0 | 1/4       | 5.7                   | -                      | -        | M14x150 | 1    | 50         | 1.97 | 28   | 1.10 | 24           | 0.94 | 19     | 0.75  | 0.27  | 122   |
| HA0502100         | HA05021V0 | HA05021E0 | 3/8       | 7.6                   | -                      | 3/8-19   | -       | 1    | 59         | 2.32 | 34   | 1.34 | 28           | 1.10 | 23     | 0.90  | 0.43  | 197   |
| HA0522100         | HA05221V0 | HA05221E0 | 3/8       | 7.6                   | 3/8-18                 | -        | -       | 1    | 59         | 2.32 | 34   | 1.34 | 28           | 1.10 | 23     | 0.90  | 0.43  | 197   |
| HA0532100         | HA05321V0 | HA05321E0 | 3/8       | 7.6                   | -                      | -        | M18x150 | 1    | 59         | 2.32 | 34   | 1.34 | 28           | 1.10 | 23     | 0.90  | 0.43  | 197   |
| HA0503100         | HA05031V0 | HA05031E0 | 1/2       | 10.3                  | -                      | 1/2-14   | -       | 1    | 69         | 2.71 | 38   | 1.50 | 31           | 1.22 | 27     | 1.06  | 0.50  | 226   |
| HA0523100         | HA05231V0 | HA05231E0 | 1/2       | 10.3                  | 1/2-14                 | -        | -       | 1    | 69         | 2.71 | 38   | 1.50 | 31           | 1.22 | 27     | 1.06  | 0.50  | 226   |
| HA0533100         | HA05331V0 | HA05331E0 | 1/2       | 10.3                  | -                      | -        | M22x150 | 1    | 69         | 2.71 | 38   | 1.50 | 31           | 1.22 | 27     | 1.06  | 0.50  | 226   |
| HA0504100         | HA05041V0 | HA05041E0 | 3/4       | 14.2                  | -                      | 3/4-14   | -       | 1    | 89         | 3.50 | 48   | 1.89 | 40           | 1.57 | 35     | 1.38  | 1.27  | 577   |
| HA0524100         | HA05241V0 | HA05241E0 | 3/4       | 14.2                  | 3/4-14                 | -        | -       | 1    | 89         | 3.50 | 48   | 1.89 | 40           | 1.57 | 35     | 1.38  | 1.27  | 577   |
| HA0534100         | HA05341V0 | HA05341E0 | 3/4       | 14.2                  | -                      | -        | M27x150 | 1    | 89         | 3.50 | 48   | 1.89 | 40           | 1.57 | 35     | 1.38  | 1.27  | 577   |
| HA0505100         | HA05051V0 | HA05051E0 | 1         | 16.5                  | -                      | 1-11     | -       | 1    | 99         | 3.89 | 52   | 2.05 | 45           | 1.77 | 41     | 1.61  | 1.59  | 720   |
| HA0525100         | HA05251V0 | HA05251E0 | 1         | 16.5                  | 1-11 1/2               | -        | -       | 1    | 99         | 3.89 | 52   | 2.05 | 45           | 1.77 | 41     | 1.61  | 1.59  | 720   |
| -                 | HA05061V0 | HA05061E0 | 1 1/4     | 20.5                  | -                      | 1 1/4-11 | -       | 1    | 132        | 5.20 | 75   | 2.95 | 62           | 2.44 | 55     | 2.16  | 4.77  | 2,165 |
| -                 | HA05071V0 | HA05071E0 | 1 1/2     | 25.8                  | -                      | 1 1/2-11 | -       | 1    | 150        | 5.90 | 85   | 3.35 | 75           | 2.95 | 65     | 2.56  | 7.72  | 3,500 |
| -                 | HA05091V0 | HA05091E0 | 2         | 34.7                  | -                      | 2-11     | -       | 1    | 170        | 6.69 | 97   | 3.82 | 85           | 3.35 | 75     | 2.95  | 10.67 | 4,840 |

\* Body sizes 1 1/4, 1 1/2 and 2 are supplied with FKM seals as a standard.  
 \*\* Alternative end connections available upon request.  
 To obtain connected length of coupling add dimensions A (Fig. 1) and J (Fig. 3) together.



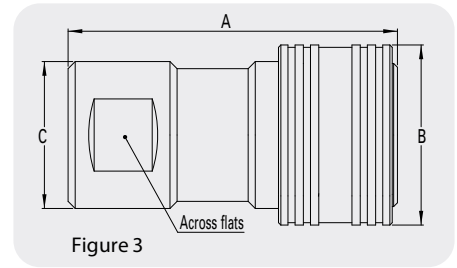
## Sockets (Female)

| Part/Order Number |           |           | Body Size | Nominal Flow Diameter | Thread Size** (Female) |          |         | Fig. | Dimensions |      |      |      |              |      | Weight |       |       |       |
|-------------------|-----------|-----------|-----------|-----------------------|------------------------|----------|---------|------|------------|------|------|------|--------------|------|--------|-------|-------|-------|
| NBR*              | FKM       | EPDM      |           |                       | NPT                    | BSP      | Metric  |      | D          | E    | F    |      | Across flats |      | lbs    | grams |       |       |
|                   |           |           | (in)      | (mm)                  |                        |          |         | (mm) | (in)       | (mm) | (in) | (mm) | (in)         | (mm) | (in)   |       |       |       |
| HA0500300         | HA05003V0 | HA05003E0 | 1/8       | 3.8                   | -                      | 1/8-28   | -       | 2    | 42         | 1.65 | 24   | 0.94 | 21           | 0.83 | 16     | 0.63  | 0.19  | 91    |
| HA0520300         | HA05203V0 | HA05203E0 | 1/8       | 3.8                   | 1/8-27                 | -        | -       | 2    | 42         | 1.65 | 24   | 0.94 | 21           | 0.83 | 16     | 0.63  | 0.19  | 91    |
| HA0530300         | HA05303V0 | HA05303E0 | 1/8       | 3.8                   | -                      | -        | M10x100 | 2    | 42         | 1.65 | 24   | 0.94 | 21           | 0.83 | 16     | 0.63  | 0.19  | 91    |
| HA0501300         | HA05013V0 | HA05013E0 | 1/4       | 5.7                   | -                      | 1/4-19   | -       | 2    | 50         | 1.97 | 28   | 1.10 | 24           | 0.94 | 19     | 0.75  | 0.27  | 134   |
| HA0521300         | HA05213V0 | HA05213E0 | 1/4       | 5.7                   | 1/4-18                 | -        | -       | 2    | 50         | 1.97 | 28   | 1.10 | 24           | 0.94 | 19     | 0.75  | 0.27  | 134   |
| HA0531300         | HA05313V0 | HA05313E0 | 1/4       | 5.7                   | -                      | -        | M14x150 | 2    | 50         | 1.97 | 28   | 1.10 | 24           | 0.94 | 19     | 0.75  | 0.27  | 134   |
| HA0502300         | HA05023V0 | HA05023E0 | 3/8       | 7.6                   | -                      | 3/8-19   | -       | 2    | 59         | 2.32 | 34   | 1.34 | 28           | 1.10 | 23     | 0.90  | 0.43  | 225   |
| HA0522300         | HA05223V0 | HA05223E0 | 3/8       | 7.6                   | 3/8-18                 | -        | -       | 2    | 59         | 2.32 | 34   | 1.34 | 28           | 1.10 | 23     | 0.90  | 0.43  | 225   |
| HA0532300         | HA05323V0 | HA05323E0 | 3/8       | 7.6                   | -                      | -        | M18x150 | 2    | 59         | 2.32 | 34   | 1.34 | 28           | 1.10 | 23     | 0.90  | 0.43  | 225   |
| HA0503300         | HA05033V0 | HA05033E0 | 1/2       | 10.3                  | -                      | 1/2-14   | -       | 2    | 69         | 2.71 | 38   | 1.50 | 31           | 1.22 | 27     | 1.06  | 0.50  | 310   |
| HA0523300         | HA05233V0 | HA05233E0 | 1/2       | 10.3                  | 1/2-14                 | -        | -       | 2    | 69         | 2.71 | 38   | 1.50 | 31           | 1.22 | 27     | 1.06  | 0.50  | 310   |
| HA0533300         | HA05333V0 | HA05333E0 | 1/2       | 10.3                  | -                      | -        | M22x150 | 2    | 69         | 2.71 | 38   | 1.50 | 31           | 1.22 | 27     | 1.06  | 0.50  | 310   |
| HA0504300         | HA05043V0 | HA05043E0 | 3/4       | 14.2                  | -                      | 3/4-14   | -       | 2    | 89         | 3.50 | 48   | 1.89 | 40           | 1.57 | 35     | 1.38  | 1.27  | 665   |
| HA0524300         | HA05243V0 | HA05243E0 | 3/4       | 14.2                  | 3/4-14                 | -        | -       | 2    | 89         | 3.50 | 48   | 1.89 | 40           | 1.57 | 35     | 1.38  | 1.27  | 665   |
| HA0534300         | HA05343V0 | HA05343E0 | 3/4       | 14.2                  | -                      | -        | M27x150 | 2    | 89         | 3.50 | 48   | 1.89 | 40           | 1.57 | 35     | 1.38  | 1.27  | 665   |
| HA0505300         | HA05053V0 | HA05053E0 | 1         | 16.5                  | -                      | 1-11     | -       | 2    | 99         | 3.89 | 52   | 2.05 | 45           | 1.77 | 41     | 1.61  | 1.59  | 813   |
| HA0525300         | HA05253V0 | HA05253E0 | 1         | 16.5                  | 1-11 1/2               | -        | -       | 2    | 99         | 3.89 | 52   | 2.05 | 45           | 1.77 | 41     | 1.61  | 1.59  | 813   |
| -                 | HA05063V0 | HA05063E0 | 1 1/4     | 20.5                  | -                      | 1 1/4-11 | -       | 2    | 132        | 5.20 | 75   | 2.95 | 62           | 2.44 | 55     | 2.16  | 4.77  | 2,230 |
| -                 | HA05073V0 | HA05073E0 | 1 1/2     | 25.8                  | -                      | 1 1/2-11 | -       | 2    | 150        | 5.90 | 85   | 3.35 | 75           | 2.95 | 65     | 2.56  | 7.72  | 3,585 |
| -                 | HA05093V0 | HA05093E0 | 2         | 34.7                  | -                      | 2-11     | -       | 2    | 170        | 6.69 | 97   | 3.82 | 85           | 3.35 | 75     | 2.95  | 10.67 | 5,658 |

\* Body sizes 1 1/4, 1 1/2 and 2 are supplied with FKM seals as a standard.  
 \*\* Alternative end connections available upon request.  
 To obtain connected length of coupling add dimensions D (Fig. 2) and J (Fig. 3) together.

# H5000 Series (Brass)

Global region



## Plugs (Male)

| Part/Order Number |           |           | Body Size | Nominal Flow Diameter | Thread Size** (Female) |        |          | Dimensions |      |      |      |      |       |      |      |      | Weight |      |      |      |       |
|-------------------|-----------|-----------|-----------|-----------------------|------------------------|--------|----------|------------|------|------|------|------|-------|------|------|------|--------|------|------|------|-------|
| NBR*              | FKM       | EPDM      |           |                       | NPT                    | BSPP   | Metric   | Fig.       | G    | H    | I    | J    | Hex Ⓛ |      |      | lbs  | grams  |      |      |      |       |
|                   |           |           | (in)      | (mm)                  |                        |        |          | (mm)       | (in) | (mm) | (in) | (mm) | (in)  | (mm) | (in) | (mm) | (in)   | (mm) | (in) |      |       |
| HA0500200         | HA05002V0 | HA05002E0 | 1/8       | 3.8                   | -                      | 1/8-28 | -        | 3          | 28   | 1.10 | 11.0 | 0.43 | 18.4  | 0.72 | 10   | 0.39 | 16     | 0.63 | 0.05 | 23   |       |
| HA0520200         | HA05202V0 | HA05202E0 | 1/8       | 3.8                   | -                      | 1/8-27 | -        | 3          | 28   | 1.10 | 11.0 | 0.43 | 18.4  | 0.72 | 10   | 0.39 | 16     | 0.63 | 0.05 | 23   |       |
| HA0530200         | HA05302V0 | HA05302E0 | 1/8       | 3.8                   | -                      | -      | M10x100  | 3          | 28   | 1.10 | 11.0 | 0.43 | 18.4  | 0.72 | 10   | 0.39 | 16     | 0.63 | 0.05 | 23   |       |
| HA0501200         | HA05012V0 | HA05012E0 | 1/4       | 5.7                   | -                      | -      | 1/4-19   | -          | 3    | 35   | 1.38 | 14.2 | 0.56  | 21.8 | 0.86 | 14   | 0.55   | 19   | 0.75 | 0.08 | 37    |
| HA0521200         | HA05212V0 | HA05212E0 | 1/4       | 5.7                   | -                      | -      | 1/4-18   | -          | 3    | 35   | 1.38 | 14.2 | 0.56  | 21.8 | 0.86 | 14   | 0.55   | 19   | 0.75 | 0.08 | 37    |
| HA0531200         | HA05312V0 | HA05312E0 | 1/4       | 5.7                   | -                      | -      | -        | M14x150    | 3    | 35   | 1.38 | 14.2 | 0.56  | 21.8 | 0.86 | 14   | 0.55   | 19   | 0.75 | 0.08 | 37    |
| HA0502200         | HA05022V0 | HA05022E0 | 3/8       | 7.6                   | -                      | -      | 3/8-19   | -          | 3    | 42   | 1.65 | 19.0 | 0.75  | 26.4 | 1.04 | 18   | 0.7    | 23   | 0.90 | 0.15 | 70    |
| HA0522200         | HA05222V0 | HA05222E0 | 3/8       | 7.6                   | -                      | -      | 3/8-18   | -          | 3    | 42   | 1.65 | 19.0 | 0.75  | 26.4 | 1.04 | 18   | 0.7    | 23   | 0.90 | 0.15 | 70    |
| HA0532200         | HA05322V0 | HA05322E0 | 3/8       | 7.6                   | -                      | -      | -        | M18x150    | 3    | 42   | 1.65 | 19.0 | 0.75  | 26.4 | 1.04 | 18   | 0.7    | 23   | 0.90 | 0.15 | 70    |
| HA0503200         | HA05032V0 | HA05032E0 | 1/2       | 10.3                  | -                      | -      | 1/2-14   | -          | 3    | 50   | 1.97 | 20.6 | 0.81  | 31.0 | 1.22 | 24   | 0.94   | 27   | 1.06 | 0.20 | 92    |
| HA0523200         | HA05232V0 | HA05232E0 | 1/2       | 10.3                  | -                      | -      | 1/2-14   | -          | 3    | 50   | 1.97 | 20.6 | 0.81  | 31.0 | 1.22 | 24   | 0.94   | 27   | 1.06 | 0.20 | 92    |
| HA0533200         | HA05332V0 | HA05332E0 | 1/2       | 10.3                  | -                      | -      | -        | M22x150    | 3    | 50   | 1.97 | 20.6 | 0.81  | 31.0 | 1.22 | 24   | 0.94   | 27   | 1.06 | 0.20 | 92    |
| HA0504200         | HA05042V0 | HA05042E0 | 3/4       | 14.2                  | -                      | -      | 3/4-14   | -          | 3    | 63   | 2.48 | 27.9 | 1.10  | 40.2 | 1.58 | 28   | 1.10   | 35   | 1.38 | 0.48 | 217   |
| HA0524200         | HA05242V0 | HA05242E0 | 3/4       | 14.2                  | -                      | -      | 3/4-14   | -          | 3    | 63   | 2.48 | 27.9 | 1.10  | 40.2 | 1.58 | 28   | 1.10   | 35   | 1.38 | 0.48 | 217   |
| HA0534200         | HA05342V0 | HA05342E0 | 3/4       | 14.2                  | -                      | -      | -        | M27x150    | 3    | 63   | 2.48 | 27.9 | 1.10  | 40.2 | 1.58 | 28   | 1.10   | 35   | 1.38 | 0.48 | 217   |
| HA0505200         | HA05052V0 | HA05052E0 | 1         | 16.5                  | -                      | -      | 1-11     | -          | 3    | 71   | 2.79 | 32.4 | 1.27  | 47.5 | 1.87 | 31   | 1.22   | 41   | 1.61 | 0.63 | 287   |
| HA0525200         | HA05252V0 | HA05252E0 | 1         | 16.5                  | -                      | -      | 1-11 1/2 | -          | 3    | 71   | 2.79 | 32.4 | 1.27  | 47.5 | 1.87 | 31   | 1.22   | 41   | 1.61 | 0.63 | 287   |
| -                 | HA05062V0 | HA05062E0 | 1 1/4     | 20.5                  | -                      | -      | 1 1/4-11 | -          | 3    | 97   | 3.82 | 46.9 | 1.85  | 63.2 | 2.49 | 48   | 1.89   | 55   | 2.16 | 1.98 | 900   |
| -                 | HA05072V0 | HA05072E0 | 1 1/2     | 25.8                  | -                      | -      | 1 1/2-11 | -          | 3    | 109  | 4.29 | 56.0 | 2.20  | 74.7 | 2.94 | 52   | 2.04   | 65   | 2.56 | 3.30 | 1,500 |
| -                 | HA05092V0 | HA05092E0 | 2         | 34.7                  | -                      | -      | 2-11     | -          | 3    | 121  | 4.76 | 65.0 | 2.56  | 84.0 | 3.30 | 50   | 1.97   | 75   | 2.95 | 4.06 | 1,840 |

\* Body sizes 1 1/4, 1 1/2 and 2 are supplied with FKM seals as a standard.

\*\* Alternative end connections available upon request.

To obtain connected length of coupling add dimensions A (Fig. 1) and J (Fig. 3) together for standard version ; add dimensions D (Fig. 2) and J (Fig. 3) together for sleeve lock version.

## Dust Plugs and Dust Caps

| Body Size (in) | Socket Dust Plug Part/Order Number | Plug Dust Cap Part/Order Number |
|----------------|------------------------------------|---------------------------------|
| 1/8            | HD0510100                          | HD0510200                       |
| 1/4            | HD0511100                          | HD0511200                       |
| 3/8            | HD0512100                          | HD0512200                       |
| 1/2            | HD0513100                          | HD0513200                       |
| 3/4            | HD0514100                          | HD0514200                       |
| 1              | HD0515100                          | HD0515200                       |
| 1 1/4          | HD0516100                          | HD0516200                       |
| 1 1/2          | HD0517100                          | HD0517200                       |
| 2              | HD0519100                          | HD0519200                       |



## Seal Kit for Servicing Sockets (Female)

| Body size (in) | Seal & Back-up Ring Kit*       |                              |                                |                              |                                 |                              |
|----------------|--------------------------------|------------------------------|--------------------------------|------------------------------|---------------------------------|------------------------------|
|                | NBR seals & PTFE back-up rings | Qty                          | FKM seals & PTFE back-up rings | Qty                          | EPDM seals & PTFE back-up rings | Qty                          |
| 1/8            | HG 05001 00                    | 50 O-rings + 50 Backup rings | HG 05001 V0                    | 15 O-rings + 15 Backup rings | HG 05001 E0                     | 15 O-rings + 15 Backup rings |
| 1/4            | HG 05011 00                    | 50 O-rings + 50 Backup rings | HG 05011 V0                    | 15 O-rings + 15 Backup rings | HG 05011 E0                     | 15 O-rings + 15 Backup rings |
| 3/8            | HG 05021 00                    | 50 O-rings + 50 Backup rings | HG 05021 V0                    | 15 O-rings + 15 Backup rings | HG 05021 E0                     | 15 O-rings + 15 Backup rings |
| 1/2            | HG 05031 00                    | 50 O-rings + 50 Backup rings | HG 05031 V0                    | 15 O-rings + 15 Backup rings | HG 05031 E0                     | 15 O-rings + 15 Backup rings |
| 3/4            | HG 05041 00                    | 50 O-rings + 50 Backup rings | HG 05041 V0                    | 15 O-rings + 15 Backup rings | HG 05041 E0                     | 15 O-rings + 15 Backup rings |
| 1              | HG 05051 00                    | 50 O-rings + 50 Backup rings | HG 05051 V0                    | 10 O-rings + 10 Backup rings | HG 05051 E0                     | 10 O-rings + 10 Backup rings |
| 1 1/4          | HG 05061 00                    | 15 O-rings + 15 Backup rings | HG 05061 V0                    | 5 O-rings + 5 Backup rings   | -                               | -                            |
| 1 1/2          | HG 05071 00                    | 15 O-rings + 15 Backup rings | -                              | -                            | -                               | -                            |
| 2              | HG 05091 00                    | 15 O-rings + 15 Backup rings | -                              | -                            | -                               | -                            |

\*The valve seal is not included in our repair kits.

## H5000 Series (Brass)

Fluid transfer & Hydraulic application



Danfoss Gromelle H5000 Series brass quick disconnect coupling is a pull to connect double shut-off coupling. It is a general purpose industrial quick disconnect coupling with the original profile. Mainly used in fluid transfer applications where stainless steel is not a requirement, it offers a good alternative for corrosion resistance.

Global region

### Product Features

- Proprietary profile
- Pull-to-connect with double shut-off valving
- Ball-locking
- Pressure performance
- Optional safety sleeve lock prevents accidental disconnections
- Optional dust caps and plugs (made of anodized aluminum)
- Standard body material: Nickel-plated brass
- Standard seal material: NBR, FKM, EPDM

### Physical characteristics

| Body Size<br>(in) | Nominal Flow Diameter*<br>(mm) | Max. Operating Pressure**                                 |   | Rated Flow*** |       | Fluid Loss<br>ml-cc. |
|-------------------|--------------------------------|---|---|---------------|-------|----------------------|
|                   |                                | Hazardous and non hazardous liquids in Group 1&2<br>(bar) | Non hazardous gases in Group 2<br>(psi) | (lpm)         | (gpm) |                      |
| 1/8               | 3.8                            | 300   | 4,350                                   | 300           | 4,350 | 0.4                  |
| 1/4               | 5.7                            | 230   | 3,335                                   | 230           | 3,335 | 1                    |
| 3/8               | 7.6                            | 175   | 2,535                                   | 175           | 2,535 | 2                    |
| 1/2               | 10.3                           | 150   | 2,175                                   | 150           | 2,175 | 2.5                  |
| 3/4               | 14.2                           | 125   | 1,810                                   | 125           | 1,810 | 5.5                  |
| 1                 | 16.5                           | 100   | 1,450                                   | 100           | 1,450 | 9                    |
| 1 1/4             | 20.5                           | 70  | 1,015                                   | 70            | 1,015 | 23                   |
| 1 1/2             | 25.8                           | 50  | 725                                     | 50            | 725   | 36                   |
| 2                 | 34.7                           | 40  | 290                                     | 28            | 406   | 70                   |

\* Nominal diameters over 25 mm should not be used to convey gases in Group 1 (PED 2014/68/EU).

\*\* For pulsating pressures when disconnected apply a multiplier of 0.5.

\*\*\* Indicated values refer to a 1 bar/14.5 psi pressure drop.

### European Pressure Equipment Directive

All couplings are designed and manufactured under Article 4.3 of the European Pressure Equipment Directive PED 2014/68/EU.

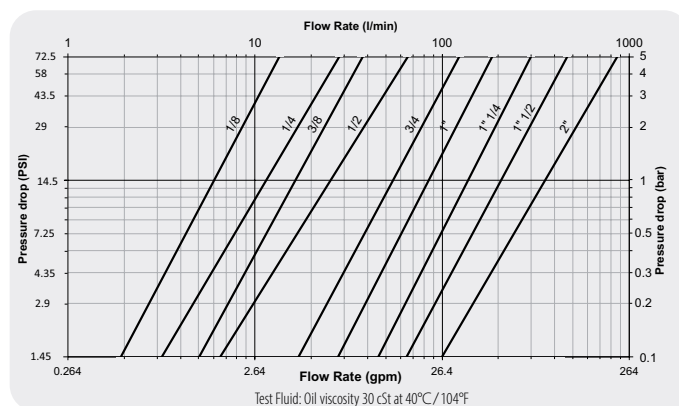
Couplings with nominal diameters greater than 25 mm should not be used to convey gases in Group 1 (hazardous).

Group 1 = Hazardous media / Group 2 = Other media

### Applications & Markets

- Automobile
- Agriculture
- Construction
- Oil and Gas
- Railway
- Aeronautics
- Food Processing
- Iron and Steel Industry
- Electronics
- Laboratories
- General Hydraulic Applications

### Flow Data



#### Seal Elastomer Data\*

| Seal Elastomer              | Max. Operation Temperature Range |
|-----------------------------|----------------------------------|
| NBR (Nitrile)               | -20°C +100°C/- 4°F +212°F        |
| FKM (Fluorocarbon)          | -20°C +200°C/- 4°F +392°F        |
| EPDM (Ethylene-Propylene)** | -40°C +150°C/- 40°F +302°F       |

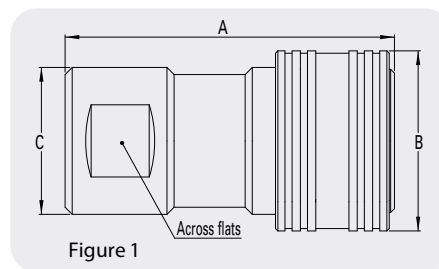
\* For reference only, based on Danfoss recommended temperatures.

\*\* In accordance with NF L 17-241 or NAS 1613 rev. 5

Contact Danfoss technical support for further information on fluid compatibility.

# H5000 Series (Brass)

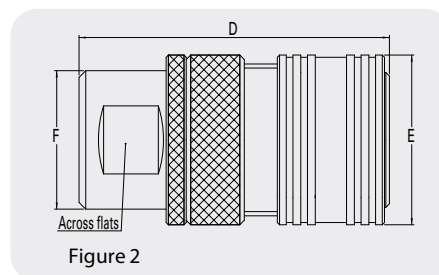
Global region



## Sockets (Female)

| Part/Order Number |           |           | Body Size | Nominal Flow Diameter | Thread Size* (Female) BSPP | Fig. | Dimensions |      |    |      |    |              | Weight |      |       |       |
|-------------------|-----------|-----------|-----------|-----------------------|----------------------------|------|------------|------|----|------|----|--------------|--------|------|-------|-------|
| NBR               | FKM       | EPDM      |           |                       |                            |      | (in)       | (mm) | A  | B    | C  | Across flats |        | lbs  | grams |       |
| HL0500100         | HL05001V0 | HL05001E0 | 1/8       | 3.8                   | 1/8-28                     | 1    | 42         | 1.65 | 24 | 0.94 | 21 | 0.83         | 16     | 0.63 | 0.21  | 97    |
| HL0501100         | HL05011V0 | HL05011E0 | 1/4       | 5.7                   | 1/4-19                     | 1    | 50         | 1.97 | 28 | 1.10 | 24 | 0.94         | 19     | 0.75 | 0.30  | 134   |
| HL0502100         | HL05021V0 | HL05021E0 | 3/8       | 7.6                   | 3/8-19                     | 1    | 59         | 2.32 | 34 | 1.34 | 28 | 1.10         | 23     | 0.90 | 0.48  | 217   |
| HL0503100         | HL05031V0 | HL05031E0 | 1/2       | 10.3                  | 1/2-14                     | 1    | 69         | 2.71 | 38 | 1.50 | 31 | 1.22         | 27     | 1.06 | 0.55  | 249   |
| HL0504100         | HL05041V0 | HL05041E0 | 3/4       | 14.2                  | 3/4-14                     | 1    | 89         | 3.50 | 48 | 1.89 | 40 | 1.57         | 35     | 1.38 | 1.40  | 635   |
| HL0505100         | HL05051V0 | HL05051E0 | 1         | 16.5                  | 1-11                       | 1    | 99         | 3.89 | 52 | 2.05 | 45 | 1.77         | 41     | 1.61 | 1.75  | 792   |
| HL0506100         | HL05061V0 | HL05061E0 | 1 1/4     | 20.5                  | 1 1/4-11                   | 1    | 132        | 5.20 | 75 | 2.95 | 62 | 2.44         | 55     | 2.16 | 5.25  | 2,382 |
| HL0507100         | HL05071V0 | HL05071E0 | 1 1/2     | 25.8                  | 1 1/2-11                   | 1    | 150        | 5.90 | 85 | 3.35 | 75 | 2.95         | 65     | 2.56 | 8.49  | 3,850 |
| HL0509100         | HL05091V0 | HL05091E0 | 2         | 34.7                  | 2-11                       | 1    | 170        | 6.69 | 97 | 3.82 | 85 | 3.35         | 75     | 2.95 | 11.74 | 5,324 |

\* Alternative end connections available upon request.  
To obtain connected length of coupling add dimensions A (Fig. 1) and J (Fig. 3) together.



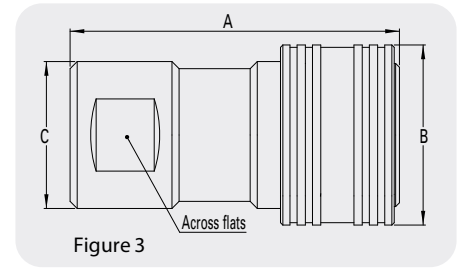
## Sockets with Sleeve Lock (Female)

| Part/Order Number |           |           | Body Size | Nominal Flow Diameter | Thread Size* (Female) BSPP | Fig. | Dimensions |      |    |      |    |              | Weight |      |       |       |
|-------------------|-----------|-----------|-----------|-----------------------|----------------------------|------|------------|------|----|------|----|--------------|--------|------|-------|-------|
| NBR               | FKM       | EPDM      |           |                       |                            |      | (in)       | (mm) | D  | E    | F  | Across flats |        | lbs  | grams |       |
| HL0500300         | HL05003V0 | HL05003E0 | 1/8       | 3.8                   | 1/8-28                     | 2    | 42         | 1.65 | 24 | 0.94 | 21 | 0.83         | 16     | 0.63 | 0.22  | 100   |
| HL0501300         | HL05013V0 | HL05013E0 | 1/4       | 5.7                   | 1/4-19                     | 2    | 50         | 1.97 | 28 | 1.10 | 24 | 0.94         | 19     | 0.75 | 0.33  | 148   |
| HL0502300         | HL05023V0 | HL05023E0 | 3/8       | 7.6                   | 3/8-19                     | 2    | 59         | 2.32 | 34 | 1.34 | 28 | 1.10         | 23     | 0.90 | 0.55  | 248   |
| HL0503300         | HL05033V0 | HL05033E0 | 1/2       | 10.3                  | 1/2-14                     | 2    | 69         | 2.71 | 38 | 1.50 | 31 | 1.22         | 27     | 1.06 | 0.75  | 341   |
| HL0504300         | HL05043V0 | HL05043E0 | 3/4       | 14.2                  | 3/4-14                     | 2    | 89         | 3.50 | 48 | 1.89 | 40 | 1.57         | 35     | 1.38 | 1.61  | 732   |
| HL0505300         | HL05053V0 | HL05053E0 | 1         | 16.5                  | 1-11                       | 2    | 99         | 3.89 | 52 | 2.05 | 45 | 1.77         | 41     | 1.61 | 1.97  | 894   |
| HL0506300         | HL05063V0 | HL05063E0 | 1 1/4     | 20.5                  | 1 1/4-11                   | 2    | 132        | 5.20 | 75 | 2.95 | 62 | 2.44         | 55     | 2.16 | 5.41  | 2,453 |
| HL0507300         | HL05073V0 | HL05073E0 | 1 1/2     | 25.8                  | 1 1/2-11                   | 2    | 150        | 5.90 | 85 | 3.35 | 75 | 2.95         | 65     | 2.56 | 8.69  | 3,944 |
| HL0509300         | HL05093V0 | HL05093E0 | 2         | 34.7                  | 2-11                       | 2    | 170        | 6.69 | 97 | 3.82 | 85 | 3.35         | 75     | 2.95 | 13.72 | 6,224 |

\* Alternative end connections available upon request.  
To obtain connected length of coupling add dimensions D (Fig. 2) and J (Fig. 3) together.

# H5000 Series (Steel)

Global region



## Plugs (Male)

| Part/Order Number |           |           | Body Size | Nominal Flow Diameter | Thread Size** (Female) BSPP | Fig. | Dimensions |      |      |      |      |      |       |      |     |       | Weight |       |
|-------------------|-----------|-----------|-----------|-----------------------|-----------------------------|------|------------|------|------|------|------|------|-------|------|-----|-------|--------|-------|
| NBR*              | FKM       | EPDM      |           |                       |                             |      | (in)       | (mm) | G    | H    | I    | J    | Hex ① |      | lbs | grams |        |       |
| HA0500200         | HA05002V0 | HA05002E0 | 1/8       | 3.8                   | 1/8-28                      | 3    | 28         | 1.10 | 11.0 | 0.43 | 18.4 | 0.72 | 10    | 0.39 | 16  | 0.63  | 0.05   | 23    |
| HA0520200         | HA05202V0 | HA05202E0 | 1/8       | 3.8                   | -                           | 3    | 28         | 1.10 | 11.0 | 0.43 | 18.4 | 0.72 | 10    | 0.39 | 16  | 0.63  | 0.05   | 23    |
| HA0530200         | HA05302V0 | HA05302E0 | 1/8       | 3.8                   | -                           | 3    | 28         | 1.10 | 11.0 | 0.43 | 18.4 | 0.72 | 10    | 0.39 | 16  | 0.63  | 0.05   | 23    |
| HA0501200         | HA05012V0 | HA05012E0 | 1/4       | 5.7                   | 1/4-19                      | 3    | 35         | 1.38 | 14.2 | 0.56 | 21.8 | 0.86 | 14    | 0.55 | 19  | 0.75  | 0.08   | 37    |
| HA0521200         | HA05212V0 | HA05212E0 | 1/4       | 5.7                   | -                           | 3    | 35         | 1.38 | 14.2 | 0.56 | 21.8 | 0.86 | 14    | 0.55 | 19  | 0.75  | 0.08   | 37    |
| HA0531200         | HA05312V0 | HA05312E0 | 1/4       | 5.7                   | -                           | 3    | 35         | 1.38 | 14.2 | 0.56 | 21.8 | 0.86 | 14    | 0.55 | 19  | 0.75  | 0.08   | 37    |
| HA0502200         | HA05022V0 | HA05022E0 | 3/8       | 7.6                   | 3/8-19                      | 3    | 42         | 1.65 | 19.0 | 0.75 | 26.4 | 1.04 | 18    | 0.7  | 23  | 0.90  | 0.15   | 70    |
| HA0522200         | HA05222V0 | HA05222E0 | 3/8       | 7.6                   | -                           | 3    | 42         | 1.65 | 19.0 | 0.75 | 26.4 | 1.04 | 18    | 0.7  | 23  | 0.90  | 0.15   | 70    |
| -                 | HA05092V0 | HA05092E0 | 2         | 34.7                  | 2-11                        | 3    | 121        | 4.76 | 65.0 | 2.56 | 84.0 | 3.30 | 50    | 1.97 | 75  | 2.95  | 4.06   | 1,840 |

\* Body sizes 1/4, 1/2 and 2 are supplied with FKM seals as a standard.

\*\* Alternative end connections available upon request.

To obtain connected length of coupling add dimensions A (Fig. 1) and J (Fig. 3) together for standard version ; add dimensions D (Fig. 2) and J (Fig. 3) together for sleeve lock version.

## Dust Plugs and Dust Caps

| Body Size (in) | Socket Dust Plug Part/Order Number | Plug Dust Cap Part/Order Number |
|----------------|------------------------------------|---------------------------------|
| 1/8            | HD0510100                          | HD0510200                       |
| 1/4            | HD0511100                          | HD0511200                       |
| 3/8            | HD0512100                          | HD0512200                       |
| 1/2            | HD0513100                          | HD0513200                       |
| 3/4            | HD0514100                          | HD0514200                       |
| 1              | HD0515100                          | HD0515200                       |
| 1 1/4          | HD0516100                          | HD0516200                       |
| 1 1/2          | HD0517100                          | HD0517200                       |
| 2              | HD0519100                          | HD0519200                       |

Socket Dust Plug



## Seal Kit for Servicing Sockets (Female)

| Body size (in) | Seal & Back-up Ring Kit*       |                              |                                |                              |                                 |                              |
|----------------|--------------------------------|------------------------------|--------------------------------|------------------------------|---------------------------------|------------------------------|
|                | NBR seals & PTFE back-up rings | Qty                          | FKM seals & PTFE back-up rings | Qty                          | EPDM seals & PTFE back-up rings | Qty                          |
| 1/8            | HG0500100                      | 50 O-rings + 50 Backup rings | HG05001V0                      | 15 O-rings + 15 Backup rings | HG05001E0                       | 15 O-rings + 15 Backup rings |
| 1/4            | HG0501100                      | 50 O-rings + 50 Backup rings | HG05011V0                      | 15 O-rings + 15 Backup rings | HG05011E0                       | 15 O-rings + 15 Backup rings |
| 3/8            | HG0502100                      | 50 O-rings + 50 Backup rings | HG05021V0                      | 15 O-rings + 15 Backup rings | HG05021E0                       | 15 O-rings + 15 Backup rings |
| 1/2            | HG0503100                      | 50 O-rings + 50 Backup rings | HG05031V0                      | 15 O-rings + 15 Backup rings | HG05031E0                       | 15 O-rings + 15 Backup rings |
| 3/4            | HG0504100                      | 50 O-rings + 50 Backup rings | HG05041V0                      | 15 O-rings + 15 Backup rings | HG05041E0                       | 15 O-rings + 15 Backup rings |
| 1              | HG0505100                      | 50 O-rings + 50 Backup rings | HG05051V0                      | 10 O-rings + 10 Backup rings | HG05051E0                       | 10 O-rings + 10 Backup rings |
| 1 1/4          | HG0506100                      | 15 O-rings + 15 Backup rings | HG05061V0                      | 5 O-rings + 5 Backup rings   | -                               | -                            |
| 1 1/2          | HG0507100                      | 15 O-rings + 15 Backup rings | -                              | -                            | -                               | -                            |
| 2              | HG0509100                      | 15 O-rings + 15 Backup rings | -                              | -                            | -                               | -                            |

\*The valve seal is not included in our repair kits.

# H5000 Series (Stainless Steel)

Fluid transfer & Hydraulic application



Danfoss Gromelle H5000 Series stainless steel quick disconnect coupling is a pull to connect double shutoff coupling. It is a general purpose industrial coupling with the original profile. It is mainly used in fluid transfer applications and provides excellent corrosion resistance.

## Product Features

- Proprietary profile
- Pull-to-connect with doubleshut-off valving
- Ball-locking
- Optional safety sleeve lock prevents accidental disconnections
- Optional dust caps and plugs (made of anodized aluminum)
- Pressure performance
- Standard body material: AISI 316L Stainless steel
- Standard seal material: FKM, EPDM

## Physical characteristics

| Body Size<br>(in) | Nominal Flow Diameter<br>(mm) | Max. Operating Pressure*                       |  | Rated Flow** |       | Fluid Loss<br>ml-cc. |
|-------------------|-------------------------------|--|--|--------------|-------|----------------------|
|                   |                               | Non hazardous liquids & gases Group 2<br>(bar) | Hazardous liquids & gases Group 1<br>(psi) | (lpm)        | (gpm) |                      |
| 1/8               | 3.8                           | 300  | 4,350                                      | 6.1          | 1.61  | 0.4                  |
| 1/4               | 5.7                           | 230  | 3,335                                      | 11.6         | 3.06  | 1                    |
| 3/8               | 7.6                           | 175  | 2,535                                      | 16.7         | 4.41  | 2                    |
| 1/2               | 10.3                          | 150  | 2,175                                      | 25.5         | 6.74  | 2.5                  |
| 3/4               | 14.2                          | 125  | 1,810                                      | 55           | 14.53 | 5.5                  |
| 1                 | 16.5                          | 100  | 1,450                                      | 87           | 22.98 | 9                    |
| 1 1/4             | 20.5                          | 100  | 1,450                                      | 140          | 36.98 | 23                   |
| 1 1/2             | 25.8                          | 75   | 1,085                                      | 208          | 54.95 | 36                   |
| 2                 | 34.7                          | 40   | 580  | 357          | 94.30 | 70                   |

\* For pulsating pressures when disconnected apply a multiplier of 0.5.

\*\* Indicated values refer to a 1 bar/14.5 psi pressure drop.

## European Pressure Equipment Directive

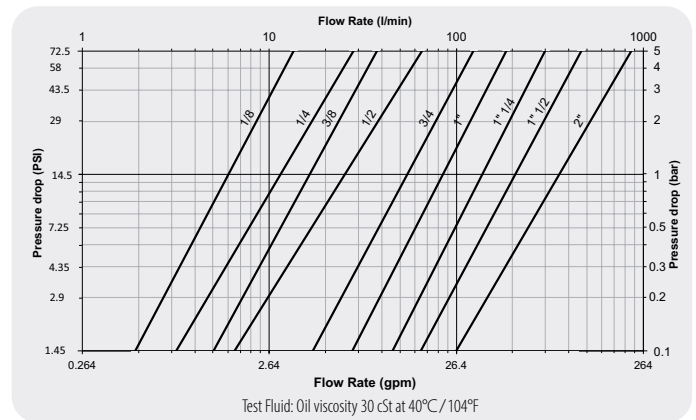
Couplings with nominal diameters up to and including 25 mm are designed and manufactured under Article 4.3 of the European Pressure Equipment Directive PED 2014/68/EU. Couplings with nominal diameters greater than 25 mm are designed and manufactured in accordance with the stipulations of Module A of the European Pressure Equipment Directive PED 2014/68/EU. They should not be used to convey unstable gases.

Group 1 = Hazardous media / Group 2 = Other media

## Applications & Markets

- Automobile
- Agriculture
- Construction
- Oil and Gas
- Railway
- Aeronautics
- Food Processing
- Iron and Steel Industry
- Electronics
- Laboratories
- General Hydraulic Applications

## Flow Data



| Seal Elastomer Data*        |                                  |
|-----------------------------|----------------------------------|
| Seal Elastomer              | Max. Operation Temperature Range |
| FKM                         | -20°C +200°C/- 4°F +392°F        |
| EPDM (Ethylene-Propylene)** | -40°C +150°C/- 40°F +302°F       |

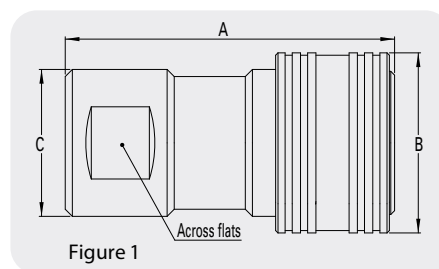
\* For reference only, based on Danfoss recommended temperatures.

\*\* In accordance with NF L 17-241 or NAS 1613 rev. 5.

Contact Danfoss technical support for further information on fluid compatibility.

# H5000 Series (Stainless Steel)

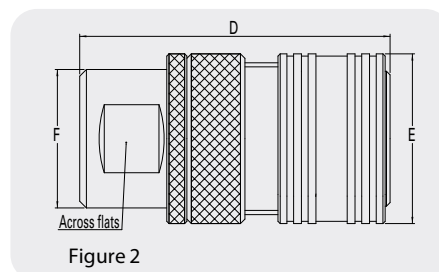
Global region



## Sockets (Female)

| Part/Order Number |           | Body Size | Nominal Flow Diameter | Thread Size* (Female) |          | Fig. | Dimensions |      |      |              |      |      | Weight |      |       |       |
|-------------------|-----------|-----------|-----------------------|-----------------------|----------|------|------------|------|------|--------------|------|------|--------|------|-------|-------|
| FKM               | EPDM      |           |                       | NPT                   | BSPP     |      | A          | B    | C    | Across flats |      | lbs  | grams  |      |       |       |
|                   |           | (in)      | (mm)                  |                       |          | (mm) | (in)       | (mm) | (in) | (mm)         | (in) | (mm) | (in)   |      |       |       |
| HZ05001V0         | HZ05001E0 | 1/8       | 3.8                   | -                     | 1/8-28   | 1    | 42         | 1.65 | 24   | 0.94         | 21   | 0.83 | 16     | 0.63 | 0.19  | 88    |
| HZ05201V0         | HZ05201E0 | 1/8       | 3.8                   | -                     | 1/8-27   | 1    | 42         | 1.65 | 24   | 0.94         | 21   | 0.83 | 16     | 0.63 | 0.19  | 88    |
| HZ05011V0         | HZ05011E0 | 1/4       | 5.7                   | -                     | 1/4-19   | 1    | 50         | 1.97 | 28   | 1.10         | 24   | 0.94 | 19     | 0.75 | 0.27  | 122   |
| HZ05211V0         | HZ05211E0 | 1/4       | 5.7                   | -                     | 1/4-18   | 1    | 50         | 1.97 | 28   | 1.10         | 24   | 0.94 | 19     | 0.75 | 0.27  | 122   |
| HZ05021V0         | HZ05021E0 | 3/8       | 7.6                   | -                     | 3/8-19   | 1    | 59         | 2.32 | 34   | 1.34         | 28   | 1.10 | 23     | 0.90 | 0.43  | 197   |
| HZ05221V0         | HZ05221E0 | 3/8       | 7.6                   | -                     | 3/8-18   | 1    | 59         | 2.32 | 34   | 1.34         | 28   | 1.10 | 23     | 0.90 | 0.43  | 197   |
| HZ05031V0         | HZ05031E0 | 1/2       | 10.3                  | -                     | 1/2-14   | 1    | 69         | 2.71 | 38   | 1.50         | 31   | 1.22 | 27     | 1.06 | 0.50  | 226   |
| HZ05231V0         | HZ05231E0 | 1/2       | 10.3                  | -                     | 1/2-14   | 1    | 69         | 2.71 | 38   | 1.50         | 31   | 1.22 | 27     | 1.06 | 0.50  | 226   |
| HZ05041V0         | HZ05041E0 | 3/4       | 14.2                  | -                     | 3/4-14   | 1    | 89         | 3.50 | 48   | 1.89         | 40   | 1.57 | 35     | 1.38 | 1.27  | 577   |
| HZ05241V0         | HZ05241E0 | 3/4       | 14.2                  | -                     | 3/4-14   | 1    | 89         | 3.50 | 48   | 1.89         | 40   | 1.57 | 35     | 1.38 | 1.27  | 577   |
| HZ05051V0         | HZ05051E0 | 1         | 16.5                  | -                     | 1-11     | 1    | 99         | 3.89 | 52   | 2.05         | 45   | 1.77 | 41     | 1.61 | 1.59  | 720   |
| HZ05251V0         | HZ05251E0 | 1         | 16.5                  | -                     | 1-11 1/2 | 1    | 99         | 3.89 | 52   | 2.05         | 45   | 1.77 | 41     | 1.61 | 1.59  | 720   |
| HZ05061V0         | HZ05061E0 | 1 1/4     | 20.5                  | -                     | 1 1/4-11 | 1    | 132        | 5.20 | 75   | 2.95         | 62   | 2.44 | 55     | 2.16 | 4.77  | 2,165 |
| HZ05071V0         | HZ05071E0 | 1 1/2     | 25.8                  | -                     | 1 1/2-11 | 1    | 150        | 5.90 | 85   | 3.35         | 75   | 2.95 | 65     | 2.56 | 7.72  | 3,500 |
| HZ05091V0         | HZ05091E0 | 2         | 34.7                  | -                     | 2-11     | 1    | 170        | 6.69 | 97   | 3.82         | 85   | 3.35 | 75     | 2.95 | 10.67 | 4,840 |

\* Alternative end connections available upon request.  
To obtain connected length of coupling add dimensions A (Fig. 1) and J (Fig. 3) together.



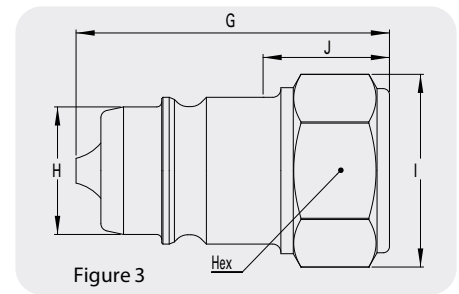
## Sockets with Sleeve Lock (Female)

| Part/Order Number |           | Body Size | Nominal Flow Diameter | Thread Size* (Female) |          | Fig. | Dimensions |      |              |      |      |       | Weight |      |       |       |
|-------------------|-----------|-----------|-----------------------|-----------------------|----------|------|------------|------|--------------|------|------|-------|--------|------|-------|-------|
| FKM               | EPDM      |           |                       | BSPP                  | D        |      | E          | F    | Across flats |      | lbs  | grams |        |      |       |       |
|                   |           | (in)      | (mm)                  |                       |          | (mm) | (in)       | (mm) | (in)         | (mm) | (in) | (mm)  | (in)   |      |       |       |
| HZ05003V0         | HZ05003E0 | 1/8       | 3.8                   | -                     | 1/8-28   | 2    | 42         | 1.65 | 24           | 0.94 | 21   | 0.83  | 16     | 0.63 | 0.19  | 91    |
| HZ05013V0         | HZ05013E0 | 1/4       | 5.7                   | -                     | 1/4-19   | 2    | 50         | 1.97 | 28           | 1.10 | 24   | 0.94  | 19     | 0.75 | 0.27  | 134   |
| HZ05023V0         | HZ05023E0 | 3/8       | 7.6                   | -                     | 3/8-19   | 2    | 59         | 2.32 | 34           | 1.34 | 28   | 1.10  | 23     | 0.90 | 0.43  | 225   |
| HZ05033V0         | HZ05033E0 | 1/2       | 10.3                  | -                     | 1/2-14   | 2    | 69         | 2.71 | 38           | 1.50 | 31   | 1.22  | 27     | 1.06 | 0.50  | 310   |
| HZ05043V0         | HZ05043E0 | 3/4       | 14.2                  | -                     | 3/4-14   | 2    | 89         | 3.50 | 48           | 1.89 | 40   | 1.57  | 35     | 1.38 | 1.27  | 665   |
| HZ05053V0         | HZ05053E0 | 1         | 16.5                  | -                     | 1-11     | 2    | 99         | 3.89 | 52           | 2.05 | 45   | 1.77  | 41     | 1.61 | 1.59  | 813   |
| HZ05063V0         | HZ05063E0 | 1 1/4     | 20.5                  | -                     | 1 1/4-11 | 2    | 132        | 5.20 | 75           | 2.95 | 62   | 2.44  | 55     | 2.16 | 4.77  | 2,230 |
| HZ05073V0         | HZ05073E0 | 1 1/2     | 25.8                  | -                     | 1 1/2-11 | 2    | 150        | 5.90 | 85           | 3.35 | 75   | 2.95  | 65     | 2.56 | 7.72  | 3,585 |
| HZ05093V0         | HZ05093E0 | 2         | 34.7                  | -                     | 2-11     | 2    | 170        | 6.69 | 97           | 3.82 | 85   | 3.35  | 75     | 2.95 | 10.67 | 5,658 |

\* Alternative end connections available upon request.  
To obtain connected length of coupling add dimensions D (Fig. 2) and J (Fig. 3) together.

# H5000 Series (Stainless Steel)

Global region



## Plugs (Male)

| Part/Order Number |           | Body Size | Nominal Flow Diameter | Thread Size* (Female) |          | Dimensions |      |      |      |      |      |      |      |       |      | Weight |       |       |
|-------------------|-----------|-----------|-----------------------|-----------------------|----------|------------|------|------|------|------|------|------|------|-------|------|--------|-------|-------|
| FKM               | EPDM      |           |                       | NPT                   | BSPP     | Fig.       | G    | H    |      | I    |      | J    |      | Hex ① |      | lbs    | grams |       |
|                   |           | (in)      | (mm)                  |                       |          |            | (mm) | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in)  | (mm) | (in)   | (mm)  |       |
| HZ05002V0         | HZ05002E0 | 1/8       | 3.8                   | -                     | 1/8-28   | 3          | 28   | 1.10 | 11.0 | 0.43 | 18.4 | 0.72 | 10   | 0.39  | 16   | 0.63   | 0.05  | 23    |
| HZ05202V0         | HZ05202E0 | 1/8       | 3.8                   | 1/8-27                | -        | 3          | 28   | 1.10 | 11.0 | 0.43 | 18.4 | 0.72 | 10   | 0.39  | 16   | 0.63   | 0.05  | 23    |
| HZ05012V0         | HZ05012E0 | 1/4       | 5.7                   | -                     | 1/4-19   | 3          | 35   | 1.38 | 14.2 | 0.56 | 21.8 | 0.86 | 14   | 0.55  | 19   | 0.75   | 0.08  | 37    |
| HZ05212V0         | HZ05212E0 | 1/4       | 5.7                   | 1/4-18                | -        | 3          | 35   | 1.38 | 14.2 | 0.56 | 21.8 | 0.86 | 14   | 0.55  | 19   | 0.75   | 0.08  | 37    |
| HZ05022V0         | HZ05022E0 | 3/8       | 7.6                   | -                     | 3/8-19   | 3          | 42   | 1.65 | 19.0 | 0.75 | 26.4 | 1.04 | 18   | 0.70  | 23   | 0.90   | 0.15  | 70    |
| HZ05222V0         | HZ05222E0 | 3/8       | 7.6                   | 3/8-18                | -        | 3          | 42   | 1.65 | 19.0 | 0.75 | 26.4 | 1.04 | 18   | 0.70  | 23   | 0.90   | 0.15  | 70    |
| HZ05032V0         | HZ05032E0 | 1/2       | 10.3                  | -                     | 1/2-14   | 3          | 50   | 1.97 | 20.6 | 0.81 | 31.0 | 1.22 | 24   | 0.94  | 27   | 1.06   | 0.20  | 92    |
| HZ05232V0         | HZ05232E0 | 1/2       | 10.3                  | 1/2-14                | -        | 3          | 50   | 1.97 | 20.6 | 0.81 | 31.0 | 1.22 | 24   | 0.94  | 27   | 1.06   | 0.20  | 92    |
| HZ05042V0         | HZ05042E0 | 3/4       | 14.2                  | -                     | 3/4-14   | 3          | 63   | 2.48 | 27.9 | 1.10 | 40.2 | 1.58 | 28   | 1.10  | 35   | 1.38   | 0.48  | 217   |
| HZ05242V0         | HZ05242E0 | 3/4       | 14.2                  | 3/4-14                | -        | 3          | 63   | 2.48 | 27.9 | 1.10 | 40.2 | 1.58 | 28   | 1.10  | 35   | 1.38   | 0.48  | 217   |
| HZ05052V0         | HZ05052E0 | 1         | 16.5                  | -                     | 1-11     | 3          | 71   | 2.79 | 32.4 | 1.27 | 47.5 | 1.87 | 31   | 1.22  | 41   | 1.61   | 0.63  | 287   |
| HZ05252V0         | HZ05252E0 | 1         | 16.5                  | 1-11 1/2              | -        | 3          | 71   | 2.79 | 32.4 | 1.27 | 47.5 | 1.87 | 31   | 1.22  | 41   | 1.61   | 0.63  | 287   |
| HZ05062V0         | HZ05062E0 | 1 1/4     | 20.5                  | -                     | 1 1/4-11 | 3          | 97   | 3.82 | 46.9 | 1.85 | 63.2 | 2.49 | 48   | 1.89  | 55   | 2.16   | 1.98  | 900   |
| HZ05072V0         | HZ05072E0 | 1 1/2     | 25.8                  | -                     | 1 1/2-11 | 3          | 109  | 4.29 | 56.0 | 2.20 | 74.7 | 2.94 | 52   | 2.04  | 65   | 2.56   | 3.30  | 1,500 |
| HZ05092V0         | HZ05092E0 | 2         | 34.7                  | -                     | 2-11     | 3          | 121  | 4.76 | 65.0 | 2.56 | 84.0 | 3.30 | 50   | 1.97  | 75   | 2.95   | 4.06  | 1,840 |

\* Alternative end connections available upon request.  
 To obtain connected length of coupling add dimensions A (Fig. 1) and J (Fig. 3) together for standard version; add Dimensions D (Fig. 2) and J (Fig. 3) together for sleeve lock version.

## Dust Plugs and Dust Caps

| Body Size (in) | Socket Dust Plug Part/Order Number |           | Plug Dust Cap Part/Order Number |  |
|----------------|------------------------------------|-----------|---------------------------------|--|
|                | Anodized Aluminum                  |           | Anodized Aluminum               |  |
| 1/8            | HD0510100                          | HD0510200 |                                 |  |
| 1/4            | HD0511100                          | HD0511200 |                                 |  |
| 3/8            | HD0512100                          | HD0512200 |                                 |  |
| 1/2            | HD0513100                          | HD0513200 |                                 |  |
| 3/4            | HD0514100                          | HD0514200 |                                 |  |
| 1              | HD0515100                          | HD0515200 |                                 |  |
| 1 1/4          | HD0516100                          | HD0516200 |                                 |  |
| 1 1/2          | HD0517100                          | HD0517200 |                                 |  |
| 2              | HD0519100                          | HD0519200 |                                 |  |



## Seal Kit for Servicing Sockets (Female)

| Body size (in) | Seal & Back-up Ring Kit*       |                              |                                |                              |                                 |                              |
|----------------|--------------------------------|------------------------------|--------------------------------|------------------------------|---------------------------------|------------------------------|
|                | NBR seals & PTFE back-up rings |                              | FKM seals & PTFE back-up rings |                              | EPDM seals & PTFE back-up rings |                              |
|                |                                | Qty                          |                                | Qty                          |                                 | Qty                          |
| 1/8            | HG0500100                      | 50 O-rings + 50 Backup rings | HG05001V0                      | 15 O-rings + 15 Backup rings | HG05001E0                       | 15 O-rings + 15 Backup rings |
| 1/4            | HG0501100                      | 50 O-rings + 50 Backup rings | HG05011V0                      | 15 O-rings + 15 Backup rings | HG05011E0                       | 15 O-rings + 15 Backup rings |
| 3/8            | HG0502100                      | 50 O-rings + 50 Backup rings | HG05021V0                      | 15 O-rings + 15 Backup rings | HG05021E0                       | 15 O-rings + 15 Backup rings |
| 1/2            | HG0503100                      | 50 O-rings + 50 Backup rings | HG05031V0                      | 15 O-rings + 15 Backup rings | HG05031E0                       | 15 O-rings + 15 Backup rings |
| 3/4            | HG0504100                      | 50 O-rings + 50 Backup rings | HG05041V0                      | 15 O-rings + 15 Backup rings | HG05041E0                       | 15 O-rings + 15 Backup rings |
| 1              | HG0505100                      | 50 O-rings + 50 Backup rings | HG05051V0                      | 10 O-rings + 10 Backup rings | HG05051E0                       | 10 O-rings + 10 Backup rings |
| 1 1/4          | HG0506100                      | 15 O-rings + 15 Backup rings | HG05061V0                      | 5 O-rings + 5 Backup rings   | -                               | -                            |
| 1 1/2          | HG0507100                      | 15 O-rings + 15 Backup rings | -                              | -                            | -                               | -                            |
| 2              | HG0509100                      | 15 O-rings + 15 Backup rings | -                              | -                            | -                               | -                            |

\*The valve seal is not included in our repair kits.

# FD72/FD76 Series Connect Under Pressure—Farm

## ISO 5675 Interchange

Fluid transfer & Hydraulic application



Danfoss Hansen FD72 Series coupling incorporates special valving allowing connection to a FD76 Series male half under pressure. The maximum operating pressure is 3,000 psi. Contains an over travel, selfsealing poppet valve construction for connecting to a pressurized male tip. Applications require that the tractor control valve be actuated to open the flow path and to equalize the pressure.

### Product Features

- Push-to-connect for one-hand operation when sleeve is mounted
- Interchanges with ISO 5675 plug/male tips
- Retaining ring groove on socket/female half for bulkhead and breakaway frame mounting
- Standard seal material: Buna-N
- Standard body material: High resistance carbon steel with zinc trivalent plating

### Physical characteristics

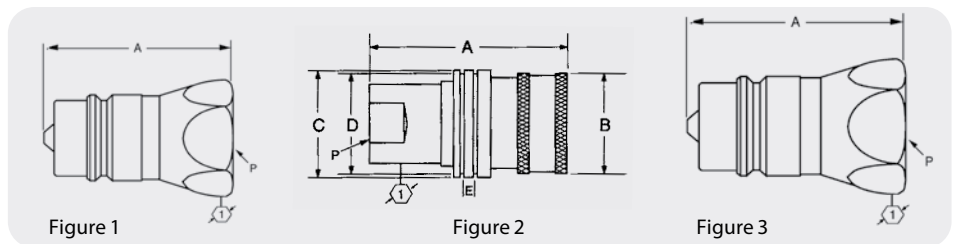
| Body Size<br>(in) | Max. Operating Pressure |       | Min. Burst Pressure Connected |        | Vacuum Connected Only |       | Rated Flow |          | Air Inclusion | Fluid Loss |
|-------------------|-------------------------|-------|-------------------------------|--------|-----------------------|-------|------------|----------|---------------|------------|
|                   | (bar)                   | (psi) | (bar)                         | (psi)  | (bar)                 | (lpm) | (gpm)      | cc. max. | cc. max.      |            |
| 5/8               | 207                     | 3,000 | 827                           | 12,000 | 28                    | 61    | 16         | 2.8      | 2.8           |            |

### Dimensions (Female, SAE O-Ring Non-Valved)

| Part/Order Number<br>Buna-N | Coupling Type | Body Size | Port Size | Thread | Type              | Fig. | Dimensions |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|---------------|-----------|-----------|--------|-------------------|------|------------|------|------|------|------|------|------|------|------|------|------|------|
|                             |               |           |           |        |                   |      | A          | B    | C    | D    | E    | Hex  |      |      |      |      |      |      |
|                             |               |           |           |        |                   |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) |      |      |
| FD76-1002-08-10             | Plug/Male     | 5/8       | 1/2       | 1/2-14 | Female Pipe       | 1    | 52.1       | 2.05 | —    | —    | —    | —    | —    | —    | —    | 26.9 | 1.06 |      |
| FD72-1001-08-10             | Socket/Female | 5/8       | 1/2       | 1/2-14 | Female Pipe       | 2    | 80.5       | 3.17 | 38.6 | 1.52 | 38.1 | 1.50 | 35.8 | 1.41 | 5.1  | 0.20 | 25.4 | 1.00 |
| FD76-1010-08-10             | Plug/Male     | 5/8       | 1/2       | 3/4-16 | Female SAE O-Ring | 3    | 52.1       | 2.05 | —    | —    | —    | —    | —    | —    | —    | —    | 27.0 | 1.06 |

### Applications & Markets

- Hydraulic fluid transfer
- Agricultural equipment



### Dust Caps

| Part/Order Number | Body Size (in) |
|-------------------|----------------|
| 5657-10           | 5/8            |



### Dust Plugs

| Part/Order Number | Body Size (in) |
|-------------------|----------------|
| 5659-10           | 5/8            |

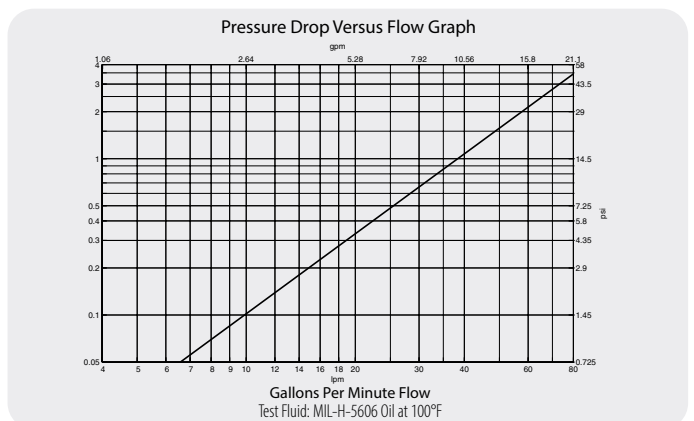


### Break Away Frame

| Part/Order Number | Body Size (in) |
|-------------------|----------------|
| 5603              | 5/8            |



### Flow Data



# HK Series (Steel) ISO 7241-1 B Interchange

Fluid transfer & Hydraulic application



Danfoss Hansen HK Series coupling sets the industry standard for ISO B Couplings. The HK Series features a rugged ball latch mechanism with automatic self-sealing poppet valves in a wide array of port configurations and multiple valved and non-valved configurations.

## Product Features

- Meets dimensional requirements to ISO standard 7241-1 Series B
- The coupling that sets the industry standard
- Self-sealing poppet valve design provides excellent high and low pressure sealing
- Standard seal material: Nitrile (NBR)
- Seal options available in PTFE, Neoprene, FKM, EPDM, and Kalrez®
- Standard body material: Zinc trivalent plated steel with stainless steel springs, balls and retaining rings.
- PTFE back up rings in sockets (females)

## Physical characteristics

| Series | Body Size<br>(in) | ISO Size<br>(mm) | Nominal Flow Diameter<br>(mm) | Max. Operating Pressure                        |       | Hazardous liquids & gases Group 1 |       | Rated Flow* |       | Air Inclusion<br>cc. max. | Fluid Loss<br>cc. max. |
|--------|-------------------|------------------|-------------------------------|--|-------|-----------------------------------|-------|-------------|-------|---------------------------|------------------------|
|        |                   |                  |                               | Non hazardous liquids & gases Group 2<br>(bar) | (psi) | (bar)                             | (psi) | (lpm)       | (gpm) |                           |                        |
| 1HK    | 1/8               | 5.0              | 4.4                           | 275  | 4,000 | 275                               | 4,000 | 3           | 0.8   | 0.6                       | 0.5                    |
| 2HK    | 1/4               | 6.3              | 5.9                           | 345  | 5,000 | 345                               | 5,000 | 12          | 3     | 1.2                       | 0.9                    |
| 3HK    | 3/8               | 10.0             | 7.8                           | 275  | 4,000 | 275                               | 4,000 | 23          | 6     | 2.9                       | 2.1                    |
| 4HK    | 1/2               | 12.5             | 10.0                          | 345  | 5,000 | 345                               | 5,000 | 45          | 12    | 3.6                       | 3.5                    |
| 6HK    | 3/4               | 20.0             | 17.0                          | 275  | 4,000 | 275                               | 4,000 | 100         | 26    | 11.5                      | 9.3                    |
| 8HK    | 1                 | 25.0             | 19.6                          | 275  | 4,000 | 275                               | 4,000 | 189         | 50    | 18.0                      | 16.9                   |
| 10HK   | 1 1/4**           | —                | 26.7                          | 200  | 2,900 | 37                                | 537   | 288         | 76    | 48.0                      | 48.0                   |
| 12HK   | 1 1/2             | 40.0             | 35.1                          | 150  | 2,175 | 29                                | 421   | 375         | 99    | 91.3                      | 91.3                   |
| 20HK   | 2                 | 50.0             | 46.0                          | 100  | 1,450 | 21                                | 305   | 757         | 200   | 209.9                     | 209.9                  |

\* For questions related to vacuum please contact Danfoss.

\*\* No ISO Standard available for the 10HK.

## European Pressure Equipment Directive

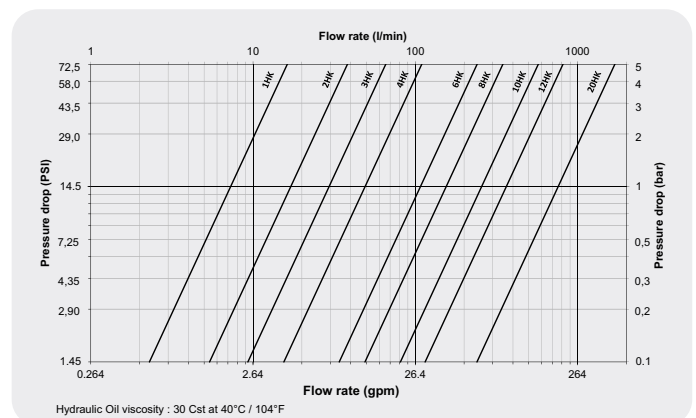
Couplings with nominal diameters up to and including 25 mm are designed and manufactured under Article 4.3 of the European Pressure Equipment Directive 2014/68/EU. Couplings with nominal diameters greater than 25 mm are designed and manufactured in accordance with stipulations of Module A of the European Pressure Equipment Directive 2014/68/EU. They should not be used to convey unstable gases.

Group 1 = Hazardous media / Group 2 = Other media

## Applications & Markets

- Agriculture
- Hydraulic Tool
- General Industry
- Construction
- Fluid Transfer
- Transportation
- Military
- Law Enforcement/Rescue
- Chemical
- Oil and Gas
- Consumer Products
- HVAC
- Food and Beverage
- Trucks
- Aerospace
- Medical

## Flow Data



### Seal Elastomer Data\*

| Seal Elastomer** | Max. Operation Temperature Range   |
|------------------|------------------------------------|
| Nitrile (NBR)    | -40°C to +121°C / 40°F to +250°F   |
| Neoprene         | -54°C to +100°C / - 65°F to +212°F |
| EPDM             | -54°C to +149°C / - 65°F to +300°F |
| FKM              | -29°C to +204°C / - 15°F to +400°F |

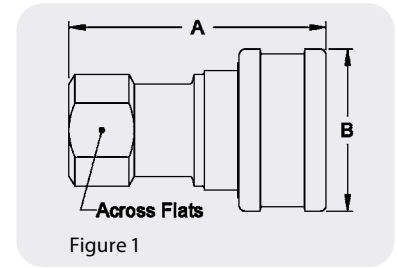
\* For reference only, based on Danfoss recommended temperatures.

\*\* For seals not listed contact Danfoss.

Contact Danfoss technical support for further information on fluid compatibility.

# HK Series (Steel) ISO 7241-1 B Interchange

Global region

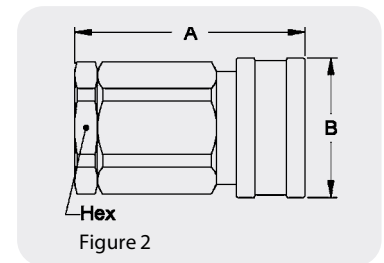


## Sockets (Female)

| Part/Order Number | Body Size | ISO Size | Thread Size (Female) |        |           | Dimensions |       |      |      |      |              |      |
|-------------------|-----------|----------|----------------------|--------|-----------|------------|-------|------|------|------|--------------|------|
|                   |           |          | NPTF                 | BSPP   | SAE       | Fig.       | A     |      | B    |      | Across flats |      |
| HK1-8 Series      | (in)      | (mm)     |                      |        |           |            | (mm)  | (in) | (mm) | (in) | (mm)         | (in) |
| 1H11              | 1/8       | 5.0      | 1/8-27               | -      | -         | 1          | 48.5  | 1.91 | 24.9 | 0.98 | 14.2         | 0.56 |
| 1H4               | 1/8       | 5.0      | -                    | -      | 1/16-20   | 1          | 52.3  | 2.06 | 24.9 | 0.98 | 17.5         | 0.69 |
| 2H16              | 1/4       | 6.3      | 1/4-18               | -      | -         | 1          | 57.4  | 2.26 | 29.0 | 1.14 | 19.1         | 0.75 |
| 2H16BS            | 1/4       | 6.3      | -                    | 1/4-19 | -         | 1          | 58.7  | 2.31 | 29.0 | 1.14 | 19.1         | 0.75 |
| 2H6               | 1/4       | 6.3      | -                    | -      | 9/16-18   | 1          | 61.0  | 2.40 | 29.0 | 1.14 | 22.4         | 0.88 |
| 3H21              | 3/8       | 10.0     | 3/8-18               | -      | -         | 1          | 65.0  | 2.56 | 36.1 | 1.42 | 22.4         | 0.88 |
| 3H21BS            | 3/8       | 10.0     | -                    | 3/8-19 | -         | 1          | 65.0  | 2.56 | 36.1 | 1.42 | 22.4         | 0.88 |
| 3H8               | 3/8       | 10.0     | -                    | -      | 3/4-16    | 1          | 69.6  | 2.74 | 36.1 | 1.42 | 25.4         | 1.00 |
| 4HP26             | 1/2       | 12.5     | 1/2-14               | -      | -         | 1          | 75.2  | 2.96 | 47.2 | 1.86 | 28.7         | 1.13 |
| 4HP26BS           | 1/2       | 12.5     | -                    | 1/2-14 | -         | 1          | 75.2  | 2.96 | 47.2 | 1.86 | 28.7         | 1.13 |
| 4HP10             | 1/2       | 12.5     | -                    | -      | 7/8-14    | 1          | 77.5  | 3.05 | 47.2 | 1.86 | 31.8         | 1.25 |
| 6HP31             | 3/4       | 20.0     | 3/4-14               | -      | -         | 1          | 88.4  | 3.48 | 56.4 | 2.22 | 33.3         | 1.31 |
| 6HP31BS           | 3/4       | 20.0     | -                    | 3/4-14 | -         | 1          | 88.4  | 3.48 | 56.4 | 2.22 | 33.3         | 1.31 |
| 6HP12             | 3/4       | 20.0     | -                    | -      | 1 1/16-12 | 1          | 93.2  | 3.67 | 56.4 | 2.22 | 35.1         | 1.38 |
| 8HP36             | 1         | 25.0     | 1-11 1/2             | -      | -         | 1          | 104.9 | 4.13 | 66.3 | 2.61 | 44.5         | 1.75 |
| 8HP36BS           | 1         | 25.0     | -                    | 1-11   | -         | 1          | 104.9 | 4.13 | 66.3 | 2.61 | 44.5         | 1.75 |
| 8HP16             | 1         | 25.0     | -                    | -      | 1 1/16-12 | 1          | 104.9 | 4.13 | 66.3 | 2.61 | 47.8         | 1.88 |

A=Overall Length, B=Maximum Diameter

To obtain connected length of coupling, add dimensions A (Fig. 1) and E (Fig. 3) together.



## Sockets (Female)

| Part/Order Number | Body Size | ISO Size | Thread Size (Female) |          |      | Dimensions |      |       |      |       |      |
|-------------------|-----------|----------|----------------------|----------|------|------------|------|-------|------|-------|------|
|                   |           |          | NPTF                 | BSPP     | Fig. | A          |      | B     |      | Hex   |      |
| HK10/12/20 Series | (in)      | (mm)     |                      |          |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 10H41*            | 1 1/4     | -        | 1 1/4-11 1/2         | -        | 2    | 114.6      | 4.51 | 69.3  | 2.73 | 60.5  | 2.38 |
| 10H41BS*          | 1 1/4     | -        | -                    | 1 1/4-11 | 2    | 114.6      | 4.51 | 69.3  | 2.73 | 60.5  | 2.38 |
| 12H41             | 1 1/2     | 40       | 1 1/2 -11 1/2        | -        | 2    | 122.4      | 4.82 | 82.0  | 3.23 | 60.5  | 2.38 |
| 12H41BS           | 1 1/2     | 40       | -                    | 1 1/4-11 | 2    | 122.4      | 4.82 | 82.0  | 3.23 | 60.5  | 2.38 |
| 12H46             | 1 1/2     | 40       | 1 1/2-11 1/2         | -        | 2    | 122.4      | 4.82 | 82.0  | 3.23 | 60.5  | 2.38 |
| 12H46BS           | 1 1/2     | 40       | -                    | 1 1/2-11 | 2    | 122.4      | 4.82 | 82.0  | 3.23 | 60.5  | 2.38 |
| 20H51             | 2 1/2     | 50       | 2-11 1/2             | -        | 2    | 141.0      | 5.55 | 104.4 | 4.11 | 95.3  | 3.75 |
| 20H51BS           | 2 1/2     | 50       | -                    | 2-11     | 2    | 141.0      | 5.55 | 104.4 | 4.11 | 95.3  | 3.75 |
| 20H56             | 2 1/2     | 50       | 2 1/2-8              | -        | 2    | 156.0      | 6.14 | 104.4 | 4.11 | 95.3  | 3.75 |
| 20H56BS           | 2 1/2     | 50       | -                    | 2 1/2-11 | 2    | 156.0      | 6.14 | 104.4 | 4.11 | 95.3  | 3.75 |
| 20H61             | 2 1/2     | 50       | 3-8                  | -        | 2    | 177.8      | 7.00 | 104.4 | 4.11 | 101.6 | 4.00 |
| 20H61BS           | 2 1/2     | 50       | -                    | 3-11     | 2    | 177.8      | 7.00 | 104.4 | 4.11 | 101.6 | 4.00 |

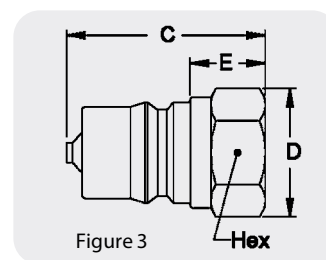
A=Overall Length, B=Maximum Diameter

\* ISO 7241-1 Series B does not include 1-1/4 inch body size couplings; therefore, Series 10HK is not covered by this standard.

To obtain connected length of coupling, add dimensions A (Fig. 2) and E (Fig. 4) together.

# HK Series (Steel) ISO 7241-1 B Interchange

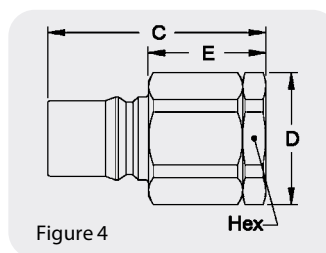
Global region



## Plugs (Male)

| Part/Order Number | Body Size | Thread Size (Female) |          |        |           | Fig. | Dimensions |      |      |      |      |      |      |      |
|-------------------|-----------|----------------------|----------|--------|-----------|------|------------|------|------|------|------|------|------|------|
|                   |           | ISO                  | NPTF     | BSPP   | SAE       |      | C          | D    | E    | Hex  |      |      |      |      |
| HK1-8 Series      | (in)      | (mm)                 |          |        |           |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) |
| 1K11              | 1/8       | 5.0                  | 1/8-27   | -      | -         | 3    | 32.0       | 1.26 | 16.5 | 0.65 | 11.2 | 0.44 | 14.2 | 0.56 |
| 1K4               | 1/8       | 5.0                  | -        | -      | 7/16-20   | 3    | 35.8       | 1.41 | 20.1 | 0.79 | 15.0 | 0.59 | 17.5 | 0.69 |
| 2K16              | 1/4       | 6.3                  | 1/4-18   | -      | -         | 3    | 38.6       | 1.52 | 22.1 | 0.87 | 14.2 | 0.56 | 19.1 | 0.75 |
| 2K16BS            | 1/4       | 6.3                  | -        | 1/4-19 | -         | 3    | 38.6       | 1.52 | 22.1 | 0.87 | 14.2 | 0.56 | 19.1 | 0.75 |
| 2K6               | 3/8       | 6.3                  | -        | -      | 9/16-18   | 3    | 42.2       | 1.66 | 25.7 | 1.01 | 17.8 | 0.70 | 22.4 | 0.88 |
| 3K21              | 3/8       | 10.0                 | 3/8-18   | -      | -         | 3    | 44.7       | 1.76 | 25.7 | 1.01 | 15.5 | 0.61 | 22.4 | 0.88 |
| 3K21BS            | 3/8       | 10.0                 | -        | 3/8-19 | -         | 3    | 44.7       | 1.76 | 25.7 | 1.01 | 15.5 | 0.61 | 22.4 | 0.88 |
| 3K8               | 3/8       | 10.0                 | -        | -      | 3/4-16    | 3    | 49.3       | 1.94 | 29.2 | 1.15 | 20.1 | 0.79 | 25.4 | 1.00 |
| 4KP26             | 1/2       | 12.5                 | 1/2-14   | -      | -         | 3    | 51.6       | 2.03 | 33.0 | 1.30 | 19.3 | 0.76 | 28.7 | 1.13 |
| 4KP26BS           | 1/2       | 12.5                 | -        | 1/2-14 | -         | 3    | 51.6       | 2.03 | 33.0 | 1.30 | 19.3 | 0.76 | 28.7 | 1.13 |
| 4KP10             | 1/2       | 12.5                 | -        | -      | 7/8-14    | 3    | 53.6       | 2.11 | 34.8 | 1.37 | 21.3 | 0.84 | 30.2 | 1.19 |
| 6KP31             | 3/4       | 20.0                 | 3/4-14   | -      | -         | 3    | 59.9       | 2.36 | 38.6 | 1.52 | 18.0 | 0.71 | 33.3 | 1.31 |
| 6KP31BS           | 3/4       | 20.0                 | -        | 3/4-14 | -         | 3    | 59.9       | 2.36 | 38.6 | 1.52 | 18.0 | 0.71 | 33.3 | 1.31 |
| 6KP12             | 3/4       | 20.0                 | -        | -      | 1 1/16-12 | 3    | 64.5       | 2.54 | 40.4 | 1.59 | 22.6 | 0.89 | 35.1 | 1.38 |
| 8KP36             | 1         | 25.0                 | 1-11 1/2 | -      | -         | 3    | 72.4       | 2.85 | 47.8 | 1.88 | 24.6 | 0.97 | 41.4 | 1.63 |
| 8KP36BS           | 1         | 25.0                 | -        | 1-11   | -         | 3    | 72.4       | 2.85 | 47.8 | 1.88 | 24.6 | 0.97 | 41.4 | 1.63 |
| 8KP16             | 1         | 25.0                 | -        | -      | 1 1/8-12  | 3    | 72.4       | 2.85 | 55.1 | 2.17 | 24.6 | 0.97 | 47.8 | 1.88 |

C=Overall Length, D=Maximum Diameter, E=Exposed Length when Connected  
To obtain connected length of coupling, add dimensions A (Fig. 1) and E (Fig. 3) together.



## Plugs (Male)

| Part/Order Number | Body Size | Thread Size (Female) |              |          |   | Fig.  | Dimensions |       |      |       |      |       |      |      |
|-------------------|-----------|----------------------|--------------|----------|---|-------|------------|-------|------|-------|------|-------|------|------|
|                   |           | ISO                  | NPTF         | BSPP     |   |       | C          | D     | E    | Hex   |      |       |      |      |
| HK10/12/20 Series | (in)      | (mm)                 |              |          |   |       | (mm)       | (in)  | (mm) | (in)  | (mm) | (in)  | (mm) | (in) |
| 10K41*            | 1 1/4     | -                    | 1 1/4-11 1/2 | -        | 4 | 108.0 | 4.25       | 69.6  | 2.74 | 59.2  | 2.33 | 60.5  | 2.38 |      |
| 10K41BS*          | 1 1/4     | -                    | -            | 1 1/4-11 | 4 | 108.0 | 4.25       | 69.6  | 2.74 | 59.2  | 2.33 | 60.5  | 2.38 |      |
| 12K41             | 1 1/2     | 40                   | 1 1/4-11 1/2 | -        | 4 | 120.9 | 4.76       | 69.6  | 2.74 | 67.8  | 2.67 | 60.5  | 2.38 |      |
| 12K41BS           | 1 1/2     | 40                   | -            | 1 1/4-11 | 4 | 120.9 | 4.76       | 69.6  | 2.74 | 67.8  | 2.67 | 60.5  | 2.38 |      |
| 12K46             | 1 1/2     | 40                   | 1 1/2-11 1/2 | -        | 4 | 120.9 | 4.76       | 69.6  | 2.74 | 67.8  | 2.67 | 60.5  | 2.38 |      |
| 12K46BS           | 1 1/2     | 40                   | -            | 1 1/2-11 | 4 | 120.9 | 4.76       | 69.6  | 2.74 | 67.8  | 2.67 | 60.5  | 2.38 |      |
| 20K51             | 2 1/2     | 60                   | 2-11 1/2     | -        | 4 | 139.4 | 5.49       | 110.0 | 4.33 | 75.4  | 2.97 | 95.3  | 3.75 |      |
| 20K51BS           | 2 1/2     | 60                   | -            | 2-11     | 4 | 139.4 | 5.49       | 110.0 | 4.33 | 75.4  | 2.97 | 95.3  | 3.75 |      |
| 20K56             | 2 1/2     | 60                   | 2 1/2-8      | -        | 4 | 154.4 | 6.08       | 110.0 | 4.33 | 90.4  | 3.56 | 95.3  | 3.75 |      |
| 20K56BS           | 2 1/2     | 60                   | -            | 2 1/2-11 | 4 | 154.4 | 6.08       | 110.0 | 4.33 | 90.4  | 3.56 | 95.3  | 3.75 |      |
| 20K61             | 2 1/2     | 60                   | 3-8          | -        | 4 | 176.3 | 6.94       | 117.3 | 4.62 | 112.3 | 4.42 | 101.6 | 4.00 |      |
| 20K61BS           | 2 1/2     | 60                   | -            | 3-11     | 4 | 176.3 | 6.94       | 117.3 | 4.62 | 112.3 | 4.42 | 101.6 | 4.00 |      |

C=Overall Length, D=Maximum Diameter, E=Exposed Length when Connected  
\* ISO 7241-1 Series B does not include 1-1/4 inch body size couplings; therefore, Series 10HK is not covered by this standard.  
To obtain connected length of coupling, add dimensions A (Fig. 2) and E (Fig. 4) together.

## Dust Plugs and Dust Caps Accessories

| Coupling Series | Plug Dust Cap Part/Order No. |                 | Socket Dust Plug Part/Order No. |                 |
|-----------------|------------------------------|-----------------|---------------------------------|-----------------|
|                 | Metal                        | Vinyl           | Metal                           | Vinyl           |
| 1HK             | XPCDC1HK*                    | XPPDC1HK        | SDC1HK*                         | XPSDC1HK        |
| 2HK             | XPCDC2HK*                    | XPPDC2HK        | SDC2HK*                         | XPSDC2HK        |
| 3HK             | XPCDC3HK*                    | XPPDC3HK        | SDC3HK*                         | XPSDC3HK        |
| 4HK             | XPCDC4HK**                   | XPPDC4HK(RD)*** | SDC4HK**                        | XPSDC4HK(RD)*** |
| 6HK             | XPCDC6HK**                   | XPPDC6HK(RD)*** | SDC6HK**                        | XPSDC6HK(RD)*** |
| 8HK             | XPCDC8HK**                   | XPPDC8HK(RD)*** | SDC8HK**                        | XPSDC8HK(RD)*** |
| 12HK            | XPCDC12HK**                  |                 | SDC12HK**                       |                 |
| 20HK            | XPCDC20HK**                  |                 | SDC20HK**                       |                 |

\*Brass \*\*Aluminum \*\*\*Offered in red by adding RD to end of part number.



# HK Series (Brass) ISO 7241-1 B Interchange

Fluid transfer & Hydraulic application



Danfoss Hansen HK brass is a general purpose industrial interchange coupling available in valved or non-valved designs, offered in brass for excellent corrosion resistance in rugged applications where stainless steel is unacceptable. The HK Series features a ball latch mechanism with automatic self-sealing poppet valves.

## Product Features

- Meets dimensional requirements to ISO standard 7241-1 Series B
- Brass construction with stainless steel springs for greater corrosion resistance and fluid compatibility
- Self-sealing poppet valves provide excellent high and low pressure sealing
- Standard seal material: Nitrile (NBR)
- Seal options available in PTFE, Neoprene, FKM, EPDM, and Kalrez®

## Physical characteristics

| Series | Body Size (in) | ISO Size (mm) | Nominal Flow Diameter (mm) | Max. Operating Pressure                     |       | Hazardous liquids & gases Group 1 |       | Rated Flow* |       | Air Inclusion cc. max. | Fluid Loss cc. max. |
|--------|----------------|---------------|----------------------------|---|-------|-----------------------------------|-------|-------------|-------|------------------------|---------------------|
|        |                |               |                            | Non hazardous liquids & gases Group 2 (bar) | (psi) | (bar)                             | (psi) | (lpm)       | (gpm) |                        |                     |
| 1HK    | 1/8            | 5.0           | 4.4                        | 207   | 3,000 | 207                               | 3,000 | 3           | 0.8   | 0.6                    | 0.5                 |
| 2HK    | 1/4            | 6.3           | 5.9                        | 186   | 2,700 | 186                               | 2,700 | 12          | 3     | 1.2                    | 0.9                 |
| 3HK    | 3/8            | 10.0          | 7.8                        | 152   | 2,200 | 152                               | 2,200 | 23          | 6     | 2.9                    | 2.1                 |
| 4HK    | 1/2            | 12.5          | 10.0                       | 155   | 2,250 | 155                               | 2,250 | 45          | 12    | 3.6                    | 3.5                 |
| 6HK    | 3/4            | 20.0          | 17.0                       | 138   | 2,000 | 138                               | 2,000 | 100         | 26    | 11.5                   | 9.3                 |
| 8HK    | 1              | 25.0          | 19.6                       | 103   | 1,500 | 103                               | 1,500 | 189         | 50    | 18.0                   | 16.9                |
| 10HK   | 1 1/4**        | —             | 26.7                       | 83  | 1,200 | 37                                | 537   | 288         | 76    | 48.0                   | 48.0                |
| 12HK   | 1 1/2          | 40.0          | 35.1                       | 104   | 1,500 | 29                                | 421   | 375         | 99    | 91.3                   | 91.3                |
| 20HK   | 2              | 50.0          | 46.0                       | 49  | 700   | 21                                | 305   | 757         | 200   | 209.9                  | 209.9               |

\* For questions related to vacuum please contact Danfoss.  
 \*\* No ISO Standard available for the 10HK.

## European Pressure Equipment Directive

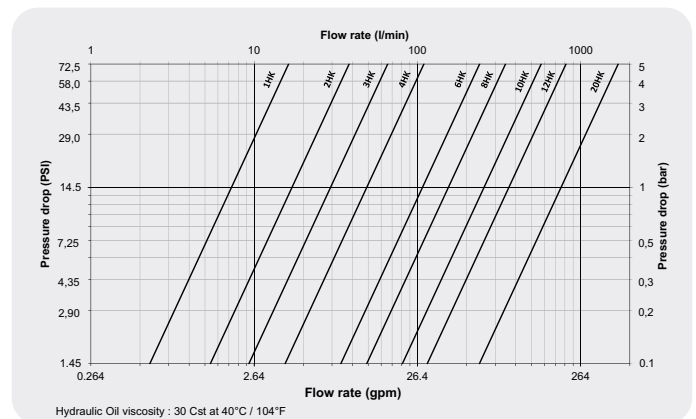
Couplings with nominal diameters up to and including 25 mm are designed and manufactured under Article 4.3 of the European Pressure Equipment Directive 2014/68/EU. Couplings with nominal diameters greater than 25 mm are designed and manufactured in accordance with stipulations of Module A of the European Pressure Equipment Directive 2014/68/EU. They should not be used to convey unstable gases.

Group 1 = Hazardous media / Group 2 = Other media

## Applications & Markets

- Agriculture
- Hydraulic Tool
- General Industry
- Construction
- Fluid Transfer
- Chemical
- Oil and Gas
- Transportation
- Food and Beverage
- Trucks
- Nuclear

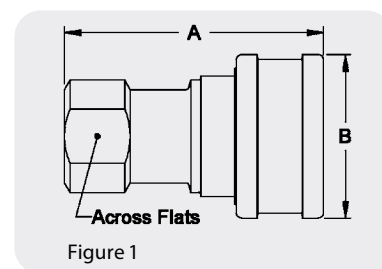
## Flow Data



| Seal Elastomer Data* |                                    |
|----------------------|------------------------------------|
| Seal Elastomer       | Max. Operation Temperature Range   |
| Nitrile (NBR)        | -40°C to +121°C / 40°F to +250°F   |
| Neoprene             | -54°C to +100°C / - 65°F to +212°F |
| EPDM                 | -54°C to +149°C / -65°C to +300°F  |
| FKM                  | -29°C to +204°C / - 15°F to +400°F |

\* For reference only, based on Danfoss recommended temperatures. Contact Danfoss technical support for further information on fluid compatibility.

# HK Series (Brass) ISO 7241-1 B Interchange

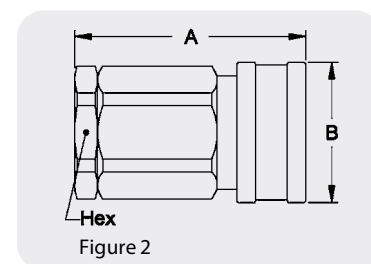


## Sockets (Female)

| Part/Order Number | Body Size | ISO Size | Thread Size (Female) |        | Fig. | Dimensions |      |              |      |      |      |
|-------------------|-----------|----------|----------------------|--------|------|------------|------|--------------|------|------|------|
|                   |           |          | NPTF                 | BSPP   |      | A          | B    | Across flats |      |      |      |
| HK1-8 Series      | (in)      | (mm)     |                      |        |      | (mm)       | (in) | (mm)         | (in) | (mm) | (in) |
| B1H11             | 1/8       | 5.0      | 1/8-27               | -      | 1    | 48.5       | 1.91 | 24.9         | 0.98 | 14.2 | 0.56 |
| B2H16             | 1/4       | 6.3      | 1/4-18               | -      | 1    | 57.4       | 2.26 | 29.0         | 1.14 | 19.1 | 0.75 |
| B2H16BS           | 1/4       | 6.3      | -                    | 1/4-19 | 1    | 58.7       | 2.31 | 29.0         | 1.14 | 19.1 | 0.75 |
| B3H21             | 3/8       | 10.0     | 3/8-18               | -      | 1    | 65.0       | 2.56 | 36.1         | 1.42 | 22.4 | 0.88 |
| B3H21BS           | 3/8       | 10.0     | -                    | 3/8-19 | 1    | 65.0       | 2.56 | 36.1         | 1.42 | 22.4 | 0.88 |
| B4HP26            | 1/2       | 12.5     | 1/2-14               | -      | 1    | 75.2       | 2.96 | 47.2         | 1.86 | 28.7 | 1.13 |
| B4HP26BS          | 1/2       | 12.5     | -                    | 1/2-14 | 1    | 75.2       | 2.96 | 47.2         | 1.86 | 28.7 | 1.13 |
| B6HP31            | 3/4       | 20.0     | 3/4-14               | -      | 1    | 88.4       | 3.48 | 56.4         | 2.22 | 33.3 | 1.31 |
| B6HP31BS          | 3/4       | 20.0     | -                    | 3/4-14 | 1    | 88.4       | 3.48 | 56.4         | 2.22 | 33.3 | 1.31 |
| B8HP36            | 1         | 25.0     | 1-11 1/2             | -      | 1    | 104.9      | 4.13 | 66.3         | 2.61 | 44.5 | 1.75 |
| B8HP36BS          | 1         | 25.0     | -                    | 1-11   | 1    | 104.9      | 4.13 | 66.3         | 2.61 | 44.5 | 1.75 |

A=Overall Length, B=Maximum Diameter

To obtain connected length of coupling, add dimensions A (Fig. 1) and E (Fig. 3) together.



## Sockets (Female)

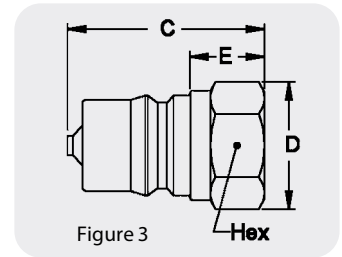
| Part/Order Number | Body Size | ISO Size | Thread Size (Female) |          | Fig. | Dimensions |      |       |      |       |      |
|-------------------|-----------|----------|----------------------|----------|------|------------|------|-------|------|-------|------|
|                   |           |          | NPTF                 | BSPP     |      | A          | B    | Hex   |      |       |      |
| HK10/12/20 Series | (in)      | (mm)     |                      |          |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| B10H41*           | 1 1/4     | -        | 1 1/4-11 1/2         | -        | 2    | 114.6      | 4.51 | 69.3  | 2.73 | 60.5  | 2.38 |
| B12H41            | 1 1/2     | 40       | 1 1/4-11 1/2         | -        | 2    | 122.4      | 4.82 | 82.0  | 3.23 | 60.5  | 2.38 |
| B12H41BS          | 1 1/2     | 40       | -                    | 1 1/4-11 | 2    | 122.4      | 4.82 | 82.0  | 3.23 | 60.5  | 2.38 |
| B12H46            | 1 1/2     | 40       | 1 1/2-11             | -        | 2    | 122.4      | 4.82 | 82.0  | 3.23 | 60.5  | 2.38 |
| B12H46BS          | 1 1/2     | 40       | -                    | 1 1/2-11 | 2    | 122.4      | 4.82 | 82.0  | 3.23 | 60.5  | 2.38 |
| B20H51            | 2 1/2     | 50       | 2-11 1/2             | -        | 2    | 141.0      | 5.55 | 104.4 | 4.11 | 95.3  | 3.75 |
| B20H51BS          | 2 1/2     | 50       | -                    | 2-11     | 2    | 141.0      | 5.55 | 104.4 | 4.11 | 95.3  | 3.75 |
| B20H56            | 2 1/2     | 50       | 2 1/2-8              | -        | 2    | 156.0      | 6.14 | 104.4 | 4.11 | 95.3  | 3.75 |
| B20H56BS          | 2 1/2     | 50       | -                    | 2 1/2-11 | 2    | 156.0      | 6.14 | 104.4 | 4.11 | 95.3  | 3.75 |
| B20H61            | 2 1/2     | 50       | 3-8                  | -        | 2    | 177.8      | 7.00 | 104.4 | 4.11 | 101.6 | 4.00 |
| B20H61BS          | 2 1/2     | 50       | -                    | 3-11     | 2    | 177.8      | 7.00 | 104.4 | 4.11 | 101.6 | 4.00 |

A=Overall Length, B=Maximum Diameter

\* ISO 7241-1 Series B does not include 1-1/4 inch body size couplings; therefore, Series 10HK is not covered by this standard.

To obtain connected length of coupling, add dimensions A (Fig. 2) and E (Fig. 4) together.

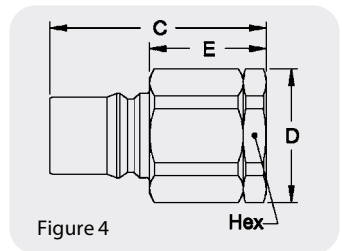
# HK Series (Brass) ISO 7241-1 B Interchange



## Plugs (Male)

| Part/Order Number | Body Size | Thread Size (Female) |          |        | Fig. | Dimensions |      |      |      |      |      |      |      |
|-------------------|-----------|----------------------|----------|--------|------|------------|------|------|------|------|------|------|------|
|                   |           | ISO                  | NPTF     | BSPP   |      | C          | D    | E    | Hex  |      |      |      |      |
| HK1-8 Series      | (in)      | (mm)                 |          |        |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) |
| B1K11             | 1/8       | 5.0                  | 1/8-27   | -      | 3    | 32.0       | 1.26 | 16.5 | 0.65 | 11.2 | 0.44 | 14.2 | 0.56 |
| B2K16             | 1/4       | 6.3                  | 1/4-18   | -      | 3    | 38.6       | 1.52 | 22.1 | 0.87 | 14.2 | 0.56 | 19.1 | 0.75 |
| B2K16BS           | 1/4       | 6.3                  | -        | 1/4-19 | 3    | 38.6       | 1.52 | 22.1 | 0.87 | 14.2 | 0.56 | 19.1 | 0.75 |
| B3K21             | 3/8       | 10.0                 | 3/8-18   | -      | 3    | 44.7       | 1.76 | 25.7 | 1.01 | 15.5 | 0.61 | 22.4 | 0.88 |
| B3K21BS           | 3/8       | 10.0                 | -        | 3/8-19 | 3    | 44.7       | 1.76 | 25.7 | 1.01 | 15.5 | 0.61 | 22.4 | 0.88 |
| B4KP26            | 1/2       | 12.5                 | 1/2-14   | -      | 3    | 51.6       | 2.03 | 33.0 | 1.30 | 19.3 | 0.76 | 28.7 | 1.13 |
| B4KP26BS          | 1/2       | 12.5                 | -        | 1/2-14 | 3    | 51.6       | 2.03 | 33.0 | 1.30 | 19.3 | 0.76 | 28.7 | 1.13 |
| B6KP31            | 3/4       | 20.0                 | 3/4-14   | -      | 3    | 59.9       | 2.36 | 38.6 | 1.52 | 18.0 | 0.71 | 33.3 | 1.31 |
| B6KP31BS          | 3/4       | 20.0                 | -        | 3/4-14 | 3    | 59.9       | 2.36 | 38.6 | 1.52 | 18.0 | 0.71 | 33.3 | 1.31 |
| B8KP36            | 1         | 25.0                 | 1-11 1/2 | -      | 3    | 72.4       | 2.85 | 47.8 | 1.88 | 24.6 | 0.97 | 41.4 | 1.63 |
| B8KP36BS          | 1         | 25.0                 | -        | 1-11   | 3    | 72.4       | 2.85 | 47.8 | 1.88 | 24.6 | 0.97 | 41.4 | 1.63 |

C=Overall Length, D=Maximum Diameter, E=Exposed Length when Connected  
 T To obtain connected length of coupling, add dimensions A (Fig. 1) and E (Fig. 3) together.



## Plugs (Male)

| Part/Order Number | Body Size | Thread Size (Female) |              |          | Fig. | Dimensions |      |       |      |       |      |       |      |
|-------------------|-----------|----------------------|--------------|----------|------|------------|------|-------|------|-------|------|-------|------|
|                   |           | ISO                  | NPTF         | BSPP     |      | C          | D    | E     | Hex  |       |      |       |      |
| HK10/12/20 Series | (in)      | (mm)                 |              |          |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) | (mm)  | (in) |
| B10K41*           | 1 1/4     | -                    | 1 1/4-11 1/2 | -        | 4    | 108.0      | 4.25 | 69.6  | 2.74 | 59.2  | 2.33 | 60.5  | 2.38 |
| B12K41            | 1 1/2     | 40                   | 1 1/4-11 1/2 | -        | 4    | 120.9      | 4.76 | 69.6  | 2.74 | 67.8  | 2.67 | 60.5  | 2.38 |
| B12K41BS          | 1 1/2     | 40                   | -            | 1 1/4-11 | 4    | 120.9      | 4.76 | 69.6  | 2.74 | 67.8  | 2.67 | 60.5  | 2.38 |
| B12K46            | 1 1/2     | 40                   | 1 1/2-11 1/2 | -        | 4    | 120.9      | 4.76 | 69.6  | 2.74 | 67.8  | 2.67 | 60.5  | 2.38 |
| B12K46BS          | 1 1/2     | 40                   | -            | 1 1/2-11 | 4    | 120.9      | 4.76 | 69.6  | 2.74 | 67.8  | 2.67 | 60.5  | 2.38 |
| B20K51            | 2 1/2     | 50                   | 2-11 1/2     | -        | 4    | 139.4      | 5.49 | 110.0 | 4.33 | 75.4  | 2.97 | 95.3  | 3.75 |
| B20K51BS          | 2 1/2     | 50                   | -            | 2-11     | 4    | 139.4      | 5.49 | 110.0 | 4.33 | 75.4  | 2.97 | 95.3  | 3.75 |
| B20K56            | 2 1/2     | 50                   | 2 1/2-8      | -        | 4    | 154.4      | 6.08 | 110.0 | 4.33 | 90.4  | 3.56 | 95.3  | 3.75 |
| B20K56BS          | 2 1/2     | 50                   | -            | 2 1/2-11 | 4    | 154.4      | 6.08 | 110.0 | 4.33 | 90.4  | 3.56 | 95.3  | 3.75 |
| B20K61            | 2 1/2     | 50                   | 3-8          | -        | 4    | 176.3      | 6.94 | 117.3 | 4.62 | 112.3 | 4.42 | 101.6 | 4.00 |
| B20K61BS          | 2 1/2     | 50                   | -            | 3-11     | 4    | 176.3      | 6.94 | 117.3 | 4.62 | 112.3 | 4.42 | 101.6 | 4.00 |

C=Overall Length, D=Maximum Diameter, E=Exposed Length when Connected  
 \* ISO 7241-1 Series B does not include 1-1/4 inch body size couplings; therefore, Series 10HK is not covered by this standard.  
 To obtain connected length of coupling, add dimensions A (Fig. 2) and E (Fig. 4) together.

## Dust Plugs and Dust Caps Accessories

| Coupling Series | Plug Dust Cap Part/Order No. |                 | Socket Dust Plug Part/Order No. |                 |
|-----------------|------------------------------|-----------------|---------------------------------|-----------------|
|                 | Metal                        | Vinyl           | Metal                           | Vinyl           |
| 1HK             | XPDC1HK*                     | XPPDC1HK        | SDC1HK*                         | XPSDC1HK        |
| 2HK             | XPDC2HK*                     | XPPDC2HK        | SDC2HK*                         | XPSDC2HK        |
| 3HK             | XPDC3HK*                     | XPPDC3HK        | SDC3HK*                         | XPSDC3HK        |
| 4HK             | XPDC4HK**                    | XPPDC4HK(RD)*** | SDC4HK**                        | XPSDC4HK(RD)*** |
| 6HK             | XPDC6HK**                    | XPPDC6HK(RD)*** | SDC6HK**                        | XPSDC6HK(RD)*** |
| 8HK             | XPDC8HK**                    | XPPDC8HK(RD)*** | SDC8HK**                        | XPSDC8HK(RD)*** |
| 12HK            | XPDC12HK**                   |                 | SDC12HK*                        |                 |
| 20HK            | XPDC20HK**                   |                 | SDC20HK**                       |                 |



\*Brass \*\*Aluminum \*\*\*Offered in red by adding RD to end of part number.

# HK Series (Stainless Steel) ISO 7241-1 B Interchange

Fluid transfer & Hydraulic application



Danfoss Hansen HK stainless steel coupling is a general purpose industrial interchange coupling available in valved or non-valved designs, offered in 303/316 grades of stainless steel for excellent corrosion resistance in rugged applications. The HK Series features a ball latch mechanism with automatic self-sealing poppet valves.

## Product Features

- Meets dimensional requirements to ISO standard 7241-1 Series B
- 303/316 Stainless steel construction for greater corrosion resistance and fluid compatibility
- Self-sealing poppet valves provide excellent high and low pressure sealing
- Standard body material: 303 or 316 Stainless Steel
- Standard seal material: Nitrile (NBR)
- Seal options available in PTFE, Neoprene, FKM, EPDM, and Kalrez®

## Physical characteristics

| Series | Body Size (in) | ISO Size (mm) | Nominal Flow Diameter (mm) | Max. Operating Pressure                     |   | Rated Flow* |       | Air Inclusion cc. max. | Fluid Loss cc. max. |       |       |
|--------|----------------|---------------|----------------------------|---|---|-------------|-------|------------------------|---------------------|-------|-------|
|        |                |               |                            | Non hazardous liquids & gases Group 2 (bar) | Hazardous liquids & gases Group 1 (psi) | (lpm)       | (gpm) |                        |                     |       |       |
| 1HK    | 1/8            | 5.0           | 4.4                        | 344   | 5,000                                   | 344         | 5,000 | 3                      | 0.8                 | 0.6   | 0.5   |
| 2HK    | 1/4            | 6.3           | 5.9                        | 255   | 3,700                                   | 255         | 3,700 | 12                     | 3                   | 1.2   | 0.9   |
| 3HK    | 3/8            | 10.0          | 7.8                        | 255   | 3,700                                   | 255         | 3,700 | 23                     | 6                   | 2.9   | 2.1   |
| 4HK    | 1/2            | 12.5          | 10.0                       | 293   | 4,250                                   | 293         | 4,250 | 45                     | 12                  | 3.6   | 3.5   |
| 6HK    | 3/4            | 20.0          | 17.0                       | 242   | 3,500                                   | 242         | 3,500 | 100                    | 26                  | 11.5  | 9.3   |
| 8HK    | 1              | 25.0          | 19.6                       | 207   | 3,000                                   | 207         | 3,000 | 189                    | 50                  | 18.0  | 16.9  |
| 10HK   | 1 1/4**        | —             | 26.7                       | 118   | 1,700                                   | 37          | 537   | 288                    | 76                  | 48.0  | 48.0  |
| 12HK   | 1 1/2          | 40.0          | 35.1                       | 152   | 2,200                                   | 29          | 421   | 375                    | 99                  | 91.3  | 91.3  |
| 20HK   | 2              | 50.0          | 46.0                       | 104   | 1,500                                   | 21          | 305   | 757                    | 200                 | 209.9 | 209.9 |

\* For questions related to vacuum please contact Danfoss.

\*\* No ISO Standard available for the 10HK.

## European Pressure Equipment Directive

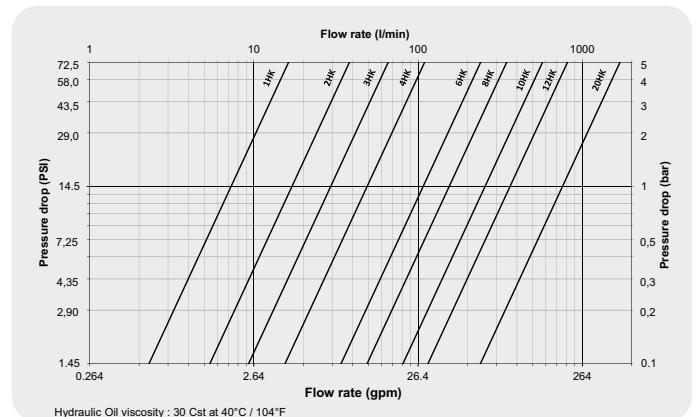
Couplings with nominal diameters up to and including 25 mm are designed and manufactured under Article 4.3 of the European Pressure Equipment Directive 2014/68/EU. Couplings with nominal diameters greater than 25 mm are designed and manufactured in accordance with stipulations of Module A of the European Pressure Equipment Directive 2014/68/EU. They should not be used to convey unstable gases.

Group 1 = Hazardous media / Group 2 = Other media

## Applications & Markets

- Agriculture
- Hydraulic Tool
- General Industry
- Construction
- Fluid Transfer
- Transportation
- Military
- Law Enforcement/Rescue
- Chemical
- Oil and Gas
- Consumer Products
- HVAC
- Food and Beverage
- Trucks
- Aerospace
- Medical

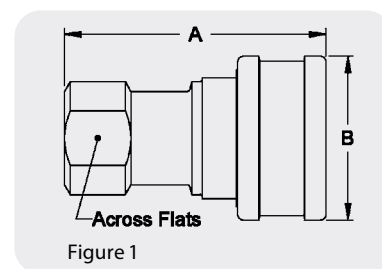
## Flow Data



| Seal Elastomer Data* |                                    |
|----------------------|------------------------------------|
| Seal Elastomer       | Max. Operation Temperature Range   |
| Nitrile (NBR)        | -40°C to +121°C / 40°F to +250°F   |
| Neoprene             | -54°C to +100°C / - 65°F to +212°F |
| EPDM                 | -54°C to +149°C / -65°C to +300°F  |
| FKM                  | -29°C to +204°C / - 15°F to +400°F |

\*For reference only, based on Danfoss recommended temperatures. Contact Danfoss technical support for further information on fluid compatibility.

# HK Series (Stainless Steel) ISO 7241-1 B Interchange

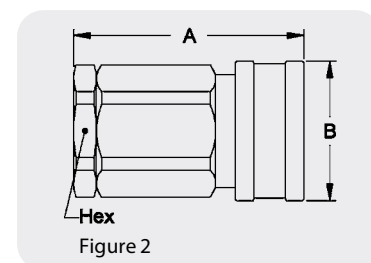


## Sockets (Female)

| Part/Order Number<br>HK1-8 Series 303<br>Stainless Steel | 316<br>Stainless<br>Steel | Body<br>Size<br>(in) | ISO<br>Size<br>(in) | Thread Size (Female) |        |           | Dimensions |       |      |      |      |              |      |
|--|---------------------------|----------------------|---------------------|----------------------|--------|-----------|------------|-------|------|------|------|--------------|------|
|  |                           |                      |                     | NPTF                 | BSPP   | SAE       | Fig.       | A     |      | B    |      | Across flats |      |
|  |                           |                      |                     |                      |        |           |            | (mm)  | (in) | (mm) | (in) | (mm)         | (in) |
| LL1H11   | ML1H11                    | 1/8                  | 5.0                 | 1/8-27               | -      | -         | 1          | 48.5  | 1.91 | 24.9 | 0.98 | 14.2         | 0.56 |
| LL1H4  | -                         | 1/8                  | 5.0                 | -                    | -      | 7/16-20   | 1          | 52.3  | 2.06 | 24.9 | 0.98 | 17.5         | 0.69 |
| LL2H16   | ML2H16                    | 1/4                  | 6.3                 | 1/4-18               | -      | -         | 1          | 57.4  | 2.26 | 29.0 | 1.14 | 19.1         | 0.75 |
| LL2H16BS   | ML2H16BS                  | 1/4                  | 6.3                 | -                    | 1/4-19 | -         | 1          | 58.7  | 2.31 | 29.0 | 1.14 | 19.1         | 0.75 |
| LL2H6  | -                         | 1/4                  | 6.3                 | -                    | -      | 9/16-18   | 1          | 61.0  | 2.40 | 29.0 | 1.14 | 22.4         | 0.88 |
| LL3H21   | ML3H21                    | 3/8                  | 10.0                | 3/8-18               | -      | -         | 1          | 65.0  | 2.56 | 36.1 | 1.42 | 22.4         | 0.88 |
| LL3H21BS   | ML3H21BS                  | 3/8                  | 10.0                | -                    | 3/8-19 | -         | 1          | 65.0  | 2.56 | 36.1 | 1.42 | 22.4         | 0.88 |
| LL3H8  | -                         | 3/8                  | 10.0                | -                    | -      | 3/4-16    | 1          | 69.6  | 2.74 | 36.1 | 1.42 | 25.4         | 1.00 |
| LL4HP26  | ML4HP26                   | 1/2                  | 12.5                | 1/2-14               | -      | -         | 1          | 75.2  | 2.96 | 47.2 | 1.86 | 28.7         | 1.13 |
| LL4HP26BS  | ML4HP26BS                 | 1/2                  | 12.5                | -                    | 1/2-14 | -         | 1          | 75.2  | 2.96 | 47.2 | 1.86 | 28.7         | 1.13 |
| LL4HP10  | -                         | 1/2                  | 12.5                | -                    | -      | 7/8-14    | 1          | 77.5  | 3.05 | 47.2 | 1.86 | 31.8         | 1.25 |
| LL6HP31  | ML6HP31                   | 3/4                  | 20.0                | 3/4-14               | -      | -         | 1          | 88.4  | 3.48 | 56.4 | 2.22 | 33.3         | 1.31 |
| LL6HP31BS  | ML6HP31BS                 | 3/4                  | 20.0                | -                    | 3/4-14 | -         | 1          | 88.4  | 3.48 | 56.4 | 2.22 | 33.3         | 1.31 |
| LL6HP12  | -                         | 3/4                  | 20.0                | -                    | -      | 11/16-12  | 1          | 93.2  | 3.67 | 56.4 | 2.22 | 35.1         | 1.38 |
| LL8HP36  | ML8HP36                   | 1                    | 25.0                | 1-11 1/2             | -      | -         | 1          | 104.9 | 4.13 | 66.3 | 2.61 | 44.5         | 1.75 |
| LL8HP36BS  | ML8HP36BS                 | 1                    | 25.0                | -                    | 1-11   | -         | 1          | 104.9 | 4.13 | 66.3 | 2.61 | 44.5         | 1.75 |
| LL8HP16  | -                         | 1                    | 25.0                | -                    | -      | 1 1/16-12 | 1          | 104.9 | 4.13 | 66.3 | 2.61 | 47.8         | 1.88 |

A=Overall Length, B=Maximum Diameter

To obtain connected length of coupling, add dimensions A (Fig. 1) and E (Fig. 3) together.



## Sockets (Female)

| Part/Order Number<br>HK10/12/20 Series<br>303 Stainless Steel | Body<br>Size<br>(in) | ISO<br>Size<br>(mm) | Thread Size (Female) |          |      | Dimensions |      |       |      |       |      |
|---|----------------------|---------------------|----------------------|----------|------|------------|------|-------|------|-------|------|
|   |                      |                     | NPTF                 | BSPP     | Fig. | A          |      | B     |      | Hex   |      |
|   |                      |                     |                      |          |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| LL10H41*  | 1 1/4                | -                   | 1 1/4-11 1/2         | -        | 2    | 114.6      | 4.51 | 69.3  | 2.73 | 60.5  | 2.38 |
| LL10H41BS*  | 1 1/4                | -                   | -                    | 1 1/4-11 | 2    | 114.6      | 4.51 | 69.3  | 2.73 | 60.5  | 2.38 |
| LL12H41   | 1 1/2                | 40                  | 1 1/4-11 1/2         | -        | 2    | 122.4      | 4.82 | 82.0  | 3.23 | 60.5  | 2.38 |
| LL12H41BS   | 1 1/2                | 40                  | -                    | 1 1/4-11 | 2    | 122.4      | 4.82 | 82.0  | 3.23 | 60.5  | 2.38 |
| LL12H46   | 1 1/2                | 40                  | 1 1/2-11 1/2         | -        | 2    | 122.4      | 4.82 | 82.0  | 3.23 | 60.5  | 2.38 |
| LL12H46BS   | 1 1/2                | 40                  | -                    | 1 1/2-11 | 2    | 122.4      | 4.82 | 82.0  | 3.23 | 60.5  | 2.38 |
| LL20H51   | 2 1/2                | 50                  | 2-11 1/2             | -        | 2    | 141.0      | 5.55 | 104.4 | 4.11 | 95.3  | 3.75 |
| LL20H51BS   | 2 1/2                | 50                  | -                    | 2-11     | 2    | 141.0      | 5.55 | 104.4 | 4.11 | 95.3  | 3.75 |
| LL20H56   | 2 1/2                | 50                  | 2 1/2-8              | -        | 2    | 156.0      | 6.14 | 104.4 | 4.11 | 95.3  | 3.75 |
| LL20H56BS   | 2 1/2                | 50                  | -                    | 2 1/2-11 | 2    | 156.0      | 6.14 | 104.4 | 4.11 | 95.3  | 3.75 |
| LL20H61   | 2 1/2                | 50                  | 3-8                  | -        | 2    | 177.8      | 7.00 | 104.4 | 4.11 | 101.6 | 4.00 |
| LL20H61BS   | 2 1/2                | 50                  | -                    | 3-11     | 2    | 177.8      | 7.00 | 104.4 | 4.11 | 101.6 | 4.00 |

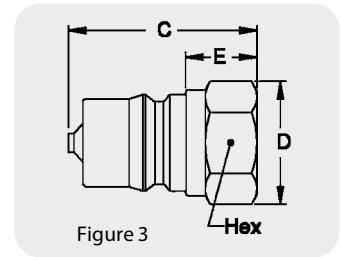
A=Overall Length, B=Maximum Diameter

\* ISO 7241-1 Series B does not include 1-1/4 inch body size couplings; therefore, Series 10HK is not covered by this standard.

To obtain connected length of coupling, add dimensions A (Fig. 2) and E (Fig. 4) together.

# HK Series (Stainless Steel) ISO 7241-1 B Interchange

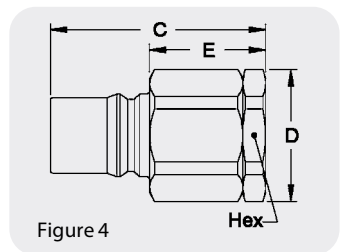
Global region



## Plugs (Male)

| Part/Order Number<br>HK1-8 Series<br>303 | 316       | Body Size<br>(in) | ISO Size<br>(mm) | Thread Size (Female) |        |          | Fig. | Dimensions |      |      |      |      |      |      |      |
|--|-----------|-------------------|------------------|----------------------|--------|----------|------|------------|------|------|------|------|------|------|------|
|  |           |                   |                  | NPTF                 | BSPP   | SAE      |      | C          | D    | E    | Hex  |      |      |      |      |
| LL1K11                                   | ML1K11    | 1/8               | 5.0              | 1/8-27               | -      | -        | 3    | 32.0       | 1.26 | 16.5 | 0.65 | 11.2 | 0.44 | 14.2 | 0.56 |
| LL1K4                                    | -         | 1/8               | 5.0              | -                    | -      | 7/16-20  | 3    | 35.8       | 1.41 | 20.1 | 0.79 | 15.0 | 0.59 | 17.5 | 0.69 |
| LL2K16                                   | ML2K16    | 1/4               | 6.3              | 1/4-18               | -      | -        | 3    | 38.6       | 1.52 | 22.1 | 0.87 | 14.2 | 0.56 | 19.1 | 0.75 |
| LL2K16BS                                 | ML2K16BS  | 1/4               | 6.3              | -                    | 1/4-19 | -        | 3    | 38.6       | 1.52 | 22.1 | 0.87 | 14.2 | 0.56 | 19.1 | 0.75 |
| LL2K6                                    | -         | 1/4               | 6.3              | -                    | -      | 9/16-18  | 3    | 42.2       | 1.66 | 25.7 | 1.01 | 17.8 | 0.70 | 22.4 | 0.88 |
| LL3K21                                   | ML3K21    | 3/8               | 10.0             | 3/8-18               | -      | -        | 3    | 44.7       | 1.76 | 25.7 | 1.01 | 15.5 | 0.61 | 22.4 | 0.88 |
| LL3K21BS                                 | ML3K21BS  | 3/8               | 10.0             | -                    | 3/8-19 | -        | 3    | 44.7       | 1.76 | 25.7 | 1.01 | 15.5 | 0.61 | 22.4 | 0.88 |
| LL3K8                                    | -         | 3/8               | 10.0             | -                    | -      | 3/4-16   | 3    | 49.3       | 1.94 | 29.2 | 1.15 | 20.1 | 0.79 | 25.4 | 1.00 |
| LL4KP26                                  | ML4KP26   | 1/2               | 12.5             | 1/2-14               | -      | -        | 3    | 51.6       | 2.03 | 33.0 | 1.30 | 19.3 | 0.76 | 28.7 | 1.13 |
| LL4KP26BS                                | ML4KP26BS | 1/2               | 12.5             | -                    | 1/2-14 | -        | 3    | 51.6       | 2.03 | 33.0 | 1.30 | 19.3 | 0.76 | 28.7 | 1.13 |
| LL4KP10                                  | -         | 1/2               | 12.5             | -                    | -      | 7/8-14   | 3    | 53.6       | 2.11 | 34.8 | 1.37 | 21.3 | 0.84 | 30.2 | 1.19 |
| LL6KP31                                  | ML6KP31   | 3/4               | 20.0             | 3/4-14               | -      | -        | 3    | 59.9       | 2.36 | 38.6 | 1.52 | 18.0 | 0.71 | 33.3 | 1.31 |
| LL6KP31BS                                | ML6KP31BS | 3/4               | 20.0             | -                    | 3/4-14 | -        | 3    | 59.9       | 2.36 | 38.6 | 1.52 | 18.0 | 0.71 | 33.3 | 1.31 |
| LL6KP12                                  | -         | 3/4               | 20.0             | -                    | -      | 1 1/8-12 | 3    | 64.5       | 2.54 | 40.4 | 1.59 | 22.6 | 0.89 | 35.1 | 1.38 |
| LL8KP36                                  | ML8KP36   | 1                 | 25.0             | 1-11 1/2             | -      | -        | 3    | 72.4       | 2.85 | 47.8 | 1.88 | 24.6 | 0.97 | 41.4 | 1.63 |
| LL8KP36BS                                | ML8KP36BS | 1                 | 25.0             | -                    | 1-11   | -        | 3    | 72.4       | 2.85 | 47.8 | 1.88 | 24.6 | 0.97 | 41.4 | 1.63 |
| LL8KP16                                  | -         | 1                 | 25.0             | -                    | -      | 1 1/2-12 | 3    | 72.4       | 2.85 | 55.1 | 2.17 | 24.6 | 0.97 | 47.8 | 1.88 |

C=Overall Length, D=Maximum Diameter, E=Exposed Length when Connected  
To obtain connected length of coupling, add dimensions A (Fig. 1) and E (Fig. 3) together.



## Plugs (Male)

| Part/Order Number<br>HK10/12/20 Series<br>303 Stainless Steel | Body Size<br>(in) | ISO Size<br>(mm) | Thread Size (Female) |          |   | Fig.  | Dimensions |       |      |       |      |       |      |  |
|---|-------------------|------------------|----------------------|----------|---|-------|------------|-------|------|-------|------|-------|------|--|
|   |                   |                  | NPTF                 | BSPP     |   |       | C          | D     | E    | Hex   |      |       |      |  |
| LL10K41*  | 1 1/4             | -                | 1 1/4-11 1/2         | -        | 4 | 108.0 | 4.25       | 69.6  | 2.74 | 59.2  | 2.33 | 60.5  | 2.38 |  |
| LL10K41BS*  | 1 1/4             | -                | -                    | 1 1/4-11 | 4 | 108.0 | 4.25       | 69.6  | 2.74 | 59.2  | 2.33 | 60.5  | 2.38 |  |
| LL12K41   | 1 1/2             | 40               | 1 1/4-11 1/2         | -        | 4 | 120.9 | 4.76       | 69.6  | 2.74 | 67.8  | 2.67 | 60.5  | 2.38 |  |
| LL12K41BS   | 1 1/2             | 40               | -                    | 1 1/4-11 | 4 | 120.9 | 4.76       | 69.6  | 2.74 | 67.8  | 2.67 | 60.5  | 2.38 |  |
| LL12K46   | 1 1/2             | 40               | 1 1/2-11 1/2         | -        | 4 | 120.9 | 4.76       | 69.6  | 2.74 | 67.8  | 2.67 | 60.5  | 2.38 |  |
| LL12K46BS   | 1 1/2             | 40               | -                    | 1 1/2-11 | 4 | 120.9 | 4.76       | 69.6  | 2.74 | 67.8  | 2.67 | 60.5  | 2.38 |  |
| LL20K51   | 2 1/2             | 50               | 2-11 1/2             | -        | 4 | 139.4 | 5.49       | 110.0 | 4.33 | 75.4  | 2.97 | 95.3  | 3.75 |  |
| LL20K51BS   | 2 1/2             | 50               | -                    | 2-11     | 4 | 139.4 | 5.49       | 110.0 | 4.33 | 75.4  | 2.97 | 95.3  | 3.75 |  |
| LL20K56   | 2 1/2             | 50               | 2 1/2-8              | -        | 4 | 154.4 | 6.08       | 110.0 | 4.33 | 90.4  | 3.56 | 95.3  | 3.75 |  |
| LL20K56BS   | 2 1/2             | 50               | -                    | 2 1/2-11 | 4 | 154.4 | 6.08       | 110.0 | 4.33 | 90.4  | 3.56 | 95.3  | 3.75 |  |
| LL20K61   | 2 1/2             | 50               | 3-8                  | -        | 4 | 176.3 | 6.94       | 117.3 | 4.62 | 112.3 | 4.42 | 101.6 | 4.00 |  |
| LL20K61BS   | 2 1/2             | 50               | -                    | 3-11     | 4 | 176.3 | 6.94       | 117.3 | 4.62 | 112.3 | 4.42 | 101.6 | 4.00 |  |

C=Overall Length, D=Maximum Diameter, E=Exposed Length when Connected  
\* ISO 7241-1 Series B does not include 1-1/4 inch body size couplings; therefore, Series 10HK is not covered by this standard.  
To obtain connected length of coupling, add dimensions A (Fig. 2) and E (Fig. 4) together.

## Dust Plugs and Dust Caps Accessories

| Coupling Series | Plug Dust Cap Part/Order No. |                 | Socket Dust Plug Part/Order No. |                 |
|-----------------|------------------------------|-----------------|---------------------------------|-----------------|
|                 | Metal                        | Vinyl           | Metal                           | Vinyl           |
| 1HK             | XPDC1HK*                     | XPPDC1HK        | SDC1HK*                         | XPSDC1HK        |
| 2HK             | XPDC2HK*                     | XPPDC2HK        | SDC2HK*                         | XPSDC2HK        |
| 3HK             | XPDC3HK*                     | XPPDC3HK        | SDC3HK*                         | XPSDC3HK        |
| 4HK             | XPDC4HK**                    | XPPDC4HK(RD)*** | SDC4HK**                        | XPSDC4HK(RD)*** |
| 6HK             | XPDC6HK**                    | XPPDC6HK(RD)*** | SDC6HK**                        | XPSDC6HK(RD)*** |
| 8HK             | XPDC8HK**                    | XPPDC8HK(RD)*** | SDC8HK**                        | XPSDC8HK(RD)*** |
| 12HK            | XPDC12HK**                   | -               | SDC12HK**                       | -               |
| 20HK            | XPDC20HK**                   | -               | SDC20HK**                       | -               |

\*Brass \*\*Aluminum \*\*\*Offered in red by adding RD to end of part number.



# HK special configuration LL2HK-MS

Fluid transfer & Hydraulic application



Danfoss Hansen LL2HK-MS series is a special HK series made for specific application. This coupling is made of 303 stainless steel. The locking mechanism is push/pull.

This specific coupling has been made for testing ground equipment for aerospace application. It was created based on the HK series (stainless steel). It is a unique profile which is not interchangeable with the 2HK series.

## Product Features

- Stainless steel construction
- Size 1/4"
- Proprietary profile

## Physical characteristics

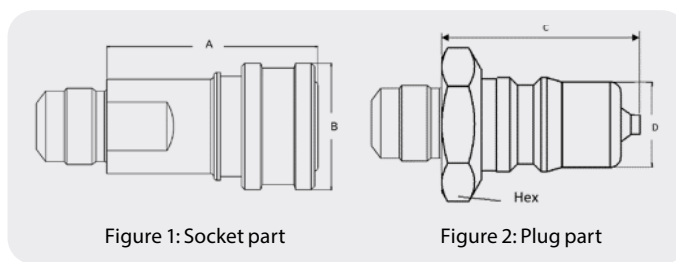
| Working Pressure |       | Rated Flow |       | Air Inclusion | Fluid Loss |
|------------------|-------|------------|-------|---------------|------------|
| (bar)            | (psi) | (lpm)      | (gpm) | cc. max.      | cc. max.   |
| 255              | 3,700 | 11.36      | 3     | 1.2           | 0.9        |

## Dimensions

| Body Size (in) | Nominal Flow Diameter (mm) | Socket Part/ Order number | Plug Part/ Order number | Endconnection (female) | Socket dimensions (Fig. 1) |      |      |      |      |      |      |      |      |      |
|----------------|----------------------------|---------------------------|-------------------------|------------------------|----------------------------|------|------|------|------|------|------|------|------|------|
|                |                            |                           |                         |                        | A                          |      | B    |      | C    |      | D    |      | Hex  |      |
|                |                            |                           |                         |                        | (mm)                       | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) |
| 1/4            | 5.9                        | LL2H8MS                   | LL2K6/MS1               | 3/4 - 16 UNF           | 49.9                       | 1.97 | 28.9 | 1.14 | 44.7 | 1.76 | 20.6 | 0.81 | 12.7 | 0.5  |

## Application

- Hydraulic application
- Aerospace industry
- Specific application



### Dust Caps

| Coupling Series | Plug Dust Cap Part/Order No. |         |
|-----------------|------------------------------|---------|
|                 | Metal                        | Vinyl   |
| 2HK             | XPDC2HK*                     | XPDC2HK |

\*Brass



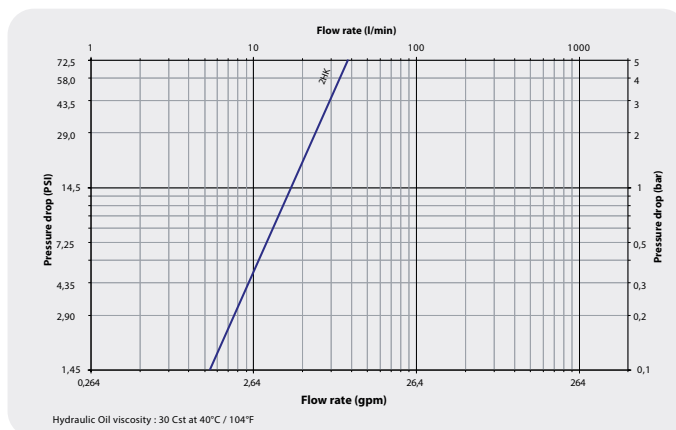
### Dust Plugs

| Coupling Series | Socket Dust Plug Part/Order No. |         |
|-----------------|---------------------------------|---------|
|                 | Metal                           | Vinyl   |
| 2HK             | SDC2HK*                         | XPDC2HK |

\*Brass



## Flow Data



# HKFR Series ISO 7241-1 BOP

Fluid transfer & Hydraulic application



Danfoss Hansen HKFR Series is a quick disconnect hydraulic coupling for hazardous Blow Out Preventer (BOP) service in the Oil and Gas Industry. The HKFR Series meets or exceeds the ISO 7241-1 B standard.

## Product Features

- BOP designation and red color is marked on the Socket/Female and Plug/Male halves
- Sleeve lock is standard
- Lloyd's Register Certification
- Meets or exceeds ISO 7241-1 Series B standard
- Utilizes HK Series dust caps and dust plugs
- Standard body material: 316 stainless steel, zinc trivalent plated steel
- Standard seal material: Nitrile (NBR)

## Physical characteristics

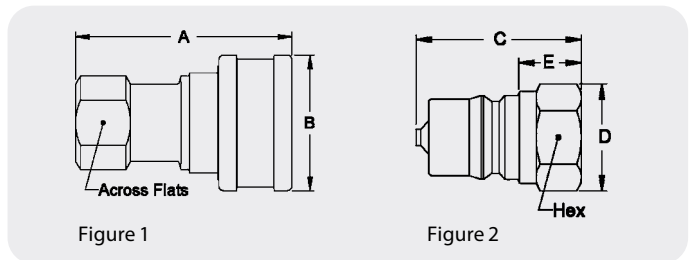
| Series  | Body Size | Max. Operating Pressure Connected |       | Min. Burst Pressure |        | Rated Flow |       | Fluid Loss |
|---------|-----------|-----------------------------------|-------|---------------------|--------|------------|-------|------------|
|         | (in)      | (bar)                             | (psi) | (bar)               | (psi)  | (lpm)      | (gpm) | cc. max.   |
| 4HKFR   | 1/2       | 482                               | 7,000 | 1,931               | 28,000 | 28         | 7.5   | 3.5        |
| 6HKFR   | 3/4       | 344                               | 5,000 | 1,251               | 18,150 | 66         | 17.5  | 9.3        |
| 8HKFR   | 1         | 344                               | 5,000 | 1,379               | 20,000 | 95         | 25.0  | 16.9       |
| ML8HKFR | 1         | 344                               | 5,000 | 1,379               | 20,000 | 95         | 25.0  | 16.9       |

## Applications & Markets

- Oil and gas

## Lloyd's Register Certification

All of the above items carry a Lloyd's Registry Certificate for fire conditions stated in API 16D and EUB Directive 36. These parts meet the requirements that state couplings shall be capable of maintaining pressure when exposed to a 700°C (1,300°F) temperature for a five-minute period. Testing for this certification was conducted at the following pressures in the connected condition:



|                    |                   |
|--------------------|-------------------|
| 4HFR26/4KFR26:     | 3,000 PSI/206 BAR |
| 6HFR31/6KFR31:     | 3,000 PSI/206 BAR |
| 8HFR36/8KFR36:     | 4,000 PSI/275 BAR |
| ML8HFR36/ML8KFR36: | 4,000 PSI/275 BAR |

## Female End Connections

| Part/Order Number | Coupling Type | Body Size | Thread       | Fig. | Dimensions |      |      |      |              |      |
|-------------------|---------------|-----------|--------------|------|------------|------|------|------|--------------|------|
|                   |               |           |              |      | A          |      | B    |      | Across Flats |      |
|                   |               |           |              |      | (mm)       | (in) | (mm) | (in) | (mm)         | (in) |
| 4HFR26            | Socket/Female | 1/2       | 1/2-14 NPTF  | 1    | 75.2       | 2.96 | 47.2 | 1.86 | 28.7         | 1.13 |
| 6HFR31            | Socket/Female | 3/4       | 3/4-14 NPTF  | 1    | 88.4       | 3.48 | 56.4 | 2.22 | 33.3         | 1.31 |
| 8HFR36            | Socket/Female | 1         | 1-1 1/2 NPTF | 1    | 104.9      | 4.13 | 66.3 | 2.61 | 44.5         | 1.75 |
| ML8HFR36*         | Socket/Female | 1         | 1-1 1/2 NPTF | 1    | 104.9      | 4.13 | 66.3 | 2.61 | 44.5         | 1.75 |

\*Stainless Steel

## Plugs/Males

| Part/Order Number | Coupling Type | Body Size | Thread       | Fig. | Dimensions |      |      |      |      |      |      |      |
|-------------------|---------------|-----------|--------------|------|------------|------|------|------|------|------|------|------|
|                   |               |           |              |      | C          |      | D    |      | E    |      | Hex  |      |
|                   |               |           |              |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) |
| 4KFR26            | Plug/Male     | 1/2       | 1/2-14 NPTF  | 2    | 51.6       | 2.03 | 33.0 | 1.3  | 19.3 | 0.76 | 28.7 | 1.13 |
| 6KFR31            | Plug/Male     | 3/4       | 3/4-14 NPTF  | 2    | 59.9       | 2.36 | 38.6 | 1.52 | 18.0 | 0.71 | 33.3 | 1.31 |
| 8KFR36            | Plug/Male     | 1         | 1-1 1/2 NPTF | 2    | 72.4       | 2.85 | 47.8 | 1.88 | 24.6 | 0.97 | 41.4 | 1.63 |
| ML8KFR36*         | Plug/Male     | 1         | 1-1 1/2 NPTF | 2    | 72.4       | 2.85 | 47.8 | 1.88 | 24.6 | 0.97 | 41.4 | 1.63 |

\*Stainless Steel

# 2HKIG/2HKIL Series

Fluid transfer & Hydraulic application



Danfoss Hansen 2HKIG/2HKIL Series stainless steel couplings can be used with various liquids and gases. They are functionally identical, but do not interchange. They can be used where it is necessary to avoid crossing lines.

## Product Features

- Ball lock
- Proprietary interchange with all stainless steel construction
- Female/Socket halves available with 90° connections
- Standard body material: Stainless steel
- Standard seal material: Nitrile (NBR)

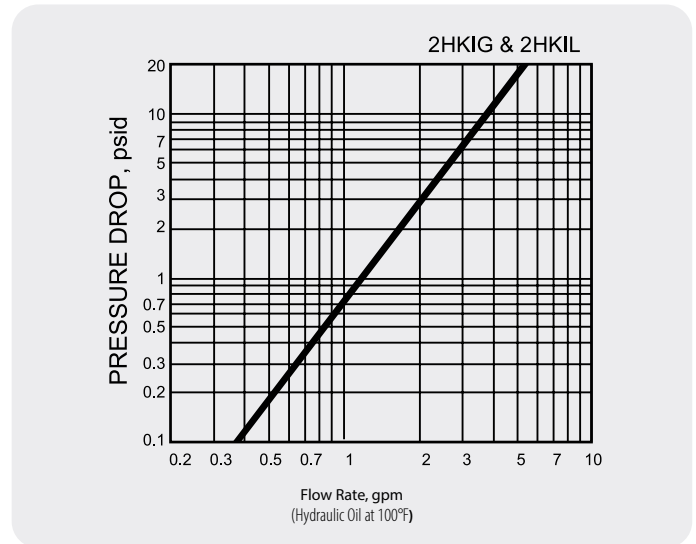
## Physical characteristics

| Body Size | Max. Operating Pressure Connected |       | Min. Burst Pressure |       | Rated Flow |       | Air Inclusion | Fluid Loss |
|-----------|-----------------------------------|-------|---------------------|-------|------------|-------|---------------|------------|
|           | (bar)                             | (psi) | (bar)               | (psi) | (lpm)      | (gpm) | cc. max.      | cc. max.   |
| 1/4       | 103                               | 1,500 | 412                 | 6,000 | 8.3        | 2.2   | 2.2           | 1          |

## Applications & Markets

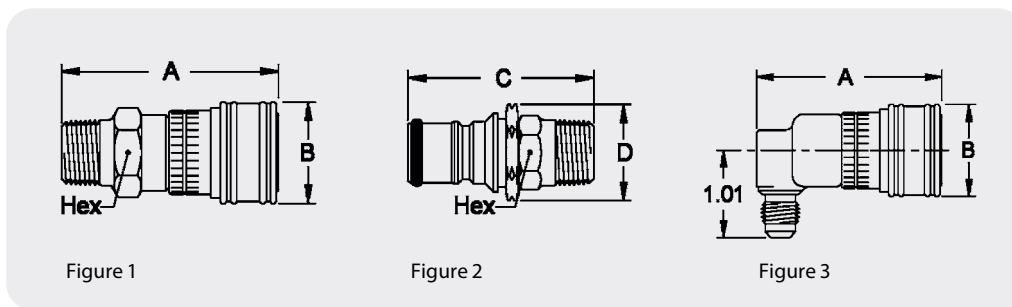
- Chemical
- Food and Beverage
- Military
- Aerospace

## Flow Data



# 2HKIG Series

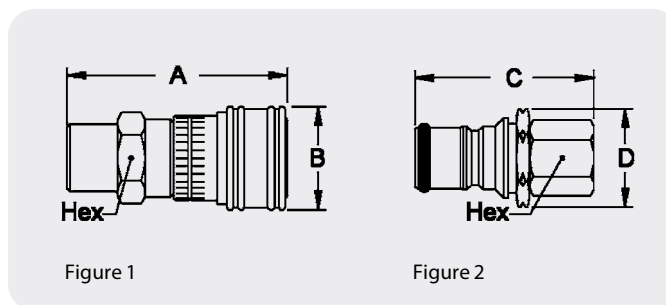
Global region



## Male End Connections

| Part/Order Number | Coupling Type | Body Size | Thread       | Fig. | Dimensions A |      | B    |      | Hex  |      |
|-------------------|---------------|-----------|--------------|------|--------------|------|------|------|------|------|
|                   |               |           |              |      | (mm)         | (in) | (mm) | (in) | (mm) | (in) |
| 2HIG10            | Socket/Female | 1/4       | 1/8-27 NPTF  | 1    | 55.4         | 2.18 | 26.9 | 1.06 | 20.6 | 0.81 |
| 2HIG15            | Socket/Female | 1/4       | 1/4-18 NPTF  | 1    | 58.7         | 2.31 | 26.9 | 1.06 | 20.6 | 0.81 |
| 2HIG20            | Socket/Female | 1/4       | 3/8-18 NPTF  | 1    | 58.7         | 2.31 | 26.9 | 1.06 | 20.6 | 0.81 |
| 2HIG720           | Socket/Female | 1/4       | 7/16-20 NPTF | 1    | 57.7         | 2.27 | 26.9 | 1.06 | 20.6 | 0.81 |
| 2HIGLLRA720       | Socket/Female | 1/4       | 7/16-20 NPTF | 3    | 53.1         | 2.09 | 26.9 | 1.06 | -    | -    |

| Part/Order Number | Coupling Type | Body Size | Thread      | Fig. | Dimensions C |      | D    |      | Hex  |      |
|-------------------|---------------|-----------|-------------|------|--------------|------|------|------|------|------|
|                   |               |           |             |      | (mm)         | (in) | (mm) | (in) | (mm) | (in) |
| 2KIGF15           | Plug/Male     | 1/4       | 1/4-18 NPTF | 2    | 50.3         | 1.98 | 25.7 | 1.01 | 17.5 | 0.69 |
| 2KIGF20           | Plug/Male     | 1/4       | 3/8-18 NPTF | 2    | 50.3         | 1.98 | 25.7 | 1.01 | 17.5 | 0.69 |



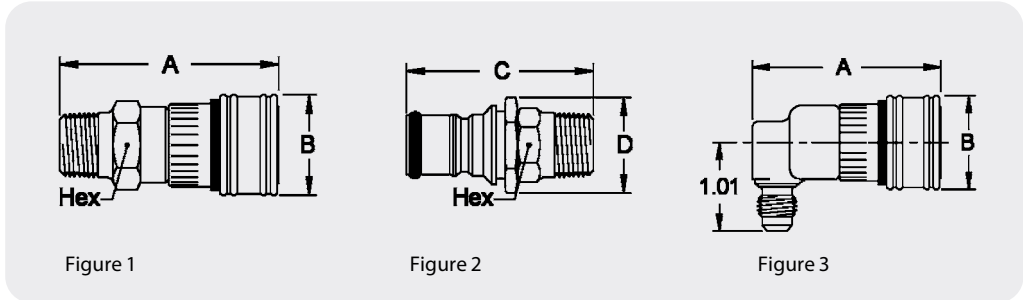
## Female End Connections

| Part/Order Number | Coupling Type | Body Size | Thread      | Fig. | Dimensions A |      | B    |      | Hex  |      |
|-------------------|---------------|-----------|-------------|------|--------------|------|------|------|------|------|
|                   |               |           |             |      | (mm)         | (in) | (mm) | (in) | (mm) | (in) |
| 2HIG11            | Socket/Female | 1/4       | 1/8-27 NPTF | 1    | 55.4         | 2.18 | 26.9 | 1.06 | 20.6 | 0.81 |
| 2HIG16            | Socket/Female | 1/4       | 1/4-18 NPTF | 1    | 57.4         | 2.26 | 26.9 | 1.06 | 20.6 | 0.81 |

| Part/Order Number | Coupling Type | Body Size | Thread       | Fig. | Dimensions C |      | D    |      | Hex  |      |
|-------------------|---------------|-----------|--------------|------|--------------|------|------|------|------|------|
|                   |               |           |              |      | (mm)         | (in) | (mm) | (in) | (mm) | (in) |
| 2KIGF16           | Plug/Male     | 1/4       | 1/4 -18 NPTF | 2    | 46.7         | 1.84 | 25.7 | 1.01 | 17.5 | 0.69 |
| 2KIGF720          | Plug/Male     | 1/4       | 7/16 -20 UNF | 2    | 40.9         | 1.61 | 25.7 | 1.01 | 17.5 | 0.69 |
| 2KIGF             | Plug/Male     | 1/4       | 5/8-18 UNF   | 2    | 29.7         | 1.17 | 25.7 | 1.01 | 17.3 | 0.68 |

# 2HKIG Series

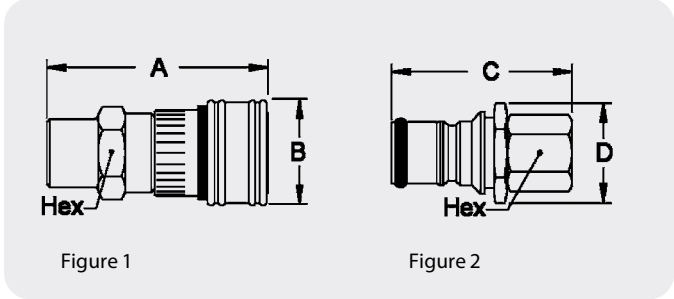
Global region



## Male End Connections

| Part/Order Number | Coupling Type | Body Size | Thread       | Fig. | Dimensions A |      | B    |      | Hex  |      |
|-------------------|---------------|-----------|--------------|------|--------------|------|------|------|------|------|
|                   |               |           |              |      | (mm)         | (in) | (mm) | (in) | (mm) | (in) |
| 2HIL10            | Socket/Female | 1/4       | 1/8-27 NPTF  | 1    | 55.4         | 2.18 | 26.9 | 1.06 | 20.6 | 0.81 |
| 2HIL15            | Socket/Female | 1/4       | 1/4-18 NPTF  | 1    | 58.7         | 2.31 | 26.9 | 1.06 | 20.6 | 0.81 |
| 2HIL20            | Socket/Female | 1/4       | 3/8-18 NPTF  | 1    | 58.7         | 2.31 | 26.9 | 1.06 | 20.6 | 0.81 |
| 2HIL720           | Socket/Female | 1/4       | 7/16-20 NPTF | 1    | 57.7         | 2.27 | 26.9 | 1.06 | 20.6 | 0.81 |
| 2HILLRA720        | Socket/Female | 1/4       | 7/16-20 NPTF | 3    | 53.1         | 2.09 | 26.9 | 1.06 | —    | —    |

| Part/Order Number | Coupling Type | Body Size | Thread      | Fig. | Dimensions C |      | D    |      | Hex  |      |
|-------------------|---------------|-----------|-------------|------|--------------|------|------|------|------|------|
|                   |               |           |             |      | (mm)         | (in) | (mm) | (in) | (mm) | (in) |
| 2KILF15           | Plug/Male     | 1/4       | 1/4-18 NPTF | 2    | 50.3         | 1.98 | 25.7 | 1.01 | 17.5 | 0.69 |
| 2KILF20           | Plug/Male     | 1/4       | 3/8-18 NPTF | 2    | 50.3         | 1.98 | 25.7 | 1.01 | 17.5 | 0.69 |



## Female End Connections

| Part/Order Number | Coupling Type | Body Size | Thread       | Fig. | Dimensions A |      | B    |      | Hex  |      |
|-------------------|---------------|-----------|--------------|------|--------------|------|------|------|------|------|
|                   |               |           |              |      | (mm)         | (in) | (mm) | (in) | (mm) | (in) |
| 2HIL11            | Socket/Female | 1/4       | 1/8 -27 NPTF | 1    | 55.4         | 2.18 | 26.9 | 1.06 | 20.6 | 0.81 |
| 2HIL16            | Socket/Female | 1/4       | 1/4-18 NPTF  | 1    | 57.4         | 2.26 | 26.9 | 1.06 | 20.6 | 0.81 |

| Part/Order Number | Coupling Type | Body Size | Thread       | Fig. | Dimensions C |      | D    |      | Hex  |      |
|-------------------|---------------|-----------|--------------|------|--------------|------|------|------|------|------|
|                   |               |           |              |      | (mm)         | (in) | (mm) | (in) | (mm) | (in) |
| 2KILF16           | Plug/Male     | 1/4       | 1/4 -18 NPTF | 2    | 46.7         | 1.84 | 25.7 | 1.01 | 17.5 | 0.69 |
| 2KILF720          | Plug/Male     | 1/4       | 7/16 -20 UNF | 2    | 40.9         | 1.61 | 25.7 | 1.01 | 17.5 | 0.69 |
| 2KILF             | Plug/Male     | 1/4       | 5/8-18 UNF   | 2    | 29.7         | 1.17 | 25.7 | 1.01 | 17.3 | 0.68 |

# FD48 Series Parker Bruning SM-250 Interchange

Fluid transfer & Hydraulic application



Danfoss Hansen FD48 Series coupling is poppet style quick disconnect coupling designed to interchange with Parker Bruning SM-250 couplings where excellent high and low pressure sealing is required. The FD48 operates with pressures up to 3,000 psi.

## Product Features

- Self-sealing poppet valves provide excellent high and low pressure sealing
- PUSH-PULL™ ball latch design allows quick and easy connection and disconnection of fluid lines
- Heat-treated and plated steel for wear and corrosion resistance
- Standard seal material: Buna-N
- Standard body material: High resistance carbon steel with zinc trivalent plating

## Physical characteristics

| Body Size<br>(in) | Max. Operating Pressure |       | Min. Burst Pressure Connected |        | Vacuum Connected Only |       | Rated Flow |          | Air Inclusion | Fluid Loss |
|-------------------|-------------------------|-------|-------------------------------|--------|-----------------------|-------|------------|----------|---------------|------------|
|                   | (bar)                   | (psi) | (bar)                         | (psi)  | (bar)                 | (lpm) | (gpm)      | cc. max. | cc. max.      |            |
| 1/4               | 210                     | 3,000 | 840                           | 12,000 | 28                    | 11    | 3          | 0.50     | 1.10          |            |

## Dimensions (Female NPT, Valved)

| Part/Order Number<br>Buna-N | Coupling Type | Body Size | Port Size | Thread | Type       | Dimensions |      |      |      |      |       |      |
|-----------------------------|---------------|-----------|-----------|--------|------------|------------|------|------|------|------|-------|------|
|                             |               |           |           |        |            | Fig.       | A    |      | B    |      | Hex Ⓛ |      |
|                             |               |           |           |        |            |            | (mm) | (in) | (mm) | (in) | (mm)  | (in) |
| FD48-1002-04-04             | Plug/Male     | 1/4       | 1/4       | 1/4-18 | Female NPT | 1          | 36.8 | 1.45 | -    | -    | 19.0  | 0.75 |
| FD48-1001-04-04             | Socket/Female | 1/4       | 1/4       | 1/4-18 | Female NPT | 2          | 51.1 | 2.01 | 26.9 | 1.06 | 20.6  | 0.81 |

## Applications & Markets

- Hydraulic and fluid transfer
- Agricultural equipment

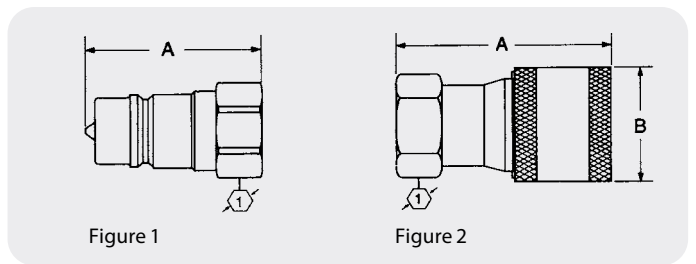
## Dust Cap/Plug

| Part/Order Number<br>Buna-N | Body Size |
|-----------------------------|-----------|
| FD48-1042-04*               | 1/4       |

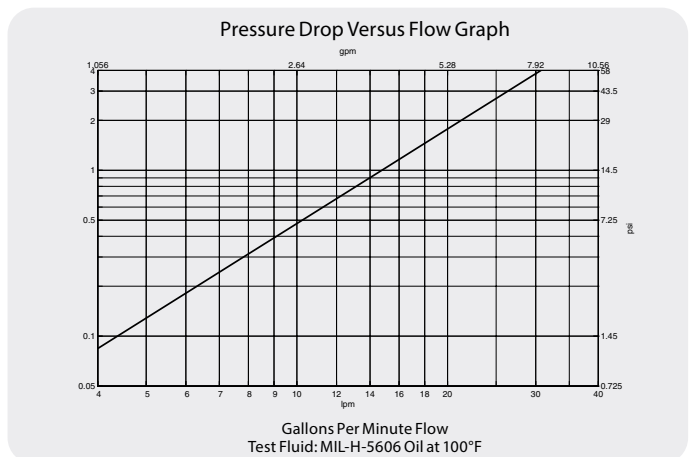
\*Fits both plug/male and socket/female halves.



Dust Cap/Plug



## Flow Data



# ST Series

Fluid transfer & Hydraulic application



Danfoss Hansen ST Series is a straight-through coupling that is designed for use where minimum pressure drop is required and valving is not needed. These couplings are suited for various and versatile fluid transfer type systems.

## Product Features

- Ball-latching mechanism
- Smooth bore permits free flow of liquid or gas
- Available in NPTF, BSPP and Hose stem end connections
- Standard seal material: Nitrile (NBR)
- Standard body material: Brass, 303 stainless steel

## Physical characteristics

| Series | Body Size<br>(in) | Max. Operating Pressure<br>Brass Socket & Plug** |       | Max. Operating Pressure<br>Brass Socket & Steel Plug** |       | Max. Operating Pressure<br>Stainless Socket & Plug** |       | Max. Operating Pressure<br>for Hazardous liquids and gases Group 1 |       | Min. Burst Pressure* |        | Rated Flow |       |
|--------|-------------------|--|-------|--|-------|--|-------|--|-------|----------------------|--------|------------|-------|
|        |                   | (bar)  | (psi) | (bar)  | (psi) | (bar)  | (psi) | (bar)  | (psi) | (bar)                | (psi)  | (lpm)      | (gpm) |
| 1ST    | 1/8               | 193  | 2,800 | 234  | 3,400 | 290  | 4,200 | ***  | ***   | 772                  | 11,200 | 10         | 2.7   |
| 2ST    | 1/4               | 359  | 5,200 | 379  | 5,500 | 517  | 7,500 | ***  | ***   | 1,436                | 20,800 | 21         | 5.6   |
| 3ST    | 3/8               | 193  | 2,800 | 290  | 4,200 | 434  | 6,300 | ***  | ***   | 772                  | 11,200 | 57         | 15.0  |
| 4ST    | 1/2               | 152  | 2,200 | 241  | 3,500 | 248  | 3,600 | ***  | ***   | 608                  | 8,800  | 83         | 22.0  |
| 6ST    | 3/4               | 117  | 1,700 | 145  | 2,100 | 207  | 3,000 | ***  | ***   | 468                  | 6,800  | 250        | 66.0  |
| 8ST    | 1                 | 90   | 1,300 | 138  | 2,000 | 138  | 2,000 | ***  | ***   | 360                  | 5,200  | 530        | 140.0 |
| 10ST   | 1 1/4             | 117  | 1,700 | 186  | 2,700 | 152  | 2,200 | ***  | ***   | 468                  | 6,800  | 697        | 184.0 |
| 12ST   | 1 1/2             | 97   | 1,400 | 152  | 2,200 | 172  | 2,500 | 33   | 480   | 388                  | 5,600  | 1,124      | 297.0 |
| 16ST   | 2                 | 97   | 1,400 | 152  | 2,200 | 103  | 1,500 | 27   | 390   | 388                  | 5,600  | 1,855      | 490.0 |
| 20ST   | 2 1/2             | 62   | 900   | 103  | 1,500 | -  | -     | 20   | 290   | 248                  | 3,600  | 3,131      | 827.0 |

\* For Brass socket and plug. Other materials have 4 to 1 safety factor.  
 \*\* Operating pressure for Non Hazardous liquids and gases from Group 2.  
 \*\*\* Operating pressure is same as Non Hazardous liquids and gases from Group 2 for this size.

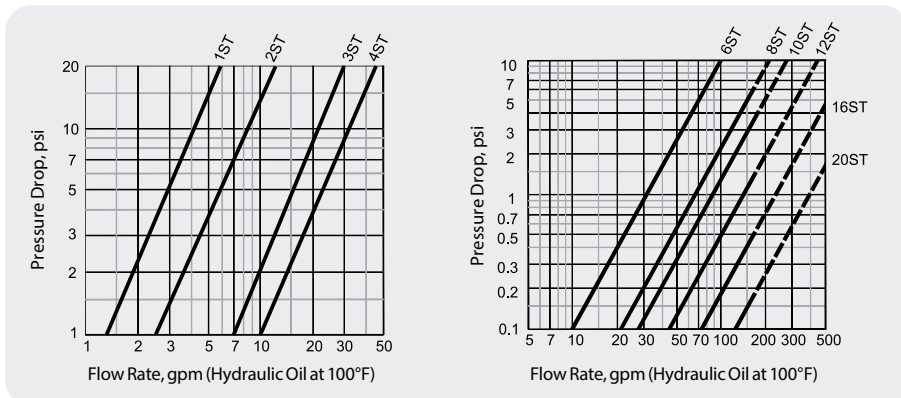
## Applications & Markets

- Fluid Transfer
- Chemical
- Food and Beverage
- Injection Molding
- Marine
- Medical
- Pressure Washing
- Steam Cleaning

## European Pressure Equipment Directive

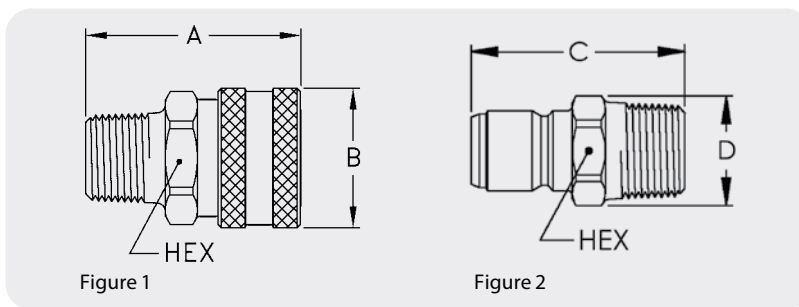
Couplings with nominal diameters up to and including 25 mm are designed and manufactured under Article 4.3 of the European Pressure Equipment Directive PED 2014/68/EU. Couplings with nominal diameters greater than 25 mm are designed and manufactured in accordance with the stipulations of Module A of the European Pressure Equipment Directive PED 2014/68/EU. They should not be used to convey unstable gases.

## Flow Data



# ST Series

Global region



## Male End Connections

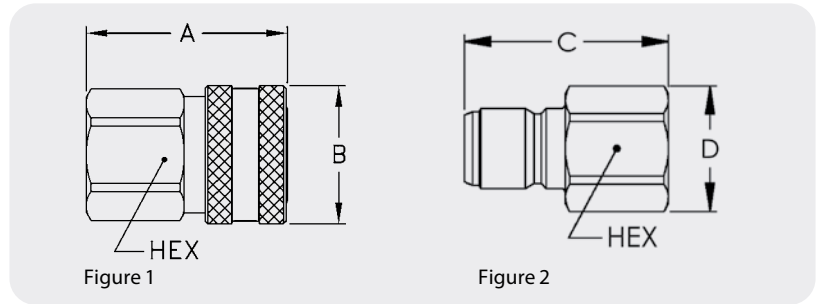
| Part/Order Number | Brass | Steel | Stainless | Coupling Type | Body Size | Port Size | Thread   | Type | Fig. | Dimensions |      |      |      |      |      |
|-------------------|-------|-------|-----------|---------------|-----------|-----------|----------|------|------|------------|------|------|------|------|------|
|                   |       |       |           |               |           |           |          |      |      | A          |      | B    |      | Hex  |      |
|                   |       |       |           |               |           |           |          |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 1S10              | -     | -     | LL1S10    | Socket/Female | 1/8       | 1/8       | 1/8-27   | NPTF | 1    | 26.9       | 1.06 | 18.3 | 0.72 | 14.2 | 0.56 |
| 1S10BS            | -     | -     | -         | Socket/Female | 1/8       | 1/8       | 1/8-28   | BSPP | 1    | 25.4       | 1.00 | 18.3 | 0.72 | 14.2 | 0.56 |
| 2S15              | -     | -     | LL2S15    | Socket/Female | 1/4       | 1/4       | 1/4-18   | NPTF | 1    | 43.7       | 1.72 | 24.6 | 0.97 | 20.6 | 0.81 |
| 3S20              | -     | -     | LL3S20    | Socket/Female | 3/8       | 3/8       | 3/8-18   | NPTF | 1    | 44.5       | 1.75 | 29.5 | 1.16 | 25.4 | 1.00 |
| 3S20BS            | -     | -     | LL3S20BS  | Socket/Female | 3/8       | 3/8       | 3/8-19   | BSPP | 1    | 43.4       | 1.71 | 29.5 | 1.16 | 25.4 | 1.00 |
| 4S25              | -     | -     | LL4S25    | Socket/Female | 1/2       | 1/2       | 1/2-14   | NPTF | 1    | 51.6       | 2.03 | 34.0 | 1.34 | 28.7 | 1.13 |
| 4S25BS            | -     | -     | LL4S25BS  | Socket/Female | 1/2       | 1/2       | 1/2-14   | BSPP | 1    | 45.7       | 1.80 | 34.0 | 1.34 | 28.7 | 1.13 |
| 6S30              | -     | -     | LL6S30    | Socket/Female | 3/4       | 3/4       | 3/4-14   | NPTF | 1    | 56.4       | 2.22 | 43.7 | 1.72 | 36.6 | 1.44 |
| 6S30BS            | -     | -     | -         | Socket/Female | 3/4       | 3/4       | 3/4-14   | BSPP | 1    | 51.6       | 2.03 | 43.7 | 1.72 | 36.6 | 1.44 |
| 8S35              | -     | -     | -         | Socket/Female | 1         | 1         | 1-11 1/2 | NPTF | 1    | 64.3       | 2.53 | 51.6 | 2.03 | 44.5 | 1.75 |
| 8S35BS            | -     | -     | -         | Socket/Female | 1         | 1         | 1-11     | BSPP | 3    | 60.2       | 2.37 | 51.6 | 2.03 | 44.5 | 1.75 |

| Part/Order Number | Brass | Steel | Stainless | Coupling Type | Body Size | Port Size | Thread       | Type | Fig. | Dimensions |      |      |      |      |      |
|-------------------|-------|-------|-----------|---------------|-----------|-----------|--------------|------|------|------------|------|------|------|------|------|
|                   |       |       |           |               |           |           |              |      |      | C          |      | D    |      | Hex  |      |
|                   |       |       |           |               |           |           |              |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| B1T10             | 1T10E | -     | LL1T10    | Plug/Male     | 1/8       | 1/8       | 1/8-27       | NPTF | 2    | 26.9       | 1.06 | 13.0 | 0.51 | 11.2 | 0.44 |
| B1T15             | 1T15  | -     | -         | Plug/Male     | 8         | 1/4       | 1/4-18       | NPTF | 2    | 31.0       | 1.22 | 16.5 | 0.65 | 14.2 | 0.56 |
| B2T15             | 2T15  | -     | LL2T15    | Plug/Male     | 1/4       | 1/4       | 1/4-18       | NPTF | 2    | 39.6       | 1.56 | 16.5 | 0.65 | 14.2 | 0.56 |
| -                 | -     | -     | HL2T15**  | Plug/Male     | 1/4       | 1/4       | 1/4-18       | NPTF | 2    | 39.6       | 1.56 | 16.5 | 0.65 | 14.2 | 0.56 |
| B2T15BS           | -     | -     | LL2T15BS  | Plug/Male     | 1/4       | 1/4       | 1/4-19       | BSPP | 2    | 37.1       | 1.46 | 22.1 | 0.87 | 19.1 | 0.75 |
| B3T20             | 3T20  | -     | LL3T20    | Plug/Male     | 3/8       | 3/8       | 3/8-18       | NPTF | 2    | 42.9       | 1.69 | 20.1 | 0.79 | 17.5 | 0.69 |
| -                 | -     | -     | HL3T20**  | Plug/Male     | 3/8       | 3/8       | 3/8-18       | NPTF | 2    | 42.9       | 1.69 | 20.1 | 0.79 | 17.5 | 0.69 |
| B3T20BS           | -     | -     | LL3T20BS  | Plug/Male     | 3/8       | 3/8       | 3/8-19       | BSPP | 2    | 38.1       | 1.50 | 25.7 | 1.01 | 22.4 | 0.88 |
| B4T25             | 4T25  | -     | LL4T25    | Plug/Male     | 1/2       | 1/2       | 1/2-14       | NPTF | 2    | 51.1       | 2.01 | 25.7 | 1.01 | 22.4 | 0.88 |
| B4T25BS           | -     | -     | LL4T25BS  | Plug/Male     | 1/2       | 1/2       | 1/2-14       | BSPP | 2    | 46.2       | 1.82 | 29.2 | 1.15 | 25.4 | 1.00 |
| B6T30             | 6T30  | -     | LL6T30    | Plug/Male     | 3/4       | 3/4       | 1/2-14       | NPTF | 2    | 55.9       | 2.2  | 31.2 | 1.23 | 26.9 | 1.06 |
| B6T30BS           | -     | -     | LL6T30BS  | Plug/Male     | 3/4       | 3/4       | 1/2-14       | BSPP | 2    | 52.8       | 2.08 | 36.6 | 1.44 | 31.8 | 1.25 |
| B8T35             | 8T35  | -     | LL8T35    | Plug/Male     | 1         | 1         | 1-11 1/2     | NPTF | 2    | 63.2       | 2.49 | 40.4 | 1.59 | 35.1 | 1.38 |
| B8T35BS           | -     | -     | -         | Plug/Male     | 1         | 1         | 1-11         | BSPP | 2    | 59.9       | 2.36 | 51.3 | 2.02 | 44.5 | 1.75 |
| B10T40            | 10T40 | -     | LL10T40   | Plug/Male     | 1 1/4     | 1 1/4     | 1 1/4-11 1/2 | NPTF | 2    | 69.1       | 2.72 | 51.3 | 2.02 | 44.5 | 1.75 |
| B10T40BS          | -     | -     | -         | Plug/Male     | 1 1/4     | 1 1/4     | 1 1/4-11     | BSPP | 2    | 64.8       | 2.55 | 58.7 | 2.31 | 50.8 | 2.00 |
| B12T45            | 12T45 | -     | -         | Plug/Male     | 1 1/2     | 1 1/2     | 1 1/2-11 1/2 | NPTF | 2    | 84.1       | 3.31 | 66.0 | 2.6  | 57.2 | 2.25 |
| B12T45BS          | -     | -     | -         | Plug/Male     | 1 1/2     | 1 1/2     | 1 1/2-11     | BSPP | 2    | 77.7       | 3.06 | 66.0 | 2.6  | 57.2 | 2.25 |
| B16T50            | 16T50 | -     | LL16T50   | Plug/Male     | 2         | 2         | 2-11 1/2     | NPTF | 2    | 88.9       | 3.5  | 80.8 | 3.18 | 69.9 | 2.75 |
| B20T55            | -     | -     | -         | Plug/Male     | 2 1/2     | 2 1/2     | 2 1/2-8      | NPTF | 2    | 107.7      | 4.24 | 95.3 | 3.75 | 82.6 | 3.25 |

\*\*High impulse heat treated 416 stainless steel.

# ST Series

Global region



## Female End Connections

| Part/Order Number | Brass | Steel | Stainless | Coupling Type | Body Size | Port Size | Thread       | Type | Fig. | Dimensions |      |       |      |      |      |
|-------------------|-------|-------|-----------|---------------|-----------|-----------|--------------|------|------|------------|------|-------|------|------|------|
|                   |       |       |           |               |           |           |              |      |      | A          |      | B     |      | Hex  |      |
|                   |       |       |           |               |           |           |              |      |      | (mm)       | (in) | (mm)  | (in) | (mm) | (in) |
| 1S11              | -     | -     | LL1S11    | Socket/Female | 1/8       | 1/8       | 1/8-27       | NPTF | 1    | 26.9       | 1.06 | 18.3  | 0.72 | 14.2 | 0.56 |
| 1S11BS            | -     | -     | LL1S11BS  | Socket/Female | 1/8       | 1/8       | 1/8-28       | BSPP | 1    | 26.2       | 1.03 | 18.3  | 0.72 | 14.2 | 0.56 |
| 2S16              | -     | -     | LL2S16    | Socket/Female | 1/4       | 1/4       | 1/4-18       | NPTF | 1    | 38.1       | 1.50 | 24.6  | 0.97 | 20.6 | 0.81 |
| 2S16BS            | -     | -     | LL2S16BS  | Socket/Female | 1/4       | 1/4       | 1/4-19       | BSPP | 1    | 38.1       | 1.50 | 24.6  | 0.97 | 20.6 | 0.81 |
| 3S21              | -     | -     | LL3S21    | Socket/Female | 3/8       | 3/8       | 3/8-18       | NPTF | 1    | 40.4       | 1.59 | 29.5  | 1.16 | 25.4 | 1.00 |
| 3S21BS            | -     | -     | LL3S21BS  | Socket/Female | 3/8       | 3/8       | 3/8-19       | BSPP | 1    | 40.4       | 1.59 | 29.5  | 1.16 | 25.4 | 1.00 |
| 4S26              | -     | -     | LL4S26    | Socket/Female | 1/2       | 1/2       | 1/2-14       | NPTF | 1    | 48.5       | 1.91 | 34.0  | 1.34 | 28.7 | 1.13 |
| 4S26BS            | -     | -     | LL4S26BS  | Socket/Female | 1/2       | 1/2       | 1/2-14       | BSPP | 1    | 48.5       | 1.91 | 34.0  | 1.34 | 28.7 | 1.13 |
| 6S31              | -     | -     | LL6S31    | Socket/Female | 3/4       | 3/4       | 3/4-14       | NPTF | 1    | 52.3       | 2.06 | 43.7  | 1.72 | 36.6 | 1.44 |
| 6S31BS            | -     | -     | LL6S31BS  | Socket/Female | 3/4       | 3/4       | 3/4-14       | BSPP | 1    | 52.3       | 2.06 | 43.7  | 1.72 | 36.6 | 1.44 |
| 8S36              | -     | -     | LL8S36    | Socket/Female | 1         | 1         | 1-11 1/2     | NPTF | 1    | 59.2       | 2.33 | 51.6  | 2.03 | 44.5 | 1.75 |
| 8S36BS            | -     | -     | LL8S36BS  | Socket/Female | 1         | 1         | 1-11         | BSPP | 1    | 59.2       | 2.33 | 51.6  | 2.03 | 44.5 | 1.75 |
| 10S41*            | -     | -     | LL10S41   | Socket/Female | 1 1/4     | 1 1/4     | 1 1/4-11 1/2 | NPTF | 1    | 62.0       | 2.44 | 63.5  | 2.50 | 50.8 | 2.00 |
| 10S41BS*          | -     | -     | -         | Socket/Female | 1 1/4     | 1 1/4     | 1 1/4-11     | BSPP | 1    | 63.8       | 2.51 | 63.5  | 2.50 | 50.8 | 2.00 |
| 12S46*            | -     | -     | LL12S46   | Socket/Female | 1 1/2     | 1 1/2     | 1 1/2-11 1/2 | NPTF | 1    | 73.2       | 2.88 | 79.5  | 3.13 | 66.0 | 2.60 |
| 12S46BS*          | -     | -     | LL12S46BS | Socket/Female | 1 1/2     | 1 1/2     | 1 1/2-11     | BSPP | 1    | 73.2       | 2.88 | 79.5  | 3.13 | 66.8 | 2.63 |
| 16S51*            | -     | -     | LL16S51   | Socket/Female | 2         | 2         | 2-11 1/2     | NPTF | 1    | 78.5       | 3.09 | 95.3  | 3.75 | 76.2 | 3.00 |
| 16S51BS*          | -     | -     | LL16S51BS | Socket/Female | 2         | 2         | 2-11         | BSPP | 1    | 83.8       | 3.30 | 95.3  | 3.75 | 76.2 | 3.00 |
| 20S56*            | -     | -     | -         | Socket/Female | 2 1/2     | 2 1/2     | 2 1/2-8      | NPTF | 1    | 87.4       | 3.44 | 114.3 | 4.50 | 88.9 | 3.50 |

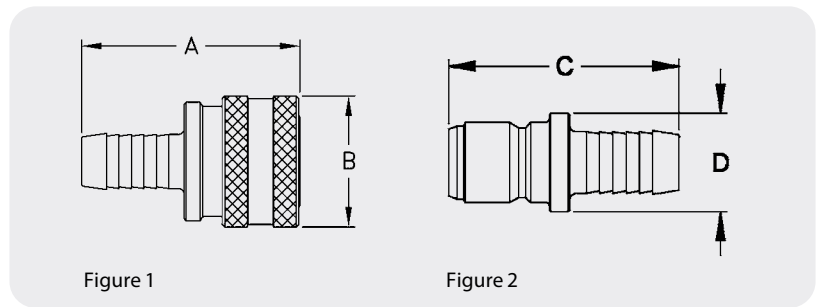
| Part/Order Number | Brass | Steel | Stainless | Coupling Type | Body Size | Port Size | Thread       | Type | Fig. | Dimensions |      |      |      |      |      |
|-------------------|-------|-------|-----------|---------------|-----------|-----------|--------------|------|------|------------|------|------|------|------|------|
|                   |       |       |           |               |           |           |              |      |      | C          |      | D    |      | Hex  |      |
|                   |       |       |           |               |           |           |              |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| B1T11             | 1T11  | -     | LL1T11    | Plug/Male     | 1/8       | 1/8       | 1/8-27       | NPTF | 2    | 24.6       | 0.97 | 14.7 | 0.58 | 12.7 | 0.50 |
| B1T11BS           | -     | -     | LL1T11BS  | Plug/Male     | 1/8       | 1/8       | 1/8-28       | BSPP | 2    | 24.6       | 0.97 | 16.5 | 0.65 | 14.2 | 0.56 |
| B2T16             | 2T16  | -     | LL2T16    | Plug/Male     | 1/4       | 1/4       | 1/4-18       | NPTF | 2    | 36.8       | 1.45 | 20.1 | 0.79 | 17.5 | 0.69 |
| -                 | -     | -     | HL2T16**  | Plug/Male     | 1/4       | 1/4       | 1/4-18       | NPTF | 2    | 36.8       | 1.45 | 20.1 | 0.79 | 17.5 | 0.69 |
| B2T16BS           | -     | -     | LL2T16BS  | Plug/Male     | 1/4       | 1/4       | 1/4-19       | BSPP | 2    | 36.8       | 1.45 | 22.1 | 0.87 | 19.1 | 0.75 |
| B3T21             | 3T21  | -     | LL3T21    | Plug/Male     | 3/8       | 3/8       | 3/8-18       | NPTF | 2    | 41.4       | 1.63 | 23.9 | 0.94 | 20.6 | 0.81 |
| -                 | -     | -     | HL3T21**  | Plug/Male     | 3/8       | 3/8       | 3/8-18       | NPTF | 2    | 41.4       | 1.63 | 23.9 | 0.94 | 20.6 | 0.81 |
| B3T21BS           | -     | -     | LL3T21BS  | Plug/Male     | 3/8       | 3/8       | 3/8-19       | BSPP | 2    | 41.4       | 1.63 | 25.7 | 1.01 | 22.4 | 0.88 |
| B4T26             | 4T26  | -     | LL4T26    | Plug/Male     | 1/2       | 1/2       | 1/2-14       | NPTF | 2    | 48.8       | 1.92 | 29.2 | 1.15 | 25.4 | 1.00 |
| B4T26BS           | -     | -     | LL4T26BS  | Plug/Male     | 1/2       | 1/2       | 1/2-14       | BSPP | 2    | 48.8       | 1.92 | 31.2 | 1.23 | 26.9 | 1.06 |
| B6T31             | 6T31  | -     | LL6T31    | Plug/Male     | 3/4       | 3/4       | 3/4-14       | NPTF | 2    | 51.1       | 2.01 | 34.8 | 1.37 | 30.2 | 1.19 |
| B6T31BS           | -     | -     | LL6T31BS  | Plug/Male     | 3/4       | 3/4       | 3/4-14       | BSPP | 2    | 51.1       | 2.01 | 38.4 | 1.51 | 33.3 | 1.31 |
| B8T36             | 8T36  | -     | LL8T36    | Plug/Male     | 1         | 1         | 1-11 1/2     | NPTF | 2    | 56.1       | 2.21 | 45.7 | 1.80 | 39.6 | 1.56 |
| B8T36BS           | -     | -     | LL8T36BS  | Plug/Male     | 1         | 1         | 1-11         | BSPP | 2    | 56.6       | 2.23 | 45.7 | 1.80 | 39.6 | 1.56 |
| B10T41            | 10T41 | -     | LL10T41   | Plug/Male     | 1 1/4     | 1 1/4     | 1 1/4-11 1/2 | NPTF | 2    | 59.4       | 2.34 | 58.7 | 2.31 | 50.8 | 2.00 |
| B10T41BS          | -     | -     | LL10T41BS | Plug/Male     | 1 1/4     | 1 1/4     | 1 1/4-11     | BSPP | 2    | 64.3       | 2.53 | 58.7 | 2.31 | 50.8 | 2.00 |
| B12T46            | 12T46 | -     | LL12T46   | Plug/Male     | 1 1/2     | 1 1/2     | 1 1/2-11 1/2 | NPTF | 2    | 73.2       | 2.88 | 66.0 | 2.60 | 57.2 | 2.25 |
| B12T46BS          | -     | -     | LL12T46BS | Plug/Male     | 1 1/2     | 1 1/2     | 1 1/2-11     | BSPP | 2    | 73.2       | 2.88 | 66.0 | 2.60 | 57.2 | 2.25 |
| B16T51            | 16T51 | -     | -         | Plug/Male     | 2         | 2         | 2-11 1/2     | NPTF | 2    | 77.0       | 3.03 | 80.8 | 3.18 | 69.9 | 2.75 |
| B16T51BS          | -     | -     | -         | Plug/Male     | 2         | 2         | 2-11         | BSPP | 2    | 82.6       | 3.25 | 80.8 | 3.18 | 69.9 | 2.75 |
| B20T56            | 20T56 | -     | -         | Plug/Male     | 2 1/2     | 2 1/2     | 2 1/2-8      | NPTF | 2    | 85.6       | 3.37 | 95.3 | 3.75 | 82.6 | 3.25 |

\*With Steel Sleeve

\*\*High impulse heat treated 416 stainless steel

# ST Series

Global region



## Hose Stem End Connections

| Part/Order Number | Brass  | Stainless | Steel | Coupling Type | Body Size | Hose I.D. | Fig. | Dimensions |      |      |      |
|-------------------|--------|-----------|-------|---------------|-----------|-----------|------|------------|------|------|------|
|                   |        |           |       |               |           |           |      | A          |      | B    |      |
|                   |        |           |       |               |           |           |      | (mm)       | (in) | (mm) | (in) |
| 1S12              | LL1S12 | -         | -     | Socket/Female | 1/8       | 3/16      | 1    | 35.8       | 1.41 | 18.3 | 0.72 |
| 1S17              | LL1S17 | -         | -     | Socket/Female | 1/8       | 1/4       | 1    | 35.8       | 1.41 | 18.3 | 0.72 |
| 2S17              | LL2S17 | -         | -     | Socket/Female | 1/4       | 1/4       | 1    | 53.3       | 2.10 | 24.6 | 0.97 |
| 3S22              | LL3S22 | -         | -     | Socket/Female | 3/8       | 3/8       | 1    | 53.1       | 2.09 | 29.5 | 1.16 |
| 4S27              | LL4S27 | -         | -     | Socket/Female | 1/2       | 1/2       | 1    | 55.6       | 2.19 | 34.0 | 1.34 |
| 6S32              | LL6S32 | -         | -     | Socket/Female | 3/4       | 3/4       | 1    | 81.0       | 3.19 | 43.7 | 1.72 |
| 8S37              | LL8S37 | -         | -     | Socket/Female | 1         | 1         | 1    | 84.3       | 3.32 | 51.6 | 2.03 |

| Part/Order Number | Brass  | Stainless | Steel | Coupling Type | Body Size | Hose I.D. | Fig. | Dimensions |      |      |      |
|-------------------|--------|-----------|-------|---------------|-----------|-----------|------|------------|------|------|------|
|                   |        |           |       |               |           |           |      | C          |      | D    |      |
|                   |        |           |       |               |           |           |      | (mm)       | (in) | (mm) | (in) |
| B1T12             | LL1T12 | —         | —     | Plug/Male     | 1/8       | 3/16      | 2    | 32.5       | 1.28 | 11.2 | 0.44 |
| B1T17             | LL1T17 | —         | —     | Plug/Male     | 1/8       | 1/4       | 2    | 32.5       | 1.28 | 11.2 | 0.44 |
| B2T17             | LL2T17 | —         | —     | Plug/Male     | 1/4       | 1/4       | 2    | 49.0       | 1.93 | 14.2 | 0.56 |
| B3T22             | LL3T22 | —         | —     | Plug/Male     | 3/8       | 3/8       | 2    | 53.1       | 2.09 | 17.5 | 0.69 |
| B4T27             | LL4T27 | —         | —     | Plug/Male     | 1/2       | 1/2       | 2    | 55.1       | 2.17 | 22.4 | 0.88 |
| B6T32             | LL6T32 | —         | —     | Plug/Male     | 3/4       | 3/4       | 2    | 80.5       | 3.17 | 30.2 | 1.19 |
| B8T37             | —      | —         | 8T37  | Plug/Male     | 1         | 1         | 2    | 83.3       | 3.28 | 38.1 | 1.5  |

## Dust Caps and Dust Plugs

| Series | Dust Cap | Dust Plug |
|--------|----------|-----------|
| 2ST    | -        | XPSDC1HK  |
| 3ST    | -        | XPSDC2HK  |
| 6ST    | XPPDC4HK | XPSDC4HK  |
| 8ST    | XPPDC6HK | -         |
| 10ST   | XPPDC8HK | -         |



# L7000 Series (Steel) Full Flow

Fluid transfer & Hydraulic application



Danfoss Hansen L7000 Series steel quick disconnect coupling is a full-flow coupling with a rugged construction. Similar to the Danfoss H5000 Series, the heat treatment and hardened materials give the coupling excellent resistance to mechanical and hydraulic demands. It is suited for applications where maximum flow capacity is a requirement and valving is not needed.

## Product Features

- Proprietary profile
- Full flow pull-to-connect couplings
- Ball-locking
- Excellent flow performance
- Standard body material: Zinc trivalent plated steel
- Optional dust caps and plugs (made of anodized aluminum)
- Standard seal material: NBR, FKM, EPDM

## Physical characteristics

| Body Size (in) | Nominal Flow Diameter (mm) | Max. Operating Pressure (connected)*     |        |                                      |        |
|----------------|----------------------------|--|--------|--------------------------------------|--------|
|                |                            | Non hazardous liquids & gases in Group 2 |        | Hazardous liquids & gases in Group 1 |        |
|                |                            | (bar)                                    | (psi)  | (bar)                                | (psi)  |
| 1/8            | 8                          | 1,000                                    | 14,500 | 1,000                                | 14,500 |
| 1/4            | 10                         | 700                                      | 10,150 | 700                                  | 10,150 |
| 3/8            | 12                         | 600                                      | 8,700  | 600                                  | 8,700  |
| 1/2            | 15                         | 500                                      | 7,250  | 500                                  | 7,250  |
| 3/4            | 20                         | 400                                      | 5,800  | 400                                  | 5,800  |
| 1              | 25                         | 300                                      | 4,350  | 300                                  | 4,350  |
| 1 1/4          | 33                         | 200                                      | 2,900  | 30                                   | 435    |
| 1 1/2          | 40                         | 150                                      | 2,175  | 24                                   | 345    |
| 2              | 50                         | 100                                      | 1,450  | 19                                   | 275    |

## European Pressure Equipment Directive\*

Couplings with nominal diameters up to and including 25 mm are designed and manufactured under Article 4.3 of the European Pressure Equipment Directive PED 2014/68/EU. Couplings with nominal diameters greater than 25 mm are designed and manufactured in accordance with the stipulations of Module A of the European Pressure Equipment Directive PED 2014/68/EU. They should not be used to convey unstable gases.

\*Group 1 = Hazardous media / Group 2 = Other media

## Flow Data

The nominal flow diameter of the coupling has no impact on pressure drop, as it is wider than the circuit diameter.

| Seal Elastomer Data*        |                                  |
|-----------------------------|----------------------------------|
| Seal Elastomer              | Max. Operation Temperature Range |
| NBR (Nitrile)               | -20°C +100°C/-4°F +212°F         |
| FKM (Fluorocarbon)          | -20°C +200°C/-4°F +392°F         |
| EPDM (Ethylene-Propylene)** | -40°C +150°C/-40°F +302°F        |

\*For reference only, based on Danfoss recommended temperatures.

\*\* In accordance with NF L 17-241 or NAS 1613 rev. 5, depending on size.

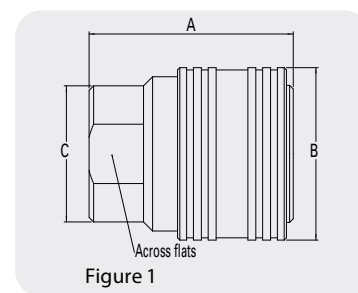
Contact Danfoss technical support for further information on fluid compatibility.

## Applications & Markets

- Fluid Transfer Lines
- Refrigerant Circuits
- Applications where maximum flow capacity is required

# L7000 Series (Steel) Full Flow

EMEA region



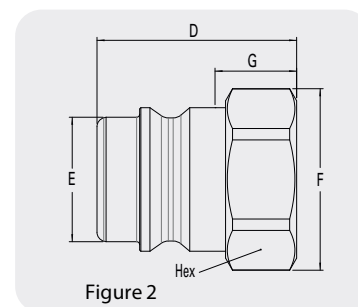
## Sockets (Female)

| Part/Order Number |           |           | Body Size | Nominal Flow Diameter | Thread Size* (Female) BSPP | Fig. | Dimensions |      |      |      |      |      |      | Weight |      |       |
|-------------------|-----------|-----------|-----------|-----------------------|----------------------------|------|------------|------|------|------|------|------|------|--------|------|-------|
| NBR*              | FKM       | EPDM      |           |                       |                            |      | (in)       | (mm) | (mm) | (in) | (mm) | (in) | (mm) | (in)   | (mm) | (in)  |
| LA0700100         | LA07001V0 | LA07001E0 | 3/8       | 8                     | 3/8-28                     | 1    | 41.5       | 1.63 | 24   | 0.94 | 21   | 0.83 | 16   | 0.63   | 0.19 | 86    |
| LA0701100         | LA07011V0 | LA07011E0 | 1/4       | 10                    | 1/4-19                     | 1    | 36.0       | 1.42 | 28   | 1.10 | 21   | 0.83 | 19   | 0.75   | 0.19 | 87    |
| LA0702100         | LA07021V0 | LA07021E0 | 3/8       | 12                    | 3/8-19                     | 1    | 38.0       | 1.50 | 34   | 1.34 | 26   | 1.02 | 23   | 0.90   | 0.28 | 129   |
| LA0703100         | LA07031V0 | LA07031E0 | 1/2       | 15                    | 1/2-14                     | 1    | 45.0       | 1.77 | 38   | 1.50 | 30   | 1.18 | 27   | 1.06   | 0.39 | 177   |
| LA0704100         | LA07041V0 | LA07041E0 | 3/4       | 20                    | 3/4-14                     | 1    | 56.0       | 2.20 | 48   | 1.89 | 38   | 1.50 | 35   | 1.38   | 0.78 | 355   |
| LA0705100         | LA07051V0 | LA07051E0 | 1         | 25                    | 1-11                       | 1    | 61.0       | 2.40 | 52   | 2.05 | 45   | 1.77 | 41   | 1.61   | 0.97 | 440   |
| -                 | LA07061V0 | LA07061E0 | 1 1/4     | 33                    | 1 1/4-11                   | 1    | 67.0       | 2.64 | 75   | 2.95 | 60   | 2.36 | 55   | 2.16   | 2.15 | 975   |
| -                 | LA07071V0 | LA07071E0 | 1 1/2     | 40                    | 1 1/2-11                   | 1    | 86.0       | 3.38 | 85   | 3.35 | 72   | 2.83 | 65   | 2.56   | 3.85 | 1,745 |
| -                 | LA07091V0 | LA07091E0 | 2         | 50                    | 2-11                       | 1    | 88.0       | 3.46 | 97   | 3.82 | 83   | 3.27 | 75   | 2.95   | 4.11 | 1,865 |

\*Body sizes 1 1/4, 1 1/2 and 2 are supplied with FKM seals as a standard.

\*\* Alternative end connections available upon request.

To obtain connected length of coupling add dimensions A (Fig. 1) and G (Fig. 2) together.



## Plugs (Male)

| Part/Order Number | Body Size | Nominal Flow Diameter | Thread Size* (Female) BSPP | Fig. | Dimensions |      |      |      |      |      |      | Weight |       |      |      |     |
|-------------------|-----------|-----------------------|----------------------------|------|------------|------|------|------|------|------|------|--------|-------|------|------|-----|
|                   |           |                       |                            |      | D          | E    | F    | G    | Hex  | (mm) | (in) | lbs    | grams |      |      |     |
| LA0700200         | 3/8       | 8                     | 3/8-28                     | 2    | 26.0       | 1.02 | 11.0 | 0.43 | 18.4 | 0.72 | 10.5 | 0.41   | 16    | 0.63 | 0.04 | 19  |
| LA0701200         | 1/4       | 10                    | 1/4-19                     | 2    | 25.5       | 1.00 | 14.2 | 0.56 | 21.0 | 0.82 | 10.5 | 0.41   | 19    | 0.75 | 0.06 | 26  |
| LA0702200         | 3/8       | 12                    | 3/8-19                     | 2    | 28.0       | 1.10 | 19.0 | 0.75 | 26.0 | 1.02 | 10.7 | 0.42   | 23    | 0.90 | 0.10 | 45  |
| LA0703200         | 1/2       | 15                    | 1/2-14                     | 2    | 33.0       | 1.30 | 20.6 | 0.81 | 30.0 | 1.18 | 13.0 | 0.51   | 27    | 1.06 | 0.12 | 54  |
| LA0704200         | 3/4       | 20                    | 3/4-14                     | 2    | 40.0       | 1.57 | 27.9 | 1.10 | 38.0 | 1.50 | 14.0 | 0.55   | 35    | 1.38 | 0.26 | 117 |
| LA0705200         | 1         | 25                    | 1-11                       | 2    | 44.0       | 1.73 | 32.4 | 1.27 | 45.0 | 1.77 | 18.5 | 0.73   | 41    | 1.61 | 0.34 | 155 |
| LA0706200         | 1 1/4     | 33                    | 1 1/4-11                   | 2    | 54.0       | 2.12 | 44.0 | 1.73 | 60.0 | 2.36 | 21.0 | 0.83   | 55    | 2.16 | 0.94 | 424 |
| LA0707200         | 1 1/2     | 40                    | 1 1/2-11                   | 2    | 59.0       | 2.32 | 53.5 | 2.10 | 71.9 | 2.83 | 22.0 | 0.87   | 65    | 2.56 | 1.45 | 656 |
| LA0709200         | 2         | 50                    | 2-11                       | 2    | 68.0       | 2.68 | 62.8 | 2.47 | 83.0 | 3.27 | 27.0 | 1.06   | 75    | 2.95 | 1.85 | 839 |

\*Alternative end connections available upon request.

To obtain connected length of coupling add dimensions A (Fig. 1) and G (Fig. 2) together.

## L7000 Series (Steel) Full Flow

### Dust Plugs and Dust Caps

| Body Size<br>(in) | Socket Dust Plug Part/Order Number<br>Anodized Aluminum | Plug Dust Cap Part/Order Number<br>Anodized Aluminum |
|-------------------|---|--|
| 1/8               | HD0510100   | HD0510200  |
| 1/4               | HD0511100   | HD0511200  |
| 3/8               | HD0512100   | HD0512200  |
| 1/2               | HD0513100   | HD0513200  |
| 3/4               | HD0514100   | HD0514200  |
| 1                 | HD0515100   | HD0515200  |
| 1 1/4             | HD0516100   | HD0516200  |
| 1 1/2             | HD0517100   | HD0517200  |
| 2                 | HD0519100   | HD0519200  |

Socket Dust Plug



### Seal Kit for Servicing Sockets (Female)

| Body size<br>(in) | Seal & Back-up Ring Kit*    |                              |                                |                              |                                 |                              |
|-------------------|-----------------------------|------------------------------|--------------------------------|------------------------------|---------------------------------|------------------------------|
|                   | Buna-N seals & PTFE back-up | Qty                          | FKM seals & PTFE back-up rings | Qty                          | EPDM seals & PTFE back-up rings | Qty                          |
| 1/8               | HG 05001 00                 | 50 O-rings + 50 Backup rings | HG 05001 V0                    | 15 O-rings + 15 Backup rings | HG 05001 E0                     | 15 O-rings + 15 Backup rings |
| 1/4               | HG 05011 00                 | 50 O-rings + 50 Backup rings | HG 05011 V0                    | 15 O-rings + 15 Backup rings | HG 05011 E0                     | 15 O-rings + 15 Backup rings |
| 3/8               | HG 05021 00                 | 50 O-rings + 50 Backup rings | HG 05021 V0                    | 15 O-rings + 15 Backup rings | HG 05021 E0                     | 15 O-rings + 15 Backup rings |
| 1/2               | HG 05031 00                 | 50 O-rings + 50 Backup rings | HG 05031 V0                    | 15 O-rings + 15 Backup rings | HG 05031 E0                     | 15 O-rings + 15 Backup rings |
| 3/4               | HG 05041 00                 | 50 O-rings + 50 Backup rings | HG 05041 V0                    | 15 O-rings + 15 Backup rings | HG 05041 E0                     | 15 O-rings + 15 Backup rings |
| 1                 | HG 05051 00                 | 50 O-rings + 50 Backup rings | HG 05051 V0                    | 10 O-rings + 10 Backup rings | HG 05051 E0                     | 10 O-rings + 10 Backup rings |
| 1 1/4             | LG 07061 00                 | 15 O-rings + 15 Backup rings | HG 05061 V0                    | 5 O-rings + 5 Backup rings   | -                               | -                            |
| 1 1/2             | LG 07071 00                 | 15 O-rings + 15 Backup rings | -                              | -                            | -                               | -                            |
| 2                 | LG 07091 00                 | 15 O-rings + 15 Backup rings | -                              | -                            | -                               | -                            |

\*The valve seal is not included in our repair kits.

## L7000 Series (Brass) Full Flow

Fluid transfer & Hydraulic application



Danfoss' L7000 Series brass quick disconnect coupling is a full-flow coupling suited for applications where maximum flow capacity is required and valving is not needed. Mainly used in fluid transfer applications where stainless steel is not a requirement, it can vehicle a wide range of media and offers good corrosion resistance.

### Product Features

- Proprietary profile
- Full flow pull-to-connect couplings
- Ball-locking
- Excellent flow performance
- Standard body material: Nickel-plated brass
- Optional dust caps and plugs (made of anodized aluminum)
- Standard seal material: NBR, FKM, EPDM

### Physical characteristics

| Body Size<br>(in) | Nominal Flow Diameter<br>(mm) | Max. Operating Pressure (connected)* |       |                  |       |
|-------------------|-------------------------------|--------------------------------------|-------|------------------|-------|
|                   |                               | Liquids in Groups 1 and 2            |       | Gases in Group 2 |       |
|                   |                               | (bar)                                | (psi) | (bar)            | (psi) |
| 1/8               | 8                             | 300                                  | 4,350 | 300              | 4,350 |
| 1/4               | 10                            | 230                                  | 3,335 | 230              | 3,335 |
| 3/8               | 12                            | 175                                  | 2,535 | 175              | 2,535 |
| 1/2               | 15                            | 150                                  | 2,175 | 150              | 2,175 |
| 3/4               | 20                            | 125                                  | 1,810 | 125              | 1,810 |
| 1                 | 25                            | 100                                  | 1,450 | 100              | 1,450 |
| 1 1/4             | 33                            | 60                                   | 870   | 30               | 435   |
| 1 1/2             | 40                            | 49                                   | 710   | 24               | 348   |
| 2                 | 50                            | 39                                   | 565   | 19               | 275   |

\* Nominal diameters over 25 mm should not be used to convey gases in Group 1 (as per PED 2014/68/EU).

### European Pressure Equipment Directive\*

All couplings are designed and manufactured under Article 4.3 of the European Pressure Equipment Directive PED 2014/68/EU. Couplings with nominal diameters greater than 25 mm should not be used to convey gases in Group 1 (hazardous).

\* Group 1 = Hazardous media / Group 2 = Other media

### Flow Data

The nominal flow diameter of the coupling has no impact on pressure drop, as it is wider than the circuit diameter.

| Seal Elastomer Data*        |                                  |
|-----------------------------|----------------------------------|
| Seal Elastomer              | Max. Operation Temperature Range |
| NBR (Nitrile)               | -20°C +100°C/-4°F +212°F         |
| FKM (Fluorocarbon)          | -20°C +200°C/-4°F +392°F         |
| EPDM (Ethylene-Propylene)** | -40°C +150°C/-40°F +302°F        |

\*For reference only, based on Danfoss recommended temperatures.

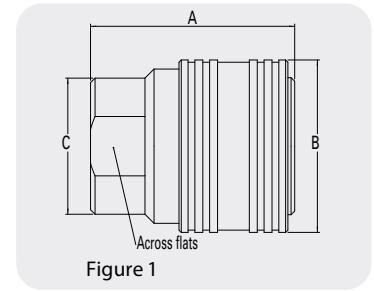
\*\* In accordance with NF L 17-241 or NAS 1613 rev. 5, depending on size.

Contact Danfoss technical support for further information on fluid compatibility.

### Applications & Markets

- Pressure Washing
- Steam-Cleaning Equipment
- Fluid Transfer Lines
- Refrigerant Circuits
- Applications where maximum flow capacity is required

# L7000 Series (Brass) Full Flow



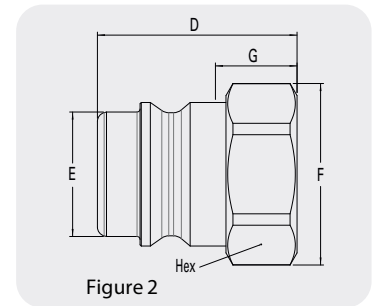
## Sockets (Female)

| Part/Order Number |           |           | Body Size<br>(in) | Nominal Flow Diameter<br>(mm) | Thread Size**<br>(Female)<br>BSPP | Fig. | Dimensions |      |      |              |      |      |       |      |      |       | Weight |  |
|-------------------|-----------|-----------|-------------------|-------------------------------|-----------------------------------|------|------------|------|------|--------------|------|------|-------|------|------|-------|--------|--|
| Buna-N*           | FKM       | EPDM      |                   |                               |                                   |      | A          | B    | C    | Across flats |      | lbs  | grams |      |      |       |        |  |
|                   |           |           |                   |                               |                                   |      | (mm)       | (in) | (mm) | (in)         | (mm) | (in) | (mm)  | (in) |      |       |        |  |
| LL0700100         | LL07001V0 | LL07001E0 | 3/8               | 8                             | 3/8-28                            | 1    | 41.5       | 1.63 | 24   | 0.94         | 21   | 0.83 | 16    | 0.63 | 0.21 | 95    |        |  |
| LL0701100         | LL07011V0 | LL07011E0 | 1/4               | 10                            | 1/4-19                            | 1    | 36.0       | 1.42 | 28   | 1.10         | 21   | 0.83 | 19    | 0.75 | 0.21 | 96    |        |  |
| LL0702100         | LL07021V0 | LL07021E0 | 3/8               | 12                            | 3/8-19                            | 1    | 38.0       | 1.50 | 34   | 1.34         | 26   | 1.02 | 23    | 0.90 | 0.31 | 142   |        |  |
| LL0703100         | LL07031V0 | LL07031E0 | 1/2               | 15                            | 1/2-14                            | 1    | 45.0       | 1.77 | 38   | 1.50         | 30   | 1.18 | 27    | 1.06 | 0.43 | 195   |        |  |
| LL0704100         | LL07041V0 | LL07041E0 | 3/4               | 20                            | 3/4-14                            | 1    | 56.0       | 2.20 | 48   | 1.89         | 38   | 1.50 | 35    | 1.38 | 0.86 | 391   |        |  |
| LL0705100         | LL07051V0 | LL07051E0 | 1                 | 25                            | 1-11                              | 1    | 61.0       | 2.40 | 52   | 2.05         | 45   | 1.77 | 41    | 1.61 | 1.07 | 484   |        |  |
| -                 | LL07061V0 | LL07061E0 | 1 1/4             | 33                            | 1 1/4-11                          | 1    | 67.0       | 2.64 | 75   | 2.95         | 60   | 2.36 | 55    | 2.16 | 2.37 | 1,073 |        |  |
| -                 | LL07071V0 | LL07071E0 | 1 1/2             | 40                            | 1 1/2-11                          | 1    | 86.0       | 3.38 | 85   | 3.35         | 72   | 2.83 | 65    | 2.56 | 4.23 | 1,920 |        |  |
| -                 | LL07091V0 | LL07091E0 | 2                 | 50                            | 2-11                              | 1    | 88.0       | 3.46 | 97   | 3.82         | 83   | 3.27 | 75    | 2.95 | 4.52 | 2,052 |        |  |

\*Body sizes 1 1/4, 1 1/2 and 2 are supplied with FKM seals as a standard.

\*\* Alternative end connections available upon request.

To obtain connected length of coupling add dimensions A (Fig. 1) and G (Fig. 2) together.



## Plugs (Male)

| Part/Order Number | Body Size<br>(in) | Nominal Flow Diameter<br>(mm) | Thread Size*<br>(Female)<br>BSPP | Fig. | Dimensions |      |      |      |      |      |       |      | Weight |      |      |     |
|-------------------|-------------------|-------------------------------|----------------------------------|------|------------|------|------|------|------|------|-------|------|--------|------|------|-----|
|                   |                   |                               |                                  |      | D          | E    | F    | G    | Hex  | lbs  | grams |      |        |      |      |     |
|                   |                   |                               |                                  |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) | (mm)  | (in) |        |      |      |     |
| LL0700200         | 3/8               | 8                             | 3/8-28                           | 2    | 26.0       | 1.02 | 11.0 | 0.43 | 18.4 | 0.72 | 10.5  | 0.41 | 16     | 0.63 | 0.05 | 21  |
| LL0701200         | 1/4               | 10                            | 1/4-19                           | 2    | 25.5       | 1.00 | 14.2 | 0.56 | 21.0 | 0.82 | 10.5  | 0.41 | 19     | 0.75 | 0.06 | 29  |
| LL0702200         | 3/8               | 12                            | 3/8-19                           | 2    | 28.0       | 1.10 | 19.0 | 0.75 | 26.0 | 1.02 | 10.7  | 0.42 | 23     | 0.90 | 0.11 | 50  |
| LL0703200         | 1/2               | 15                            | 1/2-14                           | 2    | 33.0       | 1.30 | 20.6 | 0.81 | 30.0 | 1.18 | 13.0  | 0.51 | 27     | 1.06 | 0.13 | 59  |
| LL0704200         | 3/4               | 20                            | 3/4-14                           | 2    | 40.0       | 1.57 | 27.9 | 1.10 | 38.0 | 1.50 | 14.0  | 0.55 | 35     | 1.38 | 0.28 | 129 |
| LL0705200         | 1                 | 25                            | 1-11                             | 2    | 44.0       | 1.73 | 32.4 | 1.27 | 45.0 | 1.77 | 18.5  | 0.73 | 41     | 1.61 | 0.38 | 171 |
| LL0706200         | 1 1/4             | 33                            | 1 1/4-11                         | 2    | 54.0       | 2.12 | 44.0 | 1.73 | 60.0 | 2.36 | 21.0  | 0.83 | 55     | 2.16 | 1.03 | 466 |
| LL0707200         | 1 1/2             | 40                            | 1 1/2-11                         | 2    | 59.0       | 2.32 | 53.5 | 2.10 | 71.9 | 2.83 | 22.0  | 0.87 | 65     | 2.56 | 1.59 | 722 |
| LL0709200         | 2                 | 50                            | 2-11                             | 2    | 68.0       | 2.68 | 62.8 | 2.47 | 83.0 | 3.27 | 27.0  | 1.06 | 75     | 2.95 | 2.04 | 923 |

\*Alternative end connections available upon request.

To obtain connected length of coupling add dimensions A (Fig. 1) and G (Fig. 2) together.

# L7000 Series (Brass) Full Flow

## Dust Plugs and Dust Caps

| Body Size (in) | Socket Dust Plug Part/Order Number<br>Anodized Aluminum | Plug Dust Cap Part/Order Number<br>Anodized Aluminum |
|----------------|---|--|
| 1/8            | HD0510100   | HD0510200  |
| 1/4            | HD0511100   | HD0511200  |
| 3/8            | HD0512100   | HD0512200  |
| 1/2            | HD0513100   | HD0513200  |
| 3/4            | HD0514100   | HD0514200  |
| 1              | HD0515100   | HD0515200  |
| 1 1/4          | HD0516100   | HD0516200  |
| 1 1/2          | HD0517100   | HD0517200  |
| 2              | HD0519100   | HD0519200  |



## Seal Kit for Servicing Sockets (Female)

| Body size (in) | Seal & Back-up Ring Kit*       |                              |                                |                              |                                 |                              |
|----------------|--------------------------------|------------------------------|--------------------------------|------------------------------|---------------------------------|------------------------------|
|                | NBR seals & PTFE back-up rings | Qty                          | FKM seals & PTFE back-up rings | Qty                          | EPDM seals & PTFE back-up rings | Qty                          |
| 1/8            | HG 05001 00                    | 50 O-rings + 50 Backup rings | HG 05001 V0                    | 15 O-rings + 15 Backup rings | HG 05001 E0                     | 15 O-rings + 15 Backup rings |
| 1/4            | HG 05011 00                    | 50 O-rings + 50 Backup rings | HG 05011 V0                    | 15 O-rings + 15 Backup rings | HG 05011 E0                     | 15 O-rings + 15 Backup rings |
| 3/8            | HG 05021 00                    | 50 O-rings + 50 Backup rings | HG 05021 V0                    | 15 O-rings + 15 Backup rings | HG 05021 E0                     | 15 O-rings + 15 Backup rings |
| 1/2            | HG 05031 00                    | 50 O-rings + 50 Backup rings | HG 05031 V0                    | 15 O-rings + 15 Backup rings | HG 05031 E0                     | 15 O-rings + 15 Backup rings |
| 3/4            | HG 05041 00                    | 50 O-rings + 50 Backup rings | HG 05041 V0                    | 15 O-rings + 15 Backup rings | HG 05041 E0                     | 15 O-rings + 15 Backup rings |
| 1              | HG 05051 00                    | 50 O-rings + 50 Backup rings | HG 05051 V0                    | 10 O-rings + 10 Backup rings | HG 05051 E0                     | 10 O-rings + 10 Backup rings |
| 1 1/4          | LG 07061 00                    | 15 O-rings + 15 Backup rings | HG 05061 V0                    | 5 O-rings + 5 Backup rings   | -                               | -                            |
| 1 1/2          | LG 07071 00                    | 15 O-rings + 15 Backup rings | -                              | -                            | -                               | -                            |
| 2              | LG 07091 00                    | 15 O-rings + 15 Backup rings | -                              | -                            | -                               | -                            |

\*The valve seal is not included in our repair kits.

# L7000 Series (Stainless Steel) Full Flow

Fluid transfer & Hydraulic application



Danfoss' L7000 Series stainless steel quick disconnect coupling is a full-flow coupling suited for applications where maximum flow capacity is required and valving is not needed. Mainly used in fluid transfer applications and offers excellent corrosion resistance.

EMEA region

## Product Features

- Proprietary profile
- Full flow pull-to-connect couplings
- Ball-locking
- Excellent flow performance
- Standard body material: AISI 316L Stainless steel
- Optional dust caps and plugs (made of anodized aluminum)
- Standard seal material: FKM, EPDM

## Physical characteristics

| Body Size<br>(in) | Nominal Flow Diameter<br>(mm) | Max. Operating Pressure (connected)   |       |                                       |       |
|-------------------|-------------------------------|---------------------------------------|-------|---------------------------------------|-------|
|                   |                               | Non hazardous liquids & gases Group 2 |       | Non hazardous liquids & gases Group 1 |       |
|                   |                               | (bar)                                 | (psi) | (bar)                                 | (psi) |
| 1/8               | 8                             | 300                                   | 4,350 | 300                                   | 4,350 |
| 1/4               | 10                            | 230                                   | 3,335 | 230                                   | 3,335 |
| 3/8               | 12                            | 175                                   | 3,535 | 175                                   | 3,535 |
| 1/2               | 15                            | 150                                   | 2,175 | 150                                   | 2,175 |
| 3/4               | 20                            | 125                                   | 1,810 | 125                                   | 1,810 |
| 1                 | 25                            | 100                                   | 1,450 | 100                                   | 1,450 |
| 1 1/4             | 33                            | 100                                   | 1,450 | 100                                   | 1,450 |
| 1 1/2             | 40                            | 75                                    | 1,085 | 38                                    | 550   |
| 2                 | 50                            | 40                                    | 580   | 28                                    | 405   |

## European Pressure Equipment Directive\*

Couplings with nominal diameters up to and including 25 mm are designed and manufactured under Article 4.3 of the European Pressure Equipment Directive PED 2014/68/EU. Couplings with nominal diameters greater than 25 mm are designed and manufactured in accordance with the stipulations of Module A of the European Pressure Equipment Directive PED 2014/68/EU.

They should not be used to convey unstable gases.

\*Group 1 = Hazardous media / Group 2 = Other media

## Applications & Markets

- Pressure Washing
- Steam-Cleaning Equipment
- Fluid Transfer Lines
- Refrigerant Circuits
- Applications where maximum flow capacity is required

## Flow Data

The nominal flow diameter of the coupling has no impact on pressure drop, as it is wider than the circuit diameter.

| Seal Elastomer Data*        |                                  |
|-----------------------------|----------------------------------|
| Seal Elastomer              | Max. Operation Temperature Range |
| FKM (Fluorocarbon)          | -20°C +200°C/-4°F +392°F         |
| EPDM (Ethylene-Propylene)** | -40°C +150°C/-40°F +302°F        |

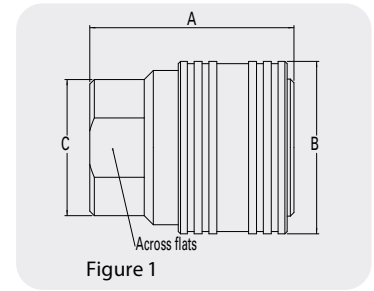
\*For reference only, based on Danfoss recommended temperatures.

\*\* In accordance with NF L 17-241 or NAS 1613 rev. 5, depending on size.

Contact Danfoss technical support for further information on fluid compatibility.

# L7000 Series (Stainless Steel) Full Flow

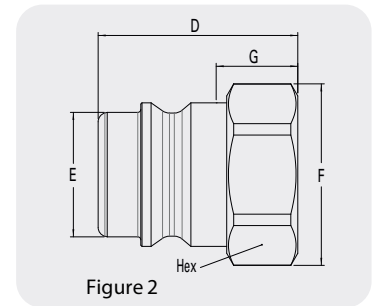
EMEA region



## Sockets (Female)

| Part/Order Number |           | Body Size | Nominal Flow Diameter | Thread Size* (Female) BSPP | Fig. | Dimensions |      |      |      |      |      | Weight |      |      |       |
|-------------------|-----------|-----------|-----------------------|----------------------------|------|------------|------|------|------|------|------|--------|------|------|-------|
| FKM               | EPDM      |           |                       |                            |      | (in)       | (mm) | (mm) | (in) | (mm) | (in) | (mm)   | (in) | (mm) | (in)  |
| LZ07001V0         | LZ07001E0 | 3/8       | 8                     | 3/8-28                     | 1    | 41.5       | 1.63 | 24   | 0.94 | 21   | 0.83 | 16     | 0.63 | 0.19 | 86    |
| LZ07011V0         | LZ07011E0 | 1/4       | 10                    | 1/4-19                     | 1    | 36.0       | 1.42 | 28   | 1.10 | 21   | 0.83 | 19     | 0.75 | 0.19 | 87    |
| LZ07021V0         | LZ07021E0 | 3/8       | 12                    | 3/8-19                     | 1    | 38.0       | 1.50 | 34   | 1.34 | 26   | 1.02 | 23     | 0.90 | 0.28 | 129   |
| LZ07031V0         | LZ07031E0 | 1/2       | 15                    | 1/2-14                     | 1    | 45.0       | 1.77 | 38   | 1.50 | 30   | 1.18 | 27     | 1.06 | 0.39 | 177   |
| LZ07041V0         | LZ07041E0 | 3/4       | 20                    | 3/4-14                     | 1    | 56.0       | 2.20 | 48   | 1.89 | 38   | 1.50 | 35     | 1.38 | 0.78 | 355   |
| LZ07051V0         | LZ07051E0 | 1         | 25                    | 1-11                       | 1    | 61.0       | 2.40 | 52   | 2.05 | 45   | 1.77 | 41     | 1.61 | 0.97 | 440   |
| LZ07061V0         | LZ07061E0 | 1 1/4     | 33                    | 1 1/4-11                   | 1    | 67.0       | 2.64 | 75   | 2.95 | 60   | 2.36 | 55     | 2.16 | 2.15 | 975   |
| LZ07071V0         | LZ07071E0 | 1 1/2     | 40                    | 1 1/2-11                   | 1    | 86.0       | 3.38 | 85   | 3.35 | 72   | 2.83 | 65     | 2.56 | 3.85 | 1,745 |
| LZ07091V0         | LZ07091E0 | 2         | 50                    | 2-11                       | 1    | 88.0       | 3.46 | 97   | 3.82 | 83   | 3.27 | 75     | 2.95 | 4.11 | 1,865 |

\*Alternative end connections available upon request.  
To obtain connected length of coupling add dimensions A (Fig. 1) and G (Fig. 2) together.



## Plugs (Male)

| Part/Order Number |  | Body Size | Nominal Flow Diameter | Thread Size* (Female) BSPP | Fig. | Dimensions |      |      |      |      |      | Weight |      |      |      |      |       |
|-------------------|--|-----------|-----------------------|----------------------------|------|------------|------|------|------|------|------|--------|------|------|------|------|-------|
|                   |  |           |                       |                            |      | (in)       | (mm) | (mm) | (in) | (mm) | (in) | (mm)   | (in) | (mm) | (in) | lbs  | grams |
| LZ0700200         |  | 3/8       | 8                     | 3/8-28                     | 2    | 26.0       | 1.02 | 11.0 | 0.43 | 18.4 | 0.72 | 10.5   | 0.41 | 16   | 0.63 | 0.04 | 19    |
| LZ0701200         |  | 1/4       | 10                    | 1/4-19                     | 2    | 25.5       | 1.00 | 14.2 | 0.56 | 21.0 | 0.82 | 10.5   | 0.41 | 19   | 0.75 | 0.06 | 26    |
| LZ0702200         |  | 3/8       | 12                    | 3/8-19                     | 2    | 28.0       | 1.10 | 19.0 | 0.75 | 26.0 | 1.02 | 10.7   | 0.42 | 23   | 0.90 | 0.10 | 45    |
| LZ0703200         |  | 1/2       | 15                    | 1/2-14                     | 2    | 33.0       | 1.30 | 20.6 | 0.81 | 30.0 | 1.18 | 13.0   | 0.51 | 27   | 1.06 | 0.12 | 54    |
| LZ0704200         |  | 3/4       | 20                    | 3/4-14                     | 2    | 40.0       | 1.57 | 27.9 | 1.10 | 38.0 | 1.50 | 14.0   | 0.55 | 35   | 1.38 | 0.26 | 117   |
| LZ0705200         |  | 1         | 25                    | 1-11                       | 2    | 44.0       | 1.73 | 32.4 | 1.27 | 45.0 | 1.77 | 18.5   | 0.73 | 41   | 1.61 | 0.34 | 155   |
| LZ0706200         |  | 1 1/4     | 33                    | 1 1/4-11                   | 2    | 54.0       | 2.12 | 44.0 | 1.73 | 60.0 | 2.36 | 21.0   | 0.83 | 55   | 2.16 | 0.94 | 424   |
| LZ0707200         |  | 1 1/2     | 40                    | 1 1/2-11                   | 2    | 59.0       | 2.32 | 53.5 | 2.10 | 71.9 | 2.83 | 22.0   | 0.87 | 65   | 2.56 | 1.45 | 656   |
| LZ0709200         |  | 2         | 50                    | 2-11                       | 2    | 68.0       | 2.68 | 62.8 | 2.47 | 83.0 | 3.27 | 27.0   | 1.06 | 75   | 2.95 | 1.85 | 839   |

\*Alternative end connections available upon request.  
To obtain connected length of coupling add dimensions A (Fig. 1) and G (Fig. 2) together.

## L7000 Series (Stainless Steel) Full Flow

### Dust Plugs and Dust Caps

| Body Size<br>(in) | Socket Dust Plug Part/Order Number<br>Anodized Aluminum | Plug Dust Cap Part/Order Number<br>Anodized Aluminum |
|-------------------|---|--|
| 1/8               | HD0510100   | HD0510200  |
| 1/4               | HD0511100   | HD0511200  |
| 3/8               | HD0512100   | HD0512200  |
| 1/2               | HD0513100   | HD0513200  |
| 3/4               | HD0514100   | HD0514200  |
| 1                 | HD0515100   | HD0515200  |
| 1 1/4             | HD0516100   | HD0516200  |
| 1 1/2             | HD0517100   | HD0517200  |
| 2                 | HD0519100   | HD0519200  |

Socket Dust Plug



Plug Dust Cap



### Seal Kit for Servicing Sockets (Female)

| Body size<br>(in) | Seal & Back-up Ring Kit*          |                              |                                   |                              |                                    |                              |
|-------------------|-----------------------------------|------------------------------|-----------------------------------|------------------------------|------------------------------------|------------------------------|
|                   | NBR seals & PTFE<br>back-up rings | Qty                          | FKM seals & PTFE<br>back-up rings | Qty                          | EPDM seals & PTFE<br>back-up rings | Qty                          |
| 1/8               | HG 05001 00                       | 50 O-rings + 50 Backup rings | HG 05001 V0                       | 15 O-rings + 15 Backup rings | HG 05001 E0                        | 15 O-rings + 15 Backup rings |
| 1/4               | HG 05011 00                       | 50 O-rings + 50 Backup rings | HG 05011 V0                       | 15 O-rings + 15 Backup rings | HG 05011 E0                        | 15 O-rings + 15 Backup rings |
| 3/8               | HG 05021 00                       | 50 O-rings + 50 Backup rings | HG 05021 V0                       | 15 O-rings + 15 Backup rings | HG 05021 E0                        | 15 O-rings + 15 Backup rings |
| 1/2               | HG 05031 00                       | 50 O-rings + 50 Backup rings | HG 05031 V0                       | 15 O-rings + 15 Backup rings | HG 05031 E0                        | 15 O-rings + 15 Backup rings |
| 3/4               | HG 05041 00                       | 50 O-rings + 50 Backup rings | HG 05041 V0                       | 15 O-rings + 15 Backup rings | HG 05041 E0                        | 15 O-rings + 15 Backup rings |
| 1                 | HG 05051 00                       | 50 O-rings + 50 Backup rings | HG 05051 V0                       | 10 O-rings + 10 Backup rings | HG 05051 E0                        | 10 O-rings + 10 Backup rings |
| 1 1/4             | LG 07061 00                       | 15 O-rings + 15 Backup rings | HG 05061 V0                       | 5 O-rings + 5 Backup rings   | -                                  | -                            |
| 1 1/2             | LG 07071 00                       | 15 O-rings + 15 Backup rings | -                                 | -                            | -                                  | -                            |
| 2                 | LG 07091 00                       | 15 O-rings + 15 Backup rings | -                                 | -                            | -                                  | -                            |

\*The valve seal is not included in our repair kits.

# FF Series (Steel) ISO 16028 Interchange

Fluid transfer & Hydraulic application



Danfoss' FF Series flat face is specifically designed for those applications where quick and easy connections and no-spill performance are essential. The FF Series is ideal for use when global interchangeability with other manufacturers is important and is available in sizes from 1/4" through 2" to best meet your specific size requirements.

## Product Features

- Meets or exceeds the ISO 16028 standard
- Push-to-connect
- Standard sleeve lock prevents accidental disconnection
- Color identification rings available to help prevent crossing of lines
- Standard Seal Material: NBR+AU
- Standard Material: High-resistant carbon steel with Dura-Kote plating, a whole new level of corrosion resistance with minimum 720 hours RR protection
- Dura-Kote plating:
  - Nickel-free
  - Solvent-free
  - Meets Global RoHS, ELV and REACH requirements
- Available seal options: NBR+AU, FKM, EPDM, HNBR (upon request)

## Physical characteristics

| ISO Size* | Coupling Size | Maximum Operating Pressure |       |                 |       | Minimum Burst Pressure |       |                 |        | Fluid Loss   |        | Air Inclusion | Force to Connect |     |       |       |       |     |      |
|-----------|---------------|----------------------------|-------|-----------------|-------|------------------------|-------|-----------------|--------|--------------|--------|---------------|------------------|-----|-------|-------|-------|-----|------|
|           |               | Connected***               |       | Plug / Socket / |       | Connected              |       | Plug / Socket / |        | Rated Flow** |        | ml-cc.        | ml-cc.           | N   | Lbs   |       |       |     |      |
| (mm)      | (in)          | (bar)                      | (psi) | (bar)           | (psi) | (bar)                  | (psi) | (bar)           | (psi)  | (bar)        | (psi)  | (lpm)         | (gpm)            |     |       |       |       |     |      |
| 6.3       | 1/4           | 400                        | 5,800 | 400             | 5,800 | 400                    | 5,800 | 1,400           | 20,300 | 1,400        | 20,300 | 1,400         | 20,300           | 18  | 4.8   | 0.004 | 0.007 | 80  | 18.0 |
| 10.0      | 3/8           | 400                        | 5,800 | 400             | 5,800 | 400                    | 5,800 | 1,400           | 20,300 | 1,400        | 20,300 | 1,400         | 20,300           | 40  | 10.6  | 0.006 | 0.010 | 140 | 31.5 |
| 12.5      | 1/2           | 400                        | 5,800 | 400             | 5,800 | 400                    | 5,800 | 1,400           | 20,300 | 1,400        | 20,300 | 1,400         | 20,300           | 77  | 20.3  | 0.012 | 0.013 | 195 | 43.8 |
| 16.0      | 5/8           | 400                        | 5,800 | 400             | 5,800 | 400                    | 5,800 | 1,400           | 20,300 | 1,400        | 20,300 | 1,400         | 20,300           | 82  | 21.7  | 0.016 | 0.030 | 205 | 46.1 |
| 19.0      | 3/4           | 400                        | 5,800 | 400             | 5,800 | 400                    | 5,800 | 1,300           | 18,850 | 1,300        | 18,850 | 1,400         | 20,300           | 114 | 30.1  | 0.034 | 0.015 | 215 | 48.3 |
| 25.0      | 1             | 400                        | 5,800 | 400             | 5,800 | 400                    | 5,800 | 1,260           | 18,270 | 1,260        | 18,270 | 1,260         | 18,270           | 184 | 48.6  | 0.032 | 0.033 | 260 | 58.5 |
| -         | 1 1/4         | 300                        | 4,350 | 300             | 4,350 | 300                    | 4,350 | 900             | 13,050 | 900          | 13,050 | 900           | 13,050           | 260 | 68.7  | 0.170 | 0.053 | 200 | 45.0 |
| -         | 1 1/2         | 300                        | 4,350 | 300             | 4,350 | 270                    | 3,915 | 900             | 13,050 | 900          | 13,050 | 810           | 11,745           | 450 | 118.9 | 0.265 | 0.445 | 385 | 86.6 |
| -         | 2             | 300                        | 4,350 | 300             | 4,350 | 225                    | 3,260 | 900             | 13,050 | 900          | 13,050 | 675           | 9,790            | 700 | 184.9 | 0.390 | 0.260 | 375 | 84.3 |

\* The ISO size corresponds to the internal diameter of the hose or the external diameter of the rigid tube (as defined in ISO 4397 Standard).

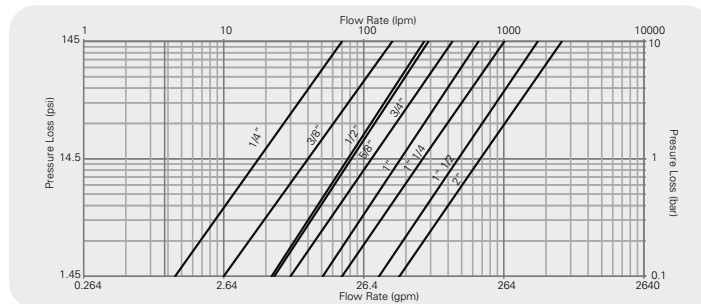
\*\* Indicated values refer to a 1 bar/14.5 psi pressure drop.

\*\*\* 400 bar for static, steady or non-pulsed applications, 350 bar for ISO pressure rating for dynamic applications with moderate hydraulic shock.

## Applications & Markets

- Hydraulic and Fluid Transfer
- Construction Equipment
- Agricultural Equipment
- Utility Vehicles
- On-Highway Vehicles
- Stationary In-plant Hydraulics and Fluid Transfer
- Interchangeable with HTMA couplings in the 3/8" size

## Flow Data



## European Pressure Equipment Directive

All couplings are designed and manufactured under Article 4.3 of the European Pressure Equipment Directive PED 2014/68/EU. Couplings with nominal diameters greater than 25 mm should not be used to convey gases in Group 1 (hazardous).

### Seal Elastomer Data\*

| Seal Elastomer                    | P/N Code | ISO Size (6FF, 10FF, 12FF, 16FF, 19FF and 25FF) Maximum Operation Temperature Range | Non-ISO Size (32FF, 50FF and 50FF) Maximum Operation Temperature Range |
|-----------------------------------|----------|---|--|
| NBR (Nitrile) + AU (Polyurethane) | -143     | -25°C +100°C/-13°F +212°F   | -25°C +100°C/-13°F +212°F  |
| FKM                               | -192     | -20°C +200°C/-4°F +392°F  | -20°C +200°C/-4°F +392°F   |
| EPDM (Ethylene-Propylene)         | -507     | -40°C +150°C/-40°F +302°F   | -40°C +150°C/-40°F +302°F  |
| HNBR                              | -242     | -32°C +150°C/-25°F +302°F   | -32°C +150°C/-25°F +302°F  |
| Kalrez® 6375                      | -503     | -20°C +275°C/-4°F +527°F  | -20°C +275°C/-4°F +527°F   |
| Generic FFKM (Perfluorocarbon)    | 300      | -15°C +275°C/+5°F +527°F  | -15°C +275°C/+5°F +527°F   |

\*For reference only, based on Danfoss recommended temperatures. Contact Danfoss technical support for further information on fluid compatibility.

## Maximum Operating Pressure

| Coupling Nominal Flow Size | Non hazardous liquids Group 2 |                              |                    | Non hazardous gases Group 2  |                    |                              | Hazardous liquids Group 1 |                              |                    |  |
|----------------------------|-------------------------------|------------------------------|--------------------|------------------------------|--------------------|------------------------------|---------------------------|------------------------------|--------------------|--|
|                            | Diameter (mm)                 | Plug & Connected (bar) (psi) | Socket (bar) (psi) | Plug & Connected (bar) (psi) | Socket (bar) (psi) | Plug & Connected (bar) (psi) | Socket (bar) (psi)        | Plug & Connected (bar) (psi) | Socket (bar) (psi) |  |
| 1 1/2                      | 30.1                          | 300 4,350                    | 270 3,915          | 300 4,350                    | 270 3,915          | 66 955                       | 66 955                    | 66 955                       | 66 955             |  |
| 2                          | 39.2                          | 300 4,350                    | 225 3,260          | 25 360                       | 25 360             | 50 725                       | 50 725                    | 50 725                       | 50 725             |  |

\* Nominal diameters over 25mm should not be used to convey gases in group 1 (PED 2014/68/EU)

# FF Series (Steel) ISO 16028 Interchange

Global region

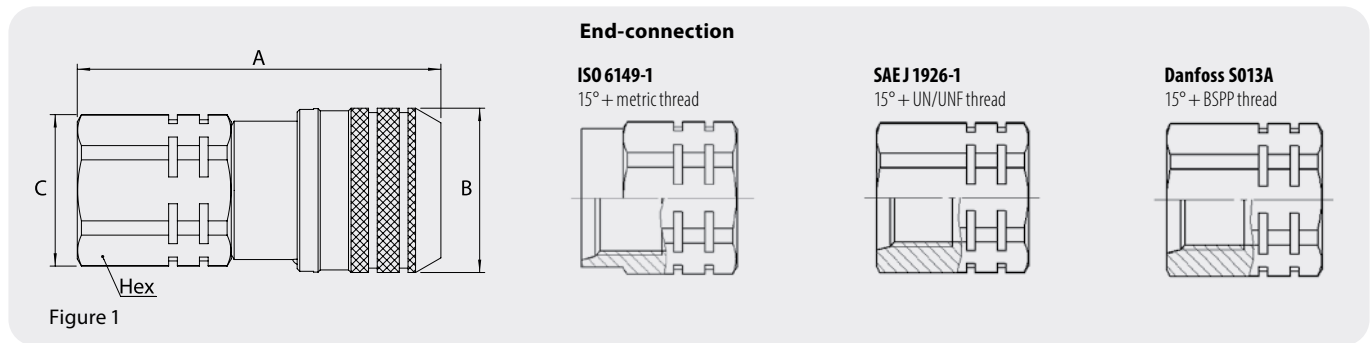


Figure 1

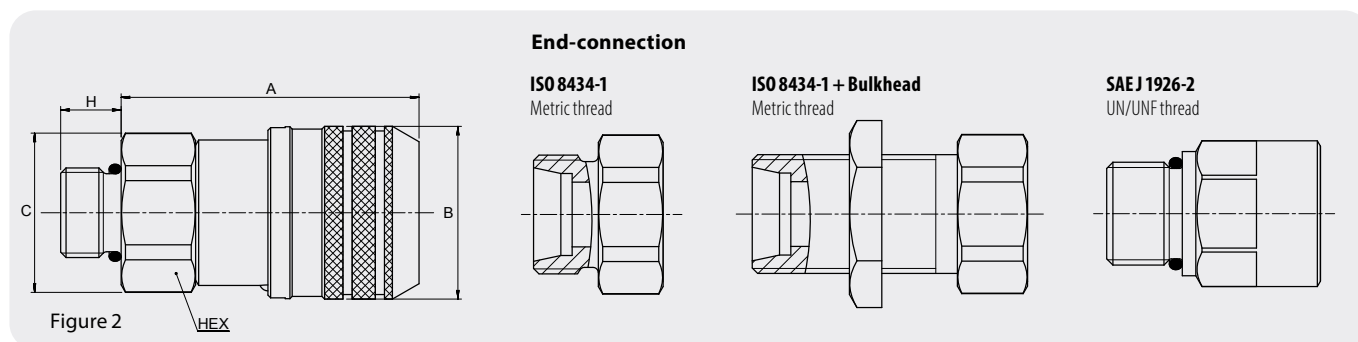
## Sockets (Female)

| Part/Order Number<br>NBR+AU | Body Size<br>(in) | ISO Size<br>(mm) | Nominal Flow Diameter<br>(mm) | Thread Size* (Female) |        |            | Danfoss S013A | Dimensions   |       |           | Weight    |           |             |      |       |      |       |       |
|-----------------------------|-------------------|------------------|-------------------------------|-----------------------|--------|------------|---------------|--------------|-------|-----------|-----------|-----------|-------------|------|-------|------|-------|-------|
|                             |                   |                  |                               | NPT                   | BSPP   | ISO 6149-1 |               | SAE J 1926-1 | Fig.  | A<br>(mm) | B<br>(in) | C<br>(mm) | Hex<br>(in) | lbs  | grams |      |       |       |
| 6FFS25                      | ¼                 | 6.3              | 6.0                           | ¼ 18f                 | -      | -          | -             | 1            | 54.0  | 2.13      | 27.0      | 1.06      | 24.0        | 0.94 | 22    | 0.87 | -     | -     |
| 6FFS25BS                    | ¼                 | 6.3              | 6.0                           | -                     | ¼-19   | -          | -             | 1            | 54.0  | 2.13      | 27.0      | 1.06      | 24.0        | 0.94 | 22    | 0.87 | -     | -     |
| 6FFS25FG                    | ¼                 | 6.3              | 6.0                           | -                     | -      | -          | -             | 1            | 54.0  | 2.13      | 27.0      | 1.06      | 24.0        | 0.94 | 22    | 0.87 | 0.32  | 143   |
| 6FFS56UN                    | ¼                 | 6.3              | 6.0                           | -                     | -      | -          | ¾ 18f UNF     | 1            | 55.0  | 2.17      | 27.0      | 1.06      | 24.0        | 0.94 | 22    | 0.87 | -     | -     |
| 10FFS16FMET                 | ¾                 | 10.0             | 8.6                           | -                     | -      | M16x1.5    | -             | 1            | 67.8  | 2.67      | 32.0      | 1.26      | 29.5        | 1.16 | 27    | 1.06 | -     | -     |
| 10FFS37                     | ¾                 | 10.0             | 8.6                           | ¾ 18f                 | -      | -          | -             | 1            | 67.8  | 2.67      | 32.0      | 1.26      | 29.5        | 1.16 | 27    | 1.06 | -     | -     |
| 10FFS37BS                   | ¾                 | 10.0             | 8.6                           | -                     | ¾-19   | -          | -             | 1            | 67.8  | 2.67      | 32.0      | 1.26      | 29.5        | 1.16 | 27    | 1.06 | -     | -     |
| 10FFS37FG                   | ¾                 | 10.0             | 8.6                           | -                     | -      | -          | -             | 1            | 67.8  | 2.67      | 32.0      | 1.26      | 29.5        | 1.16 | 27    | 1.06 | 0.56  | 255   |
| 10FFS50                     | ¾                 | 10.0             | 8.6                           | ½ 14f                 | -      | -          | -             | 1            | 70.8  | 2.79      | 32.0      | 1.26      | 29.5        | 1.16 | 27    | 1.06 | -     | -     |
| 10FFS50BS                   | ¾                 | 10.0             | 8.6                           | -                     | ½-14   | -          | -             | 1            | 70.8  | 2.79      | 32.0      | 1.26      | 29.5        | 1.16 | 27    | 1.06 | -     | -     |
| 10FFS50FG                   | ¾                 | 10.0             | 8.6                           | -                     | -      | -          | -             | 1            | 70.8  | 2.79      | 32.0      | 1.26      | 29.5        | 1.16 | 27    | 1.06 | 0.55  | 251   |
| 10FFS56UN                   | ¾                 | 10.0             | 8.6                           | -                     | -      | -          | ¾ 18f UNF     | 1            | 70.8  | 2.79      | 32.0      | 1.26      | 29.5        | 1.16 | 27    | 1.06 | -     | -     |
| 10FFS75UN                   | ¾                 | 10.0             | 8.6                           | -                     | -      | -          | ¾ 16f UNF     | 1            | 70.8  | 2.79      | 32.0      | 1.26      | 29.5        | 1.16 | 27    | 1.06 | -     | -     |
| 10FFS87UN                   | ¾                 | 10.0             | 8.6                           | -                     | -      | -          | ¾ 14f UNF     | 1            | 73.8  | 2.91      | 32.0      | 1.26      | 33.0        | 1.30 | 30    | 1.18 | -     | -     |
| 12FFS106UN                  | ½                 | 12.5             | 11.0                          | -                     | -      | -          | 1½ 12f UN     | 1            | 83.0  | 3.26      | 38.2      | 1.50      | 39.5        | 1.56 | 36    | 1.42 | -     | -     |
| 12FFS50                     | ½                 | 12.5             | 11.0                          | ½ 14f                 | -      | -          | -             | 1            | 77.0  | 3.03      | 38.2      | 1.50      | 39.5        | 1.56 | 36    | 1.42 | -     | -     |
| 12FFS50BS                   | ½                 | 12.5             | 11.0                          | -                     | ½-14   | -          | -             | 1            | 77.0  | 3.03      | 38.2      | 1.50      | 39.5        | 1.56 | 36    | 1.42 | -     | -     |
| 12FFS50FG                   | ½                 | 12.5             | 11.0                          | -                     | -      | -          | -             | 1            | 77.0  | 3.03      | 38.2      | 1.50      | 39.5        | 1.56 | 36    | 1.42 | 1.1   | 498   |
| 12FFS75                     | ½                 | 12.5             | 11.0                          | ¾ 14f                 | -      | -          | -             | 1            | 80.0  | 3.14      | 38.2      | 1.50      | 39.5        | 1.56 | 36    | 1.42 | -     | -     |
| 12FFS75BS                   | ½                 | 12.5             | 11.0                          | -                     | ¾-14   | -          | -             | 1            | 80.0  | 3.14      | 38.2      | 1.50      | 39.5        | 1.56 | 36    | 1.42 | -     | -     |
| 12FFS75FG                   | ½                 | 12.5             | 11.0                          | -                     | -      | -          | -             | 1            | 80.0  | 3.14      | 38.2      | 1.50      | 39.5        | 1.56 | 36    | 1.42 | 1.08  | 488   |
| 12FFS75UN                   | ½                 | 12.5             | 11.0                          | -                     | -      | -          | ¾ 16f UNF     | 1            | 77.0  | 3.03      | 38.2      | 1.50      | 39.5        | 1.56 | 36    | 1.42 | -     | -     |
| 12FFS87UN                   | ½                 | 12.5             | 11.0                          | -                     | -      | -          | ¾ 14f UNF     | 1            | 80.0  | 3.14      | 38.2      | 1.50      | 39.5        | 1.56 | 36    | 1.42 | -     | -     |
| 16FFS106UN                  | ¾                 | 16.0             | 13.0                          | -                     | -      | -          | 1½ 12f UN     | 1            | 89.0  | 3.50      | 42.2      | 1.66      | 39.5        | 1.56 | 36    | 1.42 | -     | -     |
| 16FFS50                     | ¾                 | 16.0             | 13.0                          | ½ 14f                 | -      | -          | -             | 1            | 83.0  | 3.27      | 42.2      | 1.66      | 39.5        | 1.56 | 36    | 1.42 | -     | -     |
| 16FFS50BS                   | ¾                 | 16.0             | 13.0                          | -                     | ½-14   | -          | -             | 1            | 83.0  | 3.27      | 42.2      | 1.66      | 39.5        | 1.56 | 36    | 1.42 | -     | -     |
| 16FFS75                     | ¾                 | 16.0             | 13.0                          | ¾ 14f                 | -      | -          | -             | 1            | 86.0  | 3.39      | 42.2      | 1.66      | 39.5        | 1.56 | 36    | 1.42 | -     | -     |
| 16FFS75BS                   | ¾                 | 16.0             | 13.0                          | -                     | ¾-14   | -          | -             | 1            | 86.0  | 3.39      | 42.2      | 1.66      | 39.5        | 1.56 | 36    | 1.42 | -     | -     |
| 16FFS75FG                   | ¾                 | 16.0             | 13.0                          | -                     | -      | -          | -             | 1            | 86.0  | 3.39      | 42.2      | 1.66      | 39.5        | 1.56 | 36    | 1.42 | 1.20  | 548   |
| 16FFS75UN                   | ¾                 | 16.0             | 13.0                          | -                     | -      | -          | ¾ 16f UNF     | 1            | 83.0  | 3.27      | 42.2      | 1.66      | 39.5        | 1.56 | 36    | 1.42 | -     | -     |
| 16FFS87UN                   | ¾                 | 16.0             | 13.0                          | -                     | -      | -          | ¾ 14f UNF     | 1            | 86.0  | 3.39      | 42.2      | 1.66      | 39.5        | 1.56 | 36    | 1.42 | -     | -     |
| 19FFS100                    | ¾                 | 19.0             | 15.0                          | 1 11,5f               | -      | -          | -             | 1            | 96.6  | 3.80      | 46.2      | 1.82      | 46.0        | 1.81 | 42    | 1.65 | -     | -     |
| 19FFS100BS                  | ¾                 | 19.0             | 15.0                          | -                     | 1-11   | -          | -             | 1            | 96.6  | 3.80      | 46.2      | 1.82      | 46.0        | 1.81 | 42    | 1.65 | -     | -     |
| 19FFS100FG                  | ¾                 | 19.0             | 15.0                          | -                     | -      | -          | -             | 1            | 96.6  | 3.80      | 46.2      | 1.82      | 46.0        | 1.81 | 42    | 1.65 | 1.62  | 737   |
| 19FFS106UN                  | ¾                 | 19.0             | 15.0                          | -                     | -      | -          | 1½ 12f UN     | 1            | 96.6  | 3.80      | 46.2      | 1.82      | 46.0        | 1.81 | 42    | 1.65 | -     | -     |
| 19FFS131UN                  | ¾                 | 19.0             | 15.0                          | -                     | -      | -          | 1½ 12f UN     | 1            | 96.6  | 3.80      | 46.2      | 1.82      | 46.0        | 1.81 | 42    | 1.65 | -     | -     |
| 19FFS75                     | ¾                 | 19.0             | 15.0                          | ¾ 14f                 | -      | -          | -             | 1            | 96.6  | 3.80      | 46.2      | 1.82      | 46.0        | 1.81 | 42    | 1.65 | -     | -     |
| 19FFS75BS                   | ¾                 | 19.0             | 15.0                          | -                     | ¾-14   | -          | -             | 1            | 96.6  | 3.80      | 46.2      | 1.82      | 46.0        | 1.81 | 42    | 1.65 | -     | -     |
| 25FFS100                    | 1                 | 25.0             | 18.0                          | 1 11,5f               | -      | -          | -             | 1            | 103.5 | 4.07      | 55.2      | 2.17      | 60.0        | 2.36 | 55    | 2.17 | -     | -     |
| 25FFS100BS                  | 1                 | 25.0             | 18.0                          | -                     | 1-11   | -          | -             | 1            | 103.5 | 4.07      | 55.2      | 2.17      | 60.0        | 2.36 | 55    | 2.17 | -     | -     |
| 25FFS125                    | 1                 | 25.0             | 18.0                          | 1 ¼ 11,5f             | -      | -          | -             | 1            | 103.5 | 4.07      | 55.2      | 2.17      | 60.0        | 2.36 | 55    | 2.17 | -     | -     |
| 25FFS125BS                  | 1                 | 25.0             | 18.0                          | -                     | 1 ¼-11 | -          | -             | 1            | 103.5 | 4.07      | 55.2      | 2.17      | 60.0        | 2.36 | 55    | 2.17 | -     | -     |
| 25FFS125FG                  | 1                 | 25.0             | 18.0                          | -                     | -      | -          | -             | 1            | 103.5 | 4.07      | 55.2      | 2.17      | 60.0        | 2.36 | 55    | 2.17 | 2.74  | 1,246 |
| 25FFS131UN                  | 1                 | 25.0             | 18.0                          | -                     | -      | -          | 1½ 12f UN     | 1            | 103.5 | 4.07      | 55.2      | 2.17      | 60.0        | 2.36 | 55    | 2.17 | 2.77  | 126   |
| 25FFS162UN                  | 1                 | 25.0             | 18.0                          | -                     | -      | -          | 1½ 12f UN     | 1            | 103.5 | 4.07      | 55.2      | 2.17      | 60.0        | 2.36 | 55    | 2.17 | -     | -     |
| 32FFS125                    | 1 ¼               | -                | 22.1                          | 1 ¼-11,5              | -      | -          | -             | 1            | 125.2 | 4.93      | 64.8      | 2.55      | 60.0        | 2.36 | 55    | 2.17 | 4.22  | 1,915 |
| 32FFS125BS                  | 1 ¼               | -                | 22.1                          | -                     | 1 ¼-11 | -          | -             | 1            | 125.2 | 4.93      | 64.8      | 2.55      | 60.0        | 2.36 | 55    | 2.17 | 4.18  | 1,897 |
| 32FFS162UN                  | 1 ¼               | -                | 22.1                          | -                     | -      | -          | 1½ 12 UN      | 1            | 125.2 | 4.93      | 64.8      | 2.55      | 60.0        | 2.36 | 55    | 2.17 | 4.16  | 1,894 |
| 40FFS150                    | 1 ½               | -                | 30.1                          | 1 ½-11,5              | -      | -          | -             | 1            | 127.4 | 5.01      | 79.5      | 3.13      | 70.0        | 2.76 | 65    | 2.56 | 6.16  | 2,796 |
| 40FFS150BS                  | 1 ½               | -                | 30.1                          | -                     | 1 ½-11 | -          | -             | 1            | 127.4 | 5.01      | 79.5      | 3.13      | 70.0        | 2.76 | 65    | 2.56 | 6.13  | 2,781 |
| 40FFS150FG                  | 1 ½               | -                | 30.1                          | -                     | -      | -          | -             | 1 ½          | 127.4 | 5.01      | 79.5      | 3.13      | 70.0        | 2.76 | 65    | 2.56 | 6.12  | 2,775 |
| 40FFS187UN                  | 1 ½               | -                | 30.1                          | -                     | -      | -          | 1½ 12 UN      | 1            | 127.4 | 5.01      | 79.5      | 3.13      | 70.0        | 2.76 | 65    | 2.56 | 6.10  | 2,767 |
| 50FFS200                    | 2                 | -                | 39.2                          | 2-11,5                | -      | -          | -             | 1            | 156.8 | 6.17      | 97.5      | 3.84      | 87.8        | 3.46 | 80    | 3.15 | 10.87 | 4,931 |
| 50FFS200BS                  | 2                 | -                | 39.2                          | -                     | 2-11   | -          | -             | 1            | 156.8 | 6.17      | 97.5      | 3.84      | 87.8        | 3.46 | 80    | 3.15 | 10.82 | 4,908 |
| 50FFS250UN                  | 2                 | -                | 39.2                          | -                     | -      | -          | 2 ½ 12 UN     | 1            | 156.8 | 6.17      | 97.5      | 3.84      | 87.8        | 3.46 | 80    | 3.15 | 10.64 | 4,825 |

\*Alternative end connections available upon request.  
To obtain connected length of coupling, add dimensions A (Fig. 1 or Fig. 2) and G (Fig. 3 or 4) together.

# FF Series (Steel) ISO 16028 Interchange

Global region



## Sockets (Female)

| Part/Order Number<br>NBR+AU | Body ISO Size<br>(in) | ISO Size<br>(mm) | Nominal Flow Diameter<br>(mm) | Thread Size* (Male)     |              | Fig. | Dimensions |        |        |        |      |      |      |       | Weight |      |      |     |
|-----------------------------|-----------------------|------------------|-------------------------------|-------------------------|--------------|------|------------|--------|--------|--------|------|------|------|-------|--------|------|------|-----|
|                             |                       |                  |                               | ISO 8434-1              | SAE J 1926-2 |      | A (mm)     | B (mm) | C (mm) | H (mm) | Hex  |      | lbs  | grams |        |      |      |     |
| 6FFS10LBH                   | ¼                     | 6.3              | 6.0                           | 10L - M16x1,5+ bulkhead | -            | 2    | 42.0       | 1.65   | 27.0   | 1.06   | 24.0 | 0.94 | 35.0 | 1.38  | 22.0   | 0.87 | -    | -   |
| 6FFS8L                      | ¾                     | 6.3              | 6.0                           | 8L - M14x1,5            | -            | 2    | 42.0       | 1.65   | 27.0   | 1.06   | 24.0 | 0.94 | 10.0 | 0.39  | 22.0   | 0.87 | -    | -   |
| 10FFS8L                     | ¾                     | 10.0             | 6.0                           | 8L - M14x1,5            | -            | 2    | 59.3       | 2.33   | 32.0   | 1.26   | 29.5 | 1.16 | 10.0 | 0.39  | 27.0   | 1.06 | 0.52 | 236 |
| 10FFS10L                    | 1                     | 10.0             | 8.0                           | 10L - M16x1,5           | -            | 2    | 59.3       | 2.33   | 32.0   | 1.26   | 29.5 | 1.16 | 11.0 | 0.43  | 27.0   | 1.06 | 0.52 | 234 |
| 10FFS10LBH                  | 1                     | 10.0             | 8.0                           | 10L - M16x1,5           | -            | 2    | 54.8       | 2.16   | 32.0   | 1.26   | 29.5 | 1.16 | 11.0 | 0.43  | 27.0   | 1.06 | 0.55 | 255 |
| 10FFS12L                    | 1                     | 10.0             | 10.0                          | 12L - M18x1,5           | -            | 2    | 57.8       | 2.28   | 32.0   | 1.26   | 29.5 | 1.16 | 11.0 | 0.43  | 27.0   | 1.06 | 0.52 | 235 |
| 10FFS12LBH                  | 1                     | 10.0             | 10.0                          | 12L - M18x1,5           | -            | 2    | 53.8       | 2.12   | 32.0   | 1.26   | 29.5 | 1.16 | 36.0 | 1.42  | 27.0   | 1.06 | 0.55 | 250 |
| 10FFS15L                    | 1                     | 10.0             | 8.6                           | 15L - M22x1,5           | -            | 2    | 56.8       | 2.24   | 32.0   | 1.26   | 29.5 | 1.16 | 12.0 | 0.47  | 27.0   | 1.06 | 0.52 | 238 |
| 10FFS15LBH                  | 1                     | 10.0             | 8.6                           | 15L - M22x1,5           | -            | 2    | 82.3       | 3.24   | 32.0   | 1.26   | 29.5 | 1.16 | 38.0 | 1.50  | 27.0   | 1.06 | 0.62 | 282 |
| 10FFS16S                    | 1                     | 10.0             | 8.6                           | 16S - M24x1,5+ bulkhead | -            | 2    | 57.3       | 2.26   | 32.0   | 1.26   | 29.5 | 1.16 | 14.0 | 0.55  | 27.0   | 1.06 | 0.46 | 211 |
| 10FFS56ORM                  | 1¼                    | 10.0             | 8.6                           | -                       | ¾ 18f UNF    | 2    | 66.4       | 2.61   | 32.0   | 1.26   | 27.0 | 1.06 | 12.0 | 0.47  | 23.8   | 0.94 | -    | -   |
| 10FFS75ORM                  | 1¼                    | 10.0             | 8.6                           | -                       | ¾ 16f UNF    | 2    | 66.4       | 2.61   | 32.0   | 1.26   | 27.0 | 1.06 | 14.0 | 0.55  | 23.8   | 0.94 | -    | -   |
| 12FFS15LBH                  | 1¼                    | 12.0             | 11.0                          | 15L - M22x1,5+ bulkhead | -            | 2    | 87.0       | 3.42   | 38.2   | 1.50   | 39.5 | 1.56 | 38.0 | 1.50  | 36.0   | 1.42 | 1.05 | 478 |
| 12FFS16S                    | 1½                    | 12.0             | 11.0                          | 16S - M24x1,5           | -            | 2    | 64.0       | 2.51   | 38.2   | 1.50   | 39.5 | 1.56 | 14.0 | 0.55  | 36.0   | 1.42 | 1.01 | 460 |
| 12FFS12L                    | 1½                    | 12.0             | 11.0                          | 12L - M18x1,5           | -            | 2    | 66.0       | 2.59   | 38.2   | 1.50   | 39.5 | 1.56 | 11.0 | 0.43  | 36.0   | 1.42 | 0.92 | 420 |
| 12FFS15L                    | 1½                    | 12.0             | 11.0                          | 15L - M22x1,5           | -            | 2    | 64.0       | 2.51   | 38.2   | 1.50   | 39.5 | 1.56 | 12.0 | 0.47  | 36.0   | 1.42 | 0.92 | 420 |
| 12FFS18LBH                  | 1½                    | 12.0             | 11.0                          | 18L - M26x1,5+ bulkhead | -            | 2    | 89.0       | 3.50   | 38.2   | 1.50   | 39.5 | 1.56 | 40.0 | 1.57  | 36.0   | 1.42 | 1.17 | 534 |
| 16FFS15LBH                  | 2                     | 16.0             | 12.0                          | 15L - M22x1,5+ bulkhead | -            | 2    | 68.0       | 2.68   | 42.2   | 1.66   | 39.5 | 1.56 | 38.0 | 1.50  | 36.0   | 1.42 | -    | -   |
| 16FFS16S                    | 2                     | 16.0             | 12.0                          | 16S - M24x1,5           | -            | 2    | 70.0       | 2.75   | 42.2   | 1.66   | 39.5 | 1.56 | 14.0 | 0.55  | 36.0   | 1.42 | 1.11 | 505 |
| 16FFS18LBH                  | 2                     | 16.0             | 13.0                          | 18L - M26x1,5+ bulkhead | -            | 2    | 68.0       | 2.68   | 42.2   | 1.66   | 39.5 | 1.56 | 40.0 | 1.57  | 36.0   | 1.42 | -    | -   |

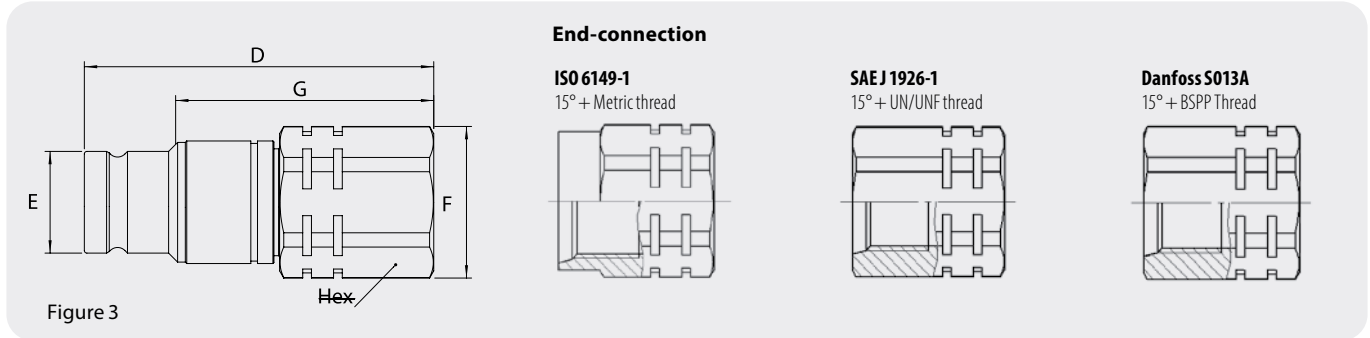
\* Alternative end connections available upon request.

To obtain connected length of coupling, add dimensions A (Fig. 1 or Fig. 2) and G (Fig. 3 or 4) together.

Note that ISO 8434-1 will restrict usage of coupling to 250 bar for end connection 8L, 10L, 12L and 15L, and to 160 bar for end connection 18L.

# FF Series (Steel) ISO 16028 Interchange

Global region

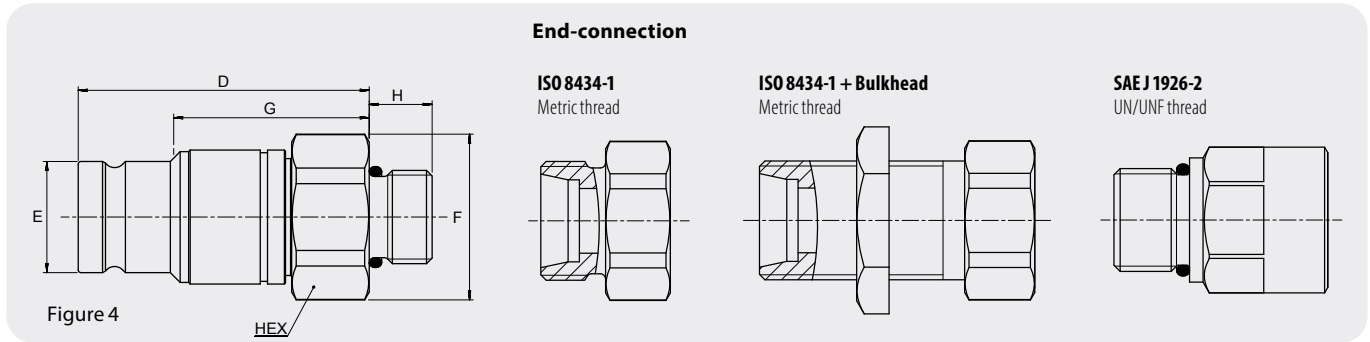


## Plugs (Male)

| Part/Order Number<br>NBR+AU | Body ISO Size | Flow Size | Nominal Diameter | Thread Size* (Female) |          |            | Danfoss S013A | Dimensions    |       |       |      |      |      |      |      | Weight |      |      |      |       |       |
|-----------------------------|---------------|-----------|------------------|-----------------------|----------|------------|---------------|---------------|-------|-------|------|------|------|------|------|--------|------|------|------|-------|-------|
|                             |               |           |                  | NPT                   | BSPP     | ISO 6149-1 |               | SAE J 1926-1  | Fig.  | D     | E    | F    | G    | Hex  | (in) | (mm)   |      |      |      |       |       |
| 6FFP25                      | 1/4           | 6.3       | 6.0              | 1/4 18f               | -        | -          | -             | 3             | 51.0  | 2.01  | 16.2 | 0.64 | 24.0 | 0.94 | 40.1 | 1.58   | 22   | 0.87 | -    | -     |       |
| 6FFP25BS                    | 1/4           | 6.3       | 6.0              | -                     | 1/4-19   | -          | -             | 3             | 51.0  | 2.01  | 16.2 | 0.64 | 24.0 | 0.94 | 40.1 | 1.58   | 22   | 0.87 | -    | -     |       |
| 6FFP25FG                    | 1/4           | 6.3       | 6.0              | -                     | -        | -          | -             | G 1/4         | 3     | 51.0  | 2.01 | 16.2 | 0.64 | 24.0 | 0.94 | 40.1   | 1.58 | 22   | 0.87 | 0.20  | 90    |
| 6FFP56UN                    | 1/4           | 6.3       | 6.0              | -                     | -        | -          | -             | 3/16 18f UNF  | 3     | 52.0  | 2.05 | 16.2 | 0.64 | 24.0 | 0.94 | 41.1   | 1.62 | 22   | 0.87 | -     | -     |
| 10FFP16FMET                 | 3/8           | 10.0      | 8.6              | -                     | -        | M16x1.5    | -             | 3             | 65.0  | 2.56  | 19.7 | 0.78 | 29.5 | 1.16 | 49.7 | 1.96   | 27   | 1.06 | -    | -     |       |
| 10FFP37                     | 3/8           | 10.0      | 8.6              | 3/8 18f               | -        | -          | -             | 3             | 65.0  | 2.56  | 19.7 | 0.78 | 29.5 | 1.16 | 49.7 | 1.96   | 27   | 1.06 | -    | -     |       |
| 10FFP37BS                   | 3/8           | 10.0      | 8.6              | -                     | 3/8-19   | -          | -             | 3             | 65.0  | 2.56  | 19.7 | 0.78 | 29.5 | 1.16 | 49.7 | 1.96   | 27   | 1.06 | -    | -     |       |
| 10FFP37FG                   | 3/8           | 10.0      | 8.6              | -                     | -        | -          | -             | G 3/8         | 3     | 65.0  | 2.56 | 19.7 | 0.78 | 29.5 | 1.16 | 49.7   | 1.96 | 27   | 1.06 | 0.35  | 157   |
| 10FFP50                     | 3/8           | 10.0      | 8.6              | 1/2 14f               | -        | -          | -             | 3             | 68.0  | 2.68  | 19.7 | 0.78 | 29.5 | 1.16 | 52.7 | 2.08   | 27   | 1.06 | -    | -     |       |
| 10FFP50BS                   | 3/8           | 10.0      | 8.6              | -                     | 1/2-14   | -          | -             | 3             | 68.0  | 2.68  | 19.7 | 0.78 | 29.5 | 1.16 | 52.7 | 2.08   | 27   | 1.06 | -    | -     |       |
| 10FFP50FG                   | 3/8           | 10.0      | 8.6              | -                     | -        | -          | -             | G 1/2         | 3     | 68.0  | 2.68 | 19.7 | 0.78 | 29.5 | 1.16 | 52.7   | 2.08 | 27   | 1.06 | 0.33  | 150   |
| 10FFP56UN                   | 3/8           | 10.0      | 8.6              | -                     | -        | -          | -             | 3/16 18f UNF  | 3     | 68.0  | 2.68 | 19.7 | 0.78 | 29.5 | 1.16 | 52.7   | 2.08 | 27   | 1.06 | -     | -     |
| 10FFP75UN                   | 3/8           | 10.0      | 8.6              | -                     | -        | -          | -             | 3/8 16f UNF   | 3     | 68.0  | 2.68 | 19.7 | 0.78 | 29.5 | 1.16 | 52.7   | 2.08 | 27   | 1.06 | -     | -     |
| 10FFP87UN                   | 3/8           | 10.0      | 8.6              | -                     | -        | -          | -             | 7/16 14f UNF  | 3     | 71.0  | 2.80 | 19.7 | 0.78 | 33.0 | 1.30 | 55.7   | 2.19 | 30   | 1.18 | -     | -     |
| 12FFP106UN                  | 1/2           | 12.5      | 11.0             | -                     | -        | -          | -             | 1 1/16 12f UN | 3     | 75.0  | 2.95 | 24.5 | 0.96 | 39.5 | 1.56 | 58.0   | 2.28 | 36   | 1.42 | -     | -     |
| 12FFP50                     | 1/2           | 12.5      | 11.0             | 1/2 14f               | -        | -          | -             | 3             | 69.0  | 2.71  | 24.5 | 0.96 | 39.5 | 1.56 | 52.0 | 2.05   | 36   | 1.42 | -    | -     |       |
| 12FFP50BS                   | 1/2           | 12.5      | 11.0             | -                     | 1/2-14   | -          | -             | 3             | 69.0  | 2.71  | 24.5 | 0.96 | 39.5 | 1.56 | 52.0 | 2.05   | 36   | 1.42 | -    | -     |       |
| 12FFP50FG                   | 1/2           | 12.5      | 11.0             | -                     | -        | -          | -             | G 1/2         | 3     | 69.0  | 2.71 | 24.5 | 0.96 | 39.5 | 1.56 | 52.0   | 2.05 | 36   | 1.42 | 0.67  | 305   |
| 12FFP75                     | 1/2           | 12.5      | 11.0             | 3/4 14f               | -        | -          | -             | 3             | 72.0  | 2.83  | 24.5 | 0.96 | 39.5 | 1.56 | 55.0 | 2.16   | 36   | 1.42 | -    | -     |       |
| 12FFP75BS                   | 1/2           | 12.5      | 11.0             | -                     | 3/4-14   | -          | -             | 3             | 72.0  | 2.83  | 24.5 | 0.96 | 39.5 | 1.56 | 55.0 | 2.16   | 36   | 1.42 | -    | -     |       |
| 12FFP75FG                   | 1/2           | 12.5      | 11.0             | -                     | -        | -          | -             | G 3/4         | 3     | 72.0  | 2.83 | 24.5 | 0.96 | 39.5 | 1.56 | 55.0   | 2.16 | 36   | 1.42 | 0.65  | 295   |
| 12FFP75UN                   | 1/2           | 12.5      | 11.0             | -                     | -        | -          | -             | 3/8 16f UNF   | 3     | 69.0  | 2.71 | 24.5 | 0.96 | 39.5 | 1.56 | 52.0   | 2.05 | 36   | 1.42 | -     | -     |
| 12FFP87UN                   | 1/2           | 12.5      | 11.0             | -                     | -        | -          | -             | 7/16 14f UNF  | 3     | 72.0  | 2.83 | 24.5 | 0.96 | 39.5 | 1.56 | 55.0   | 2.16 | 36   | 1.42 | -     | -     |
| 16FFP106UN                  | 3/4           | 16.0      | 13.0             | -                     | -        | -          | -             | 1 1/16 12f UN | 3     | 75.0  | 2.95 | 27.0 | 1.06 | 39.5 | 1.56 | 58.0   | 2.28 | 36   | 1.42 | -     | -     |
| 16FFP50                     | 3/4           | 16.0      | 13.0             | 1/2 14f               | -        | -          | -             | 3             | 69.0  | 2.71  | 27.0 | 1.06 | 39.5 | 1.56 | 52.0 | 2.05   | 36   | 1.42 | -    | -     |       |
| 16FFP50BS                   | 3/4           | 16.0      | 13.0             | -                     | 1/2-14   | -          | -             | 3             | 69.0  | 2.71  | 27.0 | 1.06 | 39.5 | 1.56 | 52.0 | 2.05   | 36   | 1.42 | -    | -     |       |
| 16FFP75                     | 3/4           | 16.0      | 13.0             | 3/4 14f               | -        | -          | -             | 3             | 72.0  | 2.83  | 27.0 | 1.06 | 39.5 | 1.56 | 55.0 | 2.16   | 36   | 1.42 | -    | -     |       |
| 16FFP75BS                   | 3/4           | 16.0      | 13.0             | -                     | 3/4-14   | -          | -             | 3             | 72.0  | 2.83  | 27.0 | 1.06 | 39.5 | 1.56 | 55.0 | 2.16   | 36   | 1.42 | -    | -     |       |
| 16FFP75FG                   | 3/4           | 16.0      | 13.0             | -                     | -        | -          | -             | G 3/4         | 3     | 72.0  | 2.83 | 27.0 | 1.06 | 39.5 | 1.56 | 55.0   | 2.16 | 36   | 1.42 | 0.7   | 317   |
| 16FFP75UN                   | 3/4           | 16.0      | 13.0             | -                     | -        | -          | -             | 3/8 16f UNF   | 3     | 69.0  | 2.71 | 27.0 | 1.06 | 39.5 | 1.56 | 52.0   | 2.05 | 36   | 1.42 | -     | -     |
| 16FFP87UN                   | 3/4           | 16.0      | 13.0             | -                     | -        | -          | -             | 7/16 14f UNF  | 3     | 72.0  | 2.83 | 27.0 | 1.06 | 39.5 | 1.56 | 55.0   | 2.16 | 36   | 1.42 | -     | -     |
| 19FFP100                    | 3/4           | 19.0      | 15.0             | 1 1/11,5f             | -        | -          | -             | 3             | 93.8  | 3.69  | 29.9 | 1.18 | 46.0 | 1.81 | 72.0 | 2.84   | 42   | 1.65 | -    | -     |       |
| 19FFP100BS                  | 3/4           | 19.0      | 15.0             | -                     | 1-11     | -          | -             | 3             | 93.8  | 3.69  | 29.9 | 1.18 | 46.0 | 1.81 | 72.0 | 2.84   | 42   | 1.65 | -    | -     |       |
| 19FFP100FG                  | 3/4           | 19.0      | 15.0             | -                     | -        | -          | -             | G 1           | 3     | 93.8  | 3.69 | 29.9 | 1.18 | 46.0 | 1.81 | 72.0   | 2.84 | 42   | 1.65 | 1.14  | 518   |
| 19FFP106UN                  | 3/4           | 19.0      | 15.0             | -                     | -        | -          | -             | 1 1/16 12f UN | 3     | 93.8  | 3.69 | 29.9 | 1.18 | 46.0 | 1.81 | 72.0   | 2.84 | 42   | 1.65 | -     | -     |
| 19FFP131UN                  | 3/4           | 19.0      | 15.0             | -                     | -        | -          | -             | 1 1/16 12f UN | 3     | 93.8  | 3.69 | 29.9 | 1.18 | 46.0 | 1.81 | 72.0   | 2.84 | 42   | 1.65 | -     | -     |
| 19FFP75                     | 3/4           | 19.0      | 15.0             | 3/4 14f               | -        | -          | -             | 3             | 93.8  | 3.69  | 29.9 | 1.18 | 46.0 | 1.81 | 72.0 | 2.84   | 42   | 1.65 | -    | -     |       |
| 19FFP75BS                   | 3/4           | 19.0      | 15.0             | -                     | 3/4-14   | -          | -             | 3             | 93.8  | 3.69  | 29.9 | 1.18 | 46.0 | 1.81 | 72.0 | 2.84   | 42   | 1.65 | -    | -     |       |
| 25FFP100                    | 1             | 25.0      | 18.0             | 1 1/11,5f             | -        | -          | -             | 3             | 104.6 | 4.12  | 36.0 | 1.42 | 60.0 | 2.36 | 81.7 | 3.22   | 55   | 2.17 | -    | -     |       |
| 25FFP100BS                  | 1             | 25.0      | 18.0             | -                     | 1-11     | -          | -             | 3             | 104.6 | 4.12  | 36.0 | 1.42 | 60.0 | 2.36 | 81.7 | 3.22   | 55   | 2.17 | -    | -     |       |
| 25FFP125                    | 1             | 25.0      | 18.0             | 1 1/4 11,5f           | -        | -          | -             | 3             | 104.6 | 4.12  | 36.0 | 1.42 | 60.0 | 2.36 | 81.7 | 3.22   | 55   | 2.17 | -    | -     |       |
| 25FFP125BS                  | 1             | 25.0      | 18.0             | -                     | 1 1/4-11 | -          | -             | 3             | 104.6 | 4.12  | 36.0 | 1.42 | 60.0 | 2.36 | 81.7 | 3.22   | 55   | 2.17 | -    | -     |       |
| 25FFP125FG                  | 1             | 25.0      | 18.0             | -                     | -        | -          | -             | G 1 1/4       | 3     | 104.6 | 4.12 | 36.0 | 1.42 | 60.0 | 2.36 | 81.7   | 3.22 | 55   | 2.17 | 2.08  | 948   |
| 25FFP131UN                  | 1             | 25.0      | 18.0             | -                     | -        | -          | -             | 1 1/16 12f UN | 3     | 104.6 | 4.12 | 36.0 | 1.42 | 60.0 | 2.36 | 81.7   | 3.22 | 55   | 2.17 | 2.09  | 952   |
| 25FFP162UN                  | 1             | 25.0      | 18.0             | -                     | -        | -          | -             | 1 1/8 12f UN  | 3     | 104.6 | 4.12 | 36.0 | 1.42 | 60.0 | 2.36 | 81.7   | 3.22 | 55   | 2.17 | -     | -     |
| 32FFP125                    | 1 1/4         | -         | 22.1             | 1 1/4-11,5            | -        | -          | -             | 3             | 105.5 | 4.15  | 44.0 | 1.73 | 60.0 | 2.36 | 82.3 | 3.24   | 55   | 2.17 | 2.63 | 1,193 |       |
| 32FFP125BS                  | 1 1/4         | -         | 22.1             | -                     | 1 1/4-11 | -          | -             | 3             | 105.5 | 4.15  | 44.0 | 1.73 | 60.0 | 2.36 | 82.3 | 3.24   | 55   | 2.17 | 2.60 | 1,177 |       |
| 32FFP162UN                  | 1 1/4         | -         | 22.1             | -                     | -        | -          | -             | 3             | 105.5 | 4.15  | 44.0 | 1.73 | 60.0 | 2.36 | 82.3 | 3.24   | 55   | 2.17 | 2.59 | 1,174 |       |
| 40FFP150                    | 1 1/2         | -         | 30.1             | 1 1/2-11,5            | -        | -          | -             | 3             | 105.0 | 4.13  | 57.0 | 2.24 | 66.3 | 2.61 | 76.5 | 3.01   | 60   | 2.36 | 3.15 | 1,430 |       |
| 40FFP150BS                  | 1 1/2         | -         | 30.1             | -                     | 1 1/2-11 | -          | -             | 3             | 105.0 | 4.13  | 57.0 | 2.24 | 66.3 | 2.61 | 76.5 | 3.01   | 60   | 2.36 | 3.12 | 1,417 |       |
| 40FFP150FG                  | 1 1/2         | -         | 30.1             | -                     | -        | -          | -             | 1 1/2         | 3     | 105.0 | 4.13 | 57.0 | 2.24 | 66.3 | 2.61 | 76.5   | 3.01 | 60   | 2.36 | 3.11  | 1,412 |
| 40FFP187UN                  | 1 1/2         | -         | 30.1             | -                     | -        | -          | -             | 1 1/8 12 UN   | 3     | 105.0 | 4.13 | 57.0 | 2.24 | 66.3 | 2.61 | 76.5   | 3.01 | 60   | 2.36 | 3.10  | 1,406 |
| 50FFP200                    | 2             | -         | 39.2             | 2-11,5                | -        | -          | -             | 3             | 135.0 | 5.31  | 73.0 | 2.87 | 83.5 | 3.29 | 96.6 | 3.80   | 75   | 2.95 | 6.01 | 2,725 |       |
| 50FFP200BS                  | 2             | -         | 39.2             | -                     | 2-11     | -          | -             | 3             | 135.0 | 5.31  | 73.0 | 2.87 | 83.5 | 3.29 | 96.6 | 3.80   | 75   | 2.95 | 5.97 | 2,706 |       |
| 50FFP250UN                  | 2             | -         | 39.2             | -                     | -        | -          | -             | 2 1/2 12 UN   | 3     | 135.0 | 5.31 | 73.0 | 2.87 | 83.5 | 3.29 | 96.6   | 3.80 | 75   | 2.95 | 5.78  | 2,623 |

\*Alternative end connections available upon request.  
To obtain connected length of coupling, add dimensions A (Fig. 1 or Fig. 2) and G (Fig. 3 or 4) together.

# FF Series (Steel) ISO 16028 Interchange



## Plugs (Male)

| Part/Order Number<br>NBR+AU | Body ISO Size | Nominal Flow Diameter | Thread Size* (Male)<br>ISO 8434-1 | SAE J 1926-2            | Dimensions |   |         |      |      |      |      |      |       |      | Weight |      |      |      |      |       |      |       |
|-----------------------------|---------------|-----------------------|-----------------------------------|-------------------------|------------|---|---------|------|------|------|------|------|-------|------|--------|------|------|------|------|-------|------|-------|
|                             |               |                       |                                   |                         | Fig.       | D | E       | F    | G    | H    | Hex  | lbs  | grams |      |        |      |      |      |      |       |      |       |
| 6FFP8LBH                    | ¼             | 6.3                   | 6.0                               | 8L - M14x1,5            | -          | 4 | 39.0    | 1.54 | 16.2 | 0.64 | 24.0 | 0.64 | 28.1  | 1.11 | 34.0   | 1.33 | 22.0 | 0.87 | 0.22 | 103.0 |      |       |
| 6FFP10L                     | ¼             | 6.3                   | 6.0                               | 10L - M16x1,5           | -          | 4 | 39.0    | 1.54 | 16.2 | 0.64 | 24.0 | 0.94 | 28.1  | 1.11 | 11.0   | 0.43 | 22.0 | 0.87 | 0.15 | 71.5  |      |       |
| 6FFP10LBH                   | ¼             | 6.3                   | 6.0                               | M10L 16x1,5+ bulkhead   | -          | 4 | 39.0    | 1.54 | 16.2 | 0.64 | 24.0 | 0.94 | 28.1  | 1.11 | 35.0   | 1.38 | 22.0 | 0.87 | 0.27 | 123.0 |      |       |
| 10FFP8L                     | ⅜             | 10.0                  | 6.0                               | 8L - M14x1,5            | -          | 4 | 56.0    | 2.20 | 19.7 | 0.78 | 29.5 | 1.16 | 46.7  | 1.84 | 10.0   | 0.39 | 27.0 | 1.06 | 0.30 | 137.0 |      |       |
| 10FFP10L                    | ⅜             | 10.0                  | 8.0                               | 10L - M16x1,5           | -          | 4 | 55.0    | 2.17 | 19.7 | 0.78 | 29.5 | 1.16 | 46.7  | 1.84 | 11.0   | 0.43 | 27.0 | 1.06 | 0.30 | 135.0 |      |       |
| 10FFP10LBH                  | ⅜             | 10.0                  | 8.0                               | 10L - M16x1,5           | -          | 4 | 52.0    | 2.05 | 19.7 | 0.78 | 29.5 | 1.16 | 36.7  | 1.45 | 35.0   | 1.38 | 27.0 | 1.06 | 0.35 | 160.0 |      |       |
| 10FFP12L                    | ⅜             | 10.0                  | 10.0                              | 12L - M18x1,5           | -          | 4 | 55.0    | 2.17 | 19.7 | 0.78 | 29.5 | 1.16 | 35.7  | 1.41 | 11.0   | 0.43 | 27.0 | 1.06 | 0.30 | 136.0 |      |       |
| 10FFP15L                    | ⅜             | 10.0                  | 8.6                               | 5L - M22x1,5            | -          | 4 | 54.0    | 2.13 | 19.7 | 0.78 | 29.5 | 1.16 | 46.7  | 1.84 | 12.0   | 0.47 | 27.0 | 1.06 | 0.31 | 139.0 |      |       |
| 10FFP15LBH                  | ⅜             | 10.0                  | 8.6                               | 15L - M22x1,5+ bulkhead | -          | 4 | 51.0    | 2.01 | 19.7 | 0.78 | 29.5 | 1.16 | 73.7  | 2.90 | 38.0   | 1.50 | 27.0 | 1.06 | 0.40 | 183.0 |      |       |
| 10FFP12S                    | ⅜             | 10.0                  | 8.6                               | M20x1,5                 | -          | 4 | 51.0    | 2.01 | 19.7 | 0.78 | 29.5 | 1.16 | 35.7  | 1.41 | 15.0   | 0.50 | 27.0 | 1.06 | 0.26 | 122.0 |      |       |
| 10FFP12LBH                  | ⅜             | 10.0                  | 8.6                               | 12L - M18x1,5           | -          | 4 | 52.0    | 2.01 | 19.7 | 0.78 | 29.5 | 1.16 | 35.7  | 1.41 | 36.0   | 1.42 | 27.0 | 1.06 | 0.34 | 158.0 |      |       |
| 10FFP16S                    | ⅜             | 10.0                  | 8.6                               | 16S - M24x1,5           | -          | 4 | 64.0    | 2.52 | 19.7 | 0.78 | 29.5 | 1.16 | 48.7  | 1.92 | 14.0   | 0.55 | 27.0 | 1.06 | 0.27 | 123.0 |      |       |
| 10FFP56ORM                  | ⅜             | 10.0                  | 8.6                               | -                       |            | ⅝ | 18f UNF | 4    | 63.6 | 2.50 | 19.7 | 0.78 | 27.0  | 1.06 | 48.3   | 1.90 | 12.0 | 0.47 | 23.8 | 0.94  | 0.33 | 150.0 |
| 10FFP75ORM                  | ⅜             | 10.0                  | 8.6                               | -                       |            | ¾ | 16f UNF | 4    | 63.6 | 2.00 | 19.7 | 0.78 | 27.0  | 1.06 | 48.3   | 1.00 | 14.0 | 0.55 | 23.8 | 0.94  | 0.34 | 156.0 |
| 12FFP12L                    | ½             | 12.0                  | 11.0                              | 12L - M18x1,5           | -          | 4 | 58.0    | 2.28 | 24.5 | 0.96 | 39.5 | 1.56 | 41.0  | 1.61 | 17.0   | 0.66 | 36.0 | 1.42 | 0.65 | 295.0 |      |       |
| 12FFP15L                    | ½             | 12.0                  | 11.0                              | 15L - M22x1,5           | -          | 4 | 54.0    | 2.12 | 24.5 | 0.96 | 39.5 | 1.56 | 78.0  | 3.07 | 12.0   | 0.47 | 36.0 | 1.42 | 0.51 | 234.0 |      |       |
| 12FFP15LBH                  | ½             | 12.0                  | 11.0                              | 15L - M22x1,5+ bulkhead | -          | 4 | 54.0    | 2.12 | 24.5 | 0.96 | 39.5 | 1.56 | 75.0  | 2.95 | 38.0   | 1.00 | 36.0 | 1.42 | 0.65 | 297.0 |      |       |
| 12FFP16S                    | ½             | 12.0                  | 11.0                              | 16S - M24x1,5           | -          | 4 | 69.0    | 2.71 | 24.5 | 0.96 | 39.5 | 1.56 | 52.0  | 2.05 | 14.0   | 0.55 | 36.0 | 1.42 | 0.61 | 279.0 |      |       |
| 12FFP18LBH                  | ½             | 12.0                  | 11.0                              | 18L - M26x1,5+ bulkhead | -          | 4 | 54.0    | 2.12 | 24.5 | 0.96 | 39.5 | 1.56 | 77.0  | 3.03 | 40.0   | 1.57 | 36.0 | 1.42 | 0.78 | 353.0 |      |       |
| 16FFP15LBH                  | ⅝             | 16.0                  | 12.0                              | 15L - M22x1,5+ bulkhead | -          | 4 | 54.0    | 2.12 | 27.0 | 1.06 | 39.5 | 1.56 | 37.0  | 1.45 | 38.0   | 1.50 | 36.0 | 1.42 | 0.65 | 298.0 |      |       |
| 16FFP16S                    | ⅝             | 16.0                  | 12.0                              | 16S - M24x1,5           | -          | 4 | 69.0    | 2.71 | 27.0 | 1.06 | 39.5 | 1.56 | 52.0  | 2.05 | 14.0   | 0.55 | 36.0 | 1.42 | 0.62 | 280.0 |      |       |
| 16FFP18LBH                  | ⅝             | 16.0                  | 13.0                              | 18L - M26x1,5+ bulkhead | -          | 4 | 54.0    | 2.12 | 27.0 | 1.06 | 39.5 | 1.56 | 37.0  | 1.45 | 40.0   | 1.57 | 36.0 | 1.42 | 0.78 | 353.0 |      |       |

\* Alternative end connections available upon request.

To obtain connected length of coupling, add dimensions A (Fig. 1 or Fig. 2) and G (Fig. 3 or 4) together.

Note that ISO 8434-1 will restrict usage of coupling to 250 bar for end connection 8L, 10L, 12L and 15L, and to 160 bar for end connection 18L.

## Socket (Female) Dust Plug

| Body Size (in) | Body Size with color ring (in) | Part/Order Number | Coupling Type | Dust Plug Material |
|----------------|--------------------------------|-------------------|---------------|--------------------|
| ¼              | ⅜                              | SDC6FF            | Socket/Female | PVC                |
| ⅜*             | -                              | SDC10FF           | Socket/Female | PVC                |
| ½              | -                              | SDC12FF           | Socket/Female | PVC                |
| ⅝              | -                              | SDC16FF           | Socket/Female | PVC                |
| ¾              | ½                              | SDC19FF           | Socket/Female | PVC                |
| 1              | ¾                              | SDC25FF           | Socket/Female | PVC                |

\*Dust caps and dust plugs are offered in black.

If a color coded ring is used on the socket, the dust plug needs to be one size bigger.



## Plug (Male) Dust Cap

| Body Size (in) | Part/Order Number | Coupling Type | Dust Plug Material |
|----------------|-------------------|---------------|--------------------|
| ¼              | XPDC6FF           | Plug/Male     | PVC                |
| ⅜*             | XPDC10FF          | Plug/Male     | PVC                |
| ½              | XPDC12FF          | Plug/Male     | PVC                |
| ⅝              | XPDC16FF          | Plug/Male     | PVC                |
| ¾              | XPDC19FF          | Plug/Male     | PVC                |
| 1              | XPDC25FF          | Plug/Male     | PVC                |

\*Dust caps and dust plugs are offered in black.

If a color coded ring is used on the socket, the dust plug needs to be one size bigger.



## Color Coding Ring Option\*

| Body Size (in) | ISO Size (mm) | Socket/Female Ring Part/Order Number** |           |           |           | Plug/Male Ring Part/Order Number** |           |           |           | Tool Part Number | Tool & Rings Kit Part Number*** |
|----------------|---------------|--|-----------|-----------|-----------|------------------------------------|-----------|-----------|-----------|------------------|---------------------------------|
|                |               | Blue                                   | Red       | Yellow    | Green     | Blue                               | Red       | Yellow    | Green     |                  |                                 |
| ¼              | 6             | CR6FFSLB                               | CR6FFSRD  | CR6FFSYL  | CR6FFSDG  | CR6FFPLB                           | CR6FFPRD  | CR6FFPYL  | CR6FFPDG  | CR6FFSP93        | CRKIT6FF                        |
| ⅜              | 10            | CR10FFSLB                              | CR10FFSRD | CR10FFSYL | CR10FFSDG | CR10FFPLB                          | CR10FFPRD | CR10FFPYL | CR10FFPDG | CR10FFSP93       | CRKIT10FF                       |
| ½              | 12.5          | CR12FFSLB                              | CR12FFSRD | CR12FFSYL | CR12FFSDG | CR12FFPLB                          | CR12FFPRD | CR12FFPYL | CR12FFPDG | CR12FFSP93       | CRKIT12FF                       |
| ⅝              | 16            | CR16FFSLB                              | CR16FFSRD | CR16FFSYL | CR16FFSDG | CR16FFPLB                          | CR16FFPRD | CR16FFPYL | CR16FFPDG | CR16FFSP93       | CRKIT16FF                       |
| ¾              | 19            | CR19FFSLB                              | CR19FFSRD | CR19FFSYL | CR19FFSDG | CR19FFPLB                          | CR19FFPRD | CR19FFPYL | CR19FFPDG | CR19FFSP93       | CRKIT19FF                       |

For color coded rings TPE material is used that offers excellent flexibility which allows a very good shock resistance in demanding applications. Good thermal, chemical and weather resistance provides a great fit on the coupling and a extended life time in toughest conditions. The color coded rings are easy to install by using the referenced tools. Please refer to the user guide on "Danfoss.com".

\* For requests on alternative colors or installation instructions, please contact your Danfoss sales representative.

\*\* Orders must be in multiples of 10 pcs.

\*\*\* The kit consists of a tool plus 10 socket rings and 10 plug rings of each color.



# FFCUP Series ISO 16028 Connect Under Pressure

## Flat Face Plug/Male

Fluid transfer & Hydraulic application



Danfoss Hansen FFCUP Series plug/male coupling is an ISO 16028 standard interchange. The flush face design prevents fluid loss on disconnection and air inclusion on connection guaranteeing excellent flow capability. An integrated patented system allows the FFCUP Series plug to be connected to a socket/female half coupling under 350 bar (5075 psi) residual pressure.

### Product Features

- Designed and manufactured in accordance with Article 4.3 of the European Pressure Equipment Directive PED 2014/68/EU
- Meets dimensional requirements of ISO 16028
- Push to connect
- Connect under residual pressure
- Shock resistant color coding ring option available to prevent accidental crossing of lines
- Standard Material: High-resistant carbon steel with Dura-Kote™ plating, a whole new level of corrosion resistance with minimum 720 hours RR protection
- Dura-Kote™ plating:
  - Nickel-free
  - Solvent-free
  - Meets Global RoHS, ELV and REACH requirements
- Alternative end connections available upon request
- Standard seal material: NBR (Nitrile) + AU (Polyurethane)
- Utilize FF Series dust caps

### Physical characteristics

| Body Size<br>(in) | ISO Size* | Nominal Flow Diameter<br>(mm) | Max. Operating Pressure |       | Min. Burst Pressure |        | Rated Flow** |       | Air Inclusion<br>ml-cc. | Fluid Loss<br>ml-cc. | Force to Connect |      |
|-------------------|-----------|-------------------------------|-------------------------|-------|---------------------|--------|--------------|-------|-------------------------|----------------------|------------------|------|
|                   |           |                               | (bar)                   | (psi) | (bar)               | (psi)  | (lpm)        | (gpm) |                         |                      | N                | Lbf  |
| 3/8               | 10        | 8.6                           | 350                     | 5,075 | 1,400               | 20,300 | 29.4         | 7.76  | 0.010                   | 0.006                | 350              | 79   |
| 1/2               | 12.5      | 11                            | 350                     | 5,075 | 1,400               | 20,300 | 46.8         | 12.36 | 0.013                   | 0.012                | 270              | 60.7 |

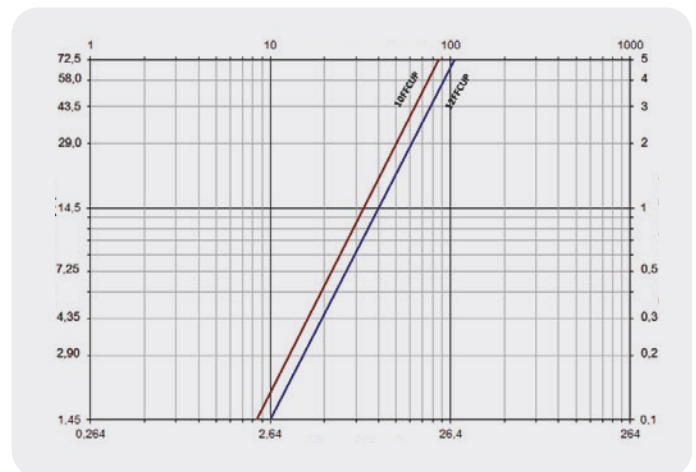
\* The ISO size corresponds to the internal diameter of the hose or the external diameter of the rigid tube(as defined in ISO 4397 Standard).

\*\* Indicated values refer to a 1 bar/14.5 psi pressure drop.

### Applications & Markets

- Connection to Hydraulic pumps, jacks, distributors and accessories
- Hydraulic Circuits
- Material Handling
- Construction
- Agriculture
- Iron and Steel Industry
- Railway
- Industrial Plants

### Flow Data



### Connect Under Pressure Operating Guidelines

- The plug can be connected against 350 bar/5075 psi residual pressure to sockets/females meeting ISO 16028 standard requirements.
- Plug only is under pressure while connected
- During the connection phase, the socket must not be under pressure
- Disconnection under pressure is strictly forbidden
- Connection under pressure may require a few seconds: the force to connect must be maintained during this lapse of time

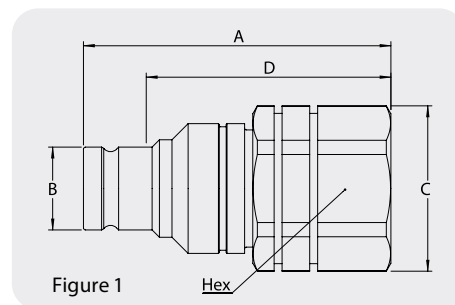
| Seal Elastomer Data*              |                                  |
|-----------------------------------|----------------------------------|
| Seal Elastomer                    | Max. Operation Temperature Range |
| NBR (Nitrile) + AU (Polyurethane) | -25°C +100°C/-13°F +212°F        |

\* For reference only, based on Danfoss recommended temperatures. Contact Danfoss technical support for further information on fluid compatibility.

# FFCUP Series ISO 16028 Connect Under Pressure

## Flat Face Plug/Male

Fluid transfer & Hydraulic application



### Plugs (Male)

| Part/Order Number | Body Size | ISO Size | Nominal Flow Diameter | Thread Size* (Female) |        |              | Fig. | Dimensions |      |       |       |      |      |      |       | Weight |      |      |      |     |
|-------------------|-----------|----------|-----------------------|-----------------------|--------|--------------|------|------------|------|-------|-------|------|------|------|-------|--------|------|------|------|-----|
|                   |           |          |                       | NPT                   | BSPP   | SAE J 1926-1 |      | A          | B    | C     | D     | Hex  | Hex  | lbs  | grams |        |      |      |      |     |
| 10FFPCUP37        | 3/8       | 10.0     | 8.6                   | 3/8-18                | -      | -            | 1    | 73.5       | 2.89 | 18.70 | 0.74  | 39.5 | 1.55 | 58.0 | 2.28  | 36.0   | 1.41 | 0.69 | 314  |     |
| 10FFPCUP37BS      |           |          |                       | -                     | 3/8-19 | -            | -    | 1          | 73.5 | 2.89  | 18.70 | 0.74 | 39.5 | 1.55 | 58.0  | 2.28   | 36.0 | 1.41 | 0.69 | 314 |
| 10FFPCUP50        |           |          |                       | 1/2-14                | -      | -            | 1    | 73.5       | 2.89 | 18.70 | 0.74  | 39.5 | 1.55 | 58.0 | 2.28  | 36.0   | 1.41 | 0.66 | 300  |     |
| 10FFPCUP50BS      | 1/2       | 12.5     | 11.0                  | -                     | 1/2-14 | -            | 1    | 73.5       | 2.89 | 18.70 | 0.74  | 39.5 | 1.55 | 58.0 | 2.28  | 36.0   | 1.41 | 0.66 | 300  |     |
| 12FFPCUP50        |           |          |                       | 1/2-14                | -      | -            | 1    | 77.0       | 3.03 | 24.52 | 0.96  | 39.5 | 1.55 | 60.0 | 2.36  | 36.0   | 1.41 | 0.77 | 350  |     |
| 12FFPCUP50BS      |           |          |                       | -                     | 1/2-14 | -            | 1    | 77.0       | 3.03 | 24.52 | 0.96  | 39.5 | 1.55 | 60.0 | 2.36  | 36.0   | 1.41 | 0.76 | 346  |     |
| 12FFPCUP56UN      | 1/2       | 12.5     | 11.0                  | -                     | -      | 3/8 18f UNF  | 1    | 73.0       | 2.87 | 24.52 | 0.96  | 39.5 | 1.55 | 56.0 | 2.20  | 36.0   | 1.41 | 0.74 | 336  |     |
| 12FFPCUP75UN      |           |          |                       | -                     | -      | 3/4 16f UNF  | 1    | 77.0       | 3.03 | 24.52 | 0.96  | 39.5 | 1.55 | 60.0 | 2.36  | 36.0   | 1.41 | 0.77 | 351  |     |

\* Alternative end connections available upon request.

### Color Coding Ring Option\*

| Body Size | ISO Size | Nominal Flow Diameter | Plug/Male Ring Part/Order Number** |           |           |           | Tool Part Number |
|-----------|----------|-----------------------|------------------------------------|-----------|-----------|-----------|------------------|
|           |          |                       | Blue                               | Red       | Yellow    | Green     |                  |
| 3/8       | 10.0     | 8.6                   | CR12FFPLB                          | CR12FFPRD | CR12FFPYL | CR12FFPDG | CR12FFSP93       |
| 1/2       | 12.5     | 11.0                  | CR16FFPLB                          | CR16FFPRD | CR16FFPYL | CR16FFPDG | CR16FFSP93       |

For color coded rings TPE material is used that offers excellent flexibility which allows a very good shock resistance in demanding applications. Good thermal, chemical and weather resistance provides a great fit on the coupling and a extended life time in toughest conditions. The color coded rings are easy to install by using the referenced tools.

\* For requests on alternative colors or installation instructions, please contact your Danfoss sales representative.

\*\* Orders must be in multiples of 10 pcs.



# MLFF Series (Stainless Steel) ISO 16028 Flat Face/Dry Break

Fluid transfer & Hydraulic application



Danfoss Hansen MLFF Series stainless steel coupling is a flat face dry break coupling used for hydraulic applications. The MLFF Series interchanges with all ISO 16028 profiles. Due to its stainless steel design, it is corrosion resistant and can handle aggressive environments.

Global region

## Product Features

- Designed and manufactured under Article 4.3 of the European Pressure Equipment Directive PED 2014/68/EU
- Safety sleeve lock prevents accidental disconnections
- Push to connect with double shut-off valving
- Shock resistant color coding ring option available in sizes 10FF, 12FF, 16FF and 19FF to prevent accidental crossing of lines
- Resistant to aggressive environments and corrosion
- Utilize FF Series dust caps
- Standard body material: 316L Stainless steel corrosion resistant (valve material is F15NM)
- Alternative end connections available upon request
- Standard seal material: FKM, EPDM, NBR+AU, HNBR (upon request)

## Physical characteristics

| ISO Size* | Coupling Size | Maximum Operating Pressure |                  |                      |                      | Minimum Burst Pressure |                  |                      |                      | Rated Flow** | Fluid Loss | Air Inclusion | Force to Connect |     |       |       |       |     |      |
|-----------|---------------|----------------------------|------------------|----------------------|----------------------|------------------------|------------------|----------------------|----------------------|--------------|------------|---------------|------------------|-----|-------|-------|-------|-----|------|
|           |               | Connected                  | Plug / Male Half | Socket / Female Half | Socket / Female Half | Connected              | Plug / Male Half | Socket / Female Half | Socket / Female Half |              |            |               | ml-cc.           | N   | Lbs   |       |       |     |      |
| 6.3       | ¼             | 250                        | 3,625            | 250                  | 3,625                | 250                    | 3,625            | 2,335                | 33,858               | 1,640        | 23,780     | 1,330         | 19,285           | 17  | 4.49  | 0.004 | 0.007 | 80  | 18.0 |
| 10.0      | ⅜             | 250                        | 3,625            | 250                  | 3,625                | 250                    | 3,625            | 1,672                | 24,244               | 1,664        | 24,128     | 845           | 12,253           | 29  | 7.66  | 0.006 | 0.010 | 140 | 31.5 |
| 12.5      | ½             | 250                        | 3,625            | 250                  | 3,625                | 250                    | 3,625            | 1,679                | 24,346               | 997          | 14,457     | 993           | 14,399           | 55  | 14.53 | 0.012 | 0.013 | 195 | 43.8 |
| 16.0      | ⅝             | 250                        | 3,625            | 250                  | 3,625                | 250                    | 3,625            | 1,190                | 17,255               | 950          | 13,775     | 880           | 12,760           | 67  | 17.70 | 0.016 | 0.030 | 205 | 46.1 |
| 19.0      | ¾             | 250                        | 3,625            | 250                  | 3,625                | 250                    | 3,625            | 1,370                | 19,865               | 882          | 12,789     | 845           | 12,253           | 105 | 27.74 | 0.034 | 0.015 | 215 | 48.3 |
| 25.0      | 1             | 250                        | 3,625            | 250                  | 3,625                | 250                    | 3,625            | 1,690                | 24,505               | 1,000        | 14,500     | 850           | 12,325           | 177 | 46.76 | 0.032 | 0.033 | 260 | 58.5 |
| -         | 1½            | 250                        | 3,625            | 250                  | 3,625                | 250                    | 3,625            | 750                  | 10,875               | 750          | 10,875     | 750           | 10,875           | 450 | 118.9 | 0.265 | 0.445 | 385 | 86.6 |
| -         | 2             | 175                        | 2,535            | 175                  | 2,535                | 175                    | 2,535            | 525                  | 7,610                | 525          | 7,610      | 525           | 7,610            | 700 | 184.9 | 0.390 | 0.260 | 375 | 84.3 |

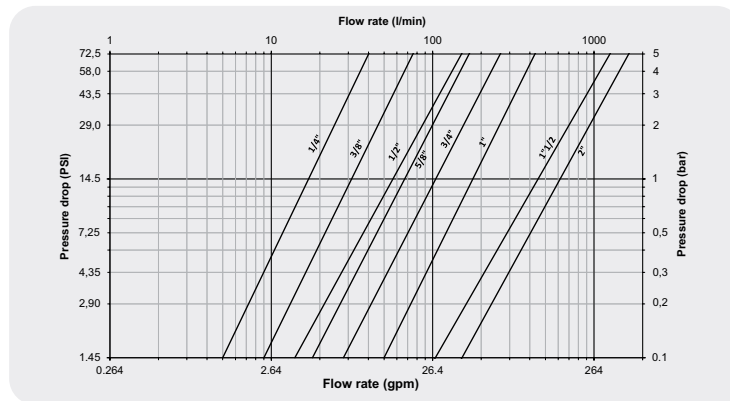
\* The ISO size corresponds to the internal diameter of the hose or the external diameter of the rigid tube (as defined in ISO 4397 Standard).

\*\* Indicated values refer to a 1 bar/14.5 psi pressure drop.

## Applications & Markets

- Construction
- Agriculture
- Iron and Steel Industry
- Railway
- Oil and Gas
- Marine
- Material Handling
- General Hydraulic Applications

## Flow Data



## European Pressure Equipment Directive

All couplings are designed and manufactured under Article 4.3 of the European Pressure Equipment Directive PED 2014/68/EU. Couplings with nominal diameters greater than 25 mm should not be used to convey gases in Group 1 (hazardous).

| Seal Elastomer Data*              |          |  |  |
|-----------------------------------|----------|--|--|
| Seal Elastomer                    | P/N Code | ISO Size (6FF to 25FF) Maximum Operation Temperature Range | Non-ISO Size (40FF and 50FF) Maximum Operation Temperature Range |
| NBR (Nitrile) + AU (Polyurethane) | -        | -25°C +100°C/-13°F +212°F                                  | on request   |
| FKM                               | -143     | -20°C +200°C/-4°F +392°F                                   | -20°C +200°C/-4°F +392°F   |
| EPDM (Ethylene-Propylene)         | -192     | -40°C +150°C/-40°F +302°F                                  | on request   |

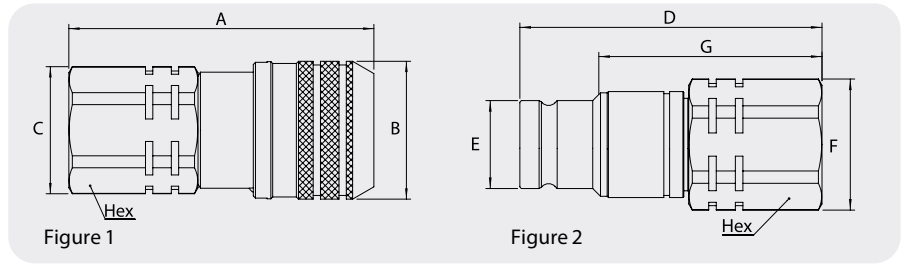
\*For reference only, based on Danfoss recommended temperatures. Contact Danfoss technical support for further information on fluid compatibility.

## Maximum Operating Pressure

| Coupling Size | Nominal Flow Diameter | Non hazardous liquids Group 2 |        | Non hazardous gases Group 2 |        | Hazardous liquids Group 1 |        |     |       |    |     |    |     |
|---------------|-----------------------|-------------------------------|--------|-----------------------------|--------|---------------------------|--------|-----|-------|----|-----|----|-----|
|               |                       | Plug & Connected              | Socket | Plug & Connected            | Socket | Plug & Connected          | Socket |     |       |    |     |    |     |
| 1 ½           | 30.1                  | 300                           | 4,350  | 270                         | 3,915  | 300                       | 4,350  | 270 | 3,915 | 66 | 955 | 66 | 955 |
| 2             | 39.2                  | 300                           | 4,350  | 225                         | 3,260  | 25                        | 360    | 25  | 360   | 50 | 725 | 50 | 725 |

\* Nominal diameters over 25mm should not be used to convey gases in group 1 (PED 2014/68/EU)

# MLFF Series (Stainless Steel) ISO 16028 Flat Face/Dry Break



## Sockets (Female)

| Part/Order Number |                 |                 | Body ISO |      | Nominal Thread Size |              |          | Dimensions |      |      |      |      |      |      |       | Weight |       |       |
|-------------------|-----------------|-----------------|----------|------|---------------------|--------------|----------|------------|------|------|------|------|------|------|-------|--------|-------|-------|
| NBR+AU            | FKM             | EPDM            | Size     | Size | Flow Diameter       | (Female) NPT | BSP Fig. | A          | B    | C    |      | Hex  |      | lbs  | grams |        |       |       |
|                   |                 |                 | (in)     | (mm) | (mm)                |              |          | (mm)       | (in) | (mm) | (in) | (mm) | (in) | (mm) |       |        |       |       |
| ML6FFS25          | ML6FFS25143     | ML6FFS25192     | 1/4      | 6.3  | 6.0                 | 1/4-18       | -        | 1          | 540  | 2.13 | 27.0 | 1.06 | 24.0 | 0.94 | 22.0  | 0.87   | 0.30  | 135   |
| ML6FFS25BS        | ML6FFS25BS143   | ML6FFS25BS192   | 1/4      | 6.3  | 6.0                 | -            | 1/4-19   | 1          | 540  | 2.13 | 27.0 | 1.06 | 24.0 | 0.94 | 22.0  | 0.87   | 0.30  | 135   |
| ML10FFS37         | ML10FFS37143    | ML10FFS37192    | 3/8      | 10.0 | 8.6                 | 3/8-18       | -        | 1          | 680  | 2.68 | 32.0 | 1.26 | 29.5 | 1.16 | 27.0  | 1.06   | 0.54  | 245   |
| ML10FFS37BS       | ML10FFS37BS143  | ML10FFS37BS192  | 3/8      | 10.0 | 8.6                 | -            | 3/8-19   | 1          | 680  | 2.68 | 32.0 | 1.26 | 29.5 | 1.16 | 27.0  | 1.06   | 0.54  | 245   |
| ML10FFS50BS       | ML10FFS50BS143  | ML10FFS50BS192  | 3/8      | 10.0 | 8.6                 | -            | 1/2-14   | 1          | 710  | 2.80 | 32.0 | 1.26 | 29.5 | 1.16 | 27.0  | 1.06   | 0.53  | 240   |
| ML12FFS50         | ML12FFS50143    | ML12FFS50192    | 1/2      | 12.5 | 11.0                | 1/2-14       | -        | 1          | 830  | 3.27 | 38.0 | 1.50 | 39.5 | 1.56 | 36.0  | 1.42   | 1.03  | 470   |
| ML12FFS50BS       | ML12FFS50BS143  | ML12FFS50BS192  | 1/2      | 12.5 | 11.0                | -            | 1/2-14   | 1          | 830  | 3.27 | 38.0 | 1.50 | 39.5 | 1.56 | 36.0  | 1.42   | 1.03  | 470   |
| ML12FFS75BS       | ML12FFS75BS143  | ML12FFS75BS192  | 1/2      | 12.5 | 11.0                | -            | 3/4-14   | 1          | 860  | 3.39 | 38.0 | 1.50 | 39.5 | 1.56 | 36.0  | 1.42   | 1.01  | 460   |
| ML16FFS75         | ML16FFS75143    | ML16FFS75192    | 3/4      | 16.0 | 13.0                | 3/4-14       | -        | 1          | 860  | 3.39 | 42.0 | 1.66 | 39.5 | 1.56 | 36.0  | 1.42   | 1.21  | 550   |
| ML16FFS75BS       | ML16FFS75BS143  | ML16FFS75BS192  | 3/4      | 16.0 | 13.0                | -            | 3/4-14   | 1          | 860  | 3.39 | 42.0 | 1.66 | 39.5 | 1.56 | 36.0  | 1.42   | 1.21  | 550   |
| ML19FFS75         | ML19FFS75143    | ML19FFS75192    | 3/4      | 19.0 | 15.0                | 3/4-14       | -        | 1          | 970  | 3.82 | 46.0 | 1.81 | 45.0 | 1.77 | 41.0  | 1.61   | 1.69  | 770   |
| ML19FFS75BS       | ML19FFS75BS143  | ML19FFS75BS192  | 3/4      | 19.0 | 15.0                | -            | 3/4-14   | 1          | 970  | 3.82 | 46.0 | 1.81 | 45.0 | 1.77 | 41.0  | 1.61   | 1.69  | 770   |
| ML19FFS100        | ML19FFS100143   | ML19FFS100192   | 3/4      | 19.0 | 15.0                | 1-11.5       | -        | 1          | 970  | 3.80 | 46.0 | 1.82 | 45.0 | 1.77 | 41.0  | 1.61   | 1.56  | 710   |
| ML19FFS100BS      | ML19FFS100BS143 | ML19FFS100BS192 | 3/4      | 19.0 | 15.0                | -            | 1-11     | 1          | 970  | 3.82 | 46.0 | 1.81 | 45.0 | 1.77 | 41.0  | 1.61   | 1.56  | 710   |
| ML25FFS100BS      | ML25FFS100BS143 | ML25FFS100BS192 | 1        | 25.0 | 18.0                | -            | 1-11     | 1          | 1040 | 4.07 | 60.0 | 2.36 | 60.0 | 2.36 | 55.0  | 2.17   | 2.83  | 1,290 |
| ML25FFS125        | ML25FFS125143   | ML25FFS125192   | 1        | 25.0 | 18.0                | 1 1/4-11.5   | -        | 1          | 1040 | 4.07 | 60.0 | 2.36 | 60.0 | 2.36 | 55.0  | 2.17   | 2.83  | 1,290 |
| ML40FFS150        | ML40FFS150143   | -               | 1 1/2    | -    | 30.1                | 1 1/2-11.5   | -        | 1          | 1274 | 5.01 | 79.5 | 3.13 | 70.0 | 2.76 | 65.0  | 2.56   | 6.16  | 2,767 |
| ML40FFS150BS      | ML40FFS150BS143 | -               | 1 1/2    | -    | 30.1                | -            | 1 1/2-11 | 1          | 1274 | 5.01 | 79.5 | 3.13 | 70.0 | 2.76 | 65.0  | 2.56   | 6.13  | 2,752 |
| -                 | ML50FFS200143   | -               | 2        | -    | 39.2                | 2-11.5       | -        | 1          | 1568 | 6.17 | 97.5 | 3.84 | 87.8 | 3.46 | 80.0  | 3.15   | 10.87 | 4,883 |
| -                 | ML50FFS200BS143 | -               | 2        | -    | 39.2                | -            | 2-11     | 1          | 1568 | 6.17 | 97.5 | 3.84 | 87.8 | 3.46 | 80.0  | 3.15   | 10.82 | 4,861 |

\* Alternative end connections available upon request.

To obtain connected length of coupling, add dimensions A (Fig. 1) and G (Fig. 2) together.

## Plugs (Male)

| Part/Order Number |                 |                 | Body ISO |      | Nominal Thread Size |              |          | Dimensions |      |      |      |      |      |      |       | Weight |      |      |      |       |
|-------------------|-----------------|-----------------|----------|------|---------------------|--------------|----------|------------|------|------|------|------|------|------|-------|--------|------|------|------|-------|
| NBR+AU            | FKM             | EPDM            | Size     | Size | Flow Diameter       | (Female) NPT | BSP Fig. | D          | E    | F    | G    | Hex  |      | lbs  | grams |        |      |      |      |       |
|                   |                 |                 | (in)     | (mm) | (mm)                |              |          | (mm)       | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in)  | (mm)   |      |      |      |       |
| ML6FFP25          | ML6FFP25143     | ML6FFP25192     | 1/4      | 6.3  | 6.0                 | 1/4-18       | -        | 2          | 510  | 2.01 | 11.6 | 0.46 | 24.0 | 0.94 | 40.1  | 1.58   | 22.0 | 0.87 | 0.20 | 90    |
| ML6FFP25BS        | ML6FFP25BS143   | ML6FFP25BS192   | 1/4      | 6.3  | 6.0                 | -            | 1/4-19   | 2          | 510  | 2.01 | 11.6 | 0.46 | 24.0 | 0.94 | 40.1  | 1.58   | 22.0 | 0.87 | 0.20 | 90    |
| ML10FFP37         | ML10FFP37143    | ML10FFP37192    | 3/8      | 10.0 | 8.6                 | 3/8-18       | -        | 2          | 650  | 2.56 | 19.7 | 0.78 | 29.5 | 1.16 | 50.0  | 1.97   | 27.0 | 1.06 | 0.33 | 150   |
| ML10FFP37BS       | ML10FFP37BS143  | ML10FFP37BS192  | 3/8      | 10.0 | 8.6                 | -            | 3/8-19   | 2          | 650  | 2.56 | 19.7 | 0.78 | 29.5 | 1.16 | 50.0  | 1.97   | 27.0 | 1.06 | 0.33 | 150   |
| ML10FFP50BS       | ML10FFP50BS143  | ML10FFP50BS192  | 3/8      | 10.0 | 8.6                 | -            | 1/2-14   | 2          | 680  | 2.68 | 19.7 | 0.78 | 29.5 | 1.16 | 53.0  | 2.09   | 27.0 | 1.06 | 0.33 | 150   |
| ML12FFP50         | ML12FFP50143    | ML12FFP50192    | 1/2      | 12.5 | 11.0                | 1/2-14       | -        | 2          | 690  | 2.72 | 24.5 | 0.96 | 39.5 | 1.56 | 52.0  | 2.05   | 36.0 | 1.42 | 0.61 | 275   |
| ML12FFP50BS       | ML12FFP50BS143  | ML12FFP50BS192  | 1/2      | 12.5 | 11.0                | -            | 1/2-14   | 2          | 690  | 2.72 | 24.5 | 0.96 | 39.5 | 1.56 | 52.0  | 2.05   | 36.0 | 1.42 | 0.64 | 290   |
| ML12FFP75BS       | ML12FFP75BS143  | ML12FFP75BS192  | 1/2      | 12.5 | 11.0                | -            | 3/4-14   | 2          | 720  | 2.83 | 24.5 | 0.96 | 39.5 | 1.56 | 55.0  | 2.17   | 36.0 | 1.42 | 0.61 | 275   |
| ML16FFP75         | ML16FFP75143    | ML16FFP75192    | 3/4      | 16.0 | 13.0                | 3/4-14       | -        | 2          | 720  | 2.83 | 27.0 | 1.06 | 39.5 | 1.56 | 36.0  | 1.42   | 36.0 | 1.42 | 0.69 | 315   |
| ML16FFP75BS       | ML16FFP75BS143  | ML16FFP75BS192  | 3/4      | 16.0 | 13.0                | -            | 3/4-14   | 2          | 720  | 2.83 | 27.0 | 1.06 | 39.5 | 1.56 | 36.0  | 1.42   | 36.0 | 1.42 | 0.69 | 315   |
| ML19FFP75         | ML19FFP75143    | ML19FFP75192    | 3/4      | 19.0 | 15.0                | 3/4-14       | -        | 2          | 940  | 3.70 | 29.9 | 1.18 | 45.0 | 1.77 | 72.0  | 2.83   | 41.0 | 1.61 | 1.28 | 580   |
| ML19FFP75BS       | ML19FFP75BS143  | ML19FFP75BS192  | 3/4      | 19.0 | 15.0                | -            | 3/4-14   | 2          | 940  | 3.70 | 29.9 | 1.18 | 45.0 | 1.77 | 72.0  | 2.83   | 41.0 | 1.61 | 1.28 | 580   |
| ML19FFP100        | ML19FFP100143   | ML19FFP100192   | 3/4      | 19.0 | 15.0                | 1-11.5       | -        | 2          | 940  | 3.70 | 29.9 | 1.18 | 45.0 | 1.77 | 72.0  | 2.83   | 41.0 | 1.61 | 1.13 | 515   |
| ML19FFP100BS      | ML19FFP100BS143 | ML19FFP100BS192 | 3/4      | 19.0 | 15.0                | -            | 1-11     | 2          | 940  | 3.70 | 29.9 | 1.18 | 45.0 | 1.77 | 72.0  | 2.83   | 41.0 | 1.61 | 1.12 | 510   |
| ML25FFP100BS      | ML25FFP100BS143 | ML25FFP100BS192 | 1        | 25.0 | 18.0                | -            | 1-11     | 2          | 1046 | 4.12 | 36.0 | 1.42 | 60.0 | 2.36 | 55.0  | 2.17   | 55.0 | 2.17 | 2.37 | 1,080 |
| ML25FFP125        | ML25FFP125143   | ML25FFP125192   | 1        | 25.0 | 18.0                | 1 1/4-11.5   | -        | 2          | 1046 | 4.12 | 36.0 | 1.42 | 60.0 | 2.36 | 55.0  | 2.17   | 55.0 | 2.17 | 2.37 | 1,080 |
| ML40FFP150        | ML40FFP150143   | -               | 1 1/2    | -    | 30.1                | 1 1/2-11.5   | -        | 2          | 1050 | 4.13 | 57.0 | 2.24 | 66.3 | 2.61 | 76.5  | 3.01   | 60.0 | 2.36 | 3.15 | 1,411 |
| ML40FFP150BS      | ML40FFP150BS143 | -               | 1 1/2    | -    | 30.1                | -            | 1 1/2-11 | 2          | 1050 | 4.13 | 57.0 | 2.24 | 66.3 | 2.61 | 76.5  | 3.01   | 60.0 | 2.36 | 3.12 | 1,398 |
| -                 | ML50FFP200143   | -               | 2        | -    | 39.2                | 2-11.5       | -        | 2          | 1350 | 5.31 | 73.0 | 2.87 | 83.5 | 3.29 | 96.6  | 3.80   | 75.0 | 2.95 | 6.01 | 2,729 |
| -                 | ML50FFP200BS143 | -               | 2        | -    | 39.2                | -            | 2-11     | 2          | 1350 | 5.31 | 73.0 | 2.87 | 83.5 | 3.29 | 96.6  | 3.80   | 75.0 | 2.95 | 5.97 | 2,710 |

\* Alternative end connections available upon request.

To obtain connected length of coupling, add dimensions A (Fig. 1) and G (Fig. 2) together.

## Color Coding Ring Option\*

| Body Size (in) | ISO Size (mm) | Socket/Female Ring Part/Order Number** |           |           |           | Plug/Male Ring Part/Order Number** |           |           |           | Tool Part Number | Tool & Rings Kit Part Number*** |           |
|----------------|---------------|--|-----------|-----------|-----------|------------------------------------|-----------|-----------|-----------|------------------|---------------------------------|-----------|
|                |               | Blue                                   | Red       | Yellow    | Green     | Blue                               | Red       | Yellow    | Green     |                  |                                 |           |
| 1/4            | 6             | 6FF                                    | CR6FFSLB  | CR6FFSRD  | CR6FFSYL  | CR6FFSDG                           | CR6FFPLB  | CR6FFPRD  | CR6FFPYL  | CR6FFPDG         | CR6FFSP93                       | CRKIT6FF  |
| 3/8            | 10            | 10FF                                   | CR10FFSLB | CR10FFSRD | CR10FFSYL | CR10FFSDG                          | CR10FFPLB | CR10FFPRD | CR10FFPYL | CR10FFPDG        | CR10FFSP93                      | CRKIT10FF |
| 1/2            | 12.5          | 12FF                                   | CR12FFSLB | CR12FFSRD | CR12FFSYL | CR12FFSDG                          | CR12FFPLB | CR12FFPRD | CR12FFPYL | CR12FFPDG        | CR12FFSP93                      | CRKIT12FF |
| 3/4            | 16            | 16FF                                   | CR16FFSLB | CR16FFSRD | CR16FFSYL | CR16FFSDG                          | CR16FFPLB | CR16FFPRD | CR16FFPYL | CR16FFPDG        | CR16FFSP93                      | CRKIT16FF |
| 1              | 19            | 19FF                                   | CR19FFSLB | CR19FFSRD | CR19FFSYL | CR19FFSDG                          | CR19FFPLB | CR19FFPRD | CR19FFPYL | CR19FFPDG        | CR19FFSP93                      | CRKIT19FF |

For color coded rings TPE material is used that offers excellent flexibility which allows a very good shock resistance in demanding applications.

Good thermal, chemical and weather resistance provides a great fit on the coupling and a extended life time in toughest conditions.

The color coded rings are easy to install by using the referenced tools. Please refer to the user guide on "Danfoss.com".

\* For requests on alternative colors or installation instructions, please contact your Danfoss sales representative.

\*\* Orders must be in multiples of 10 pcs.

\*\*\* The kit consists of a tool plus 10 socket rings and 10 plug rings of each color.



# Multi-FF

Fluid transfer & Hydraulic application



Danfoss Hansen Multi-FF system is designed for any application demanding multiple hydraulic fluid connections for power transmission. The system supports 2 to 6 flat face couplings simultaneously. The multiplate coupling system makes connectivity faster and simpler with a modular and flexible design. The configuration allows customized solutions with electrical connectors or specific couplings. The coupling body size has the ISO designation.

## Product Features

- Robust, reliable and easy to use
- Supports FF couplings sizes 6 through 25
- Couplings available in Zinc plated or 316L stainless steel
- Connectable under residual pressure
- Plates constructed in aluminium
- Modular design with customization of couplings, very configurable (FF, MLDB, ADB and in every size)

## Physical characteristics

| MultiFF Part/Order Number | No. of coupling ports | Coupling type | Coupling body size | Pattern | Operating pressure | Seal | No. of electrical port | No. of contacts in electrical connector | End connection for couplings ## |
|---------------------------|-----------------------|---------------|--------------------|---------|--------------------|------|------------------------|---|---------------------------------|
| 4MFC-10CUP15LS11          | 4                     | FFCUP**       | ISO 10             | DLM122  | 250 bar            | NBR  | 0                      | –                                       | 15L as per ISO 8434-1           |
| 4MFCE1-12CUP15L           | 4                     | FFCUP         | ISO 12             | Generic | 350 bar            | NBR  | 1                      | 3#                                      | 15L as per ISO 8434-1           |
| 4MFC-12CUP15L             | 4                     | FFCUP         | ISO 12             | Generic | 350 bar            | NBR  | 0                      | –                                       | 15L as per ISO 8434-1           |
| 4MFC-1015L                | 4                     | FF*           | ISO 10             | Generic | 350 bar            | NBR  | 0                      | –                                       | 15L as per ISO 8434-1           |
| 4MFCE1-1015L              | 4                     | FF            | ISO 10             | Generic | 350 bar            | NBR  | 1                      | 3                                       | 15L as per ISO 8434-1           |
| 6MFC-1015L                | 6                     | FF            | ISO 10             | Generic | 350 bar            | NBR  | 0                      | –                                       | 15L as per ISO 8434-1           |

\*FF is ISO 16028 interchange flat face series coupling.

\*\*FFCUP is ISO 16028 interchange flat face series coupling with connect under residual pressure capability on plug side.

# No. Of contacts in each connector is configurable and connector can be provided with 3 to 12 number of contacts as per requirement.

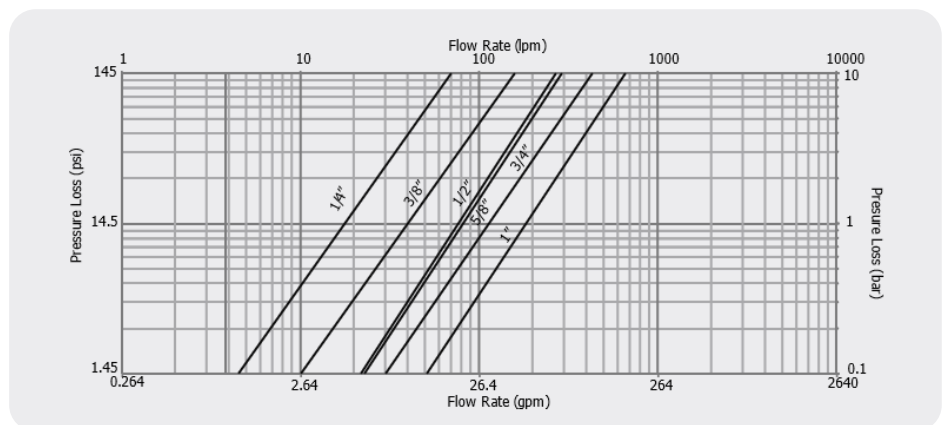
## Other end connection styles and sizes are available. See next page for list of end connection available for configuration. Contact Danfoss CSR for more information.

**Note 1:** This limited list of configurations is indicative only. Danfoss' Multi-FF solution is highly configurable and optimum solution can be provided to meet application requirements. Please contact Danfoss CSR for more information.

## Applications & Markets

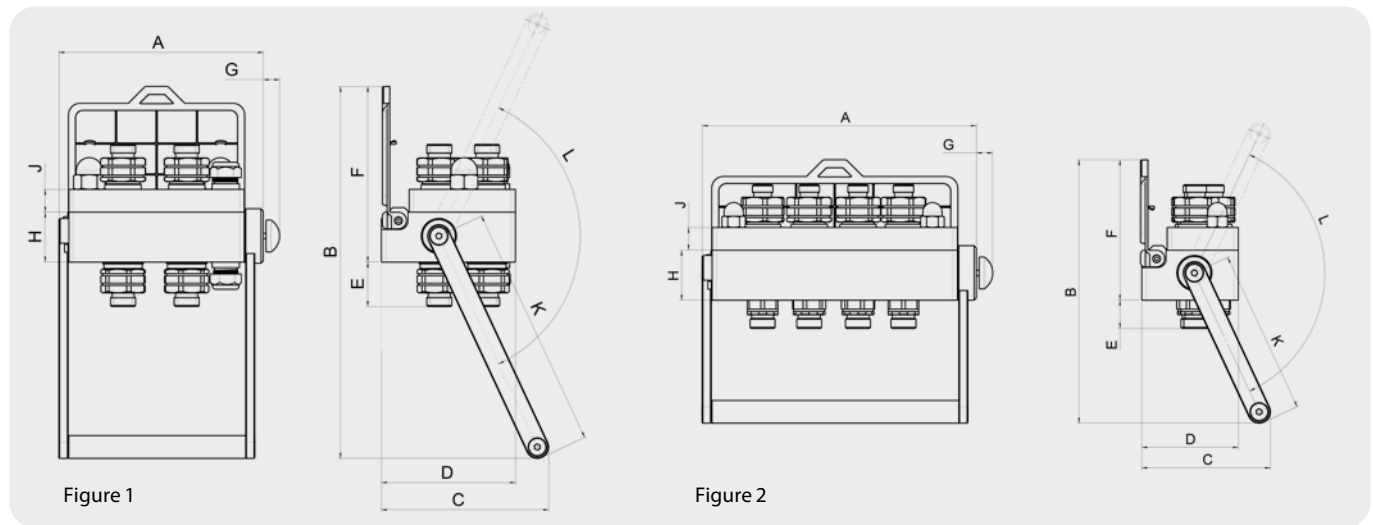
- Mobile hydraulic, agriculture field
- Construction market
- Commercial vehicles

## Flow Data



**Note 2:** This Flow chart is based on standard Flat face coupling configuration. Please contact Danfoss CSR for more information.

# Multi-FF



## Dimensions

| Part/Order Number | Fig. | A    |      | B    |      | C    |      | D    |      | E    |      | F    |      | G    |      | H    |      | J    |      | K    |      | L    |
|-------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|                   |      | (mm) | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) | °    |
| 4MFC-10CUP15LS11  | 2    | 241  | 9.4  | 232  | 9.1  | 113  | 4.4  | 85   | 3.3  | 25   | 0.9  | 124  | 4.8  | 14   | 0.5  | 44   | 1.7  | 20   | 0.7  | 145  | 5.7  | 130° |
| 4MFCE1-12CUP15L   | 1    | 180  | 7.0  | 327  | 12.8 | 147  | 5.7  | 118  | 4.6  | 39   | 1.53 | 155  | 6.1  | 14   | 0.5  | 44   | 1.7  | 20   | 0.7  | 215  | 8.4  | 130° |
| 4MFC-12CUP15L     | 1    | 180  | 7.0  | 327  | 12.8 | 147  | 5.7  | 118  | 4.6  | 39   | 1.53 | 155  | 6.1  | 14   | 0.5  | 44   | 1.7  | 20   | 0.7  | 215  | 8.4  | 130° |
| 4MFC-1015L        | 1    | 160  | 6.2  | 288  | 11.3 | 130  | 5.1  | 107  | 4.2  | 25   | 0.9  | 144  | 5.6  | 14   | 0.5  | 44   | 1.7  | 20   | 0.7  | 185  | 7.2  | 130° |
| 4MFCE1-1015L      | 1    | 160  | 6.2  | 288  | 11.3 | 130  | 5.1  | 107  | 4.2  | 25   | 0.9  | 144  | 5.6  | 14   | 0.5  | 44   | 1.7  | 20   | 0.7  | 185  | 7.2  | 130° |
| 6MFC-1015L        | 1    | 205  | 8.0  | 325  | 9.2  | 143  | 5.6  | 116  | 4.5  | 25   | 0.9  | 153  | 6.0  | 14   | 0.5  | 44   | 1.7  | 20   | 0.7  | 215  | 8.4  | 130° |

Note: Other configurations available upon request. Please contact your Danfoss CSR for more information.

# Multi-FF

## Configuration Multi-FF

**4 MF C E1-12 ML 50BS 192 S11**

### Number of QDC

This digit specifies number of QDC's in a multi-FF set.  
MF is family name for Danfoss' Multiplate solution.

### Type of assembly

C: Complete set of Multi-FF system  
P: Movable plate sub-assembly (attachment side)  
S: Fixed plate sub-assembly (equipment side)

### Electrical connector

This position indicates number of electrical connectors in particular Multi-FF system  
(no code) = No electrical connector  
E1 = 1 electrical connector  
E2 = 2 electrical connectors  
Etc.

### QDC Body size

ISO size of QDC's used.

6 = 1/4"  
10 = 3/8"  
12 = 1/2"  
16 = 5/8"  
19 = 3/4"  
25 = 1"

### Product series code

This position is to define type of QDC being used in Multi-FF solution

- (no code) = Flat Face ISO 16028
- CUP = Flat Face Connect Under Pressure ISO 16028
- MLFF = SS version of ISO 16028 coupling
- MLDB = SS version of Dry Break coupling (water transfer etc.)
- ADB = Dry Break coupling in Aluminium (for cooling line etc.)
- G600 = Pneumatic application coupling

Danfoss internal code for special QDC pattern or configuration

### Seal code

(no code) = NBR  
143 = FKM  
192 = EPDM  
507 = HNBR  
503 = FFKM  
242 = Kalrez® 6375

### End connection size and code

PT = NPT BS = BSPP  
MET = Metric UN = UNF  
L = ISO 8434-1 Light Duty  
S = ISO 8434-1 Heavy Duty

### End connection thread size

**For BSPP, NPT, UN, UNF threads:**

Fraction in inch x 100  
1/4 = 25; 3/8 = 37; 1/2 = 50  
5/8 = 62; 3/4 = 75; 1" = 100

### For metric threads:

2 characters nominal thread size  
e.g. M5 = 05; M10 = 10; M22 = 22

### For ISO 8434-1 terminal end:

2 digits tube size per ISO 8434-1

# FD49 Series NFFPA Standard T3.20.15 HTMA Interchange

Fluid transfer & Hydraulic application



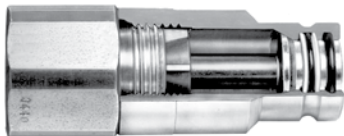
Danfoss Hansen FD49 Series meets NFFPA standard T3.20.15 and was developed in conjunction with HTMA (Hydraulic Tool Manufacturer’s Association). Danfoss’ Twin-Guard™ sealing system prevents weepage at low pressures and allows connection and disconnection against pressure up to 500 psi.

## Product Features

- Dual flush face valving for minimal fluid loss and air inclusion
- Tubular valve and sleeve construction for high fluid flow with low pressure drop
- Push-to-connect latching for one hand operation
- Standard seal material: Teflon channel seal and Buna-N O-Ring backup
- Standard body material: High resistance carbon steel with zinc trivalent plating

## Physical characteristics

| Body Size<br>(in) | Max. Operating Pressure |       | Min. Burst Pressure Connected |       | Vacuum Connected Only | Rated Flow |       | Air Inclusion | Fluid Loss |
|-------------------|-------------------------|-------|-------------------------------|-------|-----------------------|------------|-------|---------------|------------|
|                   | (bar)                   | (psi) | (bar)                         | (psi) | (in./Hg)              | (lpm)      | (gpm) | cc.max.       | cc.max.    |
| 3/8               | 207                     | 3,000 | 621                           | 9,000 | 28                    | 38         | 10    | 0.01          | 0.02       |

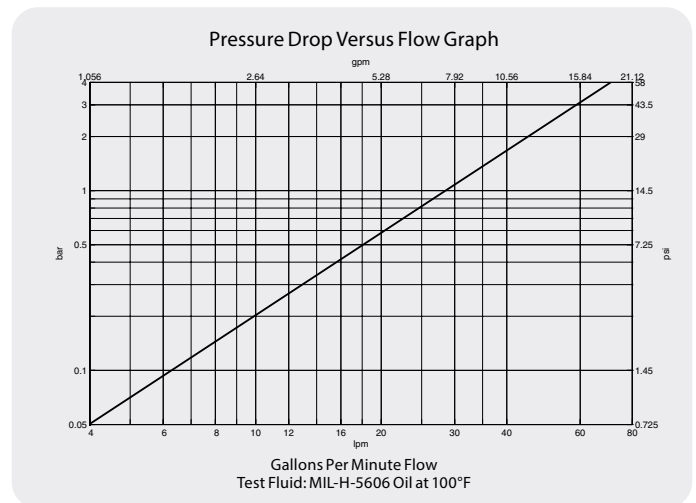


Danfoss’ Twin-Guard™ seal system consists of channel and Buna-N O-Ring seals. The channel seal prevents blowout during connection and disconnection under pressure to 500 psi. The Buna-N O-Ring seal is a secondary seal eliminating fluid weepage.

## Applications & Markets

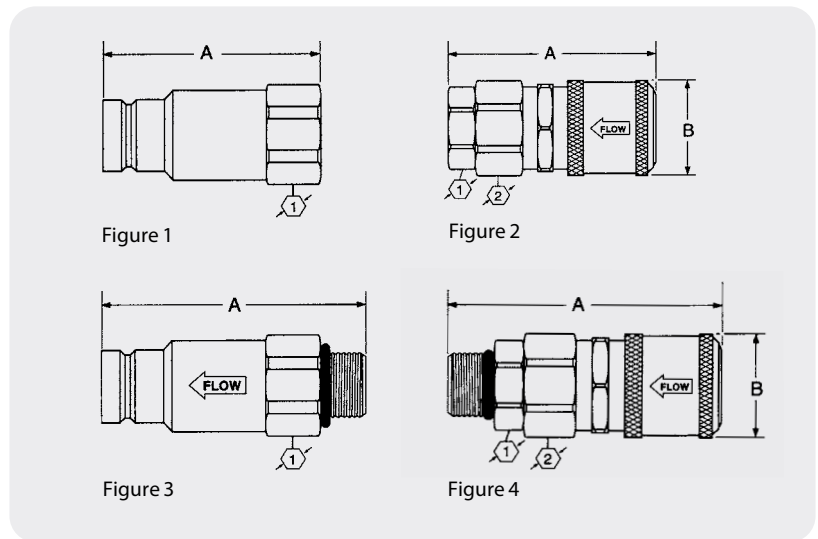
- Hydraulic tool (HTMA interchange)
- Hydraulic and fluid transfer

## Flow Data



# FD49 Series NFPA Standard T3.20.15 HTMA Interchange

AMER region



### Dimensions (Female NPT, Valved)

| Part/Order Number<br>Buna-N | Coupling Type | Body Size | Port Size | Thread | Type       | Fig. | Dimensions |      |      |      |       |      |       |      |
|-----------------------------|---------------|-----------|-----------|--------|------------|------|------------|------|------|------|-------|------|-------|------|
|                             |               |           |           |        |            |      | A          |      | B    |      | Hex ① |      | Hex ② |      |
|                             |               |           |           |        |            |      | (mm)       | (in) | (mm) | (in) | (mm)  | (in) | (mm)  | (in) |
| FD49-1002-06-06             | Plug/Male     | 3/8       | 3/8       | 3/8-18 | Female NPT | 1    | 66.5       | 2.62 | -    | -    | 25.4  | 1.00 | -     | -    |
| FD49-1001-06-06             | Socket/Female | 3/8       | 3/8       | 3/8-18 | Female NPT | 2    | 69.6       | 2.74 | 30.5 | 1.20 | 25.4  | 1.00 | 26.9  | 1.06 |
| FD49-1002-08-06             | Plug/Male     | 3/8       | 1/2       | 1/2-14 | Female NPT | 1    | 69.9       | 2.75 | -    | -    | 26.9  | 1.06 | -     | -    |
| FD49-1001-08-06             | Socket/Female | 3/8       | 1/2       | 1/2-14 | Female NPT | 2    | 72.4       | 2.85 | 30.5 | 1.20 | -     | -    | 26.9  | 1.06 |

### Dimensions (Female SAE O-Ring, Valved)

| Part/Order Number<br>Buna-N | Coupling Type | Body Size | Port Size | Thread | Type              | Fig. | Dimensions |      |      |      |       |      |       |      |
|-----------------------------|---------------|-----------|-----------|--------|-------------------|------|------------|------|------|------|-------|------|-------|------|
|                             |               |           |           |        |                   |      | A          |      | B    |      | Hex ① |      | Hex ② |      |
|                             |               |           |           |        |                   |      | (mm)       | (in) | (mm) | (in) | (mm)  | (in) | (mm)  | (in) |
| FD49-1004-08-06             | Plug/Male     | 3/8       | 3/4       | 3/4-16 | Female SAE O-Ring | 1    | 69.9       | 2.75 | -    | -    | 26.9  | 1.06 | -     | -    |
| FD49-1005-08-06             | Socket/Female | 3/8       | 3/4       | 3/4-16 | Female SAE O-Ring | 2    | 71.6       | 2.82 | 30.5 | 1.20 | -     | -    | 26.9  | 1.06 |

### Dimensions (Male SAE O-Ring, Valved)

| Part/Order Number<br>Buna-N | Coupling Type | Body Size | Port Size | Thread  | Type            | Fig. | Dimensions |      |      |      |       |      |       |      |
|-----------------------------|---------------|-----------|-----------|---------|-----------------|------|------------|------|------|------|-------|------|-------|------|
|                             |               |           |           |         |                 |      | A          |      | B    |      | Hex ① |      | Hex ② |      |
|                             |               |           |           |         |                 |      | (mm)       | (in) | (mm) | (in) | (mm)  | (in) | (mm)  | (in) |
| FD49-1057-06-06             | Plug/Male     | 3/8       | 3/16      | 3/16-18 | Male SAE O-Ring | 3    | 75.9       | 2.99 | -    | -    | 25.4  | 1.00 | -     | -    |
| FD49-1014-06-06             | Socket/Female | 3/8       | 3/16      | 3/16-18 | Male SAE O-Ring | 4    | 81.8       | 3.22 | 30.5 | 1.20 | 25.4  | 1.00 | 26.9  | 1.06 |
| FD49-1057-08-06             | Plug/Male     | 3/8       | 3/4       | 3/4-16  | Male SAE O-Ring | 3    | 75.9       | 2.99 | -    | -    | 25.4  | 1.00 | -     | -    |
| FD49-1014-08-06             | Socket/Female | 3/8       | 3/4       | 3/4-16  | Male SAE O-Ring | 4    | 83.3       | 3.28 | 30.5 | 1.20 | 25.4  | 1.00 | 26.9  | 1.06 |

### Dust Cap/Plug, Standard Coupling

| Part/Order Number<br>Buna-N | Body Size |
|-----------------------------|-----------|
| FD49-1042-06                | 3/8       |



Dust Cap/Plug

Note: Fits male and female halves.

# FD96 Series High Pressure Thread to Connect Flush Face

Fluid transfer & Hydraulic application



Danfoss Hansen FD96 High Pressure Thread Together Flush Face Series is designed for high pressure and high impulse applications for hydraulic circuits. The FD96 Series design provides low connect and disconnect force in hydraulic circuits where trapped residual pressure must be addressed. The flush face design limits contamination and unwanted fluid loss. The FD96 Series is available in sizes 1/4" through 2" to best meet your specific size requirements.

## Product Features

- Thread together design allows connection and disconnection under pressure up to 4,300 psi
- Low connection force
- Dual flush-face valving with non-spill design
- Working pressures up to 8,700 psi
- Body material: Highresistance carbon steel with zinc trivalent and black oxide plating

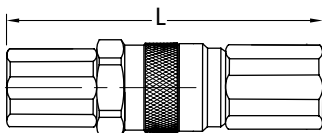
## Applications & Markets

- Hydraulic Fluid Transfer
- High-impulse Hydraulics
- Oilfields
- Mining

## Physical characteristics

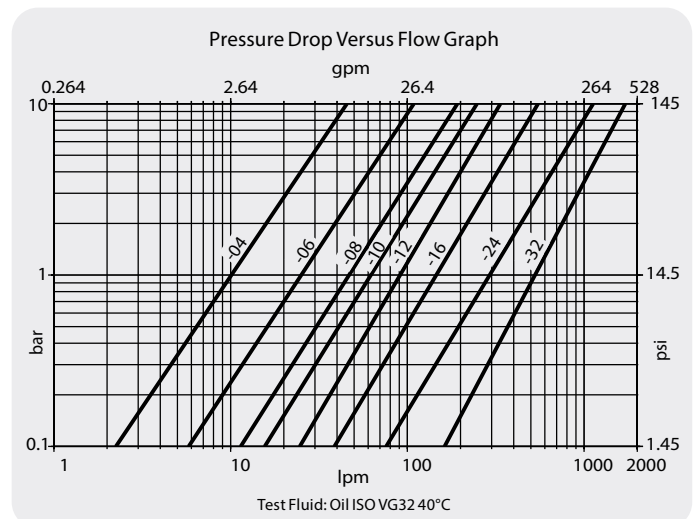
| Body Size | Maximum Operating Pressure |       |                  |       | Minimum Burst Pressure |       |           |        | Rated Flow (lpm) | Fluid Loss       |       | Req. Torque to Connect (N) |       |         |         |
|-----------|----------------------------|-------|------------------|-------|------------------------|-------|-----------|--------|------------------|------------------|-------|----------------------------|-------|---------|---------|
|           | Connected                  |       | Plug / Male Half |       | Socket / Female Half   |       | Connected |        |                  | Plug / Male Half |       | Socket / Female Half       |       |         |         |
|           | (bar)                      | (psi) | (bar)            | (psi) | (bar)                  | (psi) | (bar)     | (psi)  | (bar)            | (psi)            | (lpm) | (gpm)                      | cc.   | (lbs.)  | (N)     |
| 1/4       | 600                        | 8,700 | 600              | 8,700 | 420                    | 6,090 | 1,500     | 21,750 | 1,500            | 21,750           | 12    | 3.2                        | 0.012 | 29-37   | 40-50   |
| 3/8       | 550                        | 7,980 | 550              | 7,980 | 330                    | 4,785 | 1,400     | 20,300 | 1,400            | 20,300           | 23    | 6.1                        | 0.040 | 37-44   | 50-60   |
| 1/2       | 550                        | 7,980 | 550              | 7,980 | 330                    | 4,785 | 1,400     | 20,300 | 1,400            | 20,300           | 45    | 11.9                       | 0.025 | 48-55   | 65-75   |
| 3/4       | 550                        | 7,980 | 550              | 7,980 | 330                    | 4,785 | 1,400     | 20,300 | 1,400            | 20,300           | 74    | 19.6                       | 0.033 | 52-59   | 70-80   |
| 1         | 500                        | 7,250 | 500              | 7,250 | 330                    | 4,785 | 1,250     | 18,125 | 1,250            | 18,125           | 100   | 26.5                       | 0.018 | 66-81   | 90-110  |
| 1 1/4     | 470                        | 6,800 | 470              | 6,800 | 300                    | 4,350 | 1,200     | 17,400 | 1,200            | 17,400           | 189   | 50.1                       | 0.060 | 92-107  | 125-145 |
| 1 1/2     | 400                        | 5,800 | 400              | 5,800 | 270                    | 3,915 | 1,700     | 15,950 | 1,100            | 15,950           | 288   | 76.3                       | 0.200 | 114-129 | 155-175 |
| 2         | 350                        | 5,080 | 350              | 5,080 | 270                    | 3,915 | 1,100     | 15,950 | 1,100            | 15,950           | 379   | 100.4                      | 0.350 | 236-258 | 320-355 |

## Connected Length



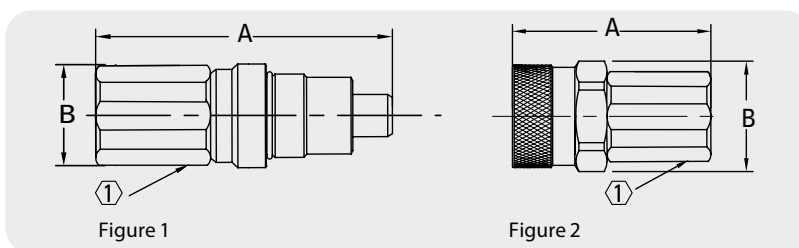
| Body Size | Port Size | Connected Length "L" |       |
|-----------|-----------|----------------------|-------|
|           |           | (mm)                 | (in)  |
| 1/4       | 3/8       | 90.0                 | 3.54  |
| 3/8       | 3/8       | 131.0                | 5.16  |
| 3/8       | 1/2       | 131.0                | 5.16  |
| 1/2       | 1/2       | 155.0                | 6.10  |
| 1/2       | 3/4       | 160.0                | 6.30  |
| 3/4       | 3/4       | 165.0                | 6.50  |
| 1         | 1         | 190.4                | 7.50  |
| 1         | 1 1/4     | 170.0                | 6.69  |
| 1 1/2     | 1 1/2     | 256.0                | 10.08 |
| 2         | 2         | 363.5                | 14.31 |

## Flow Data



# FD96 Series High Pressure Thread to Connect Flush Face

Global region



## Dimensions (Female NPT)

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread       | Type       | Fig. | Dimensions |        |        |        | Hex $\text{\textcircled{1}}$ |      |
|-------------------|---------------|-----------|-----------|--------------|------------|------|------------|--------|--------|--------|------------------------------|------|
|                   |               |           |           |              |            |      | A (mm)     | A (in) | B (mm) | B (in) | (mm)                         | (in) |
| FD96-1001-06-06   | Socket/Female | 3/8       | 3/8       | 3/8-18       | Female NPT | 2    | 65.8       | 2.59   | 41.8   | 1.65   | 30                           | 1.18 |
| FD96-1002-06-06   | Plug/Male     | 3/8       | 3/8       | 3/8-18       | Female NPT | 1    | 82.5       | 3.25   | 37.8   | 1.49   | 27                           | 1.06 |
| FD96-1001-08-06   | Socket/Female | 3/8       | 1/2       | 1/2-14       | Female NPT | 2    | 70.8       | 2.79   | 41.8   | 1.65   | 30                           | 1.18 |
| FD96-1002-08-06   | Plug/Male     | 3/8       | 1/2       | 1/2-14       | Female NPT | 1    | 85.0       | 3.35   | 37.8   | 1.49   | 27                           | 1.06 |
| FD96-1001-08-08   | Socket/Female | 1/2       | 1/2       | 1/2-14       | Female NPT | 2    | 77.8       | 3.06   | 49.8   | 1.96   | 36                           | 1.42 |
| FD96-1002-08-08   | Plug/Male     | 1/2       | 1/2       | 1/2-14       | Female NPT | 1    | 95.0       | 3.74   | 45.8   | 1.80   | 36                           | 1.42 |
| FD96-1001-12-08   | Socket/Female | 1/2       | 3/4       | 3/4-14       | Female NPT | 2    | 84.8       | 3.06   | 49.8   | 1.96   | 36                           | 1.42 |
| FD96-1002-12-08   | Plug/Male     | 1/2       | 3/4       | 3/4-14       | Female NPT | 1    | 97.4       | 3.83   | 45.8   | 1.80   | 36                           | 1.42 |
| FD96-1001-12-12   | Socket/Female | 3/4       | 3/4       | 3/4-14       | Female NPT | 2    | 84.9       | 3.34   | 53.8   | 2.12   | 41                           | 1.61 |
| FD96-1002-12-12   | Plug/Male     | 3/4       | 3/4       | 3/4-14       | Female NPT | 1    | 99.0       | 3.90   | 49.8   | 1.96   | 36                           | 1.42 |
| FD96-1001-12-16   | Socket/Female | 1         | 3/4       | 3/4-14       | Female NPT | 2    | 96.7       | 3.81   | 58.8   | 2.31   | 46                           | 1.81 |
| FD96-1002-12-16   | Plug/Male     | 1         | 3/4       | 3/4-14       | Female NPT | 1    | 113.6      | 4.47   | 54.8   | 2.16   | 46                           | 1.81 |
| FD96-1001-16-16   | Socket/Female | 1         | 1         | 1-11 1/2     | Female NPT | 2    | 99.7       | 3.93   | 58.8   | 2.31   | 46                           | 1.81 |
| FD96-1002-16-16   | Plug/Male     | 1         | 1         | 1-11 1/2     | Female NPT | 1    | 113.6      | 4.47   | 54.8   | 2.16   | 46                           | 1.81 |
| FD96-1001-16-20   | Socket/Female | 1 1/4     | 1         | 1-11 1/2     | Female NPT | 2    | 105.8      | 4.17   | 69.8   | 2.75   | 55                           | 2.17 |
| FD96-1002-16-20   | Plug/Male     | 1 1/4     | 1         | 1-11 1/2     | Female NPT | 1    | 123.4      | 4.86   | 64.5   | 2.54   | 55                           | 2.17 |
| FD96-1001-20-20   | Socket/Female | 1 1/4     | 1 1/4     | 1 1/4-11 1/2 | Female NPT | 2    | 106.8      | 4.20   | 69.8   | 2.75   | 55                           | 2.17 |
| FD96-1002-20-20   | Plug/Male     | 1 1/4     | 1 1/4     | 1 1/4-11 1/2 | Female NPT | 1    | 123.4      | 4.86   | 64.5   | 2.54   | 55                           | 2.17 |
| FD96-1001-20-24   | Socket/Female | 1 1/2     | 1 1/4     | 1 1/4-11 1/2 | Female NPT | 2    | 133.5      | 5.26   | 92.0   | 3.62   | 65                           | 2.56 |
| FD96-1002-20-24   | Plug/Male     | 1 1/2     | 1 1/4     | 1 1/4-11 1/2 | Female NPT | 1    | 150.0      | 5.91   | 89.8   | 3.54   | 65                           | 2.56 |
| FD96-1001-24-24   | Socket/Female | 1 1/2     | 1 1/2     | 1 1/2-11 1/2 | Female NPT | 2    | 133.5      | 5.26   | 92.0   | 3.62   | 65                           | 2.56 |
| FD96-1002-24-24   | Plug/Male     | 1 1/2     | 1 1/2     | 1 1/2-11 1/2 | Female NPT | 1    | 150.0      | 5.91   | 89.8   | 3.54   | 65                           | 2.56 |
| FD96-1001-32-32   | Socket/Female | 2         | 2         | 2-11 1/2     | Female NPT | 2    | 224.8      | 8.85   | 200.0  | 7.87   | 90                           | 3.54 |
| FD96-1002-32-32   | Plug/Male     | 2         | 2         | 2-11 1/2     | Female NPT | 1    | 218.4      | 8.60   | 145.0  | 5.71   | 90                           | 3.54 |

## Dimensions (Female SAE O-Ring)

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread       | Type              | Fig. | Dimensions |        |        |        | Hex $\text{\textcircled{1}}$ |      |
|-------------------|---------------|-----------|-----------|--------------|-------------------|------|------------|--------|--------|--------|------------------------------|------|
|                   |               |           |           |              |                   |      | A (mm)     | A (in) | B (mm) | B (in) | (mm)                         | (in) |
| FD96-1004-06-04   | Socket/Female | 1/4       | 3/8       | 9/16-18 UNF  | Female SAE O-Ring | 2    | 57.1       | 2.25   | 38.8   | 1.53   | 27                           | 1.06 |
| FD96-1005-06-04   | Plug/Male     | 1/4       | 3/8       | 9/16-18 UNF  | Female SAE O-Ring | 1    | 72.8       | 2.87   | 34.8   | 1.37   | 22                           | .87  |
| FD96-1004-08-06   | Socket/Female | 3/8       | 1/2       | 3/4-16 UNF   | Female SAE O-Ring | 2    | 70.8       | 2.79   | 41.8   | 1.65   | 30                           | 1.18 |
| FD96-1005-08-06   | Plug/Male     | 3/8       | 1/2       | 3/4-16 UNF   | Female SAE O-Ring | 1    | 87.0       | 3.43   | 37.8   | 1.49   | 27                           | 1.06 |
| FD96-1004-12-08   | Socket/Female | 1/2       | 3/4       | 1 1/4-12 UNF | Female SAE O-Ring | 2    | 84.8       | 3.06   | 49.8   | 1.96   | 36                           | 1.42 |
| FD96-1005-12-08   | Plug/Male     | 1/2       | 3/4       | 1 1/4-12 UNF | Female SAE O-Ring | 1    | 100.4      | 3.95   | 45.8   | 1.80   | 36                           | 1.42 |
| FD96-1004-12-12   | Socket/Female | 3/4       | 3/4       | 1 1/4-12 UNF | Female SAE O-Ring | 2    | 84.9       | 3.34   | 53.8   | 2.12   | 41                           | 1.61 |
| FD96-1005-12-12   | Plug/Male     | 3/4       | 3/4       | 1 1/4-12 UNF | Female SAE O-Ring | 1    | 102.0      | 4.02   | 49.8   | 1.96   | 36                           | 1.42 |
| FD96-1004-12-16   | Socket/Female | 1         | 3/4       | 1 1/4-12 UN  | Female SAE O-Ring | 2    | 99.7       | 3.93   | 58.8   | 2.31   | 46                           | 1.81 |
| FD96-1005-12-16   | Plug/Male     | 1         | 3/4       | 1 1/4-12 UN  | Female SAE O-Ring | 1    | 115.6      | 4.55   | 54.8   | 2.16   | 46                           | 1.81 |
| FD96-1004-16-16   | Socket/Female | 1         | 1         | 1 1/2-12 UN  | Female SAE O-Ring | 2    | 99.7       | 3.93   | 58.8   | 2.31   | 46                           | 1.81 |
| FD96-1005-16-16   | Plug/Male     | 1         | 1         | 1 1/2-12 UN  | Female SAE O-Ring | 1    | 113.6      | 4.47   | 54.8   | 2.16   | 46                           | 1.81 |
| FD96-1004-16-20   | Socket/Female | 1 1/4     | 1         | 1 1/2-12 UN  | Female SAE O-Ring | 2    | 105.8      | 4.17   | 69.8   | 2.75   | 55                           | 2.17 |
| FD96-1005-16-20   | Plug/Male     | 1 1/4     | 1         | 1 1/2-12 UN  | Female SAE O-Ring | 1    | 125.4      | 4.94   | 64.5   | 2.54   | 55                           | 2.17 |
| FD96-1004-20-20   | Socket/Female | 1 1/4     | 1 1/4     | 1 1/2-12 UN  | Female SAE O-Ring | 2    | 106.8      | 4.20   | 69.8   | 2.75   | 55                           | 2.17 |
| FD96-1005-20-20   | Plug/Male     | 1 1/4     | 1 1/4     | 1 1/2-12 UN  | Female SAE O-Ring | 1    | 123.4      | 4.86   | 64.5   | 2.54   | 55                           | 2.17 |
| FD96-1004-20-24   | Socket/Female | 1 1/2     | 1 1/4     | 1 1/2-12 UN  | Female SAE O-Ring | 2    | 133.5      | 5.26   | 92.0   | 3.62   | 65                           | 2.56 |
| FD96-1005-20-24   | Plug/Male     | 1 1/2     | 1 1/4     | 1 1/2-12 UN  | Female SAE O-Ring | 1    | 150.0      | 5.91   | 89.8   | 3.54   | 65                           | 2.56 |
| FD96-1004-24-24   | Socket/Female | 1 1/2     | 1 1/2     | 1 1/2-12 UN  | Female SAE O-Ring | 2    | 133.5      | 5.26   | 92.0   | 3.62   | 65                           | 2.56 |
| FD96-1005-24-24   | Plug/Male     | 1 1/2     | 1 1/2     | 1 1/2-12 UN  | Female SAE O-Ring | 1    | 150.0      | 5.91   | 89.8   | 3.54   | 65                           | 2.56 |

## Dust Caps and Dust Plugs

| Body Size | Part/Order Number | Coupling Type | Cap Material |
|-----------|-------------------|---------------|--------------|
| 1/4       | FD96-1009-04      | Socket/Female | Aluminum     |
| 3/8       | FD96-1009-06      | Socket/Female | Aluminum     |
| 1/2       | FD96-1009-08      | Socket/Female | Aluminum     |
| 3/4       | FD96-1009-12      | Socket/Female | Aluminum     |
| 1         | FD96-1009-16      | Socket/Female | Aluminum     |
| 1 1/4     | FD96-1009-20      | Socket/Female | Aluminum     |
| 1 1/2     | FD96-1009-24      | Socket/Female | Aluminum     |
| 2         | FD96-1009-32      | Socket/Female | Aluminum     |

| Body Size | Part/Order Number | Coupling Type | Cap Material |
|-----------|-------------------|---------------|--------------|
| 1/4       | FD96-1010-04      | Plug/Male     | Aluminum     |
| 3/8       | FD96-1010-06      | Plug/Male     | Aluminum     |
| 1/2       | FD96-1010-08      | Plug/Male     | Aluminum     |
| 3/4       | FD96-1010-12      | Plug/Male     | Aluminum     |
| 1         | FD96-1010-16      | Plug/Male     | Aluminum     |
| 1 1/4     | FD96-1010-20      | Plug/Male     | Aluminum     |
| 1 1/2     | FD96-1010-24      | Plug/Male     | Aluminum     |
| 2         | FD96-1010-32      | Plug/Male     | Aluminum     |

# K8000 Series

Fluid transfer & Hydraulic application



Danfoss Hansen K8000 series hydraulic screw-to-connect quick disconnect coupling is best for applications where vibration is present and a threaded solution is needed to lock in place.

## Product Features

- Connection by screwing up the locking sleeve
- Offers internal flat face valve to minimize air inclusion and fluid loss
- Proprietary interchange
- Standard body material: Zinc trivalent plated steel
- Standard seal material: Buna-N

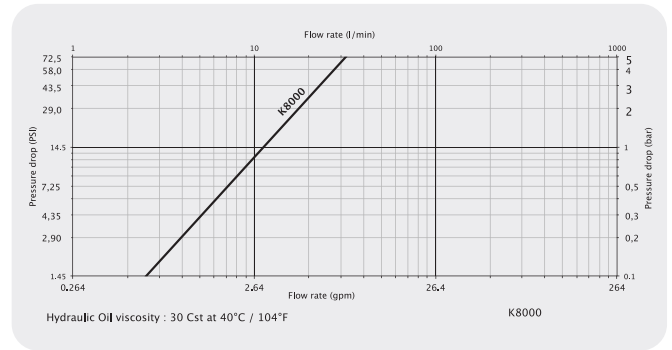
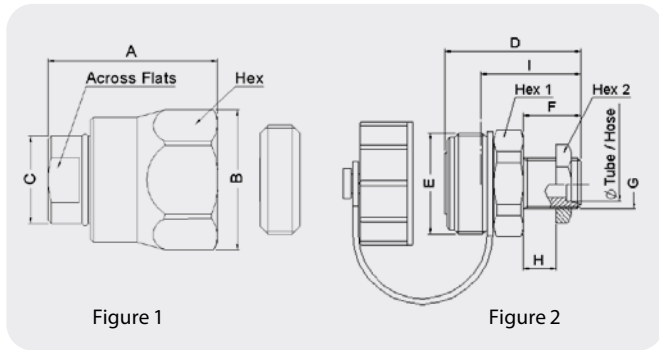
## Applications & Markets

- Agriculture and Forestry Equipment

## Physical characteristics

| DN/ND<br>(in) | Max. Operating Pressure |       | Rated Flow |       | Air Inclusion |
|---------------|-------------------------|-------|------------|-------|---------------|
|               | (bar)                   | (psi) | (lpm)      | (gpm) | ml max.       |
| 8             | 250                     | 3,625 | 12         | 3.17  | 0.09          |

## Flow Data



| DN/ND | Socket and Dust Plug | Socket Dust Plug Only | Coupling Type | Connection | Fig. | Dimensions |      |      | Across Flats |      |      |      |       |       |  |
|-------|----------------------|-----------------------|---------------|------------|------|------------|------|------|--------------|------|------|------|-------|-------|--|
|       |                      |                       |               |            |      | A          | B    | C    | Across Flats | Hex  |      |      |       |       |  |
|       | (in)                 | (mm)                  |               |            |      | (mm)       | (mm) | (mm) | (mm)         | (mm) |      |      |       |       |  |
| 8     | KA0832718            | KA0812700             | Socket/Female | M18X150    | 1    | 55         | 45.1 | 27.9 | 23           | 41   |      |      |       |       |  |
| DN/ND | Plug and Dust Cap    | Plug Dust Cap Only    | Coupling Type | Connection | Fig. | Dimensions |      |      |              |      |      |      |       |       |  |
|       |                      |                       |               |            |      | D          | E    | F    | G            | H    | I    | Tube | Hex 1 | Hex 2 |  |
|       |                      |                       |               |            |      | (mm)       | (mm) | (mm) | (mm)         | (mm) | (mm) | (mm) | (mm)  | (mm)  |  |
| 8     | KA0832412            |                       | Plug/Male     | M18X150    | 2    | 52         | 36   | 23   | M18X1,50     | 5    | 38   | 12   | 36    | 27    |  |
|       | KA0832413            | KP0812400             | Plug/Male     | M20X150    | 2    | 51         | 36   | 23   | M20X1,50     | 5    | 37   | 13   | 36    | 27    |  |
|       | KA0802412            |                       | Plug/Male     | G 1/2      | 2    | 48         | 36   | 15   | G 1/2-14     | -    | 34   | -    | 36    | -     |  |

# Q9000 Series

Fluid transfer & Hydraulic application



Danfoss Hansen Q9000 Series is a brake away coupling used on agriculture and forestry vehicles.

## Product Features

- Pull-to-connect double shut off
- Minimum air inclusion and fluid loss
- Profile in accordance to ISO 5676 and NFU 16-006 standards
- Standard body material: Zinc trivalent plated steel
- Standard seal material: NBR

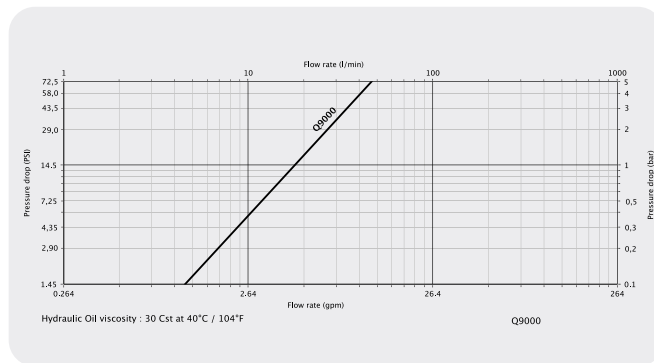
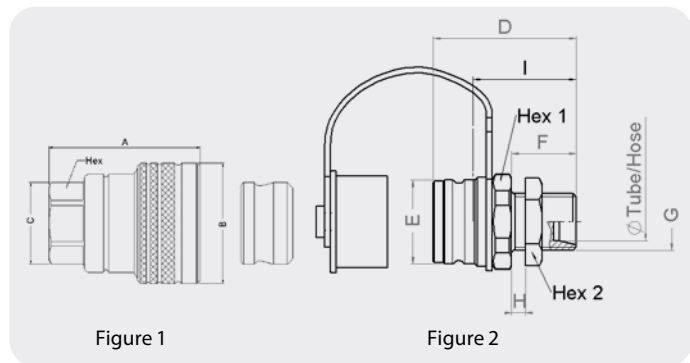
## Applications & Markets

- Trailer Brake Circuits on Agriculture and Forestry Vehicles

## Physical characteristics

| DN/ND | Max. Operating Pressure |       | Rated Flow |       | Air Inclusion |         |
|-------|-------------------------|-------|------------|-------|---------------|---------|
|       | (in)                    | (bar) | (psi)      | (lpm) | (gpm)         | ml max. |
| 8     |                         | 180   | 2,175      | 19    | 5.02          | 0.80    |

## Flow Data



| DN/ND | Socket and Dust Plug | Socket Dust Plug Only | Coupling Type | Connection | Fig. | Dimensions |      |      |          |      |      |       |       |
|-------|----------------------|-----------------------|---------------|------------|------|------------|------|------|----------|------|------|-------|-------|
|       |                      |                       |               |            |      | A          | B    | C    | Hex      |      |      |       |       |
|       | (in)                 | (mm)                  |               |            |      | (mm)       | (mm) | (mm) | (mm)     |      |      |       |       |
| 8     | QA0932118            | QA0912100             | Socket/Female | M18X150    | 1    | 55.5       | 44   | 30.2 | 27       |      |      |       |       |
| DN/ND | Plug and Dust Cap    | Plug Dust Cap Only    | Coupling Type | Connection | Fig. | Dimensions |      |      |          |      |      |       |       |
|       |                      |                       |               |            |      | D          | E    | F    | G        | H    | I    | Hex 1 | Hex 1 |
|       |                      |                       |               |            |      | (mm)       | (mm) | (mm) | (mm)     | (mm) | (mm) | (mm)  | (mm)  |
| 8     | QA0932212            | QP0912200             | Plug/Male     | M18X150    | 2    | 49         | 30   | 21   | M18x1,50 | 5    | 34   | 32    | 24    |
|       | QA0932213            |                       | Plug/Male     | M20X150    | 2    | 51.0       | 30   | 23   | M20x1,50 | 5    | 36   | 32    | 27    |

# MLDB Series (Stainless Steel) Flat Face/Dry Break

Fluid transfer & Hydraulic application



Danfoss Hansen MLDB Series stainless steel coupling is a flat face/dry break coupling used for fluid transfer applications. The MLDB Series offers the ability to connect with less force, higher sealing performance and are available in multiple configurable end connections.

## Product Features

- Designed and manufactured in accordance with Article 4.3 of the European Pressure Equipment Directive PED 2014/68/EU
- Safety sleeve lock prevents accidental disconnections
- Push to connect with double shut-off valving
- Capable of working under high temperature applications
- Shock-resistant color coding ring option available in 1/2" size
- Serviceable design allows for easy cleaning and seal replacement
- Designed with higher flow capacity and resistance to aggressive fluids and corrosion
- Standard body material: 316/316L Stainless steel corrosion resistant
- Standard seal material: FKM, EPDM, Kalrez® and generic FFKM

## Physical characteristics

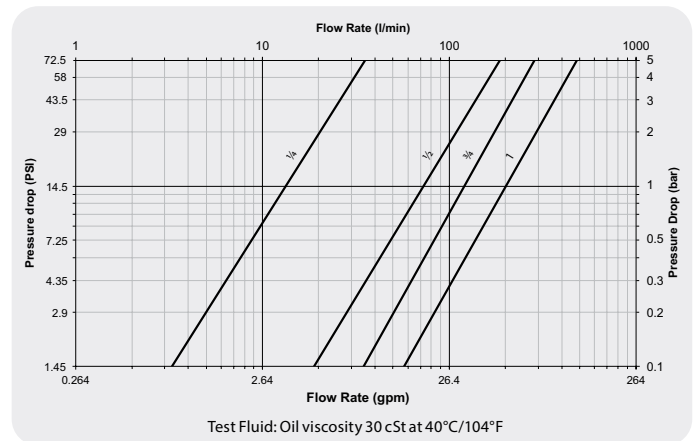
| Body Size | Nominal Flow Diameter | Max. Operating Pressure |       | Rated Flow* |       | Air Inclusion | Fluid Loss |        | Force to Connect |     |
|-----------|-----------------------|-------------------------|-------|-------------|-------|---------------|------------|--------|------------------|-----|
|           |                       | (bar)                   | (psi) | (lpm)       | (gpm) |               | ml-cc.     | ml-cc. | N                | Lbf |
| ¼         | 5.9                   | 25                      | 360   | 15          | 4     | 0.002         | 0.001      | 85     | 19               |     |
| ½         | 11.5                  | 25                      | 360   | 73          | 19    | 0.012         | 0.025      | 150    | 34               |     |
| ¾         | 15.0                  | 25                      | 360   | 120         | 32    | 0.030         | 0.050      | 170    | 38               |     |
| 1         | 18.5                  | 25                      | 360   | 200         | 53    | 0.150         | 0.130      | 180    | 41               |     |

\* Indicated values refer to a 1 bar/14.5 psi pressure drop..

## Applications & Markets

- Process/Fluid Transfer
- Cooling
- Corrosive Environments
- Chemicals/Petrochemicals
- Pharmaceuticals
- Food Processing
- Electrical

## Flow Data



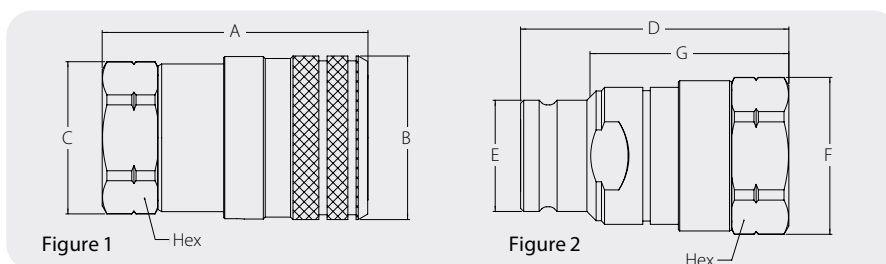
### Seal Elastomer Data\*

| Seal Elastomer                 | Max. Operation Temperature Range |
|--------------------------------|----------------------------------|
| FKM                            | -20°C +200°C/-4°F +392°F         |
| EPDM (Ethylene-Propylene)      | -40°C +150°C/-40°F +302°F        |
| Kalrez® 6375                   | -20°C +275°C/-4°F +527°F         |
| Generic FFKM (Perfluorocarbon) | -15°C +275°C/+5°F +527°F         |

\* For reference only, based on Danfoss recommended temperatures. Contact Danfoss technical support for further information on fluid compatibility.

# MLDB Series (Stainless Steel) Flat Face/Dry Break

Global region



## Sockets (Female)

| Part/Order Number |                 | Thread Size*    |                 |                    | Dimensions |        |      |        |        |        | Weight   |          |      |       |      |      |       |
|-------------------|-----------------|-----------------|-----------------|--------------------|------------|--------|------|--------|--------|--------|----------|----------|------|-------|------|------|-------|
| FKM               | EPDM            | Kalrez 6375     | Generic FFKM    | Body (Female) Size | NPT        | BSPP   | Fig. | A (in) | B (in) | C (in) | Hex (in) | Hex (in) | lbs  | grams |      |      |       |
| ML2DBS25FBS       | ML2DBS25FBS292  | ML2DBS25FBS242  | ML2DBS25FBS503  | 1/4                | -          | 1/4-19 | 1    | 45.4   | 1.79   | 26.8   | 1.06     | 24.5     | 0.96 | 22    | 0.87 | 0.25 | 116   |
| ML2DBS25F         | ML2DBS25F292    | ML2DBS25F242    | ML2DBS25F503    | 1/4                | 1/4-18     | -      | 1    | 43.9   | 1.73   | 26.8   | 1.06     | 24.5     | 0.96 | 22    | 0.87 | 0.27 | 127   |
| ML4DBS50FBS       | ML4DBS50FBS292  | ML4DBS50FBS242  | ML4DBS50FBS503  | 1/2                | -          | 1/2-14 | 1    | 61.9   | 2.44   | 38.2   | 1.50     | 35.5     | 1.40 | 32    | 1.26 | 0.71 | 325   |
| ML4DBS50F         | ML4DBS50F292    | ML4DBS50F242    | ML4DBS50F503    | 1/2                | 1/2-14     | -      | 1    | 61.9   | 2.44   | 38.2   | 1.50     | 35.5     | 1.40 | 32    | 1.26 | 0.70 | 318   |
| ML6DBS75FBS       | ML6DBS75FBS292  | ML6DBS75FBS242  | ML6DBS75FBS503  | 3/4                | -          | 3/4-14 | 1    | 76.8   | 3.02   | 47.9   | 1.89     | 46.5     | 1.83 | 41    | 1.61 | 1.36 | 617   |
| ML6DBS75F         | ML6DBS75F292    | ML6DBS75F242    | ML6DBS75F503    | 3/4                | 3/4-14     | -      | 1    | 76.8   | 3.02   | 47.9   | 1.89     | 46.5     | 1.83 | 41    | 1.61 | 1.37 | 622   |
| ML8DBS100FBS      | ML8DBS100FBS292 | ML8DBS100FBS242 | ML8DBS100FBS503 | 1                  | -          | 1-11   | 1    | 89.9   | 3.54   | 57.4   | 2.26     | 54.9     | 2.16 | 50    | 1.97 | 2.21 | 1,005 |
| ML8DBS100F        | ML8DBS100F292   | ML8DBS100F242   | ML8DBS100F503   | 1                  | 1-11       | -      | 1    | 86.9   | 3.42   | 57.4   | 2.26     | 54.9     | 2.16 | 50    | 1.97 | 2.24 | 1,020 |

\*Alternative end connections available upon request.

To obtain connected length of coupling, add dimensions A (Fig. 1) and G (Fig. 2) together.

## Plugs (Male)

| Part/Order Number |                 | Thread Size*    |                 |                    | Dimensions |        |      |        |        |        | Weight |          |          |      |       |    |      |      |     |
|-------------------|-----------------|-----------------|-----------------|--------------------|------------|--------|------|--------|--------|--------|--------|----------|----------|------|-------|----|------|------|-----|
| FKM               | EPDM            | Kalrez 6375     | Generic FFKM    | Body (Female) Size | NPT        | BSPP   | Fig. | D (in) | E (in) | F (in) | G (in) | Hex (in) | Hex (in) | lbs  | grams |    |      |      |     |
| ML2DBP25FBS       | ML2DBP25FBS292  | ML2DBP25FBS242  | ML2DBP25FBS503  | 1/4                | -          | 1/4-19 | 2    | 43.6   | 1.72   | 16.5   | 0.65   | 24.5     | 0.96     | 33.2 | 1.31  | 22 | 0.87 | 0.17 | 80  |
| ML2DBP25F         | ML2DBP25F292    | ML2DBP25F242    | ML2DBP25F503    | 1/4                | 1/4-18     | -      | 2    | 42.1   | 1.66   | 16.5   | 0.65   | 24.5     | 0.96     | 31.7 | 1.25  | 22 | 0.87 | 0.18 | 82  |
| ML4DBP50FBS       | ML4DBP50FBS292  | ML4DBP50FBS242  | ML4DBP50FBS503  | 1/2                | -          | 1/2-14 | 2    | 60.7   | 2.39   | 25.2   | 0.99   | 35.5     | 1.4      | 45.7 | 1.8   | 32 | 1.26 | 0.44 | 204 |
| ML4DBP50F         | ML4DBP50F292    | ML4DBP50F242    | ML4DBP50F503    | 1/2                | 1/2-14     | -      | 2    | 60.7   | 2.39   | 25.2   | 0.99   | 35.5     | 1.4      | 45.7 | 1.8   | 32 | 1.26 | 0.47 | 214 |
| ML6DBP75FBS       | ML6DBP75FBS292  | ML6DBP75FBS242  | ML6DBP75FBS503  | 3/4                | -          | 3/4-14 | 2    | 75.5   | 2.97   | 32.8   | 1.29   | 46.5     | 1.83     | 53.6 | 2.11  | 41 | 1.61 | 0.92 | 418 |
| ML6DBP75F         | ML6DBP75F292    | ML6DBP75F242    | ML6DBP75F503    | 3/4                | 3/4-14     | -      | 2    | 75.5   | 2.97   | 32.8   | 1.29   | 46.5     | 1.83     | 53.6 | 2.11  | 41 | 1.61 | 0.90 | 409 |
| ML8DBP100FBS      | ML8DBP100FBS292 | ML8DBP100FBS242 | ML8DBP100FBS503 | 1                  | -          | 1-11   | 2    | 89.4   | 3.52   | 40.4   | 1.59   | 54.9     | 2.16     | 66.1 | 2.60  | 50 | 1.97 | 1.61 | 733 |
| ML8DBP100F        | ML8DBP100F292   | ML8DBP100F242   | ML8DBP100F503   | 1                  | 1-11       | -      | 2    | 86.4   | 3.4    | 40.4   | 1.59   | 54.9     | 2.16     | 63.1 | 2.48  | 50 | 1.97 | 1.54 | 700 |

\* Alternative end connections available upon request.

To obtain connected length of coupling, add dimensions A (Fig. 1) and G (Fig. 2) together.

## Seal Kit and Tool for Servicing Sockets (Female)

| Body Size (in) | Seal Kit Part/Order Number (includes 5 sets) |          |          |             | Seal Kit Part/Order Number (includes 1 set) |  |
|----------------|--|----------|----------|-------------|---|--|
|                | Tool Part/Order Number                       | FKM      | EPDM     | Kalrez 6375 | Generic FFKM                                |  |
| 1/4            | ML2DBS93                                     | 2DBSG143 | 2DBSG292 | 2DBSG242    | 2DBSG503                                    |  |
| 1/2            | ML4DBS93                                     | 4DBSG143 | 4DBSG292 | 4DBSG242    | 4DBSG503                                    |  |
| 3/4            | ML6DBS93                                     | 6DBSG143 | 6DBSG292 | 6DBSG242    | 6DBSG503                                    |  |
| 1              | ML8DBS93                                     | 8DBSG143 | 8DBSG292 | 8DBSG242    | 8DBSG503                                    |  |

## Seal Kit for Servicing Plugs (Male)

| Body Size (in) | Seal Kit Part/Order Number (includes 5 sets) |          |             | Seal Kit Part/Order Number (includes 1 set) |  |
|----------------|--|----------|-------------|---|--|
|                | FKM  | EPDM     | Kalrez 6375 | Generic FFKM                                |  |
| 1/4            | 2DBPG143                                     | 2DBPG292 | 2DBPG242    | 2DBPG503                                    |  |
| 1/2            | 4DBPG143                                     | 4DBPG292 | 4DBPG242    | 4DBPG503                                    |  |
| 3/4            | 6DBPG143                                     | 6DBPG292 | 6DBPG242    | 6DBPG503                                    |  |
| 1              | 8DBPG143                                     | 8DBPG292 | 8DBPG242    | 8DBPG503                                    |  |

## Color Coding Ring Option\*

| Body Size (in) | ISO Size (mm) | Socket/Female Ring Part/Order Number** |           |           |           | Plug/Male Ring Part/Order Number** |           |           |           | Tool Part/Order Number | Tool & Rings Kit Part/Order Number*** |           |
|----------------|---------------|--|-----------|-----------|-----------|------------------------------------|-----------|-----------|-----------|------------------------|---------------------------------------|-----------|
|                |               | Size                                   | Blue      | Red       | Yellow    | Green                              | Blue      | Red       | Yellow    |                        |                                       | Green     |
| 1/2            | 12.5          | 12FF                                   | CR12FFSLB | CR12FFSRD | CR12FFSYL | CR12FFSDG                          | CR12FFPLB | CR12FFPRD | CR12FFPYL | CR12FFPDG              | CR12FFSP93                            | CRKIT12FF |

For color coded rings TPE material is used that offers excellent flexibility which allows a very good shock resistance in demanding applications. Good thermal, chemical and weather resistance provides a great fit on the coupling and a extended life time in toughest conditions. The color coded rings are easy to install by using the referenced tools.

\* For requests on alternative colors or installation instructions, please contact your Danfoss sales representative.

\*\* Orders must be in multiples of 10 pcs.

\*\*\* The kit consists of a tool plus 10 socket rings and 10 plug rings of each color.



# Safe Breakaway Series

Fluid transfer & Hydraulic application



Danfoss' Safe Breakaway series is a coupling made for liquified gas transfer within railway, marine or truck transportation. In the event of accidental disconnection, the coupling will automatically and instantaneously close to prevent any leakage of hazardous chemicals or gases.

## Product Features

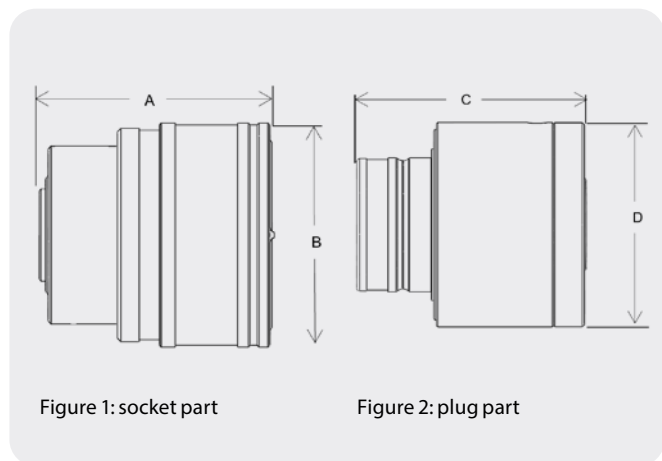
- Dry disconnection function prevents loss of fluid
- Safety feature integrated to close flow path when vehicle is accidently moving during fluid transfer
- Standard seal material: EPDM

## Applications & Markets

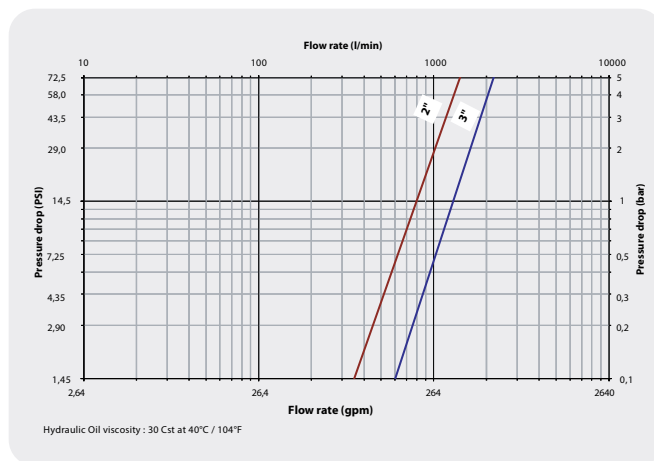
- Fluid transfer (liquified gas)
- Railway, Marine or on highway transportation vehicles
- Standard body material: Stainless steel EN 1.4418

## Physical characteristics

| Body Size | Max. Operating Pressure |       | Nominal Flow Diameter (mm) | Plug part/order number | Socket part/order number | Tube size (in) | Socket dimensions (Fig. 1) |        | Plug dimensions (Fig. 2) |        | Length connected (mm) |
|-----------|-------------------------|-------|----------------------------|------------------------|--------------------------|----------------|----------------------------|--------|--------------------------|--------|-----------------------|
|           | (bar)                   | (psi) |                            |                        |                          |                | A (mm)                     | B (mm) | A (mm)                   | B (mm) |                       |
| 2         | 16                      | 232   | 50                         | QV19782E0              | QX19781E0                | 2              | 130.5                      | 126    | 161.5                    | 145    | 239                   |
| 3         | 16                      | 232   | 80                         | QV19792E0              | QX19791E0                | 3              | 148                        | 160    | 190                      | 188.5  | 272                   |



## Flow Data



# W36000 Series Thread-to-Connect

Fluid transfer & Hydraulic application



Danfoss Hansen W36000 Series is a screw-to-connect quick disconnect coupling. Due to its design and the materials used, the W36000 Series quick disconnect coupling has excellent resistance to mechanical and hydraulic applications where vibration is present. The inner components of sizes 3/4", 1" & 1 1/4" have a robust construction to withstand the harsh application needs. Additionally, the plug sleeve ensures protection of the sealing area upon disconnection.

## Product Features

- Designed and manufactured in accordance with Article 4.3 of the European Pressure Equipment Directive PED 2014/68/EU
- Proprietary profile
- Thread-to-connect with double shut-off valving
- Can be connected against 50 bar (725 psi) residual pressure
- Optional dust caps and plugs PVC or aluminum)
- An alternative version can be offered with a safety feature which minimizes the risk of unscrewing in conditions of heavy vibration
- O-ring indication allows checking that connection is complete (thus guaranteeing full flow)
- Standard body material: Zinc trivalent plated steel
- Standard seal material: NBR

## Physical characteristics

| Body Size<br>(in) | Nominal Flow Diameter<br>(mm) | Max. Operating Pressure |                     | Max. Residual Pressure during Connection |       | Rated Flow* |       |
|-------------------|-------------------------------|-------------------------|---------------------|--|-------|-------------|-------|
|                   |                               | (bar)                   | (psi)               | (bar)                                    | (psi) | (L/min)     | (gpm) |
| 1/4               | 5.3                           | 450                     | 6525                | 50                                       | 725   | 12          | 3.17  |
| 3/8               | 7.3                           | 450                     | 6525                | 50                                       | 725   | 21          | 5.55  |
| 1/2               | 10.2                          | 400**<br>250***         | 5,800**<br>3,625*** | 50                                       | 725   | 43          | 11.36 |
| 3/4               | 13.0                          | 400                     | 5,800               | 50                                       | 725   | 77          | 20.34 |
| 1                 | 16.9                          | 300                     | 4,350               | 50                                       | 725   | 120         | 31.70 |
| 1 1/4             | 22.4                          | 300                     | 4,350               | 50                                       | 725   | 300         | 79.25 |

\* Indicated values refer to a 1 bar / 14.5 psi pressure drop.

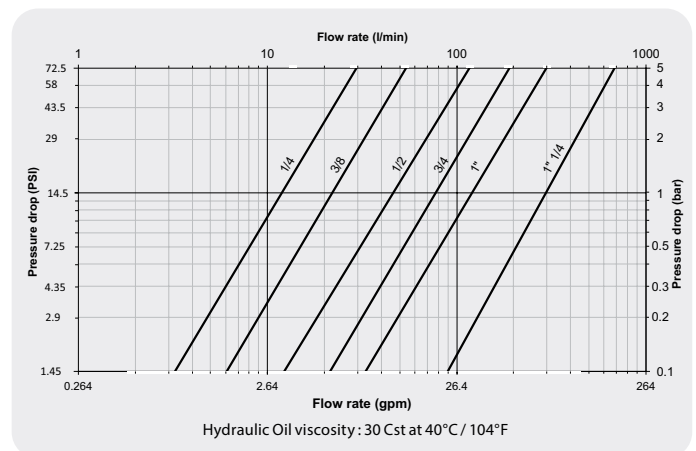
\*\* Operating pressures apply to BSPP and NPT threads.

\*\*\* For ISO 8434-1 end connections.

## Applications & Markets

- Construction
- Agriculture
- Forestry Machinery
- Snow-grooming Machines

## Flow Data



### Seal Elastomer Data\*

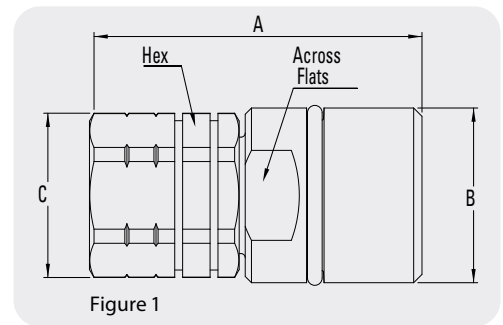
| Seal Elastomer | Max. Operation Temperature Range |
|----------------|----------------------------------|
| NBR (Nitrile)  | -20°C +100°C/-4°F +212°F         |

\* For reference only, based on Danfoss recommended temperatures.

Contact Danfoss technical support for further information on fluid compatibility.

# W36000 Series Thread-to-Connect

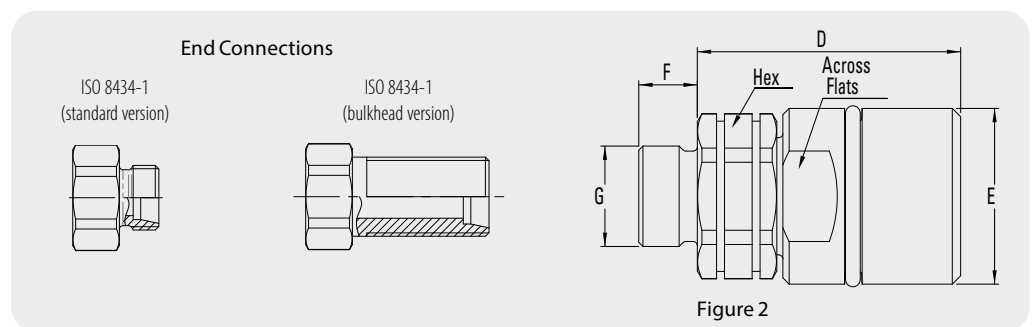
EMEA region



## Sockets (Female) with Internal Thread

| Part/Order Number*<br>NBR | Body Size<br>(in) | Nominal Flow Diameter<br>(mm) | Thread Size* (Female) |       | Fig. | Dimensions |        |        |        |        |              |         |           |    |      | Weight |       |
|---------------------------|-------------------|-------------------------------|-----------------------|-------|------|------------|--------|--------|--------|--------|--------------|---------|-----------|----|------|--------|-------|
|                           |                   |                               | NPT                   | BSPB  |      | A (mm)     | B (in) | B (mm) | C (in) | C (mm) | Across flats |         | Hex       |    | lbs  | grams  |       |
| WA3601700                 | ¼                 | 5.3                           | -                     | ¼-19  | 1    | 58         | 2.28   | M24x2  | 0.94   | 24     | 0.94         | 22      | 0.87      | 22 | 0.87 | 0.26   | 117   |
| WA3621725                 | ¼                 | 5.3                           | ¼-18                  | -     | 1    | 58         | 2.28   | M24x2  | 0.94   | 24     | 0.94         | 22      | 0.87      | 22 | 0.87 | 0.30   | 138   |
| WA3602725BS               | ¾                 | 7.3                           | -                     | ¼-19  | 1    | 61         | 2.40   | M28x2  | 1.10   | 24     | 0.94         | 24      | 0.94      | 22 | 0.87 | 0.36   | 163   |
| WA3622725                 | ¾                 | 7.3                           | ¼-18                  | -     | 1    | 61         | 2.40   | M28x2  | 1.10   | 24     | 0.94         | 24      | 0.94      | 22 | 0.87 | 0.36   | 165   |
| WA3602700                 | ¾                 | 7.3                           | -                     | ¾-19  | 1    | 61         | 2.40   | M28x2  | 1.10   | 24     | 0.94         | 24      | 0.94      | 22 | 0.87 | 0.34   | 156   |
| WA3622737                 | ¾                 | 7.3                           | ¾-18                  | -     | 1    | 61         | 2.40   | M28x2  | 1.10   | 24     | 0.94         | 24      | 0.94      | 22 | 0.87 | 0.35   | 158   |
| WA3603737BS               | ½                 | 10.2                          | -                     | ¾-19  | 1    | 72         | 2.84   | M36x2  | 1.42   | 30     | 1.18         | 41(Hex) | 1.61(Hex) | 27 | 1.06 | 0.82   | 370   |
| WA3623737                 | ½                 | 10.2                          | ¾-18                  | -     | 1    | 72         | 2.84   | M36x2  | 1.42   | 30     | 1.18         | 41(Hex) | 1.61(Hex) | 27 | 1.06 | 0.82   | 372   |
| WA3603700                 | ½                 | 10.2                          | -                     | ½-14  | 1    | 75         | 2.95   | M36x2  | 1.42   | 30     | 1.18         | 41(Hex) | 1.61(Hex) | 27 | 1.06 | 0.79   | 360   |
| WA3623750                 | ½                 | 10.2                          | ½-14                  | -     | 1    | 75         | 2.95   | M36x2  | 1.42   | 30     | 1.18         | 41(Hex) | 1.61(Hex) | 27 | 1.06 | 0.80   | 361   |
| WA3604750BS               | ¾                 | 13                            | -                     | ½-14  | 1    | 80         | 3.15   | M42x2  | 1.65   | 40     | 1.57         | 36      | 1.42      | 36 | 1.42 | 1.06   | 480   |
| WA3624750                 | ¾                 | 13                            | ½-14                  | -     | 1    | 80         | 3.15   | M42x2  | 1.65   | 40     | 1.57         | 36      | 1.42      | 36 | 1.42 | 1.07   | 484   |
| WA3604700                 | ¾                 | 13                            | -                     | ¾-14  | 1    | 80         | 3.15   | M42x2  | 1.65   | 40     | 1.57         | 36      | 1.42      | 36 | 1.42 | 1.03   | 466   |
| WA3624775                 | ¾                 | 13                            | ¾-14                  | -     | 1    | 80         | 3.15   | M42x2  | 1.65   | 40     | 1.57         | 36      | 1.42      | 36 | 1.42 | 1.04   | 472   |
| WA3605775BS               | 1                 | 16.9                          | -                     | ¾-14  | 1    | 96         | 3.78   | M48x3  | 1.89   | 46     | 1.81         | 42      | 1.65      | 42 | 1.65 | 1.62   | 735   |
| WA3625775                 | 1                 | 16.9                          | ¾-14                  | -     | 1    | 96         | 3.78   | M48x3  | 1.89   | 46     | 1.81         | 42      | 1.65      | 42 | 1.65 | 1.63   | 741   |
| WA3605700                 | 1                 | 16.9                          | -                     | 1-11  | 1    | 96         | 3.78   | M48x3  | 1.89   | 46     | 1.81         | 42      | 1.65      | 42 | 1.65 | 1.51   | 684   |
| WA36257100                | 1                 | 16.9                          | 1-11½                 | -     | 1    | 96         | 3.78   | M48x3  | 1.89   | 46     | 1.81         | 42      | 1.65      | 42 | 1.65 | 1.53   | 694   |
| WA3606700                 | 1¼                | 22.4                          | -                     | 1¼-11 | 1    | 126        | 4.96   | M70x3  | 2.76   | 72     | 2.83         | 65      | 2.56      | 65 | 2.56 | 4.82   | 2,185 |
| WA36267125                | 1¼                | 22.4                          | 1¼-11½                | -     | 1    | 126        | 4.96   | M70x3  | 2.76   | 72     | 2.83         | 65      | 2.56      | 65 | 2.56 | 4.87   | 2,207 |
| WA36067150BS              | 1¼                | 22.4                          | -                     | 1½-11 | 1    | 126        | 4.96   | M70x3  | 2.76   | 72     | 2.83         | 65      | 2.56      | 65 | 2.56 | 4.63   | 2,101 |
| WA36267150                | 1¼                | 22.4                          | 1½-11½                | -     | 1    | 126        | 4.96   | M70x3  | 2.76   | 72     | 2.83         | 65      | 2.56      | 65 | 2.56 | 4.68   | 2,121 |

\*Alternative end connections available upon request.  
To obtain connected length of coupling add dimensions A (Fig. 1) and K (Fig. 3) or O (Fig. 4) together.



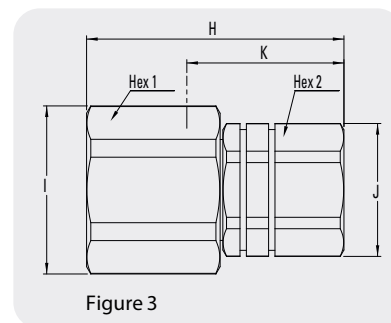
## Sockets (Female) with External Thread

| Part/Order Number | Body Size<br>(in) | Nominal Flow Diameter<br>(mm) | Thread Size* (Male)    |      | Fig. | Dimensions |        |        |        |        |        |         |              |          |            | Weight |      |       |     |
|-------------------|-------------------|-------------------------------|------------------------|------|------|------------|--------|--------|--------|--------|--------|---------|--------------|----------|------------|--------|------|-------|-----|
|                   |                   |                               | ISO 8434-1**           | Fig. |      | D (mm)     | E (in) | E (mm) | F (in) | F (mm) | G (in) | G (mm)  | Across Flats |          | Hex        |        | lbs  | grams |     |
| WA3633708L        |                   |                               | M14x1.5 - 8L           | 2    |      | 59         | 2.32   | M36x2  | 1.42   | 10     | 0.39   | M14x1.5 | 0.55         | 41 (Hex) | 1.61 (Hex) | 27     | 1.06 | 0.73  | 330 |
| WA3633710L        |                   |                               | M16x1.5 - 10L          | 2    |      | 58         | 2.28   | M36x2  | 1.42   | 11     | 0.43   | M16x1.5 | 0.63         | 41 (Hex) | 1.61 (Hex) | 27     | 1.06 | 0.72  | 328 |
| WA3633712L        | ½                 | 10.2                          | M18x1.5 - 12L          | 2    |      | 58         | 2.28   | M36x2  | 1.42   | 11     | 0.43   | M18x1.5 | 0.71         | 41 (Hex) | 1.61 (Hex) | 27     | 1.06 | 0.73  | 330 |
| WA3633715L        |                   |                               | M22x1.5 - 15L          | 2    |      | 57         | 2.24   | M36x2  | 1.42   | 12     | 0.47   | M22x1.5 | 0.87         | 41 (Hex) | 1.61 (Hex) | 27     | 1.06 | 0.77  | 350 |
| WA3633715LBH      |                   |                               | M22x1.5 - 15L Bulkhead | 2    |      | 58         | 2.28   | M36x2  | 1.42   | 38     | 1.50   | M22x1.5 | 0.87         | 41 (Hex) | 1.61 (Hex) | 27     | 1.06 | 0.85  | 385 |

\*Alternative end connections available upon request.  
\*\* Light L series = working pressure 250 bar/3625 psi max.  
To obtain connected length of coupling add dimensions D (Fig. 2) and K (Fig. 3) or O (Fig. 4) together.

# W36000 Series Thread-to-Connect

EMEA region

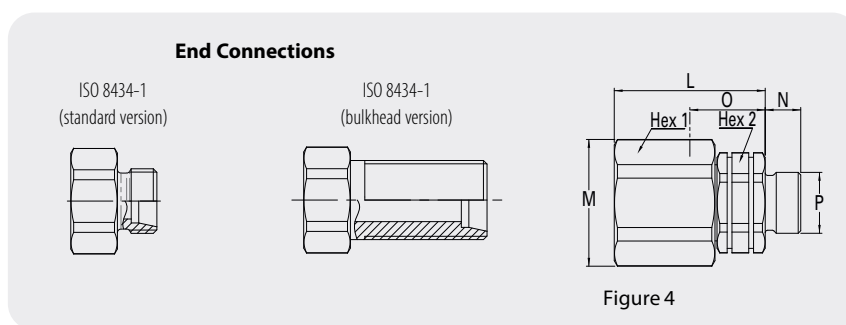


## Plugs (Male) with Internal Thread

| Part/Order Number<br>NBR | Body Size<br>(in) | Nominal Flow Diameter<br>(mm) | Thread Size* (Female) |       | Fig. | Dimensions |      |      |      |       |      |       |      |      |       | Weight |      |      |       |
|--------------------------|-------------------|-------------------------------|-----------------------|-------|------|------------|------|------|------|-------|------|-------|------|------|-------|--------|------|------|-------|
|                          |                   |                               | NPT                   | BSPB  |      | H          | I    | J    | K    | Hex 1 |      | Hex 2 |      | lbs  | grams |        |      |      |       |
|                          |                   |                               |                       |       |      | (mm)       | (in) | (mm) | (in) | (mm)  | (in) | (mm)  | (in) | (mm) | (in)  | (mm)   | (in) |      |       |
| WA3601400                | ¼                 | 5.3                           | -                     | ¼-19  | 3    | 55         | 2.17 | 32   | 1.26 | 24    | 0.94 | 31    | 1.22 | 29   | 1.14  | 22     | 0.87 | 0.41 | 184   |
| WA3621425                | ¼                 | 5.3                           | ¼-18                  | -     | 3    | 55         | 2.17 | 32   | 1.26 | 24    | 0.94 | 31    | 1.22 | 29   | 1.14  | 22     | 0.87 | 0.33 | 150   |
| WA3602425BS              | ¾                 | 7.3                           | -                     | ¼-19  | 3    | 58         | 2.28 | 35   | 1.38 | 24    | 0.94 | 32    | 1.26 | 32   | 1.26  | 22     | 0.87 | 0.36 | 164   |
| WA3622425                | ¾                 | 7.3                           | ¼-18                  | -     | 3    | 58         | 2.28 | 35   | 1.38 | 24    | 0.94 | 32    | 1.26 | 32   | 1.26  | 22     | 0.87 | 0.37 | 166   |
| WA3602400                | ¾                 | 7.3                           | -                     | ¾-19  | 3    | 58         | 2.28 | 35   | 1.38 | 24    | 0.94 | 32    | 1.26 | 32   | 1.26  | 22     | 0.87 | 0.35 | 158   |
| WA3622437                | ¾                 | 7.3                           | ¾-18                  | -     | 3    | 58         | 2.28 | 35   | 1.38 | 24    | 0.94 | 32    | 1.26 | 32   | 1.26  | 22     | 0.87 | 0.35 | 160   |
| WA3603437BS              | ½                 | 10.2                          | -                     | ¾-19  | 3    | 64         | 2.52 | 45   | 1.77 | 30    | 1.18 | 37    | 1.46 | 41   | 1.61  | 27     | 1.06 | 0.61 | 276   |
| WA3623437                | ½                 | 10.2                          | ¾-18                  | -     | 3    | 64         | 2.52 | 45   | 1.77 | 30    | 1.18 | 37    | 1.46 | 41   | 1.61  | 27     | 1.06 | 0.61 | 278   |
| WA3603400                | ½                 | 10.2                          | -                     | ½-14  | 3    | 66         | 2.60 | 45   | 1.77 | 30    | 1.18 | 40    | 1.57 | 41   | 1.61  | 27     | 1.06 | 0.60 | 271   |
| WA3623450                | ½                 | 10.2                          | ½-14                  | -     | 3    | 66         | 2.60 | 45   | 1.77 | 30    | 1.18 | 40    | 1.57 | 41   | 1.61  | 27     | 1.06 | 0.60 | 273   |
| WA3604450BS              | ¾                 | 13.0                          | -                     | ½-14  | 3    | 77         | 3.03 | 50   | 1.97 | 40    | 1.57 | 47    | 1.85 | 46   | 1.81  | 36     | 1.42 | 1.01 | 456   |
| WA3624450                | ¾                 | 13.0                          | ½-14                  | -     | 3    | 77         | 3.03 | 50   | 1.97 | 40    | 1.57 | 47    | 1.85 | 46   | 1.81  | 36     | 1.42 | 1.01 | 460   |
| WA3604400                | ¾                 | 13.0                          | -                     | ¾-14  | 3    | 77         | 3.03 | 50   | 1.97 | 40    | 1.57 | 47    | 1.85 | 46   | 1.81  | 36     | 1.42 | 0.97 | 442   |
| WA3624475                | ¾                 | 13.0                          | ¾-14                  | -     | 3    | 77         | 3.03 | 50   | 1.97 | 40    | 1.57 | 47    | 1.85 | 46   | 1.81  | 36     | 1.42 | 0.99 | 448   |
| WA3605475BS              | 1                 | 16.9                          | -                     | ¾-14  | 3    | 92         | 3.62 | 60   | 2.36 | 46    | 1.81 | 57    | 2.24 | 55   | 2.17  | 42     | 1.65 | 1.77 | 805   |
| WA3625475                | 1                 | 16.9                          | ¾-14                  | -     | 3    | 92         | 3.62 | 60   | 2.36 | 46    | 1.81 | 57    | 2.24 | 55   | 2.17  | 42     | 1.65 | 1.79 | 811   |
| WA3605400                | 1                 | 16.9                          | -                     | 1-11  | 3    | 92         | 3.62 | 60   | 2.36 | 46    | 1.81 | 57    | 2.24 | 55   | 2.17  | 42     | 1.65 | 1.66 | 751   |
| WA36254100               | 1                 | 16.9                          | 1-11½                 | -     | 3    | 92         | 3.62 | 60   | 2.36 | 46    | 1.81 | 57    | 2.24 | 55   | 2.17  | 42     | 1.65 | 1.68 | 761   |
| WA3606400                | 1¼                | 22.4                          | -                     | 1¼-11 | 3    | 120        | 4.72 | 89   | 3.50 | 72    | 2.83 | 70    | 2.76 | 77   | 3.03  | 65     | 2.56 | 5.56 | 2,520 |
| WA36264125               | 1¼                | 22.4                          | 1¼-11½                | -     | 3    | 120        | 4.72 | 89   | 3.50 | 72    | 2.83 | 70    | 2.76 | 77   | 3.03  | 65     | 2.56 | 5.60 | 2,542 |
| WA36064150BS             | 1¼                | 22.4                          | -                     | 1½-11 | 3    | 120        | 4.72 | 89   | 3.50 | 72    | 2.83 | 70    | 2.76 | 77   | 3.03  | 65     | 2.56 | 5.37 | 2,436 |
| WA36264150               | 1¼                | 22.4                          | 1½-11½                | -     | 3    | 120        | 4.72 | 89   | 3.50 | 72    | 2.83 | 70    | 2.76 | 77   | 3.03  | 65     | 2.56 | 5.41 | 2,456 |

\* Alternative end connections upon request.

To obtain connected length of coupling add dimensions K (Fig. 3) and A (Fig. 1) or D (Fig. 2) together.



## Plugs (Male) with External Thread

| Part/Order Number | Body Size<br>(in) | Nominal Flow Diameter<br>(mm) | Thread Size* (Male)    |              | Fig. | Dimensions |      |      |      |      |       |      |       |         |      | Weight |      |    |      |      |     |
|-------------------|-------------------|-------------------------------|------------------------|--------------|------|------------|------|------|------|------|-------|------|-------|---------|------|--------|------|----|------|------|-----|
|                   |                   |                               | ISO 8434-1**           | ISO 8434-1** |      | L          | M    | N    | O    | P    | Hex 1 |      | Hex 2 |         | lbs  | grams  |      |    |      |      |     |
|                   |                   |                               |                        |              |      | (mm)       | (in) | (mm) | (in) | (mm) | (in)  | (mm) | (in)  | (mm)    | (in) | (mm)   | (in) |    |      |      |     |
| WA3633408L        |                   |                               | M14x1.5 - 8L           | 4            |      | 49         | 1.93 | 45   | 1.77 | 10   | 0.39  | 36   | 1.42  | M14x1.5 | 0.55 | 41     | 1.61 | 27 | 1.06 | 0.56 | 255 |
| WA3633410L        |                   |                               | M16x1.5 - 10L          | 4            |      | 49         | 1.93 | 45   | 1.77 | 11   | 0.43  | 36   | 1.42  | M16x1.5 | 0.63 | 41     | 1.61 | 27 | 1.06 | 0.56 | 253 |
| WA3633412L        | ½                 | 10.2                          | M18x1.5 - 12L          | 4            |      | 49         | 1.93 | 45   | 1.77 | 11   | 0.43  | 36   | 1.42  | M18x1.5 | 0.71 | 41     | 1.61 | 27 | 1.06 | 0.56 | 255 |
| WA3633415L        |                   |                               | M22x1.5 - 15L          | 4            |      | 49         | 1.93 | 45   | 1.77 | 12   | 0.47  | 36   | 1.42  | M22x1.5 | 0.87 | 41     | 1.61 | 27 | 1.06 | 0.61 | 275 |
| WA3633415LBH      |                   |                               | M22x1.5 - 15L Bulkhead | 4            |      | 49         | 1.93 | 45   | 1.77 | 38   | 1.50  | 36   | 1.42  | M22x1.5 | 0.87 | 41     | 1.61 | 27 | 1.06 | 0.68 | 310 |

\* Alternative end connections upon request.

\*\* Light L series = working pressure 250 bar/3625 psi max.

To obtain connected length of coupling add dimensions O (Fig. 4) and A (Fig. 1) or D (Fig. 2) together.

# W36000 Series Thread-to-Connect

## Dust Plugs and Dust Caps

| Body Size<br>(in) | Socket Dust Plug<br>Part/Order Number |           | Plug Dust Cap<br>Part/Order Number |           |
|-------------------|---------------------------------------|-----------|------------------------------------|-----------|
|                   | Anodized Aluminum                     | PVC       | Anodized Aluminum                  | PVC       |
| ¼                 | WD3611700                             | WP3611700 | WD3611400                          | WP3611400 |
| ⅜                 | WD3612700                             | WP3612700 | WD3612400                          | WP3612400 |
| ½                 | WD3613700                             | WP3613700 | WD3613400                          | WP3613400 |
| ¾                 | WD3614700                             | WP3614700 | WD3614400                          | WP3614400 |
| 1                 | WD3615700                             | WP3615700 | WD3615400                          | WP3615400 |

For installation instructions, please contact your Danfoss sales representative.



Metal Socket Dust Plug



Metal Plug Dust Cap



PVC Socket Dust Plug



PVC Plug Dust Cap

## Seal Kit for Servicing Sockets (Female)

| Body size<br>(in) | Seal & Back-up Ring Kit*<br>Part/Order Number | NBR seals & PTFE<br>back-up rings |
|-------------------|---|-----------------------------------|
| ¼                 | WG3601700                                     | 10 seals + 10 back-up rings       |
| ⅜                 | WG3602700                                     | 10 seals + 10 back-up rings       |
| ½                 | WG3603700                                     | 10 seals + 10 back-up rings       |
| ¾                 | WG3604700                                     | 5 seals + 5 back-up rings         |
| 1                 | WG3605700                                     | 5 seals + 5 back-up rings         |
| 1½                | WG3606700                                     | 1 seal + 1 back-up ring           |

\* The valve seal is not included in our repair kits.

# GA90090 Series

Fluid transfer & Hydraulic application



Danfoss' high pressure hydraulic coupling GA90090 was engineered to perform in applications that require the highest level of performance. Working pressure of up to 420 bar (6,000psi) in all sizes. One of the most demanding applications is the drill hammer used in construction.

## Product Features

- Available in size 8, 12, and 16
- Available thread configurations: Metric, UN, and BSP
- Unique profile: not interchangeable
- Self-sealing features guarantee minimum air inclusion and loss of fluid
- Connection via adapter
- Detachable under pressure
- Long lifetime in dynamic applications
- Works in applications where higher pressures are needed
- Exceeds the requirements of ISC7241/1
- Standard model available in Zinc plated steel

## Physical characteristics

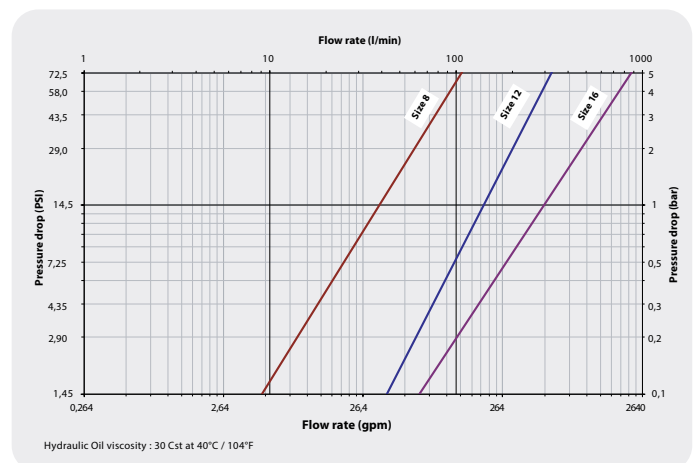
| Body Size | Nominal Flow Diameter | Max. Operating Pressure |       | Rated Flow* |       |
|-----------|-----------------------|-------------------------|-------|-------------|-------|
| Dash Size | (mm)                  | (bar)                   | (psi) | (L/min)     | (gpm) |
| -8        | 9.81                  | 400                     | 5,800 | 40          | 10.56 |
| -12       | 16.75                 | 330                     | 4,700 | 150         | 39.62 |
| -16       | 21.18                 | 330                     | 4,700 | 200         | 52.83 |

\*Indicated values refer to a 1 bar/14,5 psi pressure drop.

## Applications & Markets

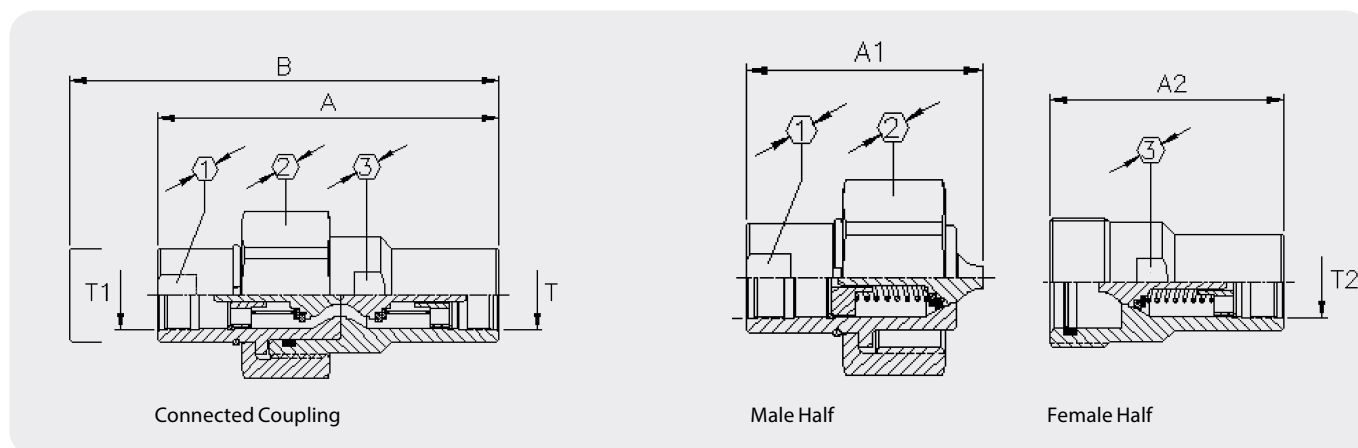
- High-pressure hydraulic systems and fluid transfer used in the construction, agriculture and forestry markets
- Dynamic hydraulic applications like the drilling hammer

## Flow Data



# GA90090 Series

EMEA region



### Metric Thread

| Size | DN | Coupling   | Thread<br>(T1=T2) | A<br>(mm) | B<br>(mm) | Hex 1<br>(mm) | Hex 2<br>(mm) | Hex 3<br>(mm) |
|------|----|------------|-------------------|-----------|-----------|---------------|---------------|---------------|
| -8   | 12 | GA90090-8  | M22x1,5           | 89.1      | 105       | 27            | 41            | 27            |
| -12  | 16 | GA90090-12 | M30x1,5           | 143.6     | 183       | 36            | 65            | 46            |
| -16  | 20 | GA90090-16 | M38x1,5           | 163.7     | 196.7     | 50            | 75            | 55            |

| Size | DN | Male Half  | Female Half | A1<br>(mm) | A2<br>(mm) |
|------|----|------------|-------------|------------|------------|
| -8   | 12 | GA90092-8  | GA90091-8   | 45.7       | 59.4       |
| -12  | 16 | GA90092-12 | GA90091-12  | 76.8       | 96.7       |
| -16  | 20 | GA90092-16 | GA90091-16  | 81.7       | 115.0      |

### UNF-Thread\*

| Size | DN | Coupling   | Thread<br>(T1=T2) | A<br>(mm) | B<br>(mm) | Hex 1<br>(mm) | Hex 2<br>(mm) | Hex 3<br>(mm) |
|------|----|------------|-------------------|-----------|-----------|---------------|---------------|---------------|
| -8   | 12 | GA90762-8  | 7/8-14UNF-2B      | 93.1      | 109       | 27            | 41            | 27            |
| -12  | 16 | GA90762-12 | 1 3/8-12UNF-2B    | 163.7     | 196.7     | 36            | 65            | 46            |

| Size | DN | Male Half  | Female Half | A1<br>(mm) | A2<br>(mm) |
|------|----|------------|-------------|------------|------------|
| -8   | 12 | GA90764-8  | GA90763-8   | 47.7       | 61.4       |
| -12  | 16 | GA90764-12 | GA90763-12  | 88.8       | 106.7      |

\*Thread according to SAE J1926-1 (ISO 11926-1).

### BSP-Thread

| Size | DN | Coupling      | Thread<br>(T1=T2) | A<br>(mm) | B<br>(mm) | Hex 1<br>(mm) | Hex 2<br>(mm) | Hex 3<br>(mm) |
|------|----|---------------|-------------------|-----------|-----------|---------------|---------------|---------------|
| -8   | 12 | GA90767-8     | G 1/2"-14         | 99.1      | 115       | 27            | 41            | 27            |
| -12  | 16 | GA90767-12-16 | G 1"-11           | 158.8     | 188.7     | 36            | 65            | 46            |
| -16  | 20 | GA90767-16-20 | G 1 1/4"-11       | 163.7     | 196.7     | 50            | 75            | 55            |

| Size | DN | Male Half     | Female Half   | A1<br>(mm) | A2<br>(mm) |
|------|----|---------------|---------------|------------|------------|
| -8   | 12 | GA90769-8     | GA90768-8     | 50.7       | 64.4       |
| -12  | 16 | GA90769-12-16 | GA90768-12-16 | 84.4       | 104.3      |
| -16  | 20 | GA90769-16-20 | GA90768-16-20 | 81.7       | 115.0      |

### Dust Plugs and Dust Caps

| Body Size        | Plug Dust Plug<br>Part/Order Number | Socket Dust Cap<br>Part/Order Number |
|------------------|-------------------------------------|--------------------------------------|
| <b>Dash size</b> | <b>Aluminum</b>                     | <b>Aluminum</b>                      |
| -8               | GA17006-8                           | GA17005-8                            |
| -12              | GA17006-12                          | GA17005-12                           |
| -16              | GA17006-16                          | GA17005-16                           |

# IP Series

Fluid transfer & Hydraulic application



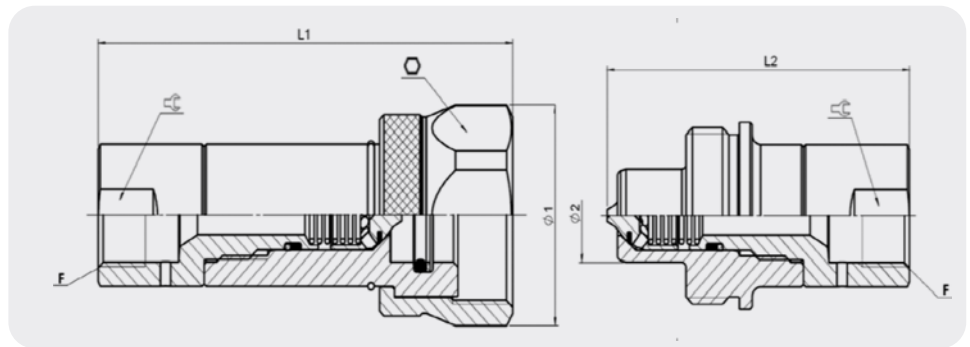
Danfoss Hansen IP Series steel quick disconnect coupling is a screw-to-connect coupling for Subsea Oil & Gas applications. Due to the rugged construction of its unique design and special 1.4404 stainless steel material the coupling can withstand highest operating pressures up to 1379 bar and is suited for most corrosive environment in subsea.

## Product Features

- Standard body material: 316L / 1.4404 stainless steel corrosion resistant
- Standard seal material: HNBR, NBR on the valve
- Thread-to-connect with double shut-off valving
- Proprietary profile
- Can be connected under residual pressure
- Working temperature : -32°C / +150°C
- Optional dust caps and plugs (made of stainless steel)

## Application

- Hydraulic, Testing of Wellheads in subsea Oil & Gas



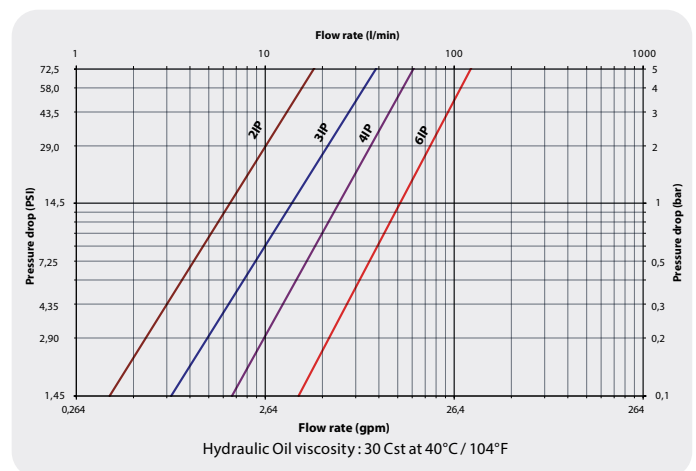
## Physical characteristics

| Body Size | Working Pressure |        | Nominal Flow Diameter (mm) | Plug part/ order number | Socket part/ order number | Thread Size (Female) | Tube Size (in) | Socket dimensions |          |          |          | Plug dimensions |         |          | Length connected (mm) |
|-----------|------------------|--------|----------------------------|-------------------------|---------------------------|----------------------|----------------|-------------------|----------|----------|----------|-----------------|---------|----------|-----------------------|
|           | (bar)            | (psi)  |                            |                         |                           |                      |                | L1 (mm)           | Ø 1 (mm) | Ø 2 (mm) | Hex (mm) | Hex (mm)        | L1 (mm) | Ø 1 (mm) |                       |
| 1/4       | 1,379            | 20,000 | 2.8                        | 2IPP25MP                | 2IPS25MP                  | 7/16-20 UNF          | 1/4"           | 82                | 38       | 35       | 23       | 58              | 32      | 23       | 112                   |
| 1/4       | 1,379            | 20,000 | 5.2                        | 2IPP37MP                | 2IPS37MP                  | 9/16-18 UNF          | 3/8"           | 82                | 38       | 35       | 23       | 58              | 32      | 23       | 112                   |
| 3/8       | 1,034            | 15,000 | 8.1                        | 3IPP56MP                | 3IPS56MP                  | 13/16-16 UN          | 9/16"          | 96                | 45       | 41       | 27       | 71              | 38      | 27       | 138                   |
| 1/2       | 965              | 14,000 | 11.1                       | 4IPP75MP                | 4IPS75MP                  | 3/4-14 NPSM          | 3/4"           | 109               | 55       | 50       | 35       | 81.4            | 50      | 35       | 154.1                 |
| 3/4       | 689              | 10,000 | 16.5                       | 6IPP100MP               | 6IPS100MP                 | 1 3/8-12 UNF         | 1"             | 139.8             | 63       | 58       | 41       | 105.2           | 60      | 41       | 200.5                 |

## Dust Plugs and Dust Caps

| Body Size (in) | Waterproof dust cap for female (Stainless Steel) | Waterproof dust cap for male (Stainless Steel) |
|----------------|--|--|
| 1/4            | SDC2IP   | XPDC2IP  |
| 3/8            | SDC3IP   | XPDC3IP  |
| 1/2            | SDC4IP   | XPDC4IP  |
| 3/4            | SDC6IP   | XPDC6IP  |

## Flow Data



# W6000 Series (Steel) Thread-to-Connect

Fluid transfer & Hydraulic application



Danfoss Gromelle W6000 Series steel quick disconnect coupling is a thread-to-connect with a rugged construction. It remains the series users refer to when it deals with severe hydraulic applications, such as construction and mining. The design and materials used give this quick disconnect coupling resistance to heavy mechanical loads. Most common examples are ram loads, hydraulic shocks and severe pulsating pressures.

## Product Features

- Proprietary profile
- Thread-to-connect with double shut-off valving
- Optional dust caps and plugs (made of anodized aluminum)
- Can be connected under residual pressure up to 30 bar with standard seal, up to 150 bar with PU seal
- Standard body material: Zinc trivalent plated steel
- Standard seal material: NBR, FKM, EPDM

## Physical characteristics

| Body Size (in) | Nominal Flow Diameter (mm) | Max. Operating Pressure*              |        |                                   |        | Maximum Residual Pressure during Connection*** |       | Rated Flow** |       | Fluid Loss ml-cc. |
|----------------|----------------------------|---------------------------------------|--------|-----------------------------------|--------|--|-------|--------------|-------|-------------------|
|                |                            | Non hazardous liquids & gases Group 2 |        | Hazardous liquids & gases Group 1 |        | (bar)  | (psi) | (lpm)        | (gpm) |                   |
| ¼              | 5.7                        | 1,100                                 | 15,950 | 1,100                             | 15,950 | 30   | 435   | 11.6         | 3.06  | 1.1               |
| ⅜              | 7.6                        | 750                                   | 10,875 | 750                               | 10,875 | 30   | 435   | 16.7         | 4.41  | 1.9               |
| ½              | 10.3                       | 750                                   | 10,875 | 750                               | 10,875 | 30   | 435   | 25.5         | 6.74  | 2.8               |
| ¾              | 14.2                       | 650                                   | 9,425  | 650                               | 9,425  | 50   | 725   | 55           | 14.53 | 5.8               |
| 1              | 16.5                       | 450                                   | 6,525  | 450                               | 6,525  | 30   | 435   | 87           | 22.98 | 10.9              |
| 1¼             | 20.5                       | 450                                   | 6,525  | 450                               | 6,525  | 30   | 435   | 140          | 36.98 | 26.9              |
| 1½             | 25.8                       | 300                                   | 4,350  | 38                                | 550    | 30   | 435   | 208          | 54.95 | 37.5              |
| 2              | 34.7                       | 300                                   | 4,350  | 28                                | 405    | 30   | 435   | 357          | 94.30 | 81                |

\* For pulsating pressures when disconnected apply a multiplier of 0.5.

\*\* Indicated values refer to a 1 bar/14.5 psi pressure drop.

\*\*\* When connecting under pressure, the socket nut thread must be lubricated.

## European Pressure Equipment Directive

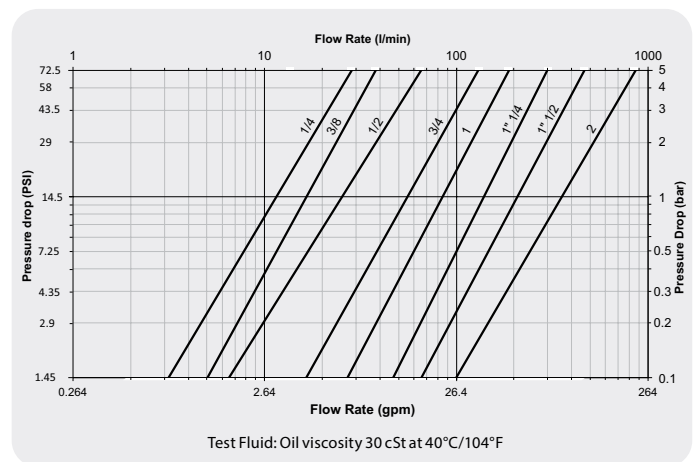
Couplings with nominal diameters up to and including 25 mm are designed and manufactured under Article 4.3 of the European Pressure Equipment Directive PED 2014/68/EU. Couplings with nominal diameters greater than 25 mm are designed and manufactured in accordance with the stipulations of Module A of the European Pressure Equipment Directive PED 2014/68/ EU. They should not be used to convey unstable gases.

Group 1 = Hazardous media / Group 2 = Other media

## Applications & Markets

- Construction
- Oil & Gas
- Material Handling
- All industrial and severe applications
- Systems subject to heavy mechanical loads, high pressures

## Flow Data



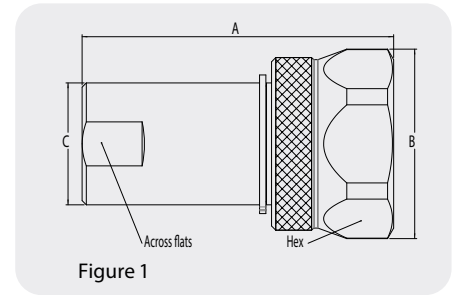
| Seal Elastomer Data*      |                                  |
|---------------------------|----------------------------------|
| Seal Elastomer            | Max. Operation Temperature Range |
| NBR (Nitrile)             | -20°C +100°C/- 4°F +212°F        |
| FKM                       | -20°C +200°C/- 4°F +392°F        |
| EPDM (Ethylene-Propylene) | -40°C +150°C/- 40°F +302°F       |

\* For reference only, based on Danfoss recommended temperatures.

Contact Danfoss technical support for further information on fluid compatibility.

# W6000 Series (Steel) Thread-to-Connect

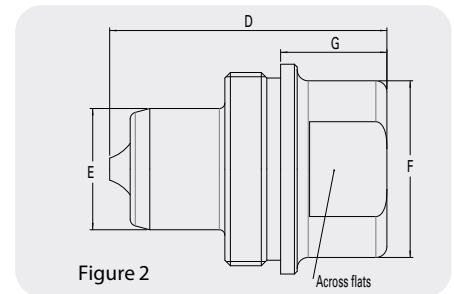
Global region



## Sockets (Female)

| Part/Order Number |           |           | Body Size | Nominal Flow Diameter | Thread Size* (Female) |       |         | Fig. | Dimensions |      |      |              |      |      |      |      | Weight |      |       |       |
|-------------------|-----------|-----------|-----------|-----------------------|-----------------------|-------|---------|------|------------|------|------|--------------|------|------|------|------|--------|------|-------|-------|
| NBR               | FKM       | EPDM      |           |                       | NPT                   | BSPP  | Metric  |      | A          | B    | C    | Across flats |      | Hex  |      | lbs  | grams  |      |       |       |
|                   |           |           | (in)      | (mm)                  |                       |       |         | (mm) | (in)       | (mm) | (in) | (mm)         | (in) | (mm) | (in) | (mm) | (in)   | (mm) | (in)  | (mm)  |
| WA0601700         | WA06017V0 | WA06017E0 | ¼         | 5.7                   | -                     | ¼-19  | -       | 1    | 53         | 2.09 | 35   | 1.38         | 21   | 0.83 | 19   | 0.75 | 32     | 1.26 | 0.32  | 144   |
| WA0621700         | WA06217V0 | WA06217E0 | ¼         | 5.7                   | ¼-18                  | -     | -       | 1    | 53         | 2.09 | 35   | 1.38         | 21   | 0.83 | 19   | 0.75 | 32     | 1.26 | 0.32  | 144   |
| WA0602700         | WA06027V0 | WA06027E0 | ⅜         | 7.6                   | -                     | ⅜-19  | -       | 1    | 65         | 2.56 | 38   | 1.50         | 25   | 0.98 | 23   | 0.90 | 35     | 1.38 | 0.48  | 217   |
| WA0622700         | WA06227V0 | WA06227E0 | ⅜         | 7.6                   | ⅜-18                  | -     | -       | 1    | 65         | 2.56 | 38   | 1.50         | 25   | 0.98 | 23   | 0.90 | 35     | 1.38 | 0.48  | 217   |
| WA0603700         | WA06037V0 | WA06037E0 | ½         | 10.3                  | -                     | ½-14  | -       | 1    | 74         | 2.91 | 45   | 1.77         | 29   | 1.14 | 27   | 1.06 | 41     | 1.61 | 0.71  | 320   |
| WA0623700         | WA06237V0 | WA06237E0 | ½         | 10.3                  | ½-14                  | -     | -       | 1    | 74         | 2.91 | 45   | 1.77         | 29   | 1.14 | 27   | 1.06 | 41     | 1.61 | 0.71  | 320   |
| WA0633700         | WA06337V0 | WA06337E0 | ½         | 10.3                  | -                     | -     | M22x1.5 | 1    | 74         | 2.91 | 45   | 1.77         | 29   | 1.14 | 27   | 1.06 | 41     | 1.61 | 0.71  | 320   |
| WA0604700         | WA06047V0 | WA06047E0 | ¾         | 14.2                  | -                     | ¾-14  | -       | 1    | 91         | 3.58 | 55   | 2.16         | 38   | 1.50 | 35   | 1.38 | 50     | 1.97 | 1.32  | 600   |
| WA0624700         | WA06247V0 | WA06247E0 | ¾         | 14.2                  | ¾-14                  | -     | -       | 1    | 91         | 3.58 | 55   | 2.16         | 38   | 1.50 | 35   | 1.38 | 50     | 1.97 | 1.32  | 600   |
| WA0605700         | WA06057V0 | WA06057E0 | 1         | 16.5                  | -                     | 1-11  | -       | 1    | 103        | 4.05 | 69   | 2.72         | 46   | 1.81 | 41   | 1.61 | 65     | 2.56 | 2.41  | 1,092 |
| WA0625700         | WA06257V0 | WA06257E0 | 1         | 16.5                  | 1-11½                 | -     | -       | 1    | 103        | 4.05 | 69   | 2.72         | 46   | 1.81 | 41   | 1.61 | 65     | 2.56 | 2.41  | 1,092 |
| WA0635700         | WA06357V0 | WA06357E0 | 1         | 16.5                  | -                     | -     | M33x1.5 | 1    | 103        | 4.05 | 69   | 2.72         | 46   | 1.81 | 41   | 1.61 | 65     | 2.56 | 2.41  | 1,092 |
| WA0606700         | WA06067V0 | WA06067E0 | 1¼        | 20.5                  | -                     | 1¼-11 | -       | 1    | 145        | 5.71 | 89   | 3.50         | 60   | 2.36 | 55   | 2.16 | 77     | 3.03 | 6.13  | 2,780 |
| WA0626700         | WA06267V0 | WA06267E0 | 1¼        | 20.5                  | 1¼-11½                | -     | -       | 1    | 145        | 5.71 | 89   | 3.50         | 60   | 2.36 | 55   | 2.16 | 77     | 3.03 | 6.13  | 2,780 |
| WA0607700         | WA06077V0 | WA06077E0 | 1½        | 25.8                  | -                     | 1½-11 | -       | 1    | 173        | 6.81 | 100  | 3.94         | 67   | 2.64 | 63   | 2.48 | 88     | 3.46 | 9.26  | 4,200 |
| WA0627700         | WA06277V0 | WA06277E0 | 1½        | 25.8                  | 1½-11½                | -     | -       | 1    | 173        | 6.81 | 100  | 3.94         | 67   | 2.64 | 63   | 2.48 | 88     | 3.46 | 9.26  | 4,200 |
| WA0609700         | WA06097V0 | WA06097E0 | 2         | 34.7                  | -                     | 2-11  | -       | 1    | 205        | 8.07 | 117  | 4.60         | 78   | 3.07 | 71   | 2.80 | 105    | 4.13 | 14.64 | 6,640 |
| WA0629700         | WA06297V0 | WA06297E0 | 2         | 34.7                  | 2-11½                 | -     | -       | 1    | 205        | 8.07 | 117  | 4.60         | 78   | 3.07 | 71   | 2.80 | 105    | 4.13 | 14.64 | 6,640 |

\* Alternative end connections available upon request.  
To obtain connected length of coupling add dimensions A (Fig.1) and G (Fig. 2) together.



## Plugs (Male)

| Part/Order Number |           |           | Body Size | Nominal Flow Diameter | Thread Size* (Female) |       |         | Fig. | Dimensions |      |      |      |              |      |      |       | Weight |      |      |       |
|-------------------|-----------|-----------|-----------|-----------------------|-----------------------|-------|---------|------|------------|------|------|------|--------------|------|------|-------|--------|------|------|-------|
| NBR               | FKM       | EPDM      |           |                       | NPT                   | BSPP  | Metric  |      | D          | E    | F    | G    | Across flats |      | lbs  | grams |        |      |      |       |
|                   |           |           | (in)      | (mm)                  |                       |       |         | (mm) | (in)       | (mm) | (in) | (mm) | (in)         | (mm) | (in) | (mm)  | (in)   | (mm) | (in) | (mm)  |
| WA0601400         | WA06014V0 | WA06014E0 | ¼         | 5.7                   | -                     | ¼-19  | -       | 2    | 35         | 1.38 | 15   | 0.59 | 23           | 0.90 | 11.5 | 0.45  | 19     | 0.75 | 0.16 | 71    |
| WA0621400         | WA06214V0 | WA06214E0 | ¼         | 5.7                   | ¼-18                  | -     | -       | 2    | 35         | 1.38 | 15   | 0.59 | 23           | 0.90 | 11.5 | 0.45  | 19     | 0.75 | 0.16 | 71    |
| WA0602400         | WA06024V0 | WA06024E0 | ⅜         | 7.6                   | -                     | ⅜-19  | -       | 2    | 42         | 1.65 | 19   | 0.75 | 26           | 1.02 | 13   | 0.52  | 23     | 0.90 | 0.23 | 104   |
| WA0622400         | WA06224V0 | WA06224E0 | ⅜         | 7.6                   | ⅜-18                  | -     | -       | 2    | 42         | 1.65 | 19   | 0.75 | 26           | 1.02 | 13   | 0.52  | 23     | 0.90 | 0.23 | 104   |
| WA0603400         | WA06034V0 | WA06034E0 | ½         | 10.3                  | -                     | ½-14  | -       | 2    | 50         | 1.97 | 22   | 0.87 | 32           | 1.26 | 19.5 | 0.77  | 27     | 1.06 | 0.36 | 165   |
| WA0623400         | WA06234V0 | WA06234E0 | ½         | 10.3                  | ½-14                  | -     | -       | 2    | 50         | 1.97 | 22   | 0.87 | 32           | 1.26 | 19.5 | 0.77  | 27     | 1.06 | 0.36 | 165   |
| WA0633400         | WA06334V0 | WA06334E0 | ½         | 10.3                  | -                     | -     | M22x1.5 | 2    | 50         | 1.97 | 22   | 0.87 | 32           | 1.26 | 19.5 | 0.77  | 27     | 1.06 | 0.36 | 165   |
| WA0604400         | WA06044V0 | WA06044E0 | ¾         | 14.2                  | -                     | ¾-14  | -       | 2    | 63         | 2.48 | 29   | 1.14 | 42           | 1.65 | 26   | 1.02  | 35     | 1.38 | 0.84 | 382   |
| WA0624400         | WA06244V0 | WA06244E0 | ¾         | 14.2                  | ¾-14                  | -     | -       | 2    | 63         | 2.48 | 29   | 1.14 | 42           | 1.65 | 26   | 1.02  | 35     | 1.38 | 0.84 | 382   |
| WA0605400         | WA06054V0 | WA06054E0 | 1         | 16.5                  | -                     | 1-11  | -       | 2    | 71         | 2.80 | 36   | 1.42 | 48           | 1.89 | 29   | 1.14  | 41     | 1.61 | 1.29 | 585   |
| WA0625400         | WA06254V0 | WA06254E0 | 1         | 16.5                  | 1-11½                 | -     | -       | 2    | 71         | 2.80 | 36   | 1.42 | 48           | 1.89 | 29   | 1.14  | 41     | 1.61 | 1.29 | 585   |
| WA0635400         | WA06354V0 | WA06354E0 | 1         | 16.5                  | -                     | -     | M33x1.5 | 2    | 71         | 2.80 | 36   | 1.42 | 48           | 1.89 | 29   | 1.14  | 41     | 1.61 | 1.29 | 585   |
| WA0606400         | WA06064V0 | WA06064E0 | 1¼        | 20.5                  | -                     | 1¼-11 | -       | 2    | 97         | 3.82 | 50.9 | 2.00 | 60           | 2.36 | 37   | 1.45  | 55     | 2.16 | 3.22 | 1,460 |
| WA0626400         | WA06264V0 | WA06264E0 | 1¼        | 20.5                  | 1¼-11½                | -     | -       | 2    | 97         | 3.82 | 50.9 | 2.00 | 60           | 2.36 | 37   | 1.45  | 55     | 2.16 | 3.22 | 1,460 |
| WA0607400         | WA06074V0 | WA06074E0 | 1½        | 25.8                  | -                     | 1½-11 | -       | 2    | 109        | 4.29 | 56.9 | 2.24 | 67           | 2.64 | 31   | 1.22  | 63     | 2.48 | 4.50 | 2,040 |
| WA0627400         | WA06274V0 | WA06274E0 | 1½        | 25.8                  | 1½-11½                | -     | -       | 2    | 109        | 4.29 | 56.9 | 2.24 | 67           | 2.64 | 31   | 1.22  | 63     | 2.48 | 4.50 | 2,040 |
| WA0609400         | WA06094V0 | WA06094E0 | 2         | 34.7                  | -                     | 2-11  | -       | 2    | 129        | 5.08 | 69.4 | 2.73 | 78           | 3.07 | 33   | 1.32  | 71     | 2.80 | 7.05 | 3,200 |
| WA0629400         | WA06294V0 | WA06294E0 | 2         | 34.7                  | 2-11½                 | -     | -       | 2    | 129        | 5.08 | 69.4 | 2.73 | 78           | 3.07 | 33   | 1.32  | 71     | 2.80 | 7.05 | 3,200 |

\* Alternative end connections available upon request.  
To obtain connected length of coupling add dimensions A (Fig.1) and G (Fig. 2) together.

## W6000 Series (Steel) Thread-to-Connect

### Dust Plugs and Dust Caps

| Body Size | Socket Dust Plug Part/Order Number | Plug Dust Cap Part/Order Number |
|-----------|------------------------------------|---------------------------------|
| (in)      | Anodized Aluminum                  | Anodized Aluminum               |
| ¼         | WD0611700                          | WD0611400                       |
| ⅜         | WD0612700                          | WD0612400                       |
| ½         | WD0613700                          | WD0613400                       |
| ¾         | WD0614700                          | WD0614400                       |
| 1         | WD0615700                          | WD0615400                       |
| 1¼        | WD0616700                          | WD0616400                       |
| 1½        | WD0617700                          | WD0617400                       |
| 2         | WD0619700                          | WD0619400                       |

### Seal Kit for Servicing Sockets (Female)

| Body Size | Seal & Back-up Ring Kit*       |                                |                              |
|-----------|--------------------------------|--------------------------------|------------------------------|
| (in)      | NBR seals & PTFE back-up rings | FKM seals & PTFE back-up rings | Qty                          |
| ¼         | WG0601700                      | WG06017V0                      | 50 O-rings + 50 Backup rings |
| ⅜         | WG0602700                      | WG06027V0                      | 50 O-rings + 50 Backup rings |
| ½         | WG0603700                      | WG06037V0                      | 50 O-rings + 50 Backup rings |
| ¾         | WG0604700                      | WG06047V0                      | 50 O-rings + 50 Backup rings |
| 1         | WG0605700                      | WG06057V0                      | 50 O-rings + 50 Backup rings |
| 1¼        | WG0606700                      | WG06067V0                      | 15 O-rings + 15 Backup rings |
| 1½        | WG0607700                      | WG06077V0                      | 15 O-rings + 15 Backup rings |
| 2         | WG0609700                      | WG06097V0                      | 15 O-rings + 15 Backup rings |

\*The valve seal is not included in our repair kits.

EPDM seals (-40°C/+150°C) are also available but kit part number doesn't exist. Please ask our technical support in case you need this compound.

# W6000 Series (Stainless Steel) Thread-to-Connect

Fluid transfer & Hydraulic application



Danfoss Gromelle W6000 Series stainless steel quick disconnect coupling is a thread-to-connect with a rugged construction. This quick disconnect coupling utilizes 1.4418 grade stainless steel, which guarantees the same mechanical resistance as the steel version while offering excellent resistance in corrosive environments. It remains the coupling of choice in offshore oil & gas applications but also covers a wide range of alternative hydraulic applications.

Global region

## Product Features

- Proprietary profile
- Thread-to-connect with double shut-off valving
- Resistance to heavy mechanical loads (hydraulic shocks, severe pulsating pressures, etc.).
- Optional dust caps and plugs (made of anodized aluminum)
- Can be connected under residual pressure
- Standard seal material: FKM, EPDM
- Standard body material: Stainless steel 1.4418 (1.4404 AISI 316L stainless steel available on request at lower operating pressures). Please contact Danfoss technical support for further information

## Physical characteristics

| Body Size<br>(in) | Nominal Flow Diameter<br>(mm) | Max. Operating Pressure*              |        |                                   |        | Maximum Residual Pressure during Connection*** |       | Rated Flow** |       | Fluid Loss<br>ml-cc. |
|-------------------|-------------------------------|---------------------------------------|--------|-----------------------------------|--------|--|-------|--------------|-------|----------------------|
|                   |                               | Non hazardous liquids & gases Group 2 |        | Hazardous liquids & gases Group 1 |        | (bar)  | (psi) | (lpm)        | (gpm) |                      |
| 1/4               | 5.7                           | 1,100                                 | 15,950 | 1,100                             | 15,950 | 30   | 435   | 11.6         | 3.06  | 1.1                  |
| 3/8               | 7.6                           | 750                                   | 10,875 | 750                               | 10,875 | 30   | 435   | 16.7         | 4.41  | 1.9                  |
| 1/2               | 10.3                          | 750                                   | 10,875 | 750                               | 10,875 | 30   | 435   | 25.5         | 6.74  | 2.8                  |
| 3/4               | 14.2                          | 650                                   | 9,425  | 650                               | 9,425  | 50   | 725   | 55           | 14.53 | 5.8                  |
| 1                 | 16.5                          | 450                                   | 6,525  | 450                               | 6,525  | 30   | 435   | 87           | 22.98 | 10.9                 |
| 1 1/4             | 20.5                          | 450                                   | 6,525  | 450                               | 6,525  | 30   | 435   | 140          | 36.98 | 26.9                 |
| 1 1/2             | 25.8                          | 300                                   | 4,350  | 38                                | 550    | 30   | 435   | 208          | 54.95 | 37.5                 |
| 2                 | 34.7                          | 300                                   | 4,350  | 28                                | 405    | 30   | 435   | 357          | 94.30 | 81.0                 |

\* For pulsating pressures when disconnected apply a multiplier of 0.5.

\*\* Indicated values refer to a 1 bar/14.5 psi pressure drop.

\*\*\* When connecting under pressure, the socket nut thread must be lubricated.

## European Pressure Equipment Directive

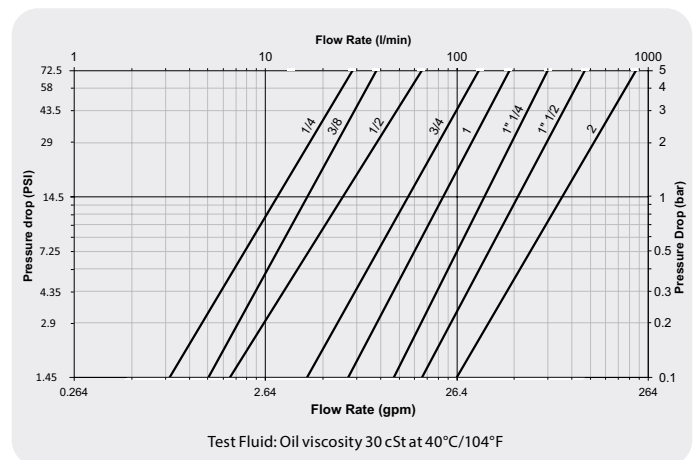
Couplings with nominal diameters up to and including 25 mm are designed and manufactured under Article 4.3 of the European Pressure Equipment Directive PED 2014/68/EU. Couplings with nominal diameters greater than 25 mm are designed and manufactured in accordance with the stipulations of Module A of the European Pressure Equipment Directive PED 2014/68/EU. They should not be used to convey unstable gases.

Group 1 = Hazardous media / Group 2 = Other media

## Applications & Markets

- Construction
- Oil & Gas
- Material Handling
- All industrial and severe applications
- Systems subject to heavy mechanical loads, high pressures

## Flow Data

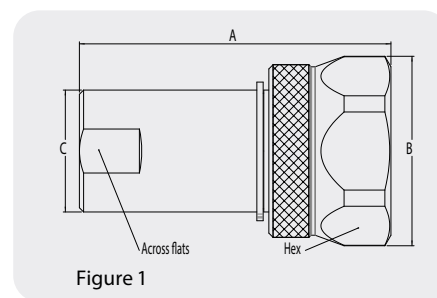


| Seal Elastomer Data*      |                                  |
|---------------------------|----------------------------------|
| Seal Elastomer            | Max. Operation Temperature Range |
| FKM                       | -20°C +200°C/- 4°F +392°F        |
| EPDM (Ethylene-Propylene) | -40°C +150°C/- 40°F +302°F       |

\* For reference only, based on Danfoss recommended temperatures. Contact Danfoss technical support for further information on fluid compatibility.

# W6000 Series (Stainless Steel) Thread-to-Connect

Global region



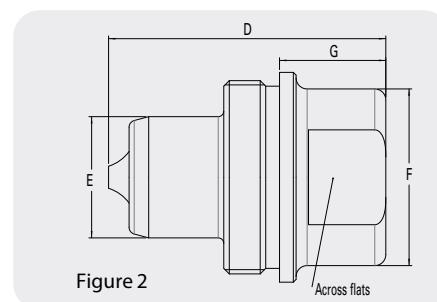
## Sockets (Female)

| Part/Order Number* |           | Body Size | Nominal Flow Diameter | Thread Size** (Female) |       | Fig. | Dimensions |      |      |              |      |      |      |      |       | Weight |       |       |
|--------------------|-----------|-----------|-----------------------|------------------------|-------|------|------------|------|------|--------------|------|------|------|------|-------|--------|-------|-------|
| FKM                | EPDM      |           |                       | NPT                    | BSPP  |      | A          | B    | C    | Across flats |      | Hex  |      | lbs  | grams |        |       |       |
|                    |           | (in)      | (mm)                  |                        |       | (mm) | (in)       | (mm) | (in) | (mm)         | (in) | (mm) | (in) | (mm) | (in)  | (mm)   |       |       |
| WV06017V0          | WV06017E0 | ¼         | 5.7                   | -                      | ¼-19  | 1    | 53         | 2.09 | 35   | 1.38         | 21   | 0.83 | 19   | 0.75 | 32    | 1.26   | 0.32  | 144   |
| WV06217V0          | WV06217E0 | ¼         | 5.7                   | ¼-18                   | -     | 1    | 53         | 2.09 | 35   | 1.38         | 21   | 0.83 | 19   | 0.75 | 32    | 1.26   | 0.32  | 144   |
| WV06027V0          | WV06027E0 | ⅜         | 7.6                   | -                      | ⅜-19  | 1    | 65         | 2.56 | 38   | 1.50         | 25   | 0.98 | 23   | 0.90 | 35    | 1.38   | 0.48  | 217   |
| WV06227V0          | WV06227E0 | ⅜         | 7.6                   | ⅜-18                   | -     | 1    | 65         | 2.56 | 38   | 1.50         | 25   | 0.98 | 23   | 0.90 | 35    | 1.38   | 0.48  | 217   |
| WV06037V0          | WV06037E0 | ½         | 10.3                  | -                      | ½-14  | 1    | 74         | 2.91 | 45   | 1.77         | 29   | 1.14 | 27   | 1.06 | 41    | 1.61   | 0.71  | 320   |
| WV06237V0          | WV06237E0 | ½         | 10.3                  | ½-14                   | -     | 1    | 74         | 2.91 | 45   | 1.77         | 29   | 1.14 | 27   | 1.06 | 41    | 1.61   | 0.71  | 320   |
| WV06047V0          | WV06047E0 | ¾         | 14.2                  | -                      | ¾-14  | 1    | 91         | 3.58 | 55   | 2.16         | 38   | 1.50 | 35   | 1.38 | 50    | 1.97   | 1.32  | 600   |
| WV06247V0          | WV06247E0 | ¾         | 14.2                  | ¾-14                   | -     | 1    | 91         | 3.58 | 55   | 2.16         | 38   | 1.50 | 35   | 1.38 | 50    | 1.97   | 1.32  | 600   |
| WV06057V0          | WV06057E0 | 1         | 16.5                  | -                      | 1-11  | 1    | 103        | 4.05 | 69   | 2.72         | 46   | 1.81 | 41   | 1.61 | 65    | 2.56   | 2.41  | 1,092 |
| WV06257V0          | WV06257E0 | 1         | 16.5                  | 1-11½                  | -     | 1    | 103        | 4.05 | 69   | 2.72         | 46   | 1.81 | 41   | 1.61 | 65    | 2.56   | 2.41  | 1,092 |
| WV06067V0          | WV06067E0 | 1¼        | 20.5                  | -                      | 1¼-11 | 1    | 145        | 5.71 | 89   | 3.50         | 60   | 2.36 | 55   | 2.16 | 77    | 3.03   | 6.13  | 2,780 |
| WV06267V0          | WV06267E0 | 1¼        | 20.5                  | 1¼-11½                 | -     | 1    | 145        | 5.71 | 89   | 3.50         | 60   | 2.36 | 55   | 2.16 | 77    | 3.03   | 6.13  | 2,780 |
| WV06077V0          | WV06077E0 | 1½        | 25.8                  | -                      | 1½-11 | 1    | 173        | 6.81 | 100  | 3.94         | 67   | 2.64 | 63   | 2.48 | 88    | 3.46   | 9.26  | 4,200 |
| WV06277V0          | WV06277E0 | 1½        | 25.8                  | 1½-11½                 | -     | 1    | 173        | 6.81 | 100  | 3.94         | 67   | 2.64 | 63   | 2.48 | 88    | 3.46   | 9.26  | 4,200 |
| WV06097V0          | WV06097E0 | 2         | 34.7                  | -                      | 2-11  | 1    | 205        | 8.07 | 117  | 4.60         | 78   | 3.07 | 71   | 2.80 | 105   | 4.13   | 14.64 | 6,640 |
| WV06297V0          | WV06297E0 | 2         | 34.7                  | 2-11½                  | -     | 1    | 205        | 8.07 | 117  | 4.60         | 78   | 3.07 | 71   | 2.80 | 105   | 4.13   | 14.64 | 6,640 |

\* 1.4404 AISI 316L stainless steel available on request. Please contact Danfoss technical support for further information.

\*\* Alternative end connections available upon request.

To obtain connected length of coupling add dimensions A (Fig.1) and G (Fig. 2) together.



## Plugs (Male)

| Part/Order Number |           | Body Size | Nominal Flow Diameter | Thread Size* (Female) |       | Fig. | Dimensions |      |      |      |              |      |      |       |      | Weight |      |       |
|-------------------|-----------|-----------|-----------------------|-----------------------|-------|------|------------|------|------|------|--------------|------|------|-------|------|--------|------|-------|
| FKM               | EPDM      |           |                       | NPT                   | BSPP  |      | D          | E    | F    | G    | Across flats |      | lbs  | grams |      |        |      |       |
|                   |           | (in)      | (mm)                  |                       |       | (mm) | (in)       | (mm) | (in) | (mm) | (in)         | (mm) | (in) | (mm)  | (in) | (mm)   |      |       |
| WV06014V0         | WV06014E0 | ¼         | 5.7                   | -                     | ¼-19  | 2    | 35         | 1.38 | 15   | 0.59 | 23           | 0.90 | 11.5 | 0.45  | 19   | 0.75   | 0.16 | 71    |
| WV06214V0         | WV06214E0 | ¼         | 5.7                   | ¼-18                  | -     | 2    | 35         | 1.38 | 15   | 0.59 | 23           | 0.90 | 11.5 | 0.45  | 19   | 0.75   | 0.16 | 71    |
| WV06024V0         | WV06024E0 | ⅜         | 7.6                   | -                     | ⅜-19  | 2    | 42         | 1.65 | 19   | 0.75 | 26           | 1.02 | 13   | 0.52  | 23   | 0.90   | 0.23 | 104   |
| WV06224V0         | WV06224E0 | ⅜         | 7.6                   | ⅜-18                  | -     | 2    | 42         | 1.65 | 19   | 0.75 | 26           | 1.02 | 13   | 0.52  | 23   | 0.90   | 0.23 | 104   |
| WV06034V0         | WV06034E0 | ½         | 10.3                  | -                     | ½-14  | 2    | 50         | 1.97 | 22   | 0.87 | 32           | 1.26 | 19.5 | 0.77  | 27   | 1.06   | 0.36 | 165   |
| WV06234V0         | WV06234E0 | ½         | 10.3                  | ½-14                  | -     | 2    | 50         | 1.97 | 22   | 0.87 | 32           | 1.26 | 19.5 | 0.77  | 27   | 1.06   | 0.36 | 165   |
| WV06044V0         | WV06044E0 | ¾         | 14.2                  | -                     | ¾-14  | 2    | 63         | 2.48 | 29   | 1.14 | 42           | 1.65 | 26   | 1.02  | 35   | 1.38   | 0.84 | 382   |
| WV06244V0         | WV06244E0 | ¾         | 14.2                  | ¾-14                  | -     | 2    | 63         | 2.48 | 29   | 1.14 | 42           | 1.65 | 26   | 1.02  | 35   | 1.38   | 0.84 | 382   |
| WV06054V0         | WV06054E0 | 1         | 16.5                  | -                     | 1-11  | 2    | 71         | 2.80 | 36   | 1.42 | 48           | 1.89 | 29   | 1.14  | 41   | 1.61   | 1.29 | 585   |
| WV06254V0         | WV06254E0 | 1         | 16.5                  | 1-11½                 | -     | 2    | 71         | 2.80 | 36   | 1.42 | 48           | 1.89 | 29   | 1.14  | 41   | 1.61   | 1.29 | 585   |
| WV06064V0         | WV06064E0 | 1¼        | 20.5                  | -                     | 1¼-11 | 2    | 97         | 3.82 | 50.9 | 2.00 | 60           | 2.36 | 37   | 1.45  | 55   | 2.16   | 3.22 | 1,460 |
| WV06264V0         | WV06264E0 | 1¼        | 20.5                  | 1¼-11½                | -     | 2    | 97         | 3.82 | 50.9 | 2.00 | 60           | 2.36 | 37   | 1.45  | 55   | 2.16   | 3.22 | 1,460 |
| WV06074V0         | WV06074E0 | 1½        | 25.8                  | -                     | 1½-11 | 2    | 109        | 4.29 | 56.9 | 2.24 | 67           | 2.64 | 31   | 1.22  | 63   | 2.48   | 4.50 | 2,040 |
| WV06274V0         | WV06274E0 | 1½        | 25.8                  | 1½-11½                | -     | 2    | 109        | 4.29 | 56.9 | 2.24 | 67           | 2.64 | 31   | 1.22  | 63   | 2.48   | 4.50 | 2,040 |
| WV06094V0         | WV06094E0 | 2         | 34.7                  | -                     | 2-11  | 2    | 129        | 5.08 | 69.4 | 2.73 | 78           | 3.07 | 33.5 | 1.32  | 71   | 2.80   | 7.05 | 3,200 |
| WV06294V0         | WV06294E0 | 2         | 34.7                  | 2-11½                 | -     | 2    | 129        | 5.08 | 69.4 | 2.73 | 78           | 3.07 | 33.5 | 1.32  | 71   | 2.80   | 7.05 | 3,200 |

\* 1.4404 AISI 316L stainless steel available on request. Please contact Danfoss technical support for further information.

\*\* Alternative end connections available upon request.

To obtain connected length of coupling add dimensions A (Fig.1) and G (Fig. 2) together.

## W6000 Series (Stainless Steel) Thread-to-Connect

### Dust Plugs and Dust Caps

| Body Size | Socket Dust Plug Part/Order Number | Plug Dust Cap Part/Order Number |
|-----------|------------------------------------|---------------------------------|
| (in)      | Anodized Aluminum                  | Anodized Aluminum               |
| ¼         | WD0611700                          | WD0611400                       |
| ⅜         | WD0612700                          | WD0612400                       |
| ½         | WD0613700                          | WD0613400                       |
| ¾         | WD0614700                          | WD0614400                       |
| 1         | WD0615700                          | WD0615400                       |
| 1¼        | WD0616700                          | WD0616400                       |
| 1½        | WD0617700                          | WD0617400                       |

### Seal Kit for Servicing Sockets (Female)

| Body Size | Seal & Back-up Ring Kit*       |                                |                              |
|-----------|--------------------------------|--------------------------------|------------------------------|
| (in)      | NBR seals & PTFE back-up rings | FKM seals & PTFE back-up rings | Qty                          |
| ¼         | WG0601700                      | WG06017V0                      | 50 O-rings + 50 Backup rings |
| ⅜         | WG0602700                      | WG06027V0                      | 50 O-rings + 50 Backup rings |
| ½         | WG0603700                      | WG06037V0                      | 50 O-rings + 50 Backup rings |
| ¾         | WG0604700                      | WG06047V0                      | 50 O-rings + 50 Backup rings |
| 1         | WG0605700                      | WG06057V0                      | 50 O-rings + 50 Backup rings |
| 1¼        | WG0606700                      | WG06067V0                      | 15 O-rings + 15 Backup rings |
| 1½        | WG0607700                      | WG06077V0                      | 15 O-rings + 15 Backup rings |
| 2         | WG0609700                      | WG06097V0                      | 15 O-rings + 15 Backup rings |

\*The valve seal is not included in our repair kits.

EPDM seals (-40°C/+150°C) are also available but kit part number doesn't exist. Please ask our technical support in case you need this compound.

# 5100 Series Thread-to-Connect

Fluid transfer & Hydraulic application



Danfoss Hansen 5100 Series brass coupling with steel tubular valve offers minimum air inclusion and fluid loss. Thread together latch provides connect under pressure capability and vibration resistance. The 5100 Series is not rated for continuous hydraulic impulse applications. For hydraulic impulse applications, refer to the FD86 and FD96 Series thread to connect product lines.

## Product Features

- Tubular valve construction for virtually no fluid loss during disconnection, reduces environmental and worker safety hazards
- Low air inclusion during connection maintains system performance
- Available with wing or hex nut configurations
- Connect against pressure capability allows connecting of halves even when pressurized up to 500 psi
- Steel flange available for accessible bulkhead mounting
- Standard seal material: Nitrile (NBR)
- Standard body material: Brass body with high resistance carbon steel with zinc trivalent plated valving components, hex and wing nuts

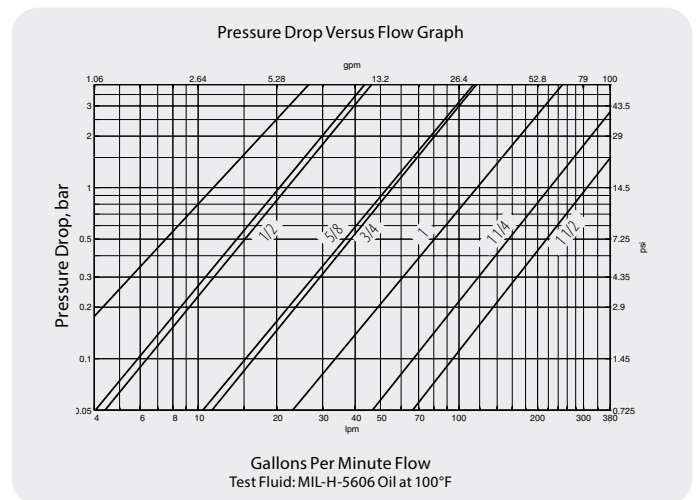
## Physical characteristics

| Body Dash Size (in) | Body Interface Size (in) | Max. Operating Pressure Connected |       | Max. Operating Pressure Disconnected Plug/Male Half S2 and S4 |       | Max. Operating Pressure Disconnected Socket/Female Half S5 |       | Vacuum (in./Hg) | Rated Flow |       | Air Inclusion (cc. max.) | Fluid Loss (cc. max.) |
|---------------------|--------------------------|-----------------------------------|-------|---|-------|--|-------|-----------------|------------|-------|--------------------------|-----------------------|
| (in)                | (in)                     | (bar)                             | (psi) | (bar)   | (psi) | (bar)  | (psi) |                 | (lpm)      | (gpm) |                          |                       |
| ¼                   | ¼                        | 207                               | 3,000 | 207   | 3,000 | 207  | 3,000 | 28              | 15         | 4     | 0.03                     | 0.01                  |
| ⅜                   | ⅜                        | 207                               | 3,000 | 207   | 3,000 | 207  | 3,000 | 28              | 26         | 7     | 0.05                     | 0.06                  |
| ½                   | ½                        | 207                               | 3,000 | 207   | 3,000 | 207  | 3,000 | 28              | 26         | 7     | 0.05                     | 0.10                  |
| ⅝                   | ¾                        | 207                               | 3,000 | 207   | 3,000 | 207  | 3,000 | 28              | 68         | 18    | 0.14                     | 0.10                  |
| ¾                   | ¾                        | 207                               | 3,000 | 207   | 3,000 | 207  | 3,000 | 28              | 68         | 18    | 0.34                     | 0.26                  |
| 1                   | 1                        | 207                               | 3,000 | 207   | 3,000 | 207  | 3,000 | 28              | 151        | 40    | 0.50                     | 0.35                  |
| 1¼                  | 1¼                       | 190                               | 2,750 | 172   | 2,500 | 190  | 2,750 | 28              | 284        | 75    | 0.68                     | 0.70                  |
| 1½                  | 1½                       | 172                               | 2,500 | 172   | 2,500 | 138  | 2,000 | 28              | 379        | 100   | 0.60                     | 0.94                  |

## Applications & Markets

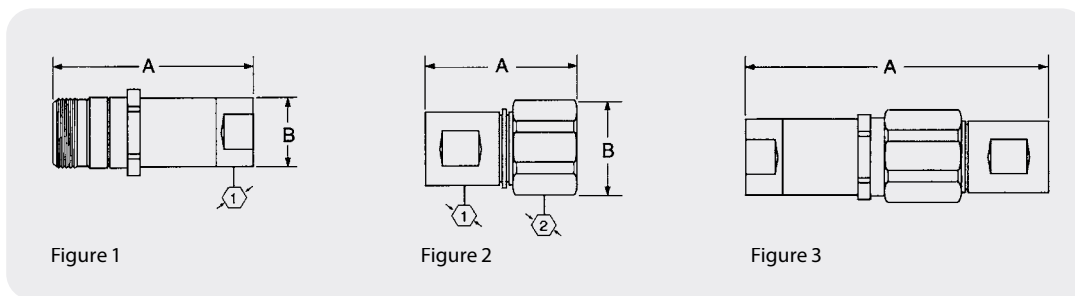
- Hydraulics and Fluid Transfer
- On-highway Hydraulic Wet Lines
- Dump and Refuse Vehicles
- Bulk Liquid Transfer

## Flow Data



# 5100 Series Thread-to-Connect

Global region



## Dimensions (Female NPT, Valved without Flange)

| Part/Order Number<br>NBR | Coupling<br>Type | Body<br>Size | Port<br>Size | Thread   | Type       | Fig. | Dimensions |      | B    |      | Hex ① |      | Hex ② |      |
|--------------------------|------------------|--------------|--------------|----------|------------|------|------------|------|------|------|-------|------|-------|------|
|                          |                  |              |              |          |            |      | A          |      | (mm) | (in) | (mm)  | (in) | (mm)  | (in) |
| 5100-S2-4B               | Plug/Male        | ¼            | ⅜            | ⅜-27     | Female NPT | 1    | 47.8       | 1.88 | 22.9 | 0.90 | 17.5  | 0.69 | -     | -    |
| 5110-S5-4B               | Socket/Female    | ¼            | ⅜            | ⅜-27     | Female NPT | 2    | 53.3       | 2.10 | 33.5 | 1.32 | 14.2  | 0.56 | 30.2  | 1.19 |
| 5111-4B                  | Complete         | ¼            | ⅜            | ⅜-27     | Female NPT | 3    | 81.3       | 3.20 | -    | -    | -     | -    | -     | -    |
| 5100-S2-6B               | Plug/Male        | ⅜            | ½            | ½-18     | Female NPT | 1    | 65.5       | 2.58 | 26.7 | 1.05 | 23.9  | 0.94 | -     | -    |
| 5110-S5-6B               | Socket/Female    | ⅜            | ½            | ½-18     | Female NPT | 2    | 61.0       | 2.40 | 38.9 | 1.53 | 19.3  | 0.76 | 35.1  | 1.38 |
| 5111-6B                  | Complete         | ⅜            | ½            | ½-18     | Female NPT | 3    | 104.4      | 4.11 | -    | -    | -     | -    | -     | -    |
| 5100-S2-8B               | Plug/Male        | ½            | ⅝            | ⅝-18     | Female NPT | 1    | 65.5       | 2.58 | 26.7 | 1.05 | 23.9  | 0.94 | -     | -    |
| 5110-S5-8B               | Socket/Female    | ½            | ⅝            | ⅝-18     | Female NPT | 2    | 61.0       | 2.40 | 38.9 | 1.53 | 19.3  | 0.76 | 35.1  | 1.38 |
| 5111-8B                  | Complete         | ½            | ⅝            | ⅝-18     | Female NPT | 3    | 104.4      | 4.11 | -    | -    | -     | -    | -     | -    |
| 5100-S2-10B              | Plug/Male        | ⅝            | ¾            | ¾-14     | Female NPT | 1    | 79.0       | 3.11 | 35.1 | 1.38 | 30.2  | 1.19 | -     | -    |
| 5110-S5-10B              | Socket/Female    | ⅝            | ¾            | ¾-14     | Female NPT | 2    | 78.0       | 3.07 | 50.3 | 1.98 | 29.5  | 1.16 | 44.5  | 1.75 |
| 5111-10B                 | Complete         | ⅝            | ¾            | ¾-14     | Female NPT | 3    | 132.3      | 5.21 | -    | -    | -     | -    | -     | -    |
| 5100-S2-12B              | Plug/Male        | ¾            | ¾            | ¾-14     | Female NPT | 1    | 79.0       | 3.11 | 35.1 | 1.38 | 30.2  | 1.19 | -     | -    |
| 5110-S5-12B              | Socket/Female    | ¾            | ¾            | ¾-14     | Female NPT | 2    | 78.0       | 3.07 | 50.3 | 1.98 | 29.5  | 1.16 | 44.5  | 1.75 |
| 5111-12B                 | Complete         | ¾            | ¾            | ¾-14     | Female NPT | 3    | 132.3      | 5.21 | -    | -    | -     | -    | -     | -    |
| 5100-S2-16B              | Plug/Male        | 1            | 1            | 1-11½    | Female NPT | 1    | 90.2       | 3.55 | 44.2 | 1.74 | 39.6  | 1.56 | -     | -    |
| 5110-S5-16B              | Socket/Female    | 1            | 1            | 1-11½    | Female NPT | 2    | 93.5       | 3.68 | 61.2 | 2.41 | 36.6  | 1.44 | 53.8  | 2.12 |
| 5111-16B                 | Complete         | 1            | 1            | 1-11½    | Female NPT | 3    | 151.9      | 5.98 | -    | -    | -     | -    | -     | -    |
| 5100-S2-20B              | Plug/Male        | 1¼           | 1¼           | 1¼ - 11½ | Female NPT | 1    | 94.2       | 3.71 | 52.8 | 2.08 | 47.8  | 1.88 | -     | -    |
| 5110-S5-20B              | Socket/Female    | 1¼           | 1¼           | 1¼ - 11½ | Female NPT | 2    | 101.6      | 4.00 | 58.7 | 2.31 | 45.2  | 1.78 | 63.5  | 2.50 |
| 5111-20B                 | Complete         | 1¼           | 1¼           | 1¼ - 11½ | Female NPT | 3    | 160.3      | 6.31 | -    | -    | -     | -    | -     | -    |
| 5100-S2-24B              | Plug/Male        | 1½           | 1½           | 1½ - 11½ | Female NPT | 1    | 104.6      | 4.12 | 62.5 | 2.46 | 55.6  | 2.19 | 55.6  | 2.19 |
| 5110-S5-24B              | Socket/Female    | 1½           | 1½           | 1½ - 11½ | Female NPT | 2    | 104.1      | 4.10 | 78.7 | 3.10 | 50.8  | 2.00 | -     | -    |
| 5111-24B                 | Complete         | 1½           | 1½           | 1½ - 11½ | Female NPT | 3    | 165.6      | 6.52 | -    | -    | -     | -    | -     | -    |

## 5100 Series Thread-to-Connect

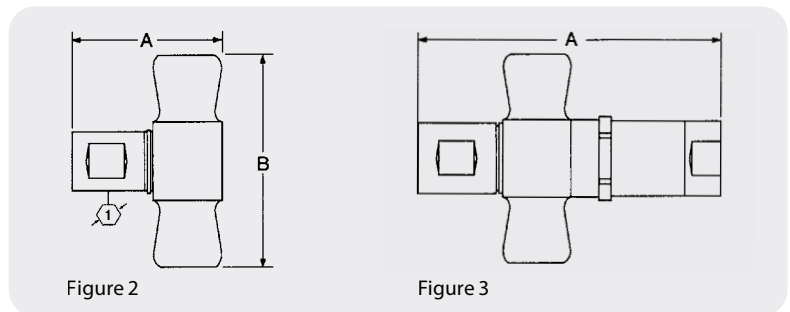



Figure 2

Figure 3

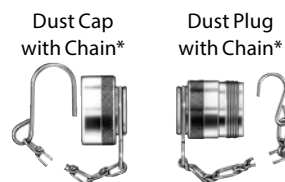
### Dimensions (Female NPT, Valved WITH Wing Nut Less Flange)

| Part/Order Number<br>NBR | Coupling<br>Type | Body<br>Size | Port<br>Size | Thread   | Type        | Fig. | Dimensions |      |       |      |   |      |
|--------------------------|------------------|--------------|--------------|----------|-------------|------|------------|------|-------|------|---|------|
|                          |                  |              |              |          |             |      | A          |      | B     |      | Hex  |      |
|                          |                  |              |              |          |             |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 5100-S5-4B               | Socket/Female    | ¼            | ⅛            | ⅛-27     | Female NPT  | 6    | 53.3       | 2.10 | 77.0  | 3.03 | 14.2  | 0.56 |
| 5101-4B                  | Complete         | ¼            | ⅛            | ⅛-27     | Female NPT  | 7    | 81.3       | 3.20 | -     | -    | -   | -    |
| 5100-S5-6B               | Socket/Female    | ⅜            | ¼            | ¼-18     | Female NPT  | 6    | 61.0       | 2.40 | 87.4  | 3.44 | 19.3  | 0.76 |
| 5101-6B                  | Complete         | ⅜            | ¼            | ¼-18     | Female NPT  | 7    | 104.4      | 4.11 | -     | -    | -   | -    |
| 5100-S5-8B               | Socket/Female    | ½            | ⅜            | ⅜-18     | Female NPT  | 6    | 61.0       | 2.40 | 87.4  | 3.44 | 19.3  | 0.76 |
| 5101-8B                  | Complete         | ½            | ⅜            | ⅜-18     | Female NPT  | 7    | 104.4      | 4.11 | -     | -    | -   | -    |
| 5100-S5-10B              | Socket/Female    | ⅝            | ½            | ½-14     | Female NPT  | 6    | 78.0       | 3.07 | 104.9 | 4.13 | 29.5  | 1.16 |
| 5101-10B                 | Complete         | ⅝            | ½            | ½-14     | Female NPT  | 7    | 132.3      | 5.21 | -     | -    | -   | -    |
| 5100-S5-12B              | Socket/Female    | ¾            | ¾            | ¾-14     | Female NPT  | 6    | 78.0       | 3.07 | 104.9 | 4.13 | 29.5  | 1.16 |
| 5101-12B                 | Complete         | ¾            | ¾            | ¾-14     | Female NPT  | 7    | 132.3      | 5.21 | -     | -    | -   | -    |
| 5100-S5-16B              | Socket/Female    | 1            | 1            | 1-11½    | Female NPT  | 6    | 93.5       | 3.68 | 111.3 | 4.38 | 36.6  | 1.44 |
| 5101-16B                 | Complete         | 1            | 1            | 1-11½    | Female NPT  | 7    | 151.9      | 5.98 | -     | -    | -   | -    |
| 5100-S5-20B              | Socket/Female    | 1¼           | 1¼           | 1¼ - 11½ | Female Pipe | 6    | 101.6      | 4.00 | 133.9 | 5.27 | 45.2  | 1.78 |
| 5101-20B                 | Complete         | 1¼           | 1¼           | 1¼ - 11½ | Female NPT  | 7    | 160.3      | 6.31 | -     | -    | -   | -    |
| 5100-S5-24B              | Socket/Female    | 1½           | 1½           | 1½ - 11½ | Female NPT  | 6    | 104.1      | 4.10 | 136.7 | 5.38 | 50.8  | 2.00 |
| 5101-24B                 | Complete         | 1½           | 1½           | 1½ - 11½ | Female NPT  | 7    | 165.6      | 6.52 | -     | -    | -   | -    |

# 5100 Series Thread-to-Connect

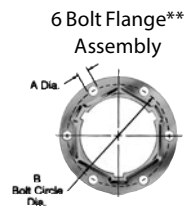
## Dust Caps and Dust Plugs

| Part/Order Number<br>Dust Cap with Chain | Dust Plug with Chain | Body Size |
|--|----------------------|-----------|
| WD3611700                                | WD3611700            | ¼         |
| WD3612700                                | WD3612700            | ¾ & ½     |
| WD3613700                                | WD3613700            | ¾ & ¾     |
| WD3614700                                | WD3614700            | 1         |
| WD3614700                                | WD3614700            | 1¼        |
| WD3615700                                | WD3615700            | 1½        |



## 6-Bolt Flange Assembly

| Part/Order Number<br>6-Bolt Flange Assembly | Body Size | Dimensions |       |      |      |
|---|-----------|------------|-------|------|------|
|   |           | A          |       | B    |      |
|   |           | (mm)       | (in)  | (mm) | (in) |
| 150-22-5                                    | ¼         | 5.11       | 0.201 | 33.6 | 1.44 |
| 150-22-8                                    | ¾ & ½     | 5.11       | 0.201 | 42.9 | 1.69 |
| 150-22-12                                   | ¾ & ¾     | 5.11       | 0.201 | 53.8 | 2.12 |
| 150-22-16                                   | 1         | 5.11       | 0.201 | 60.5 | 2.38 |
| 150-22-20                                   | 1¼        | 5.11       | 0.201 | 66.5 | 2.62 |
| 5100-22-245                                 | 1½        | 5.11       | 0.201 | 82.6 | 3.25 |



\*To order caps and plugs without chain, order cap by part number 5100-32-(size) and plug by part number 5100-41-(size).

\*\*6 Bolt Flange-holes equally spaced. (See "A" for bolt hole diameter, and "B" for bolt circle diameter).

# FD85 Series Thread-to-Connect

Fluid transfer & Hydraulic application



The Danfoss Hansen FD85 Series is a thread to connect coupling most commonly used in Oil and Gas applications, but can also be found on demanding applications on both mobile and stationary equipment where operating pressures of 5,000 psi are present.

## Product Features

- Thread to connect feature allows for use in high vibration and impulse applications
- Standard body material: Zinc trivalent plated carbon steel. Stainless steel construction available upon request
- Connect under pressure capability up to 5,000 psi (345 bar)
- Standard seal material: Nitrile (NBR), FKM seals are available upon request
- Wing nut and hex flat design allows for easy connection and disconnection
- 3/4" design is offered in a hex nut design
- Female NPTF and BSPP ends available

## Physical characteristics

| Body Size (in) | Maximum Operating Pressure |       |                  |       |                      |       | Minimum Burst Pressure |        |                  |        |                      |        | Rated Flow |      | Fluid Loss | Air Inclusion |
|----------------|----------------------------|-------|------------------|-------|----------------------|-------|------------------------|--------|------------------|--------|----------------------|--------|------------|------|------------|---------------|
|                | Connected                  |       | Plug / Male Half |       | Socket / Female Half |       | Connected              |        | Plug / Male Half |        | Socket / Female Half |        | L/min      | gpm  | ml-cc.     | ml-cc.        |
| 3/4            | 345                        | 5,000 | 345              | 5,000 | 345                  | 5,000 | 1,380                  | 20,000 | 1,380            | 20,000 | 1,380                | 20,000 | 100        | 26.4 | 10         | 10            |
| 1              | 345                        | 5,000 | 345              | 5,000 | 345                  | 5,000 | 1,380                  | 20,000 | 1,380            | 20,000 | 1,380                | 20,000 | 189        | 50   | 20         | 26            |
| 1 1/4          | 345                        | 5,000 | 345              | 5,000 | 345                  | 5,000 | 1,035                  | 15,000 | 1,035            | 15,000 | 1,035                | 15,000 | 288        | 76   | 20         | 40            |
| 1 1/2          | 345                        | 5,000 | 345              | 5,000 | 345                  | 5,000 | 1,035                  | 15,000 | 1,035            | 15,000 | 1,035                | 15,000 | 379        | 100  | 83         | 85            |
| 2              | 345                        | 5,000 | 345              | 5,000 | 345                  | 5,000 | 1,035                  | 15,000 | 1,035            | 15,000 | 1,035                | 15,000 | 757        | 200  | 181        | 240           |

## Applications & Markets

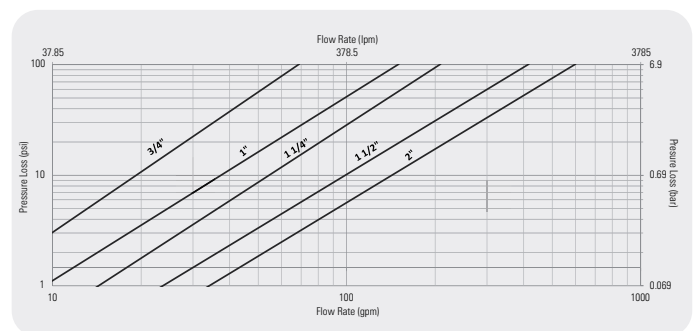
- Oilfields
- Offshore Drilling
- Construction
- Oil and Gas

## Lloyd's Register Certification

The FD85 Series carries a Lloyd's Registry Certificate for fire conditions outlined in API 16D and EUB Directive 36. These parts meet the requirements that couplings shall be capable of maintaining pressure when exposed to a 700°C (1,300°F) temperature for a five-minute period in connected state.

Certification only applies to those assemblies where both mating parts socket/female and plug/male are Danfoss FD85 Series thread to connect couplings.

## Flow Data



## FD85 Series Thread-to-Connect

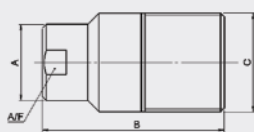


Figure 1

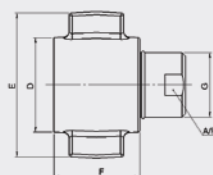


Figure 2

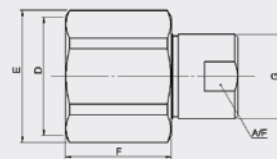


Figure 3

### Plugs (Male)

| Part/Order Number<br>NBR | Body Size<br>(in) | Thread Size (Female) |              | Fig. | Dimensions |           |           |             |       | Weight |       |       |        |       |
|--------------------------|-------------------|----------------------|--------------|------|------------|-----------|-----------|-------------|-------|--------|-------|-------|--------|-------|
|                          |                   | NPT                  | BSPP         |      | A<br>(mm)  | B<br>(mm) | C<br>(mm) | A/F<br>(mm) | (in)  | lbs    | grams |       |        |       |
| FD85-1001-12-12          | 3/4               | 3/4-14               | -            | 1    | 35.2       | 1.39      | 83.1      | 3.27        | 44.3  | 1.74   | 33    | 1 1/2 | 1.162  | 480   |
| FD85-1017-12-12          | 3/4               | -                    | G 3/4-14     | 1    | 35.2       | 1.39      | 83.1      | 3.27        | 44.3  | 1.74   | 33    | 1 1/2 | 1.162  | 480   |
| FD85-1001-16-16          | 1                 | 1-11 1/2             | -            | 1    | 45         | 1.77      | 106       | 4.17        | 57.1  | 2.25   | 41    | 1 5/8 | 2.921  | 1,120 |
| FD85-1017-16-16          | 1                 | -                    | G 1 - 11     | 1    | 45         | 1.77      | 106       | 4.17        | 57.1  | 2.25   | 41    | 1 5/8 | 2.974  | 1,120 |
| FD85-1001-20-20          | 1 1/4             | 1 1/4-11             | -            | 1    | 54.5       | 2.15      | 136.4     | 5.37        | 66.6  | 2.62   | 50    | 2     | 5.633  | 1,875 |
| FD85-1017-20-20          | 1 1/4             | -                    | G 1 1/4 - 11 | 1    | 54.5       | 2.15      | 136.4     | 5.37        | 66.6  | 2.62   | 50    | 2     | 5.633  | 1,875 |
| FD85-1001-24-24          | 1 1/2             | 1 1/2 - 11 1/2       | -            | 1    | 63.5       | 2.5       | 152.2     | 5.99        | 82.55 | 3.25   | 60    | 2 3/8 | 7.721  | 3,150 |
| FD85-1017-24-24          | 1 1/2             | -                    | G 1 1/2 - 11 | 1    | 63.5       | 2.5       | 152.2     | 5.99        | 82.55 | 3.25   | 60    | 2 3/8 | 7.721  | 3,150 |
| FD85-1001-32-32          | 2                 | 2 - 11 1/2           | -            | 1    | 82.5       | 3.25      | 179.2     | 7           | 101.6 | 4      | 76    | 3     | 15.046 | 5,635 |
| FD85-1017-32-32          | 2                 | -                    | G 2 - 11     | 1    | 82.5       | 3.25      | 179.2     | 7           | 101.6 | 4      | 76    | 3     | 15.046 | 5,635 |

### Sockets (Female)

| Part/Order Number<br>NBR | Body Size<br>(in) | Thread Size (Female) |              | Fig. | Dimensions |           |           |           |             | Weight |      |       |    |       |        |       |
|--------------------------|-------------------|----------------------|--------------|------|------------|-----------|-----------|-----------|-------------|--------|------|-------|----|-------|--------|-------|
|                          |                   | NPT                  | BSPP         |      | D<br>(mm)  | E<br>(mm) | F<br>(mm) | G<br>(mm) | A/F<br>(mm) | (in)   | lbs  | grams |    |       |        |       |
| FD85-1003-12-12          | 3/4               | 3/4-14               | -            | 3    | 49.2       | 1.94      | 55        | 2.17      | 44.3        | 1.74   | 35.2 | 1.39  | 33 | 1 1/2 | 1.162  | 527   |
| FD85-1019-12-12          | 3/4               | -                    | G 3/4-14     | 3    | 49.2       | 1.94      | 55        | 2.17      | 44.3        | 1.74   | 35.2 | 1.39  | 33 | 1 1/2 | 1.162  | 527   |
| FD85-1003-16-16          | 1                 | 1-11 1/2             | -            | 2    | 68         | 2.68      | 108       | 4.25      | 56          | 2.2    | 45   | 1.77  | 41 | 1 5/8 | 2.921  | 1,325 |
| FD85-1019-16-16          | 1                 | -                    | G 1 - 11     | 2    | 68         | 2.68      | 108       | 4.25      | 56          | 2.2    | 45   | 1.77  | 41 | 1 5/8 | 2.974  | 1,349 |
| FD85-1003-20-20          | 1 1/4             | 1 1/4-11             | -            | 2    | 80         | 3.15      | 120       | 4.72      | 71          | 2.8    | 54.5 | 2.15  | 50 | 2     | 5.633  | 2,555 |
| FD85-1019-20-20          | 1 1/4             | -                    | G 1 1/4 - 11 | 2    | 80         | 3.15      | 120       | 4.72      | 71          | 2.8    | 54.5 | 2.15  | 50 | 2     | 5.633  | 2,555 |
| FD85-1003-24-24          | 1 1/2             | 1 1/2 - 11 1/2       | -            | 2    | 93         | 3.66      | 144       | 5.67      | 84          | 3.31   | 63.5 | 2.5   | 60 | 2 3/8 | 7.721  | 3,502 |
| FD85-1019-24-24          | 1 1/2             | -                    | G 1 1/2 - 11 | 2    | 93         | 3.66      | 144       | 5.67      | 84          | 3.31   | 63.5 | 2.5   | 60 | 2 3/8 | 7.721  | 3,502 |
| FD85-1003-32-32          | 2                 | 2 - 11 1/2           | -            | 2    | 118.6      | 4.67      | 169.4     | 6.67      | 110.5       | 4.35   | 82.5 | 3.25  | 76 | 3     | 15.046 | 6,825 |
| FD85-1019-32-32          | 2                 | -                    | G 2 - 11     | 2    | 118.6      | 4.67      | 169.4     | 6.67      | 110.5       | 4.35   | 82.5 | 3.25  | 76 | 3     | 15.046 | 6,825 |

# FD86 Series Thread to Connect 5,000 psi Dry Break – High Impulse

Fluid transfer & Hydraulic application



Danfoss Hansen FD86 Series is a thread together steel quick coupling offering dry break and high impulse technology and capabilities. The maximum operating pressure is 5,000 psi. The FD86 Series is available in either wing nut or hex nut configurations for ease of assembly and disassembly. (For higher pressure applications and additional size requirements, refer to FD96 on page 76.)

## Product Features

- Tubular valve and sleeve construction for low fluid loss and air inclusion
- Thread together design using wing or hex nut allows connection and disconnection against pressures up to 750 psi
- Teflon back-up rings along with secondary metal-to-metal sealing contact provides high impulse capability up to 5,000 psi operating pressure
- Acme threads prevent galling and provide ease of connection
- Steel flange available for bulkhead mounting
- Standard seal material: Nitrile (NBR)
- Standard body material: High resistance carbon steel with zinc trivalent plating

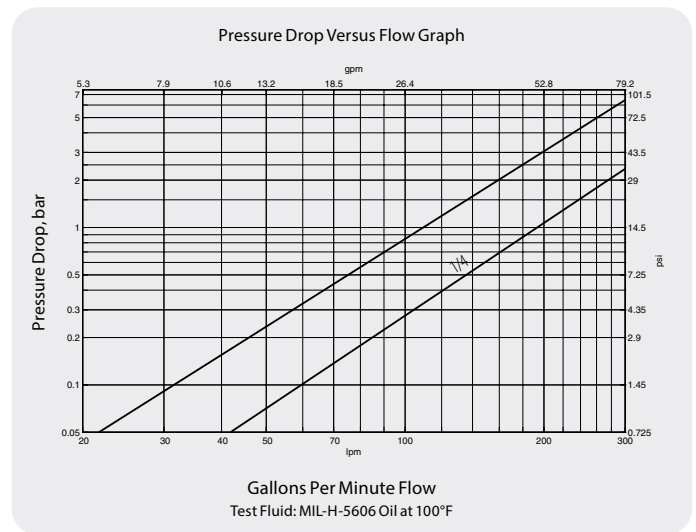
## Physical characteristics

| Body Size<br>(in) | Max. Operating Pressure |       | Min. Burst Pressure |        | Vacuum Connected Only | Rated Flow |       | Air Inclusion | Fluid Loss |
|-------------------|-------------------------|-------|---------------------|--------|-----------------------|------------|-------|---------------|------------|
|                   | (bar)                   | (psi) | (bar)               | (psi)  | (in./Hg)              | (lpm)      | (gpm) | cc.max.       | cc.max.    |
| 1                 | 345                     | 5,000 | 1,034               | 15,000 | 28                    | 189        | 50    | 2.90          | 0.72       |
| 1¼                | 345                     | 5,000 | 1,034               | 15,000 | 28                    | 284        | 75    | 4.61          | 1.00       |

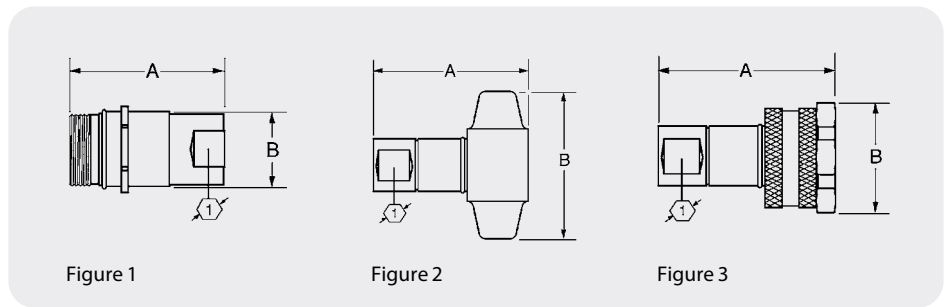
## Applications & Markets

- Hydraulic and Fluid Transfer
- Mining Equipment

## Flow Data



# FD86 Series Thread to Connect 5,000 psi Dry Break – High Impulse



### Dimensions (Female SAE O-Ring)

| Part/Order Number<br>NBR | FKM             | EPDM            | Type          | Size            | Body Size        | Port Thread         | Type              | Fig. | Dimensions |      |       |      |               |      |
|--------------------------|-----------------|-----------------|---------------|-----------------|------------------|---------------------|-------------------|------|------------|------|-------|------|---------------|------|
|                          |                 |                 |               |                 |                  |                     |                   |      | A          |      | B     |      | Hex $\square$ |      |
|                          |                 |                 |               |                 |                  |                     |                   |      | (mm)       | (in) | (mm)  | (in) | (mm)          | (in) |
| FD86-1008-16-16          | FD86-1043-16-16 | FD86-1053-16-16 | Plug/Male     | 1               | 1 $\frac{1}{16}$ | 1 $\frac{1}{8}$ -12 | Female SAE O-Ring | 1    | 102.4      | 4.03 | 53.6  | 2.11 | 44.5          | 1.75 |
| FD86-1010-16-16          | FD86-1044-16-16 | FD86-1054-16-16 | Socket/Female | 1               | 1 $\frac{1}{16}$ | 1 $\frac{1}{8}$ -12 | Female SAE O-Ring | 2    | 117.3      | 4.62 | 114.3 | 4.50 | -             | -    |
| FD86-1006-16-16          | FD86-1042-16-16 | FD86-1052-16-16 | Socket/Female | 1               | 1 $\frac{1}{16}$ | 1 $\frac{1}{8}$ -12 | Female SAE O-Ring | 3    | 117.3      | 4.62 | 71.4  | 2.81 | 15.8          | 1.62 |
| FD86-1008-20-20          | FD86-1043-20-20 | FD86-1053-20-20 | Plug/Male     | 1 $\frac{1}{4}$ | 1 $\frac{1}{8}$  | 1 $\frac{1}{8}$ -12 | Female SAE O-Ring | 1    | 105.7      | 4.16 | 63.0  | 2.48 | 57.2          | 2.25 |
| FD86-1010-20-20          | FD86-1044-20-20 | FD86-1054-20-20 | Socket/Female | 1 $\frac{1}{4}$ | 1 $\frac{1}{8}$  | 1 $\frac{1}{8}$ -12 | Female SAE O-Ring | 2    | 132.6      | 5.22 | 133.4 | 5.25 | -             | -    |
| FD86-1006-20-20          | FD86-1042-20-20 | FD86-1052-20-20 | Socket/Female | 1 $\frac{1}{4}$ | 1 $\frac{1}{8}$  | 1 $\frac{1}{8}$ -12 | Female SAE O-Ring | 3    | 132.6      | 5.22 | 86.4  | 3.40 | 50.8          | 2.00 |

### Dimensions (Female NPT)

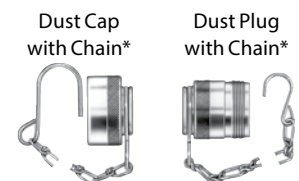
| Part/Order Number<br>NBR | FKM             | EPDM            | Type          | Size            | Body Size                | Port Thread              | Type       | Fig. | Dimensions |      |       |      |               |      |
|--------------------------|-----------------|-----------------|---------------|-----------------|--------------------------|--------------------------|------------|------|------------|------|-------|------|---------------|------|
|                          |                 |                 |               |                 |                          |                          |            |      | A          |      | B     |      | Hex $\square$ |      |
|                          |                 |                 |               |                 |                          |                          |            |      | (mm)       | (in) | (mm)  | (in) | (mm)          | (in) |
| FD86-1002-16-16          | FD86-1040-16-16 | FD86-1050-16-16 | Plug/Male     | 1               | 1 - 11 1/2               | 1 - 11 1/2               | Female NPT | 1    | 111.8      | 4.40 | 53.6  | 2.11 | 44.5          | 1.75 |
| FD86-1001-16-16          | FD86-1039-16-16 | FD86-1049-16-16 | Socket/Female | 1               | 1 - 11 1/2               | 1 - 11 1/2               | Female NPT | 2    | 126.5      | 4.98 | 114.3 | 4.50 | -             | -    |
| FD86-1004-16-16          | FD86-1041-16-16 | FD86-1051-16-16 | Socket/Female | 1               | 1 - 11 1/2               | 1 - 11 1/2               | Female NPT | 3    | 126.5      | 4.98 | 71.4  | 2.81 | 15.8          | 1.62 |
| FD86-1002-20-20          | FD86-1040-20-20 | FD86-1050-20-20 | Plug/Male     | 1 $\frac{1}{4}$ | 1 $\frac{1}{4}$ - 11 1/2 | 1 $\frac{1}{4}$ - 11 1/2 | Female NPT | 1    | 112.5      | 4.43 | 63.0  | 2.48 | 57.2          | 2.25 |
| FD86-1001-20-20          | FD86-1039-20-20 | FD86-1049-20-20 | Socket/Female | 1 $\frac{1}{4}$ | 1 $\frac{1}{4}$ - 11 1/2 | 1 $\frac{1}{4}$ - 11 1/2 | Female NPT | 2    | 142.8      | 5.62 | 133.4 | 5.25 | -             | -    |
| FD86-1004-20-20          | FD86-1041-20-20 | FD86-1051-20-20 | Socket/Female | 1 $\frac{1}{4}$ | 1 $\frac{1}{4}$ - 11 1/2 | 1 $\frac{1}{4}$ - 11     | Female NPT | 3    | 142.8      | 5.62 | 86.4  | 3.40 | 50.8          | 2.00 |

### Repair Kits

| Part/Order Number<br>NBR | FKM        | EPDM       | Body Size       | Coupling Type |
|--------------------------|------------|------------|-----------------|---------------|
| FF10596-16               | FF10597-16 | FF10598-16 | 1               | Male          |
| FF10593-16               | FF10594-16 | FF10595-16 | 1               | Female        |
| FF10596-20               | FF10597-20 | FF10598-20 | 1 $\frac{1}{4}$ | Male          |
| FF10593-20               | FF10594-20 | FF10595-20 | 1 $\frac{1}{4}$ | Female        |

### Dust Caps and Dust Plugs

| Part/Order Number<br>Dust Cap with Chain | Dust Plug with Chain | Body Size       |
|--|----------------------|-----------------|
| FD86-1018-16                             | FD86-1016-16         | 1               |
| FD86-1018-20                             | FD86-1016-20         | 1 $\frac{1}{4}$ |



# W46000 Series

Fluid transfer & Hydraulic application



Danfoss Hansen W46000 Series is a wing nut style screw to connect coupling used in hydraulic applications.

EMEA region

## Product Features

- Wing nut screw to connect
- Plug/Male half has bulkhead mount capability
- Metal dust caps and dust plugs
- Standard body material: Zinc trivalent plated steel
- Standard seal material: Nitrile

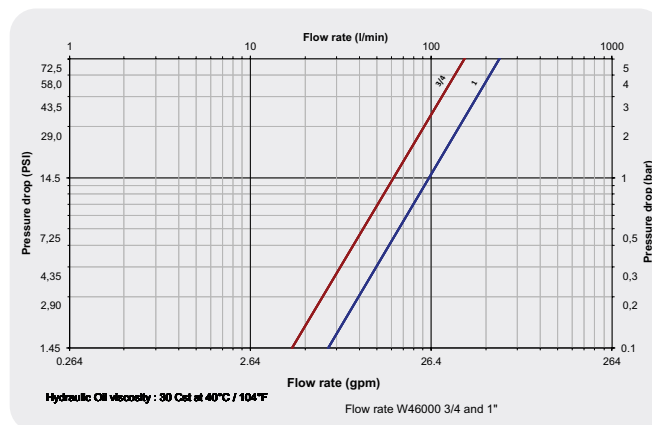
## Physical characteristics

| Coupling Size<br>(in) | DN/ND | Max. Operating Pressure |       | Min. Burst Pressure |        | Rated Flow |       | Air Inclusion |
|-----------------------|-------|-------------------------|-------|---------------------|--------|------------|-------|---------------|
|                       |       | (bar)                   | (psi) | (bar)               | (psi)  | (lpm)      | (gpm) | ml max.       |
| 3/4                   | 16    | 250                     | 3,625 | 1,200               | 17,404 | 63         | 16.7  | 10            |
| 1                     | 20    | 230                     | 3,335 | 800                 | 11,603 | 99         | 26.0  | 15            |

## Applications & Markets

- Hydraulic Circuits

## Flow Data



| Size<br>(in) | DN/ND | Socket/Female | Socket Dust Cap Only<br>(mm) | Coupling Type | Connection | Dimensions |           |               |
|--------------|-------|---------------|------------------------------|---------------|------------|------------|-----------|---------------|
|              |       |               |                              |               |            | L1<br>(mm) | 1<br>(mm) | Hex 1<br>(mm) |
| 3/4          | 16    | WA4604700     | WA4614700                    | Socket/Female | G 3/4      | 77         | M5        | 33            |
| 1            | 20    | WA4605700     | WA4615700                    | Socket/Female | G1         | 83         | M6        | 40            |

| Size<br>(in) | DN/ND | Plug/Male | Plug Dust Cap Only<br>(mm) | Coupling Type | Connection | Dimensions |           |               |               |
|--------------|-------|-----------|----------------------------|---------------|------------|------------|-----------|---------------|---------------|
|              |       |           |                            |               |            | L2<br>(mm) | 2<br>(mm) | Hex 2<br>(mm) | Hex 3<br>(mm) |
| 3/4          | 16    | WA4604400 | WA4614400                  | Plug/Male     | G 3/4      | 78         | G 1" 1/4  | 46            | 50            |
| 1            | 20    | WA4605400 | WA4615400                  | Plug/Male     | G 1        | 83         | G 1" 1/4  | 55            | 50            |

# Couplings for high-pressure applications



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# HP3 Series

High Pressure Application



Danfoss Hansen HP3 Series Hydraulic Jack/Enerpac Interchange is designed for high-pressure applications up to 700 bar (10,000 psi).

## Product Features

- Thread together design
- 700 bar (10,000 psi) operating pressure
- Ball valve
- Seal material: Nitrile (NBR)
- Body material: Highresistance carbon steel with zinc trivalent chromate plating

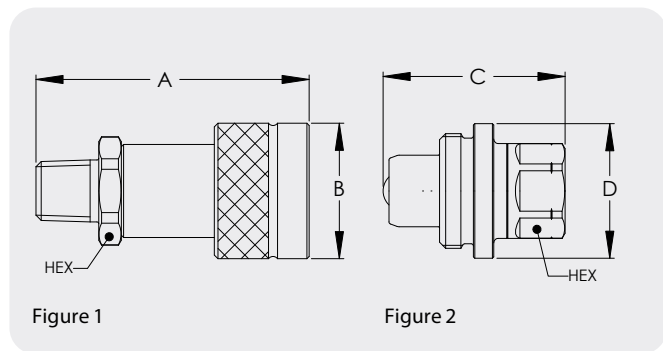
## Physical characteristics

| Body Size (in) | Max. Operating Pressure (Static) Connected |        | Min. Burst Pressure Connected |        | Rated Flow |       |
|----------------|--|--------|-------------------------------|--------|------------|-------|
|                | (bar)                                      | (psi)  | (bar)                         | (psi)  | (lpm)      | (gpm) |
| 3/8            | 700  | 10,000 | 2,200                         | 31,900 | 23         | 6     |

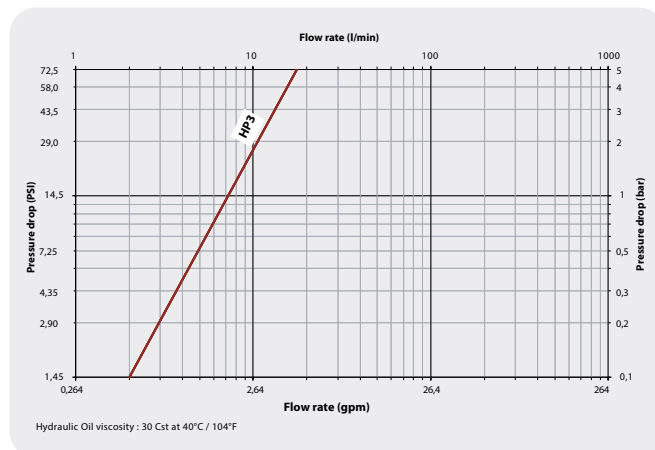
\* Connect and disconnect under pressure not allowed.

## Dimensions

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type       | Dimensions |        |      |        |      |          |      |
|-------------------|---------------|-----------|-----------|--------|------------|------------|--------|------|--------|------|----------|------|
|                   |               |           |           |        |            | Fig.       | A (mm) | (in) | B (mm) | (in) | Hex (mm) | (in) |
| HP3SB37M          | Socket/Female | 3/8       | 3/8       | 3/8-18 | Male NPT   | 1          | 72.2   | 2.84 | 35.0   | 1.38 | 24       | 0.94 |
| HP3PB37F          | Plug/Male     | 3/8       | 3/8       | 3/8-18 | Female NPT | 2          | 40.0   | 1.57 | 35.0   | 1.38 | 32       | 1.26 |



## Flow Data



## Applications & Markets

- Hydraulic jack
- Portable hydraulic rams

## Dust Caps and Dust Plugs

| Body Size | Dust Cap  | Dust Plug |
|-----------|-----------|-----------|
| 3/8       | WA5612400 | WA5612700 |



# W56000 Series

High Pressure Application



Danfoss Hansen W56000 Series is a screw to connect coupling designed to operate at pressures exceeding 10,000 psi or 700 bar. Rugged design makes these couplings suitable for hydraulic jacks and lift loading.

## Product Features

- Screw to connect double shut off with poppet valve
- Designed and manufactured under Article 4.3 of the European Pressure Equipment Directive PED 2014/68/EU.
- Interchanges with other couplings with the same profile
- Standard body material: Zinc trivalent plated steel
- Standard seal material: Nitrile (NBR)

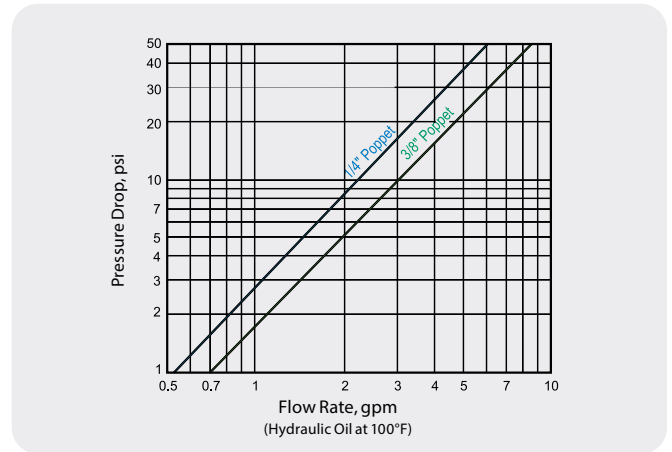
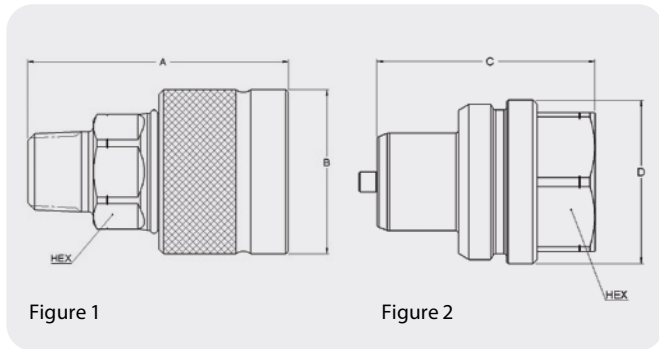
## Physical characteristics

| Coupling Size (in) | DN/ND | Max. Operating Pressure |        | Min. Burst Pressure |        | Rated Flow |       | Air Inclusion |
|--------------------|-------|-------------------------|--------|---------------------|--------|------------|-------|---------------|
|                    |       | (bar)                   | (psi)  | (bar)               | (psi)  | (lpm)      | (gpm) | ml max        |
| ¼                  | 5.7   | 700                     | 10,000 | 2,800               | 40,000 | 11         | 2.9   | 1.1           |
| ⅜                  | 7.6   | 700                     | 10,000 | 2,800               | 40,000 | 16         | 4.2   | 1.7           |

## Applications & Markets

- Hydraulic Jacks, Lifts
- Emergency Rescue Equipment

## Flow Data



| Part/Order Number | DN/ND | Body Size | Coupling Type | Connection   | Fig. | Dimensions |      |      |      |      |      |
|-------------------|-------|-----------|---------------|--------------|------|------------|------|------|------|------|------|
|                   |       |           |               |              |      | A          |      | B    |      | Hex  |      |
| WA5651700         | 5.7   | ¼         | Socket/Female | ¼ NPT Male   | 1    | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| WA5652700         | 7.6   | ⅜         | Socket/Female | ⅜ NPT Male   | 1    | 62         | 2.44 | 28.5 | 1.12 | 22   | 0.87 |
| WA5651400         | 5.7   | ¼         | Plug/Male     | ¼ NPT Female | 2    | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| WA5652400         | 7.6   | ⅜         | Plug/Male     | ⅜ NPT Female | 2    | 42         | 1.65 | 32   | 1.26 | 27   | 1.06 |

## Dust Caps and Dust Plugs

| Body Size | Dust Cap  | Dust Plug |
|-----------|-----------|-----------|
| ¼         | WA5611400 | WA5611700 |
| ⅜         | WA5612400 | WA5612700 |



# FD35 Series 10,000 psi Ball Latch

High Pressure Application



Danfoss Hansen FD35 Series ball latch has a greater surface contact area for long surface life in rugged high pressure applications. The maximum operating pressure is 10,000 psi.

Global region

## Product Features

- Safety sleeve lock prevents accidental disconnection
- Heavy duty back-up ring prevents O-Ring extrusion
- Heat-treated and plated steel for greater wear and corrosion resistance
- Self-sealing poppet valves provide excellent high-and low-pressure sealing
- Standard seal material: FKM
- Standard body material: High-resistance carbon steel with Zinc trivalent plating

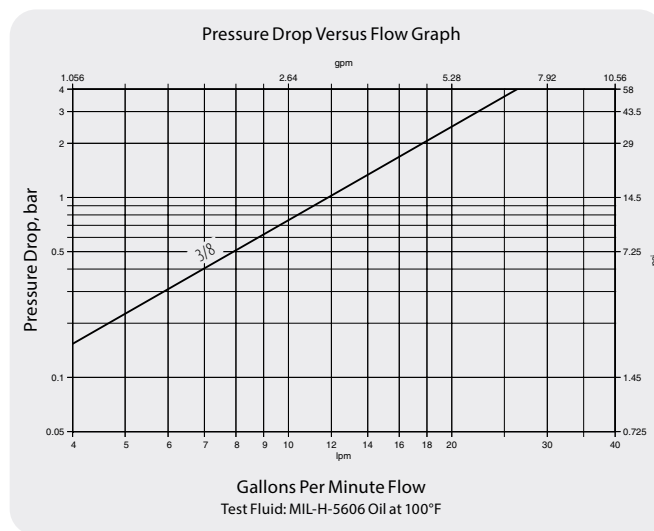
## Physical characteristics

| Body Size<br>(in) | Max. Operating Pressure |        | Min. Burst Pressure |        | Vacuum Connected Only | Rated Flow |       | Air Inclusion | Fluid Loss |
|-------------------|-------------------------|--------|---------------------|--------|-----------------------|------------|-------|---------------|------------|
|                   | (bar)                   | (psi)  | (bar)               | (psi)  | (in./Hg)              | (lpm)      | (gpm) | cc.max.       | cc.max.    |
| 3/8               | 700                     | 10,000 | 2,800               | 40,000 | 28                    | 8          | 2     | 0.50          | 0.50       |

## Applications & Markets

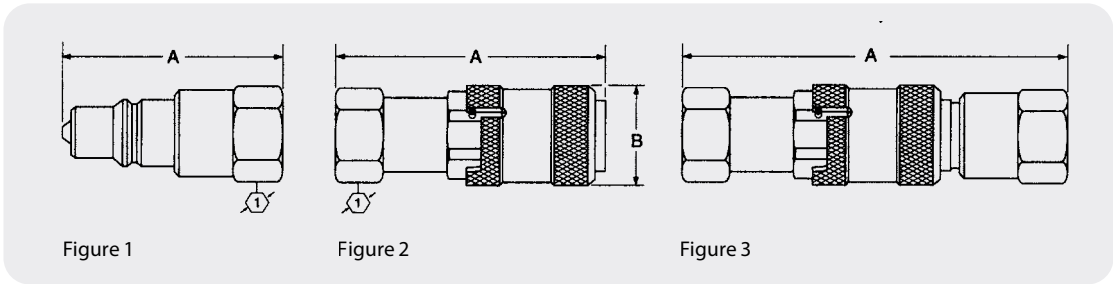
- 10,000 psi Hydraulic Applications
- Hydraulic Tool
- Hydraulic Ram and Work Loading

## Flow Data



# FD35 Series 10,000 psi Ball Latch

Global region



### Dimensions (Female NPT, Valved)

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type       | Fig. | Dimensions |      |      |      | Hex <sup>①</sup> |      |      |      |
|-------------------|---------------|-----------|-----------|--------|------------|------|------------|------|------|------|------------------|------|------|------|
|                   |               |           |           |        |            |      | A          |      | B    |      | (mm)             | (in) | (mm) | (in) |
|                   |               |           |           |        |            |      | (mm)       | (in) | (mm) | (in) | (mm)             | (in) |      |      |
| FD35-1002-06-06   | Plug/Male     | 3/8       | 3/8       | 3/8-18 | Female NPT | 1    | 53.8       | 2.12 | -    | -    | 23.9             | 0.94 |      |      |
| FD35-1001-06-06   | Socket/Female | 3/8       | 3/8       | 3/8-18 | Female NPT | 2    | 65.0       | 2.56 | 32.3 | 1.27 | 23.9             | 0.94 |      |      |
| FD35-1000-06-06   | Complete      | 3/8       | 3/8       | 3/8-18 | Female NPT | 3    | 89.9       | 3.54 | -    | -    | -                | -    |      |      |

### Dimensions (Female SAE O-Ring, Valved)

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type              | Fig. | Dimensions |      |      |      | Hex <sup>①</sup> |      |      |      |
|-------------------|---------------|-----------|-----------|--------|-------------------|------|------------|------|------|------|------------------|------|------|------|
|                   |               |           |           |        |                   |      | A          |      | B    |      | (mm)             | (in) | (mm) | (in) |
|                   |               |           |           |        |                   |      | (mm)       | (in) | (mm) | (in) | (mm)             | (in) |      |      |
| FD35-1008-06-06   | Plug/Male     | 3/8       | 3/8       | 3/8-18 | Female SAE O-Ring | 1    | 53.8       | 2.12 | -    | -    | 23.9             | 0.94 |      |      |
| FD35-1007-06-06   | Socket/Female | 3/8       | 3/8       | 3/8-18 | Female SAE O-Ring | 2    | 65.0       | 2.56 | 32.3 | 1.27 | 23.9             | 0.94 |      |      |
| FD35-1006-06-06   | Complete      | 3/8       | 3/8       | 3/8-18 | Female SAE O-Ring | 3    | 89.9       | 3.54 | -    | -    | -                | -    |      |      |

### Dimensions (Female SAE O-Ring, 125 PSI Bleed Valve)

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type              | Fig. | Dimensions |      |                  |      |
|-------------------|---------------|-----------|-----------|--------|-------------------|------|------------|------|------------------|------|
|                   |               |           |           |        |                   |      | A          |      | Hex <sup>①</sup> |      |
|                   |               |           |           |        |                   |      | (mm)       | (in) | (mm)             | (in) |
| FD35-1052-06-06   | Plug/Male     | 3/8       | 3/8       | 3/8-18 | Female SAE O-Ring | 1    | 53.8       | 2.12 | 23.9             | 0.94 |

Note: Incorporates a special relief valve set at 125 psi, preventing disconnected pressure build-up.

### Dust Cap/Plug

| Part/Order Number | Body Size |
|-------------------|-----------|
| FD35-1042-06      | 3/8       |



Dust Cap/Plug

Note: Fits male and female halves.

# UH Series

High Pressure Application



Danfoss Hansen 2UH series is a ball latch coupling used in ultra high pressure application up to 14,500 psi or 1,000 bar. The connection can be made with a push-to connect system. The standard body material is high tensile steel with anticorrosion finish to offer extended lifetime in the application.

Global region

## Product Features

- Ultra high pressure resistance
- Standard body material: high tensile steel with anticorrosion finish, hardened steel sleeve
- PVC dust caps and plugs

## Applications & Markets

- Windmill turbine
- Ultra high pressure equipment

## Physical characteristics

| Body Size<br>(in) | Working Pressure |        | Nominal Flow Diameter<br>(mm) | Socket Part/Order Number | Thread Size (Female) | Fig. | Socket Dimensions |           |                  |      |    |      |
|-------------------|------------------|--------|-------------------------------|--------------------------|----------------------|------|-------------------|-----------|------------------|------|----|------|
|                   | (bar)            | (psi)  |                               |                          |                      |      | A<br>(mm)         | B<br>(mm) | Hex<br>(mm) (in) |      |    |      |
| ¼                 | 1,000            | 14,503 | 2.5                           | 2UHS25BSS12              | ¼ BSPP               | 1    | 59                | 2.32      | 27               | 1.06 | 24 | 0.94 |

## Flow Data

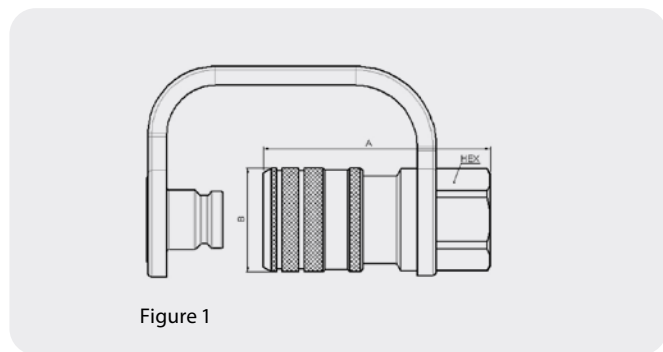
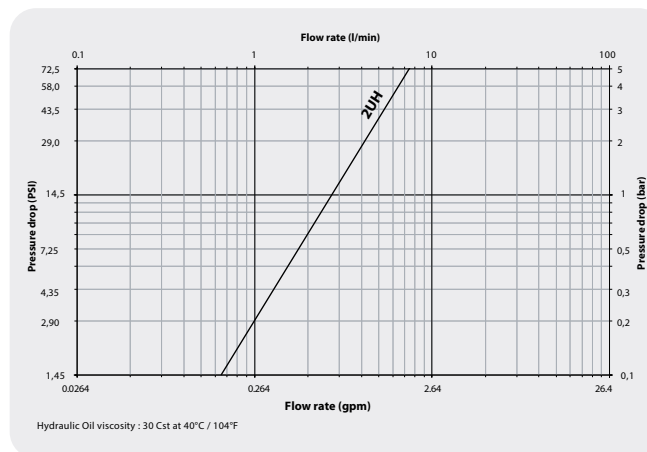


Figure 1



# Couplings for water blast applications



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FD69 Series

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# FD69 Series 10,000 psi Water Blast

Water blast application



Danfoss Hansen FD69 Series design has a greater surface contact area for long service life in rugged high pressure and water blast applications. The maximum operating pressure is 10,000 psi with 40,000 psi minimum burst pressure.

## Product Features

- Safety sleeve lock guards against accidental disconnection
- Smooth bore "straight through" design for high flow fluid requirements
- Heavy duty back-up ring to prevent O-Ring extrusion
- Available in plated steel and stainless steel for added corrosion resistance
- Standard seal material: Nitrile (NBR)
- Standard body material: High resistance carbon steel with Zinc trivalent plating or stainless steel

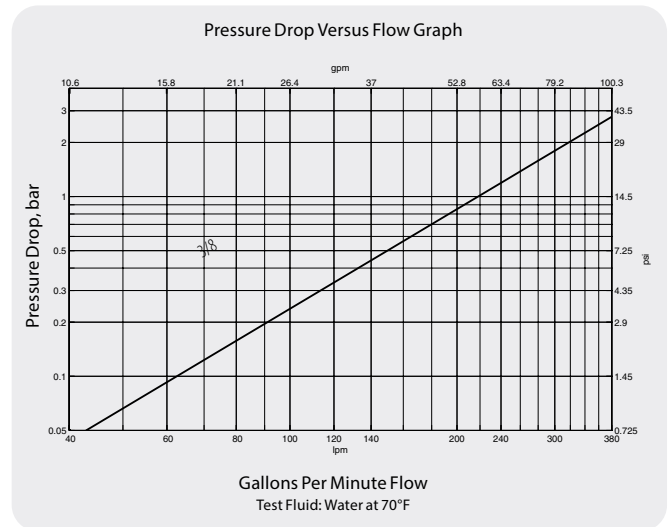
## Physical characteristics

| Coupling Size<br>(in) | Max. Operating Pressure |        | Min. Burst Pressure Connected |        | Vacuum Connected Only | Rated Flow |       | Air Inclusion | Fluid Loss |
|-----------------------|-------------------------|--------|-------------------------------|--------|-----------------------|------------|-------|---------------|------------|
|                       | (bar)                   | (psi)  | (bar)                         | (psi)  | (in./Hg)              | (lpm)      | (gpm) | cc.max.       | cc.max.    |
| ½                     | 689                     | 10,000 | 2,758                         | 40,000 | 28                    | 170        | 45    | -             | -          |

## Applications & Markets

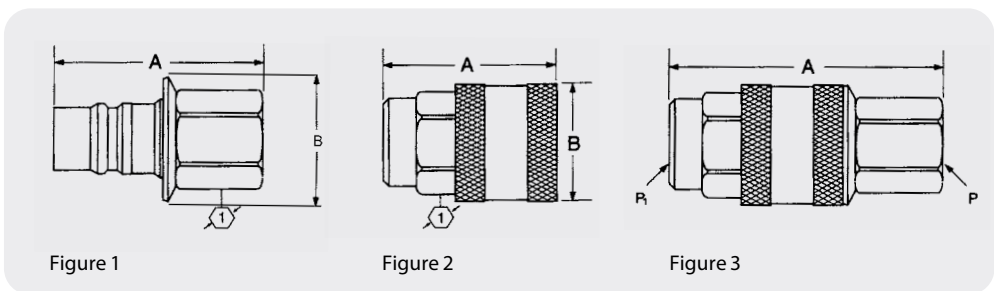
- High pressure Water Blast
- Bridge/Concrete Repair
- Paint Stripping
- Shipyards

## Flow Data



# FD69 Series 10,000 psi Water Blast

Global region



## Dimensions (Female NPT)

| Part/Order Number<br>NBR | FKM             | EPDM            | Coupling Type | Body Size | Port Size | Thread | Type       | Fig. | Dimensions |      |               |      |      |      |  |
|--------------------------|-----------------|-----------------|---------------|-----------|-----------|--------|------------|------|------------|------|---------------|------|------|------|--|
|                          |                 |                 |               |           |           |        |            |      | A          | B    | Hex $\square$ |      |      |      |  |
|                          |                 |                 |               |           |           |        |            |      | (mm)       | (in) | (mm)          | (in) | (mm) | (in) |  |
| <b>Steel</b>             |                 |                 |               |           |           |        |            |      |            |      |               |      |      |      |  |
| FD69-1002-06-08          | FD69-1002-06-08 | FD69-1002-06-08 | Plug/Male*    | 1/2       | 3/8       | 3/8-18 | Female NPT | 1    | 47.0       | 1.85 | 41.7          | 1.64 | 25.4 | 1.00 |  |
| FD69-1001-06-08          | FD69-1026-06-08 | FD69-1028-06-08 | Socket/Female | 1/2       | 3/8       | 3/8-18 | Female NPT | 2    | 54.1       | 2.13 | 41.1          | 1.62 | 31.8 | 1.25 |  |
| FD69-1002-08-08          | FD69-1002-08-08 | FD69-1002-08-08 | Plug/Male*    | 1/2       | 1/2       | 1/2-14 | Female NPT | 1    | 59.4       | 2.34 | 41.7          | 1.64 | 28.4 | 1.12 |  |
| FD69-1001-08-08          | FD69-1026-08-08 | FD69-1028-08-08 | Socket/Female | 1/2       | 1/2       | 1/2-14 | Female NPT | 2    | 54.1       | 2.13 | 41.1          | 1.62 | 31.8 | 1.25 |  |
| <b>Stainless Steel</b>   |                 |                 |               |           |           |        |            |      |            |      |               |      |      |      |  |
| FD69-1012-08-08          | FD69-1012-08-08 | FD69-1012-08-08 | Plug/Male*    | 1/2       | 1/2       | 1/2-14 | Female NPT | 1    | 59.4       | 2.34 | 41.7          | 1.64 | 28.4 | 1.12 |  |
| FD69-1011-08-08          | -               | -               | Socket/Female | 1/2       | 1/2       | 1/2-14 | Female NPT | 2    | 54.1       | 2.13 | 41.1          | 1.62 | 33.3 | 1.31 |  |

\*Male halves contain no seals.

| Part/Order Number<br>NBR | FKM              | EPDM             | Coupling Type | Body Size | Port Size | Thread |        | Type       | Fig. | Dimensions |      |
|--------------------------|------------------|------------------|---------------|-----------|-----------|--------|--------|------------|------|------------|------|
|                          |                  |                  |               |           |           | (P)    | (P1)   |            |      | A          |      |
|                          |                  |                  |               |           |           |        |        |            |      | (mm)       | (in) |
| <b>Steel</b>             |                  |                  |               |           |           |        |        |            |      |            |      |
| FD69-1000-080808         | FD69-1027-080808 | FD69-1029-080808 | Complete      | 1/2       | 1/2       | 1/2-14 | 1/2-14 | Female NPT | 3    | 87.1       | 3.43 |
| FD69-1000-080806         | FD69-1027-080806 | FD69-1029-080806 | Complete      | 1/2       | 1/2 & 3/8 | 1/2-14 | 3/8-18 | Female NPT | 3    | 87.1       | 3.43 |
| FD69-1000-060808         | FD69-1027-060808 | FD69-1029-060808 | Complete      | 1/2       | 3/8 & 1/2 | 3/8-18 | 1/2-14 | Female NPT | 3    | 74.7       | 2.94 |
| FD69-1000-060806         | FD69-1027-060806 | FD69-1029-060806 | Complete      | 1/2       | 3/8       | 3/8-18 | 3/8-18 | Female NPT | 3    | 74.7       | 2.94 |
| <b>Stainless Steel</b>   |                  |                  |               |           |           |        |        |            |      |            |      |
| FD69-1010-080808         | -                | -                | Complete      | 1/2       | 1/2       | 1/2-14 | 1/2-14 | Female NPT | 3    | 87.1       | 3.43 |

## Repair Kit, Female Interface Seal

| Part/Order Number<br>NBR | Coupling Size |
|--------------------------|---------------|
| FF10166                  | 1/2           |

# Check valves



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R4000 Series

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# R4000 Series (Steel)

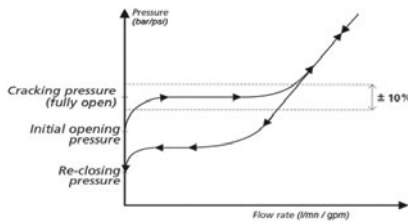
Check valves



The Danfoss Gromelle R4000 Series steel check valves are designed for multipurpose hydraulic applications to either allow flow of fluid in one direction only or limit the line's internal pressure to the cracking pressure. Standard cracking pressures are 0.5 and 1 bar (7.25 and 14.5 psi). Alternatives can be offered upon request.

## Product Features

- Standard body material: Zinc-plated steel
- Standard seal material: NBR, FKM, EPDM



## Operating Guidelines

The Danfoss R4000 series is designed to handle liquids. Should applications involving gases (but not unstable gases) be considered, the user should certify that sonic frequencies will not exceed 1 Hz (one cycle per second). For further information, please contact Danfoss technical support.

## Physical characteristics

| Body Size (in) | Nominal Flow Diameter (mm) | Max. Operating Pressure**             |        |                                   |        | Rated Flow* |        |
|----------------|----------------------------|---------------------------------------|--------|-----------------------------------|--------|-------------|--------|
|                |                            | Non hazardous liquids & gases Group 2 |        | Hazardous liquids & gases Group 1 |        | L/min       | (gpm)  |
| 1/2            | 3.8                        | 700                                   | 10,150 | 700                               | 10,150 | 4.5         | 1.19   |
| 3/4            | 5.7                        | 700                                   | 10,150 | 700                               | 10,150 | 14.2        | 3.75   |
| 1              | 7.6                        | 700                                   | 10,150 | 700                               | 10,150 | 22          | 5.81   |
| 1 1/2          | 10.3                       | 500                                   | 7,250  | 500                               | 7,250  | 32          | 8.45   |
| 2              | 14.2                       | 500                                   | 7,250  | 500                               | 7,250  | 72          | 19     |
| 2 1/2          | 16.5                       | 500                                   | 7,250  | 500                               | 7,250  | 117         | 30.9   |
| 3              | 20.5                       | 300                                   | 4,350  | 300                               | 4,350  | 188         | 49.66  |
| 3 1/2          | 25.8                       | 300                                   | 4,350  | 38                                | 550    | 232         | 61.29  |
| 4              | 34.7                       | 300                                   | 4,350  | 28                                | 405    | 393         | 103.81 |

\*Indicated values refer to a 1 bar/14.5 psi pressure drop.  
 \*\*Group 1 = Hazardous media / Group 2 = Other media.

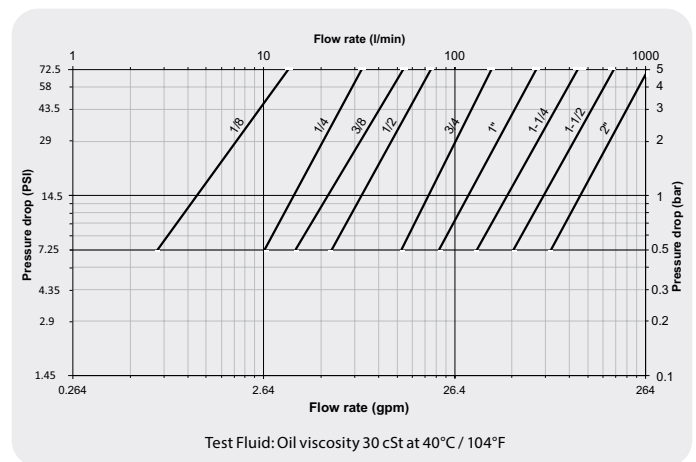
## European Pressure Equipment Directive

Check valves with nominal diameters up to and including 25 mm are designed and manufactured under Article 4.3 of the European Pressure Equipment Directive PED 2014/68/EU. Check valves with nominal diameters greater than 25 mm are designed and manufactured with the stipulations of Module A of the European Pressure Equipment Directive PED 2014/68/EU. They should not be used to convey unstable gases. Our series R4000 check valves must not be used as safety devices (as per PED 2014/68/EU).

## Applications & Markets

- All Industries
- Agriculture
- Construction
- Fluid Transfer Lines

## Flow Data

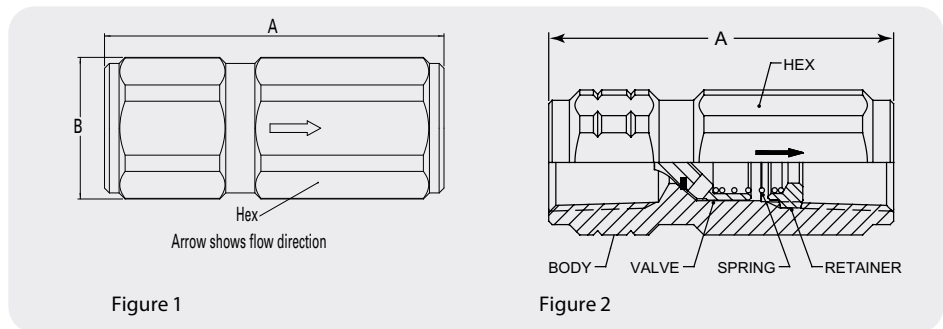


| Seal Elastomer Data*      |                                  |
|---------------------------|----------------------------------|
| Seal Elastomer            | Max. Operation Temperature Range |
| NBR (Nitrile)             | -20°C +100°C/- 4°F +212°F        |
| FKM                       | -20°C +200°C/- 4°F +392°F        |
| EPDM (Ethylene-Propylene) | -40°C +150°C/- 40°F +302°F       |

\* For reference only, based on Danfoss recommended temperatures. Contact Danfoss technical support for further information on fluid compatibility.

# R4000 Series (Steel)

Global region



Cracking Pressure 0.5 bar (7.25 psi)

| Part/Order Number |           |           | Body Size | Nominal Flow Diameter | Thread Size** (Female) BSPP | Dimensions Fig. | Dimensions |      |      |      |       | Weight  |       |       |
|-------------------|-----------|-----------|-----------|-----------------------|-----------------------------|-----------------|------------|------|------|------|-------|---------|-------|-------|
| NBR*              | FKM       | EPDM      |           |                       |                             |                 | A          | B    | Hex  |      | (in)  | lbs     | grams |       |
|                   |           |           | (in)      | (mm)                  |                             | (mm)            | (in)       | (mm) | (in) | (mm) | (in)  |         |       |       |
| RA0400000         | RA04000V0 | RA04000E0 | 3/8       | 3.8                   | 3/8                         | 1               | 37         | 1.46 | 17.5 | 0.69 | 16    | 0.63    | 0.10  | 45    |
| RA0401000         | RA04010V0 | RA04010E0 | 1/4       | 5.7                   | 1/4                         | 1               | 50         | 1.97 | 21   | 0.83 | 19    | 0.75    | 0.18  | 80    |
| RA0402000         | RA04020V0 | RA04020E0 | 3/8       | 7.6                   | 3/8                         | 1               | 60         | 2.36 | 25   | 0.98 | 23    | 0.90    | 0.29  | 130   |
| RA0403000         | RA04030V0 | RA04030E0 | 1/2       | 10.3                  | 1/2                         | 1               | 70         | 2.75 | 29.2 | 1.15 | 27    | 1.06    | 0.44  | 200   |
| RA0404000         | RA04040V0 | RA04040E0 | 3/4       | 14.2                  | 3/4                         | 1               | 86         | 3.38 | 38   | 1.50 | 35    | 1.38    | 0.93  | 420   |
| RA0405000         | RA04050V0 | RA04050E0 | 1         | 16.5                  | 1                           | 1               | 100        | 3.94 | 45   | 1.77 | 41    | 1.61    | 1.41  | 640   |
| --                | RA04060V0 | RA04060E0 | 1 1/4     | 20.5                  | 1 1/4                       | 1               | 130        | 5.12 | 61   | 2.40 | 55    | 2.16    | 3.46  | 1,570 |
| --                | RA04070V0 | RA04070E0 | 1 1/2     | 25.8                  | 1 1/2                       | 1               | 135        | 5.31 | 72   | 2.83 | 65    | 2.56    | 5.16  | 2,340 |
| --                | RA04090V0 | RA04090E0 | 2         | 34.7                  | 2                           | 1               | 150        | 5.90 | 84   | 3.30 | 75*** | 2.95*** | 6.57  | 2,980 |

\*Body size 1 1/4, 1 1/2 and 2 are supplied with FKM seals as a standard.

\*\*Alternative end connections available upon request. depending on size (please contact Danfoss technical support).

\*\*\*Across flat dimension.

Cracking Pressure 0.5 bar (7.25 psi)

| Part/Order Number | Dimensions |             |      | Rated Pressure |      |        |     |
|-------------------|------------|-------------|------|----------------|------|--------|-----|
| NBR*              | Size       | Thread NPTF | Fig. | A              | Hex  | psi    | bar |
|                   | (in)       |             |      | (in)           | (in) |        |     |
| RA0421000         | 1/4        | 1/4-18      | 2    | 1.97           | 0.75 | 10,150 | 700 |
| RA0422000         | 3/8        | 3/8-18      | 2    | 2.36           | 0.91 | 10,150 | 700 |
| RA0423000         | 1/2        | 1/2-14      | 2    | 2.76           | 1.06 | 7,250  | 500 |
| RA0424000         | 3/4        | 3/4-14      | 2    | 3.39           | 1.38 | 7,250  | 500 |
| RA0425000         | 1          | 1-11 1/2    | 2    | 3.94           | 1.62 | 7,250  | 500 |
| RA0429V0*         | 2          | 2-11 1/2    | 2    | 5.91           | 2.95 | 4,350  | 300 |

\*Supplied with FKM seal.

Cracking Pressure 1 bar (14.5 psi)

| Part/Order Number |           |           | Body Size | Nominal Flow Diameter | Thread Size** (Female) BSPP | Dimensions Fig. | Dimensions |      |      |      |       | Weight  |       |       |
|-------------------|-----------|-----------|-----------|-----------------------|-----------------------------|-----------------|------------|------|------|------|-------|---------|-------|-------|
| NBR*              | FKM       | EPDM      |           |                       |                             |                 | A          | B    | Hex  |      | (in)  | lbs     | grams |       |
|                   |           |           | (in)      | (mm)                  |                             | (mm)            | (in)       | (mm) | (in) | (mm) | (in)  |         |       |       |
| RA040000B         | RA04000VB | RA04000EB | 3/8       | 3.8                   | 3/8                         | 1               | 37         | 1.46 | 17.5 | 0.69 | 16    | 0.63    | 0.10  | 45    |
| RA040100B         | RA04010VB | RA04010EB | 1/4       | 5.7                   | 1/4                         | 1               | 50         | 1.97 | 21   | 0.83 | 19    | 0.75    | 0.18  | 80    |
| RA040200B         | RA04020VB | RA04020EB | 3/8       | 7.6                   | 3/8                         | 1               | 60         | 2.36 | 25   | 0.98 | 23    | 0.90    | 0.29  | 130   |
| RA040300B         | RA04030VB | RA04030EB | 1/2       | 10.3                  | 1/2                         | 1               | 70         | 2.75 | 29.2 | 1.15 | 27    | 1.06    | 0.44  | 200   |
| RA040400B         | RA04040VB | RA04040EB | 3/4       | 14.2                  | 3/4                         | 1               | 86         | 3.38 | 38   | 1.50 | 35    | 1.38    | 0.93  | 420   |
| RA040500B         | RA04050VB | RA04050EB | 1         | 16.5                  | 1                           | 1               | 100        | 3.94 | 45   | 1.77 | 41    | 1.61    | 1.41  | 640   |
| --                | RA04060VB | RA04060EB | 1 1/4     | 20.5                  | 1 1/4                       | 1               | 130        | 5.12 | 61   | 2.40 | 55    | 2.16    | 3.46  | 1,570 |
| --                | RA04070VB | RA04070EB | 1 1/2     | 25.8                  | 1 1/2                       | 1               | 135        | 5.31 | 72   | 2.83 | 65    | 2.56    | 5.16  | 2,340 |
| --                | RA04090VB | RA04090EB | 2         | 34.7                  | 2                           | 1               | 150        | 5.90 | 84   | 3.30 | 75*** | 2.95*** | 6.57  | 2,980 |

\*Body size 1 1/4, 1 1/2 and 2 are supplied with FKM seals as a standard.

\*\*Alternative end connections available upon request. depending on size (please contact Danfoss technical support).

\*\*\*Across flat dimension.

# R4000 Series (Brass)

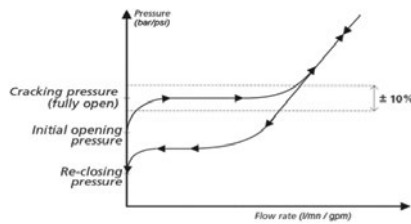
Check valves



The Danfoss Gromelle R4000 Series brass check-valves are designed to either allow flow of fluid in one direction only or limit the line's internal pressure to the cracking pressure. Standard cracking pressures are 0.5 and 1 bar (7.25 and 14.5 psi). Alternatives can be offered upon request. It is designed to handle liquids in all industries and for fluid transfer lines.

## Product Features

- Standard body material: Nickelplated brass
- Standard seal material: NBR, FKM, EPDM



## Operating Guidelines

The Danfoss R4000 series is designed to handle liquids. Should applications involving gases (but not unstable gases) be considered, the user should certify that sonic frequencies will not exceed 1 Hz (one cycle per second). For further information, please contact Danfoss technical support.

## Physical characteristics

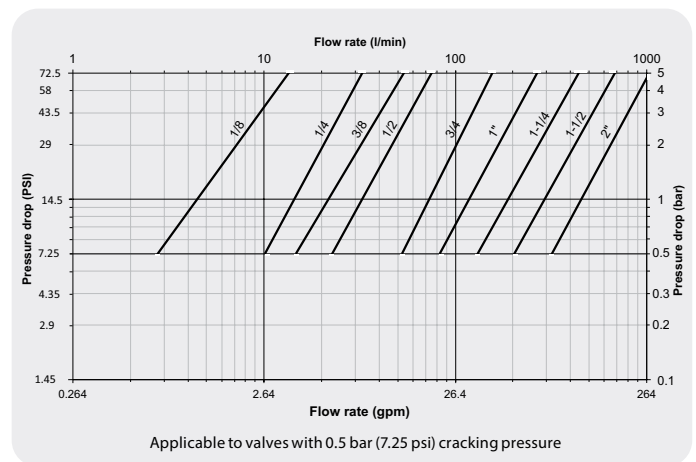
| Body Size (in) | Nominal Flow Diameter (mm) | Max. Operating Pressure** |       |   |       | Rated Flow* |        |
|----------------|----------------------------|---------------------------|-------|---|-------|-------------|--------|
|                |                            | Non hazardous liquids     |       | Hazardous liquids & Non-Hazardous Gases |       | L/min       | (gpm)  |
| 1/8            | 3.8                        | 400                       | 5,800 | 400                                     | 5,800 | 4.5         | 1.19   |
| 1/4            | 5.7                        | 400                       | 5,800 | 400                                     | 5,800 | 14.2        | 3.75   |
| 3/8            | 7.6                        | 400                       | 5,800 | 400                                     | 5,800 | 22          | 5.81   |
| 1/2            | 10.3                       | 250                       | 3,625 | 250                                     | 3,625 | 32          | 8.45   |
| 3/4            | 14.2                       | 250                       | 3,625 | 250                                     | 3,625 | 72          | 19     |
| 1              | 16.5                       | 250                       | 3,625 | 250                                     | 3,625 | 117         | 30.9   |
| 1 1/4          | 20.5                       | 150                       | 2,175 | 150                                     | 2,175 | 188         | 49.66  |
| 1 1/2          | 25.8                       | 150                       | 2,175 | 75                                      | 1,085 | 232         | 61.29  |
| 2              | 34.7                       | 100                       | 1,450 | 25                                      | 360   | 393         | 103.81 |

\*Indicated values refer to a 1 bar/14.5 psi pressure drop.  
 \*\*Group 1 = Hazardous media / Group 2 = Other media.

## European Pressure Equipment Directive

All check valves are designed and manufactured under Article 4.3 of the European Pressure Equipment Directive PED 2014/68/EU. Check valves with nominal diameters greater than 25 mm should not be used to convey gases in Group 1 (hazardous). Working pressures for liquids of Group 1 (hazardous) and gases of Group 2 (non-hazardous) are reduced. Please refer to "Physical Characteristics" table. Our series R4000 check valves must not be used as safety devices (as per PED 2014/68/EU).

## Flow Data



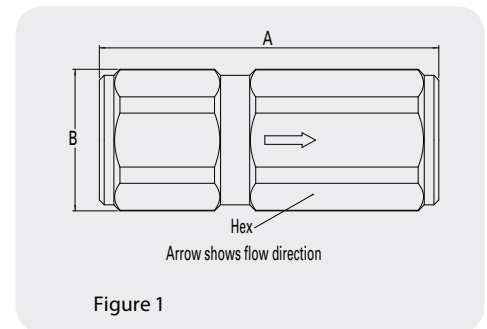
## Applications & Markets

- All Industries
- Agriculture
- Construction
- Fluid Transfer Lines

| Seal Elastomer Data*        |                                  |
|-----------------------------|----------------------------------|
| Seal Elastomer              | Max. Operation Temperature Range |
| NBR (Nitrile)               | -20°C +100°C/- 4°F +212°F        |
| FKM (Fluorocarbon)          | -20°C +200°C/- 4°F +392°F        |
| EPDM (Ethylene-Propylene)** | -40°C +150°C/- 40°F +302°F       |

\* For reference only, based on Danfoss recommended temperatures.  
 \*\* In accordance with NF L 17-241 or NAS 1613 rev. 5  
 Contact Danfoss technical support for further information on fluid compatibility.

## R4000 Series (Brass)



### Cracking Pressure 0.5 bar (7.25 psi)

| Part/Order Number |           |           | Body Size | Nominal Flow Diameter | Thread Size** (Female) BSPP | Fig. | Dimensions |      |      |      |       | Weight  |      |       |
|-------------------|-----------|-----------|-----------|-----------------------|-----------------------------|------|------------|------|------|------|-------|---------|------|-------|
| NBR*              | FKM       | EPDM      |           |                       |                             |      | (in)       | (mm) | A    | B    | Hex   |         | (in) | lbs   |
| RL0400000         | RL04000V0 | RL04000E0 | 3/8       | 3.8                   | 3/8                         | 1    | 37         | 1.46 | 17.5 | 0.69 | 16    | 0.63    | 0.11 | 50    |
| RL0401000         | RL04010V0 | RL04010E0 | 1/4       | 5.7                   | 1/4                         | 1    | 50         | 1.97 | 21   | 0.83 | 19    | 0.75    | 0.19 | 85    |
| RL0402000         | RL04020V0 | RL04020E0 | 3/8       | 7.6                   | 3/8                         | 1    | 60         | 2.36 | 25   | 0.98 | 23    | 0.9     | 0.31 | 140   |
| RL0403000         | RL04030V0 | RL04030E0 | 1/2       | 10.3                  | 1/2                         | 1    | 70         | 2.75 | 29.2 | 1.15 | 27    | 1.06    | 0.47 | 215   |
| RL0404000         | RL04040V0 | RL04040E0 | 3/4       | 14.2                  | 3/4                         | 1    | 86         | 3.38 | 38   | 1.50 | 35    | 1.38    | 1.01 | 460   |
| RL0405000         | RL04050V0 | RL04050E0 | 1         | 16.5                  | 1                           | 1    | 100        | 3.94 | 45   | 1.77 | 41    | 1.61    | 1.52 | 690   |
| -                 | RL04060V0 | RL04060E0 | 1 1/4     | 20.5                  | 1 1/4                       | 1    | 130        | 5.12 | 61   | 2.40 | 55    | 2.16    | 3.73 | 1,690 |
| -                 | RL04070V0 | RL04070E0 | 1 1/2     | 25.8                  | 1 1/2                       | 1    | 135        | 5.31 | 72   | 2.83 | 65    | 2.56    | 5.71 | 2,590 |
| -                 | RL04090V0 | RL04090E0 | 2         | 34.7                  | 2                           | 1    | 150        | 5.90 | 84   | 3.30 | 75*** | 2.95*** | 7.50 | 3,400 |

\*Body size 1 1/4, 1 1/2 and 2 are supplied with FKM seals as a standard.

\*\*Alternative end connections available upon request. depending on size (please contact Danfoss technical support).

\*\*\*Across flat dimension.

### Cracking Pressure 1 bar (14.5 psi)

| Part/Order Number |           |           | Body Size | Nominal Flow Diameter | Thread Size** (Female) BSPP | Fig. | Dimensions |      |      |      |       | Weight  |      |       |
|-------------------|-----------|-----------|-----------|-----------------------|-----------------------------|------|------------|------|------|------|-------|---------|------|-------|
| NBR*              | FKM       | EPDM      |           |                       |                             |      | (in)       | (mm) | A    | B    | Hex   |         | (in) | lbs   |
| RL040000B         | RL04000VB | RL04000EB | 3/8       | 3.8                   | 3/8                         | 1    | 37         | 1.46 | 17.5 | 0.69 | 16    | 0.63    | 0.11 | 50    |
| RL040100B         | RL04010VB | RL04010EB | 1/4       | 5.7                   | 1/4                         | 1    | 50         | 1.97 | 21   | 0.83 | 19    | 0.75    | 0.19 | 85    |
| RL040200B         | RL04020VB | RL04020EB | 3/8       | 7.6                   | 3/8                         | 1    | 60         | 2.36 | 25   | 0.98 | 23    | 0.90    | 0.31 | 140   |
| RL040300B         | RL04030VB | RL04030EB | 1/2       | 10.3                  | 1/2                         | 1    | 70         | 2.75 | 29.2 | 1.15 | 27    | 1.06    | 0.47 | 215   |
| RL040400B         | RL04040VB | RL04040EB | 3/4       | 14.2                  | 3/4                         | 1    | 86         | 3.38 | 38   | 1.50 | 35    | 1.38    | 1.01 | 460   |
| RL040500B         | RL04050VB | RL04050EB | 1         | 16.5                  | 1                           | 1    | 100        | 3.94 | 45   | 1.77 | 41    | 1.61    | 1.52 | 690   |
| -                 | RL04060VB | RL04060EB | 1 1/4     | 20.5                  | 1 1/4                       | 1    | 130        | 5.12 | 61   | 2.40 | 55    | 2.16    | 3.73 | 1,690 |
| -                 | RL04070VB | RL04070EB | 1 1/2     | 25.8                  | 1 1/2                       | 1    | 135        | 5.31 | 72   | 2.83 | 65    | 2.56    | 5.71 | 2,590 |
| -                 | RL04090VB | RL04090EB | 2         | 34.7                  | 2                           | 1    | 150        | 5.90 | 84   | 3.30 | 75*** | 2.95*** | 7.50 | 3,400 |

\*Body size 1 1/4, 1 1/2 and 2 are supplied with FKM seals as a standard.

\*\*Alternative end connections available upon request. depending on size (please contact Danfoss technical support).

\*\*\*Across flat dimension.

# R4000 Series (Stainless Steel)

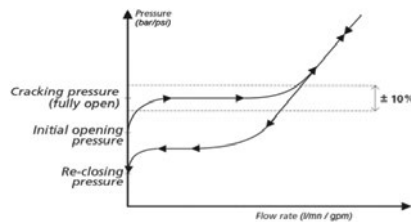
Check valves



The Danfoss Gromelle R4000 Series stainless steel check-valves are designed to either allow flow of fluid in one direction only or limit the line's internal pressure to the cracking pressure. Standard cracking pressures are 0.5 and 1 bar (7.25 and 14.5 psi). Alternatives can be offered upon request. It is designed to handle liquids in all industries and for fluid transfer lines. The material used offers excellent corrosion resistance.

## Product Features

- Standard body material: AISI 316L Stainless steel
- Standard seal material: FKM, EPDM



## Operating Guidelines

The Danfoss R4000 series is designed to handle liquids. Should applications involving gases (but not unstable gases) be considered, the user should certify that sonic frequencies will not exceed 1 Hz (one cycle per second). For further information, please contact Danfoss technical support.

## Physical characteristics

| Body Size<br>(in) | Nominal Flow Diameter<br>(mm) | Max. Operating Pressure**             |       |                                   |       | Rated Flow* |        |
|-------------------|-------------------------------|---------------------------------------|-------|-----------------------------------|-------|-------------|--------|
|                   |                               | Non hazardous liquids & gases Group 2 |       | Hazardous liquids & gases Group 1 |       | L/min       | (gpm)  |
| 1/8               | 3.8                           | 400                                   | 5,800 | 400                               | 5,800 | 4.5         | 1.19   |
| 1/4               | 5.7                           | 400                                   | 5,800 | 400                               | 5,800 | 14.2        | 3.75   |
| 3/8               | 7.6                           | 400                                   | 5,800 | 400                               | 5,800 | 22          | 5.81   |
| 1/2               | 10.3                          | 250                                   | 3,625 | 250                               | 3,625 | 32          | 8.45   |
| 3/4               | 14.2                          | 250                                   | 3,625 | 250                               | 3,625 | 72          | 19.00  |
| 1                 | 16.5                          | 250                                   | 3,625 | 250                               | 3,625 | 117         | 30.90  |
| 1 1/4             | 20.5                          | 150                                   | 2,175 | 150                               | 2,175 | 188         | 49.66  |
| 1 1/2             | 25.8                          | 150                                   | 2,175 | 38                                | 550   | 232         | 61.29  |
| 2                 | 34.7                          | 100                                   | 1,450 | 28                                | 405   | 393         | 103.81 |

\*Indicated values refer to a 1 bar/14.5 psi pressure drop.  
 \*\*Group 1 = Hazardous media / Group 2 = Other media.

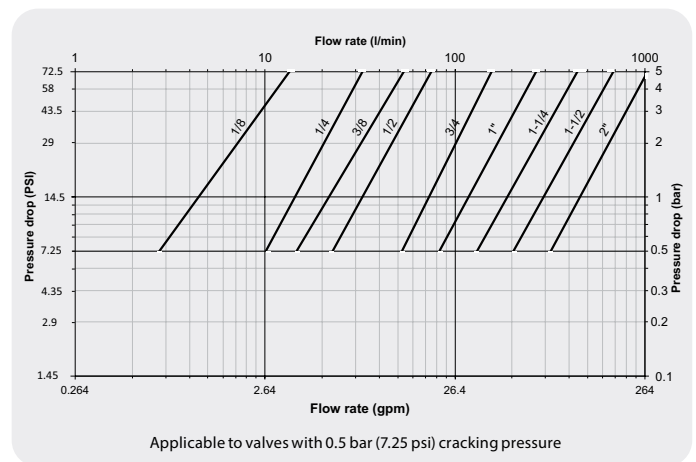
## European Pressure Equipment Directive

Check valves with nominal diameters up to and including 25 mm are designed and manufactured under Article 4.3 of the European Pressure Equipment Directive PED 2014/68/EU. Check valves with nominal diameters greater than 25 mm are designed and manufactured in accordance with the stipulations of Module A of the European Pressure Equipment Directive PED 2014/68/EU. They should not be used to convey unstable gases. Our series R4000 check valves must not be used as safety devices (as per PED 2014/68/EU).

## Applications & Markets

- All Industries
- Agriculture
- Construction
- Fluid Transfer Lines

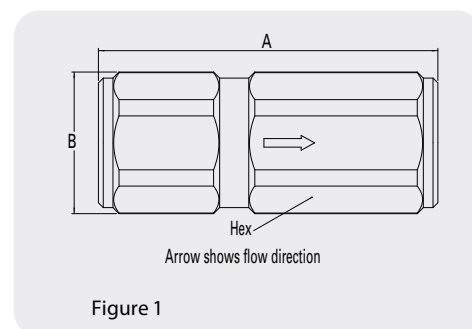
## Flow Data



| Seal Elastomer Data*        |                                  |
|-----------------------------|----------------------------------|
| Seal Elastomer              | Max. Operation Temperature Range |
| FKM (Fluorocarbon)*         | -20°C +200°C/- 4°F +392°F        |
| EPDM (Ethylene-Propylene)** | -40°C +150°C/- 40°F +302°F       |

\* For reference only, based on Danfoss recommended temperatures.  
 \*\* In accordance with NF L 17-241 or NAS 1613 rev. 5  
 Contact Danfoss technical support for further information on fluid compatibility.

## R4000 Series (Stainless Steel)



### Cracking Pressure 0.5 bar (7 psi)

| Part/Order Number |           | Body Size | Nominal Flow Diameter | Thread Size* (Female) BSPP | Fig. | Dimensions |      |      |      |      | Weight |       |       |
|-------------------|-----------|-----------|-----------------------|----------------------------|------|------------|------|------|------|------|--------|-------|-------|
| FKM               | EPDM      |           |                       |                            |      | A          | B    | Hex  |      | (in) | lbs    | grams |       |
|                   |           | (in)      | (mm)                  |                            |      | (mm)       | (in) | (mm) | (in) | (mm) | (in)   | lbs   | grams |
| RZ04000V0         | RZ04000EO | 1/8       | 3.8                   | 1/8                        | 1    | 37         | 1.46 | 17.5 | 0.69 | 16   | 0.63   | 0.10  | 45    |
| RZ04010V0         | RZ04010EO | 1/4       | 5.7                   | 1/4                        | 1    | 50         | 1.97 | 21   | 0.83 | 19   | 0.75   | 0.18  | 80    |
| RZ04020V0         | RZ04020EO | 3/8       | 7.6                   | 3/8                        | 1    | 60         | 2.36 | 25   | 0.98 | 23   | 0.90   | 0.29  | 130   |
| RZ04030V0         | RZ04030EO | 1/2       | 10.3                  | 1/2                        | 1    | 70         | 2.75 | 29.2 | 1.15 | 27   | 1.06   | 0.44  | 200   |
| RZ04040V0         | RZ04040EO | 3/4       | 14.2                  | 3/4                        | 1    | 86         | 3.38 | 38   | 1.50 | 35   | 1.38   | 0.93  | 420   |
| RZ04050V0         | RZ04050EO | 1         | 16.5                  | 1                          | 1    | 100        | 3.94 | 45   | 1.77 | 41   | 1.61   | 1.41  | 640   |
| RZ04060V0         | RZ04060EO | 1 1/4     | 20.5                  | 1 1/4                      | 1    | 130        | 5.12 | 61   | 2.40 | 55   | 2.16   | 3.46  | 1,570 |
| RZ04070V0         | RZ04070EO | 1 1/2     | 25.8                  | 1 1/2                      | 1    | 135        | 5.31 | 72   | 2.83 | 65   | 2.56   | 5.16  | 2,340 |
| RZ04090V0         | RZ04090EO | 2         | 34.7                  | 2                          | 1    | 150        | 5.90 | 84   | 3.30 | 75** | 2.95** | 6.57  | 2,980 |

\*Alternative end connections available upon request, depending on size (please contact Danfoss technical support).

\*\*Across flat dimension.

### Cracking Pressure 1 bar (14.5 psi)

| Part/Order Number |           | Body Size | Nominal Flow Diameter | Thread Size* (Female) BSPP | Fig. | Dimensions |      |      |      |      | Weight |       |       |
|-------------------|-----------|-----------|-----------------------|----------------------------|------|------------|------|------|------|------|--------|-------|-------|
| FKM               | EPDM      |           |                       |                            |      | A          | B    | Hex  |      | (in) | lbs    | grams |       |
|                   |           | (in)      | (mm)                  |                            |      | (mm)       | (in) | (mm) | (in) | (mm) | (in)   | lbs   | grams |
| RZ04000VB         | RZ04000EB | 1/8       | 3.8                   | 1/8                        | 1    | 37         | 1.46 | 17.5 | 0.69 | 16   | 0.63   | 0.10  | 45    |
| RZ04010VB         | RZ04010EB | 1/4       | 5.7                   | 1/4                        | 1    | 50         | 1.97 | 21   | 0.83 | 19   | 0.75   | 0.18  | 80    |
| RZ04020VB         | RZ04020EB | 3/8       | 7.6                   | 3/8                        | 1    | 60         | 2.36 | 25   | 0.98 | 23   | 0.90   | 0.29  | 130   |
| RZ04030VB         | RZ04030EB | 1/2       | 10.3                  | 1/2                        | 1    | 70         | 2.75 | 29.2 | 1.15 | 27   | 1.06   | 0.44  | 200   |
| RZ04040VB         | RZ04040EB | 3/4       | 14.2                  | 3/4                        | 1    | 86         | 3.38 | 38   | 1.50 | 35   | 1.38   | 0.93  | 420   |
| RZ04050VB         | RZ04050EB | 1         | 16.5                  | 1                          | 1    | 100        | 3.94 | 45   | 1.77 | 41   | 1.61   | 1.41  | 640   |
| RZ04060VB         | RZ04060EB | 1 1/4     | 20.5                  | 1 1/4                      | 1    | 130        | 5.12 | 61   | 2.40 | 55   | 2.16   | 3.46  | 1,570 |
| RZ04070VB         | RZ04070EB | 1 1/2     | 25.8                  | 1 1/2                      | 1    | 135        | 5.31 | 72   | 2.83 | 65   | 2.56   | 5.16  | 2,340 |
| RZ04090VB         | RZ04090EB | 2         | 34.7                  | 2                          | 1    | 150        | 5.90 | 84   | 3.30 | 75** | 2.95** | 6.57  | 2,980 |

\*Alternative end connections available upon request, depending on size (please contact Danfoss technical support).

\*\*Across flat dimension.

# Couplings for diagnostic applications



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## FD15 Series Oil Sampling Valve

### Diagnostic



Danfoss Hansen FD15 Series Oil Sampling Valve is designed for in-line sampling of system fluids without system shutdown, usually in less than one minute, and without fluid contamination.

### Product Features

- Standard seal material: Nitrile (NBR)
- Corrosion resistant plated steel with brass internal components
- Operating Temperature Range: -65°F to +275°F (-53°C to +135°C)
- Minimum Burst Pressure: 12,000 psi
- Minimum Particle Restriction: 500 microns
- Maximum Torque to Operate: 10 in. lbs.
- FD15-1000-04 is qualified to the MIL-V-81940/2-1

Note: This valve is not intended for aerospace applications.

### Applications & Markets

- Engine oil
- Lubricating oil
- Transmission fluid and hydraulic fluids in mobile construction equipment, military vehicles, trucks and stationary equipment

### Operation

For best results, Danfoss FD15 Oil Sampling Valves should be installed in dynamic fluid lines in low pressure and return lines. If only one sampling point can be chosen, it should be in the return line, upstream of any return line filter. This will insure a representative sample of all components in the fluid system for their present condition..

### Instructions

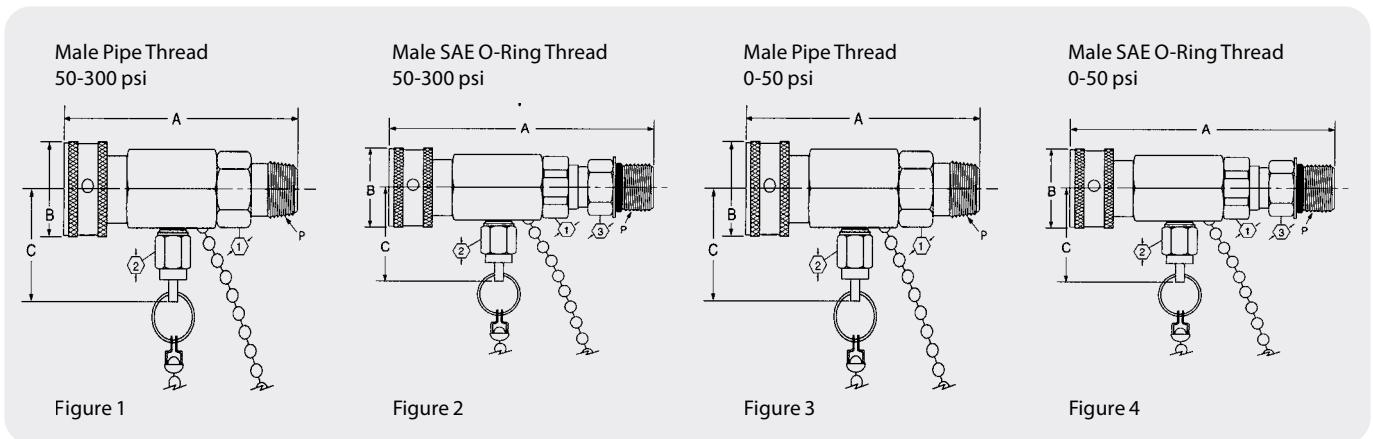
1. Remove metal dustcover on discharge port.
2. Discharge approximately 200 ml of oil to flush valve by turning knurled knob  $\frac{1}{4}$  turn to the right. Dispose of this sample in the appropriate manner.
3. Locate clean oil sample bottle under discharge port. (Sample bottles are usually supplied by the oil analysis lab.)
4. Turn knurled knob  $\frac{1}{4}$  turn to the right until bottle is filled to the desired level. The knob can be backed off to throttle the rate of flow.
5. When bottle is filled let go of the knurled knob, the valve will close automatically. Replace metal dustcover wrench tight.

### Notes

As required in MIL-V-81940/2-1 this valve's flow rate is between 100 and 1500 milliliters per minute at pressures from 0–50 psi. (MIL-V-81940/2-1 applies only to pressures from 50–300 psi.) The  $\frac{1}{4}$ " NPTF version is qualified to MIL-V-81940/2-1 and its performance is representative of the other inlet port configurations listed above. QPL-81940-96-5-89

# 5100 Series Thread-to-Connect

Global region



### Dimensions (Male Pipe Thread)

| Part/Order Number<br>NBR | Sampling Type | Port Size | Thread | Type             | Fig. | Dimensions |      |      |      |      |      |       |      |       |      |       |      |
|--------------------------|---------------|-----------|--------|------------------|------|------------|------|------|------|------|------|-------|------|-------|------|-------|------|
|                          |               |           |        |                  |      | A          |      | B    |      | C    |      | Hex ① |      | Hex ② |      | Hex ③ |      |
|                          |               |           |        |                  |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) | (mm)  | (in) | (mm)  | (in) | (mm)  | (in) |
| FD15-1000-02             | 50-300 psi    | 1/8       | 1/8-27 | Male Pipe Thread | 1    | 61.5       | 2.42 | 25.4 | 1.00 | 33.0 | 1.30 | 17.5  | 0.69 | 9.7   | 0.38 | -     | -    |
| FD15-1000-04             | 50-300 psi    | 1/4       | 1/4-18 | Male Pipe Thread | 1    | 65.0       | 2.56 | 25.4 | 1.00 | 33.0 | 1.30 | 17.5  | 0.69 | 9.7   | 0.38 | -     | -    |

### Dimensions (Male SAE O-Ring Thread)

| Part/Order Number<br>NBR | Sampling Type | Port Size | Thread  | Type                   | Fig. | Dimensions |      |      |      |      |      |       |      |       |      |       |      |
|--------------------------|---------------|-----------|---------|------------------------|------|------------|------|------|------|------|------|-------|------|-------|------|-------|------|
|                          |               |           |         |                        |      | A          |      | B    |      | C    |      | Hex ① |      | Hex ② |      | Hex ③ |      |
|                          |               |           |         |                        |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) | (mm)  | (in) | (mm)  | (in) | (mm)  | (in) |
| FD15-1002-04             | 50-300 psi    | 7/16      | 7/16-20 | Male SAE O-Ring Thread | 2    | 70.9       | 2.79 | 25.4 | 1.00 | 33.0 | 1.30 | 17.5  | 0.69 | 9.7   | 0.38 | 14.2  | 0.56 |

### Dimensions (Male Pipe Thread)

| Part/Order Number<br>NBR | Sampling Type | Port Size | Thread | Type             | Fig. | Dimensions |      |      |      |      |      |       |      |       |      |       |      |
|--------------------------|---------------|-----------|--------|------------------|------|------------|------|------|------|------|------|-------|------|-------|------|-------|------|
|                          |               |           |        |                  |      | A          |      | B    |      | C    |      | Hex ① |      | Hex ② |      | Hex ③ |      |
|                          |               |           |        |                  |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) | (mm)  | (in) | (mm)  | (in) | (mm)  | (in) |
| FD15-1026-04             | 0-50 psi      | 1/4       | 1/4-18 | Male Pipe Thread | 3    | 65.0       | 2.56 | 25.4 | 1.00 | 33.0 | 1.30 | 17.5  | 0.69 | 9.7   | 0.38 | -     | -    |

### Dimensions (Male SAE O-Ring Thread)

| Part/Order Number<br>NBR | Sampling Type | Port Size | Thread  | Type                   | Fig. | Dimensions |      |      |      |      |      |       |      |       |      |       |      |
|--------------------------|---------------|-----------|---------|------------------------|------|------------|------|------|------|------|------|-------|------|-------|------|-------|------|
|                          |               |           |         |                        |      | A          |      | B    |      | C    |      | Hex ① |      | Hex ② |      | Hex ③ |      |
|                          |               |           |         |                        |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) | (mm)  | (in) | (mm)  | (in) | (mm)  | (in) |
| FD15-1025-04             | 0-50 psi      | 7/16      | 7/16-20 | Male SAE O-Ring Thread | 4    | 70.9       | 2.79 | 25.4 | 1.00 | 33.0 | 1.30 | 17.5  | 0.69 | 9.7   | 0.38 | 14.2  | 0.56 |

# FD90 Series Diagnostic Coupling SAE J1502 Interchange

## Diagnostic



Danfoss Hansen FD90 Series diagnostic coupling is designed to connect and disconnect pressure gauges to hydraulic systems, eliminating the need for permanent gauges. The maximum operating pressure is 7,000 psi.

### Product Features

- Automatic sleeve for one hand push-to-connect operation
- Flush face valving provides minimal fluid loss and low air inclusion
- Self-sealing valve design allows connection and disconnection at 500 psi
- Broad range of end configurations for system accessibility
- Standard seal material: Nitrile (NBR)
- Standard Body Material: High resistance carbon steel with Zinc trivalent plating
- Diagnostic pressure testing for hydraulic systems

### Physical characteristics

| Coupling Body Size (in) | Max. Operating Pressure |       | Min. Burst Pressure Connected Only |        | Vacuum (in./Hg) | Rated Flow |       | Air Inclusion cc.max. | Fluid Loss cc.max. |
|-------------------------|-------------------------|-------|------------------------------------|--------|-----------------|------------|-------|-----------------------|--------------------|
|                         | (bar)                   | (psi) | (bar)                              | (psi)  |                 | (lpm)      | (gpm) |                       |                    |
| 1/4                     | 483                     | 7,000 | 1,931                              | 28,000 | 28              | 1.89       | 0.6   | 0.02                  | 0.10               |

#### Dimensions (Female Pipe, Valved)

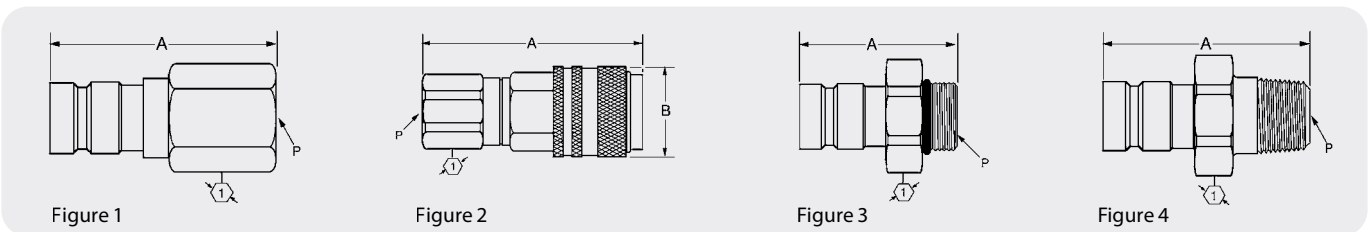
| Part/Order Number NBR | Part/Order Number with Dust Cap NBR | Coupling Type | Body Size | Port Size | Thread   | Type       | Fig. | Dimensions |      |      |      |       |      |
|-----------------------|-------------------------------------|---------------|-----------|-----------|----------|------------|------|------------|------|------|------|-------|------|
|                       |                                     |               |           |           |          |            |      | A          |      | B    |      | Hex ① |      |
|                       |                                     |               |           |           |          |            |      | (mm)       | (in) | (mm) | (in) | (mm)  | (in) |
| FD90-1034-02-04       | FD90-1035-02-04                     | Plug/Male     | 1/4       | 3/8       | 3/8 - 27 | Female NPT | 1    | 43.2       | 1.70 | -    | -    | 15.7  | 0.62 |
| FD90-1021-02-04       | —                                   | Socket/Female | 1/4       | 3/8       | 3/8 - 27 | Female NPT | 2    | 49.5       | 1.95 | 25.4 | 1.00 | 19.1  | 0.75 |
| FD90-1034-04-04       | FD90-1035-04-04                     | Plug/Male     | 1/4       | 1/4       | 1/4 - 18 | Female NPT | 1    | 48.3       | 1.90 | -    | -    | 19.1  | 0.75 |
| FD90-1021-04-04       | —                                   | Socket/Female | 1/4       | 1/4       | 1/4 - 18 | Female NPT | 2    | 57.2       | 2.25 | 25.4 | 1.00 | 19.1  | 0.75 |

#### Dimensions (Male SAE O-Ring, Valved)

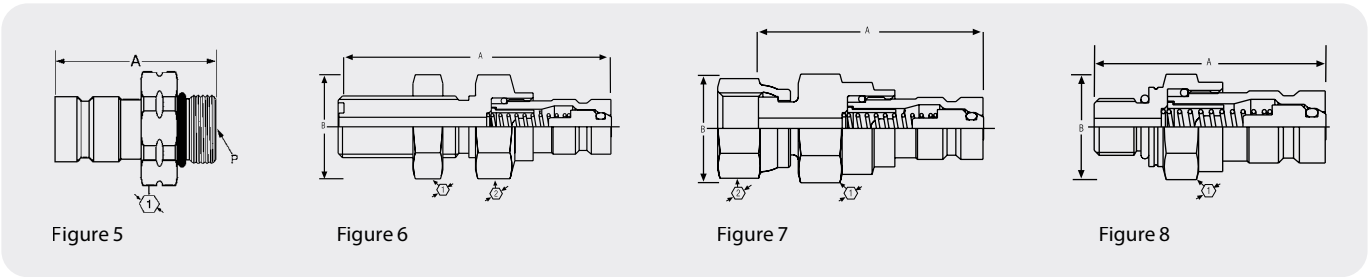
| Part/Order Number NBR | Part/Order Number with Dust Cap NBR | Coupling Type | Body Size | Port Size | Thread    | Type            | Fig. | Dimensions |      |      |      |       |      |
|-----------------------|-------------------------------------|---------------|-----------|-----------|-----------|-----------------|------|------------|------|------|------|-------|------|
|                       |                                     |               |           |           |           |                 |      | A          |      | B    |      | Hex ① |      |
|                       |                                     |               |           |           |           |                 |      | (mm)       | (in) | (mm) | (in) | (mm)  | (in) |
| FD90-1044-03-04       | FD90-1004-03-04                     | Plug/Male     | 1/4       | 3/8       | 3/8 - 24  | Male SAE O-Ring | 3    | 38.6       | 1.52 | -    | -    | 15.7  | 0.62 |
| FD90-1044-04-04       | FD90-1004-04-04                     | Plug/Male     | 1/4       | 7/16      | 7/16 - 20 | Male SAE O-Ring | 3    | 40.1       | 1.58 | -    | -    | 15.7  | 0.62 |
| FD90-1044-05-04       | FD90-1004-05-04                     | Plug/Male     | 1/4       | 1/2       | 1/2 - 20  | Male SAE O-Ring | 3    | 33.5       | 1.32 | -    | -    | 15.7  | 0.62 |
| FD90-1044-06-04       | FD90-1004-06-04                     | Plug/Male     | 1/4       | 9/16      | 9/16 - 18 | Male SAE O-Ring | 3    | 33.5       | 1.32 | -    | -    | 17.5  | 0.69 |

#### Dimensions (Female Pipe, Valved)

| Part/Order Number NBR | Part/Order Number with Dust Cap NBR | Coupling Type | Body Size | Port Size | Thread   | Type     | Fig. | Dimensions |      |      |      |       |      |
|-----------------------|-------------------------------------|---------------|-----------|-----------|----------|----------|------|------------|------|------|------|-------|------|
|                       |                                     |               |           |           |          |          |      | A          |      | B    |      | Hex ① |      |
|                       |                                     |               |           |           |          |          |      | (mm)       | (in) | (mm) | (in) | (mm)  | (in) |
| FD90-1012-02-04       | FD90-1045-02-04                     | Plug/Male     | 1/4       | 3/8       | 3/8 - 27 | Male NPT | 4    | 40.6       | 1.60 | -    | -    | 15.7  | 0.62 |
| FD90-1012-04-04       | FD90-1045-04-04                     | Plug/Male     | 1/4       | 1/4       | 1/4 - 18 | Male NPT | 4    | 37.8       | 1.49 | -    | -    | 17.5  | 0.69 |



# FD90 Series Diagnostic Coupling SAE J1502 Interchange



### Dimensions (Metric Male O-Ring, Valved)

| Part/Order Number<br>NBR | Part/Order Number<br>with Dust Cap<br>NBR | Coupling<br>Type | Body<br>Size | Port<br>Size | Thread  | Type        | Fig. | Dimensions |      | Hex  |      |      |      |
|--------------------------|---|------------------|--------------|--------------|---------|-------------|------|------------|------|------|------|------|------|
|                          |   |                  |              |              |         |             |      | A          | B    | (mm) | (in) | (mm) | (in) |
| FD90-1046-06-04          | FD90-1047-06-04                           | Plug/Male        | ¼            | M14          | M14x1.5 | Male O-Ring | 5    | 38.5       | 1.52 | -    | -    | 19.1 | 0.75 |

### Dimensions (Female SAE O-Ring, Valved)

| Part/Order Number<br>NBR | Coupling<br>Type | Body<br>Size | Port<br>Size | Thread    | Type              | Fig. | Dimensions |      | Hex   |        |      |      |
|--------------------------|------------------|--------------|--------------|-----------|-------------------|------|------------|------|-------|--------|------|------|
|                          |                  |              |              |           |                   |      | A          | B    | (mm)  | (in)   | (mm) | (in) |
| FD90-1041-04-04          | Socket/Female    | ¼            | 7/16         | 7/16 - 20 | Female SAE O-Ring | 2    | 55.9       | 2.20 | 25.40 | (1.00) | 19.1 | 0.75 |

### Dimensions (Male ORS Bulkhead, Valved)

| Part/Order Number<br>NBR | Coupling<br>Type | Body<br>Size | Port<br>Size | Thread    | Type              | Fig. | Dimensions |      | Hex  |      |      |      |
|--------------------------|------------------|--------------|--------------|-----------|-------------------|------|------------|------|------|------|------|------|
|                          |                  |              |              |           |                   |      | A          | B    | (mm) | (in) | (mm) | (in) |
| FD90-1206-04-04          | Plug/Male        | ¼            | 9/16         | 9/16 - 18 | Male ORS Bulkhead | 6    | 62.5       | 2.46 | 20.6 | 0.81 | 20.6 | 0.81 |

### Dimensions (Male ORS Bulkhead, Valved)

| Part/Order Number<br>NBR | Coupling<br>Type | Body<br>Size | Port<br>Size | Thread     | Type              | Fig. | Dimensions |      | Hex  |      |      |      |
|--------------------------|------------------|--------------|--------------|------------|-------------------|------|------------|------|------|------|------|------|
|                          |                  |              |              |            |                   |      | A          | B    | (mm) | (in) | (mm) | (in) |
| FD90-1061-04-04          | Plug/Male        | ¼            | 9/16         | 9/16 - 18  | Female ORS Swivel | 7    | 46.5       | 1.79 | 22.1 | 0.87 | 17.5 | 0.69 |
| FD90-1061-06-04          | Plug/Male        | ¼            | 11/16        | 11/16 - 16 | Female ORS Swivel | 7    | 46.5       | 1.83 | 23.9 | 0.94 | 20.6 | 0.81 |
| FD90-1061-08-04          | Plug/Male        | ¼            | 13/16        | 13/16 - 16 | Female ORS Swivel | 7    | 49.0       | 1.93 | 27.4 | 1.08 | 23.9 | 0.94 |

### Dimensions (Male Metric O-Ring, Valved)

| Part/Order Number<br>NBR | Coupling<br>Type | Body<br>Size | Port<br>Size | Thread | Type          | Fig. | Dimensions |      | Hex  |      |      |      |
|--------------------------|------------------|--------------|--------------|--------|---------------|------|------------|------|------|------|------|------|
|                          |                  |              |              |        |               |      | A          | B    | (mm) | (in) | (mm) | (in) |
| FD90-1090-10-04          | Plug/Male        | ¼            | M10          | M10x1  | Metric O-Ring | 8    | 40.1       | 1.58 | 18.3 | 0.72 | -    | -    |

### Dust Cap for Plug/Male Halves

| Body Size | Part/Order Number |
|-----------|-------------------|
| ¼         | FD90-1040-04      |



Dust Cap for Plug/Male Halves

# Pressure Gauge Kit FF14802

Diagnostic



Danfoss' Pressure Gauge Kit and screw together test couplings provide accurate and efficient pressure control and monitoring of your hydraulic system, while minimizing the introduction of contamination. The complete kit is pre-packaged with Danfoss' most common adapters and test couplings.

## Product Features

- Test system at working pressure
- 630 bar (9,000 psi) working pressure
- 345 bar (5,000 psi) connect under pressure
- Accurate pressure control and system monitoring
- Leak-free connection before piston valve opens
- Simple and fast screw together connections
- Self-locking caps

## Applications & Markets

- Hydraulics and mineral based fluids
- Agricultural equipment
- Construction equipment
- On-Highway vehicles
- Industrial equipment

## Couplings/Adapters

- Standard body material: Zinc Nickel Plated Steel
- Standard seal material: FKM
- 345 bar (5,000 psi) connect under pressure
- 630 bar (9,000 psi) working pressure

## Hose Assemblies

- 630 bar (9,000 psi) working pressure
- 20mm (.75") bend radius
- Nominal Bore 2mm (.08")
- Hose cover/core – PA 11/12
- Reinforcement – synthetic fiber

## Gauges

- Polished Brass Casing
- Glycerine Filled
- Dual Scales
- Relief Valve
- Acrylic Lens

### Pressure Gauge Kit

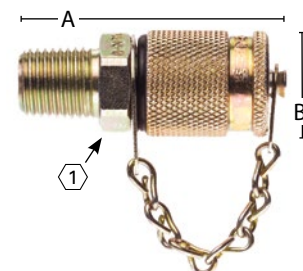
| Complete Kit Number | Component Part/Order Number | Description               | Quantity Per Kit |
|---------------------|-----------------------------|---------------------------|------------------|
| FF14802             | FF14783                     | 1/8" NPT Test Coupling    | 2                |
|                     | FF14784                     | 1/4" NPT Test Coupling    | 2                |
|                     | FF14787                     | 7/16-20 UNF Test Coupling | 1                |
|                     | FF14788                     | 9/16-18 UNF Test Coupling | 1                |
|                     | FF14794                     | 1/4" NPT Gauge Adapter    | 3                |

| Complete Kit Number | Component Part/Order Number | Description                 | Quantity Per Kit |
|---------------------|-----------------------------|-----------------------------|------------------|
|                     | FF14796                     | Union Adapter               | 2                |
|                     | FF14798                     | 60" Test Hose Assembly      | 2                |
|                     | FF14799                     | (-) 30 in/Hg - 30 psi Gauge | 1                |
|                     | FF14800                     | 1,000 psi Gauge             | 1                |
|                     | FF14801                     | 7,500 psi Gauge             | 1                |

### Dimensions (Standard Test Couplings)

| Part/Order Number | Thread      | Dimensions |        |        |        | Hex        | Bag Quantity* |
|-------------------|-------------|------------|--------|--------|--------|------------|---------------|
|                   |             | A (mm)     | A (in) | B (mm) | B (in) |            |               |
| FF14783           | 1/8" NPT    | 45.0       | (1.77) | 20.0   | (.79)  | 17.0 (.67) | 4             |
| FF14784           | 1/4" NPT    | 50.0       | (1.97) | 20.0   | (.79)  | 17.0 (.67) | 4             |
| FF14785           | M14         | 49.0       | (1.93) | 20.0   | (.79)  | 19.0 (.75) | 3             |
| FF14786           | M16         | 48.5       | (1.91) | 20.0   | (.79)  | 22.0 (.87) | 3             |
| FF14787           | 7/16-20 UNF | 47.0       | (1.85) | 20.0   | (.79)  | 17.0 (.67) | 4             |
| FF14788           | 9/16-18 UNF | 47.5       | (1.87) | 20.0   | (.79)  | 19.0 (.75) | 4             |

\* When the indicated part number is ordered, the bag quantity is the number of pieces supplied. For example, if a quantity of one FF14792 is ordered, one bag containing two pieces will be delivered.



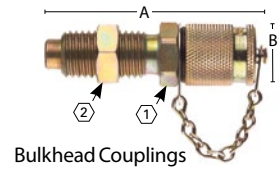
Standard Test Couplings

# Pressure Gauge Kit FF14802

AMER region

## Dimensions (Bulkhead Couplings)

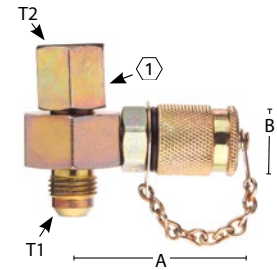
| Part/Order Number | Thread | Dimensions A |      | B    |      | Hex ① |      | Hex ② |      | Bag Quantity* |
|-------------------|--------|--------------|------|------|------|-------|------|-------|------|---------------|
|                   |        | (mm)         | (in) | (mm) | (in) | (mm)  | (in) | (mm)  | (in) |               |
| FF14789           | M16    | 72.0         | 2.83 | 20.0 | 0.79 | 17.0  | 0.67 | 19.0  | 0.75 | 2             |



Bulkhead Couplings

## Dimensions (Swivel Run Tee with Test Coupling)

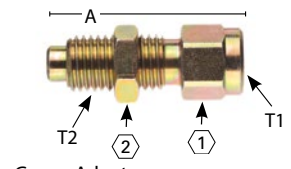
| Part/Order Number | Thread #1   | Thread #2   | Dimensions A |      | B    |      | Hex ① |      | Bag Quantity* |
|-------------------|-------------|-------------|--------------|------|------|------|-------|------|---------------|
|                   |             |             | (mm)         | (in) | (mm) | (in) | (mm)  | (in) |               |
| FF14790           | 3/16-20 UNF | 3/16-20 UNF | 47.7         | 1.88 | 20.0 | 0.79 | 27.0  | 1.06 | 2             |
| FF14791           | 3/16-18 UNF | 3/16-18 UNF | 47.7         | 1.88 | 20.0 | 0.79 | 27.0  | 1.06 | 2             |
| FF14792           | 3/4-16 UNF  | 3/4-16 UNF  | 47.7         | 1.88 | 20.0 | 0.79 | 27.0  | 1.06 | 2             |



Swivel Run Tee with Test Coupling

## Dimensions (Gauge Adapter)

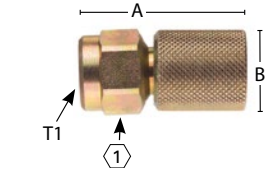
| Part/Order Number | Thread #2 | Thread #1 | Dimensions A |      | Hex ① |      | Hex ② |      | Bag Quantity* |
|-------------------|-----------|-----------|--------------|------|-------|------|-------|------|---------------|
|                   |           |           | (mm)         | (in) | (mm)  | (in) | (mm)  | (in) |               |
| FF14793           | 1/4 NPT   | M16       | 54.0         | 2.13 | 19.0  | 0.75 | 19.0  | 0.75 | 2             |



Gauge Adapter

## Dimensions (Direct Gauge Adapter)

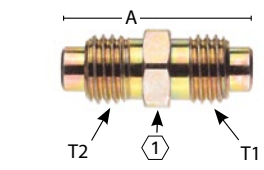
| Part/Order Number | Thread      | Dimensions A |      | B    |      | Hex ① |      | Bag Quantity* |
|-------------------|-------------|--------------|------|------|------|-------|------|---------------|
|                   |             | (mm)         | (in) | (mm) | (in) | (mm)  | (in) |               |
| FF14794           | 1/4 NPT     | 40.5         | 1.59 | 20.0 | 0.79 | 19.0  | 0.75 | 2             |
| FF14795           | 3/16-20 UNF | 41.0         | 1.61 | 20.0 | 0.79 | 19.0  | 0.75 | 2             |



Direct Gauge Adapter

## Dimensions (Union Adapter)

| Part/Order Number | Thread #1 | Thread #2 | Dimensions A |      | Hex ① |      | Bag Quantity* |
|-------------------|-----------|-----------|--------------|------|-------|------|---------------|
|                   |           |           | (mm)         | (in) | (mm)  | (in) |               |
| FF14796           | M16       | M16       | 42.5         | 1.67 | 17.0  | 0.67 | 2             |



Union Adapter

## Dimensions (Test Hose Assembly)

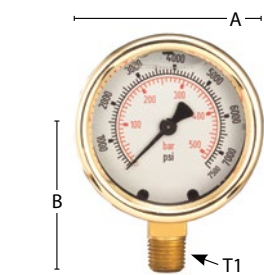
| Part/Order Number | Thread | Dimensions Cut Length |       | Overall Length |       | Bag Quantity* |
|-------------------|--------|-----------------------|-------|----------------|-------|---------------|
|                   |        | (mm)                  | (in)  | (mm)           | (in)  |               |
| FF14797           | M16    | 872.0                 | 34.33 | 914.4          | 36.00 | 1             |
| FF14798           | M16    | 1482.0                | 58.35 | 1524.0         | 60.00 | 1             |



Test Hose Assembly

## Dimensions (Gauges)

| Part/Order Number | Thread  | Dimensions A |      | B    |      | Rating             | Bag Quantity* |
|-------------------|---------|--------------|------|------|------|--------------------|---------------|
|                   |         | (mm)         | (in) | (mm) | (in) |                    |               |
| FF14799           | 1/4 NPT | 65.3         | 2.57 | 53.3 | 2.10 | -30 in/Hg - 30 psi | 1             |
| FF14800           | 1/4 NPT | 65.3         | 2.57 | 53.3 | 2.10 | 0 - 1,000 psi      | 1             |
| FF14801           | 1/4 NPT | 65.3         | 2.57 | 53.3 | 2.10 | 0 - 7,500 psi      | 1             |



Gauges

# FS Flow Sensor Series

Diagnostic



Danfoss' Flow Sensor Series is designed to protect personnel and property in case of hose failure in compliance with Federal Safety Regulations. Flow Sensors are intended for use with compressed air.

## Product Features

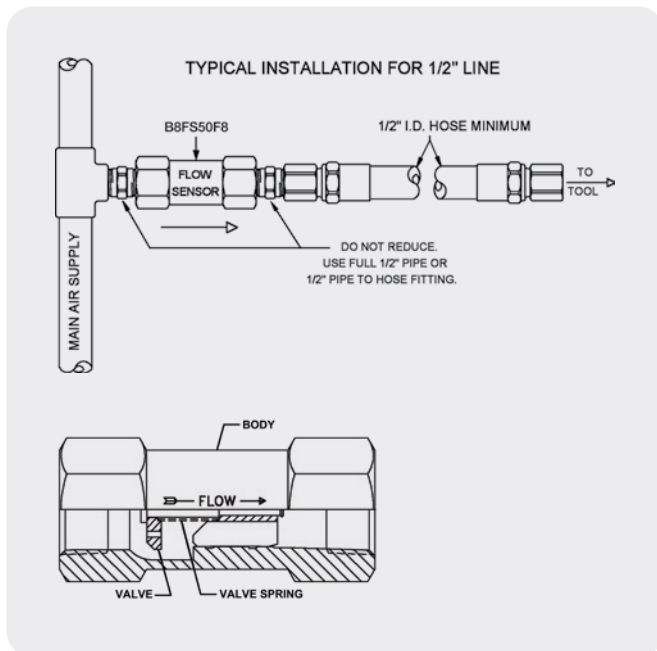
- Automatically shuts off air flow to ruptured hose
- Reduces risk of injury or damage from hose whip
- Automatically resets after failure correction
- Operates in any orientation
- Compact design, economical, tamperresistant
- Standard body material: Brass

## Physical characteristics

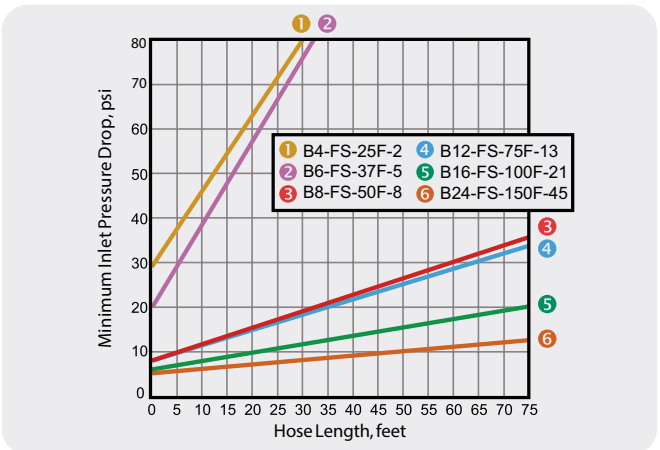
| Size<br>(in) | Max. Operating Pressure |       | Min. Burst Pressure |       | Rated Flow |           |
|--------------|-------------------------|-------|---------------------|-------|------------|-----------|
|              | (bar)                   | (psi) | (bar)               | (psi) | (lpm)      | (gpm)     |
| All Sizes    | 17                      | 250   | 68                  | 1,000 | See Chart  | See Chart |

## Applications & Markets

- General Industry
- Pneumatic Toolst



## Flow Data



**Flow Data:** The graph above indicates the minimum inlet pressure for various hose lengths. Each Flow Sensor has a shut-off flow rating dependent upon inlet pressure. The length of hose and fitting size are critical in the proper operation of the valve. For example, with the B8FS50F8 Flow Sensor, the hose I.D. must be 1/2" using only 1/2" pipe thread end fittings. Thirty feet of hose requires at least 20 psig inlet pressure; fifty feet of hose requires at least 28 psig inlet pressure; and seventy-five feet of hose requires at least 36 psig inlet pressure. Inlet pressures lower than those indicated on the curves above will not guarantee protection in case of hose failure. Valve shut-off occurs only when flow exceeds the flow rating for the inlet pressure.

If hose lengths greater than 75 feet are required, a 1/2" size or larger Flow Sensor must be installed on the inlet end of each 75-foot section, and a correspondingly higher inlet pressure must be supplied for proper operation of the Flow Sensor to assure safety.

| Part/Order Number* | Body Size | Thread Size | Type | Shut-off Flow, SCFM, at Inlet Pressure, PSIG |     |     |     |     |     |     | Dimensions |        |      |       |      |
|--------------------|-----------|-------------|------|--|-----|-----|-----|-----|-----|-----|------------|--------|------|-------|------|
|                    |           |             |      | 60   | 80  | 100 | 120 | 140 | 160 | 180 | 200        | Length |      | Hex   | Hex  |
|                    |           |             |      |  |     |     |     |     |     |     | (mm)       | (in)   | (mm) | (in)  |      |
| B4FS25F2           | ¼         | ¼-18        | NPTF | 16   | 18  | 20  | 22  | 23  | 25  | 26  | 27         | 54.36  | 2.14 | 19.05 | 0.75 |
| B6FS37F5           | ⅜         | ⅜-18        | NPTF | 41   | 46  | 50  | 55  | 59  | 63  | 66  | 69         | 63.50  | 2.50 | 22.35 | 0.88 |
| B8FS50F8           | ½         | ½-14        | NPTF | 65   | 73  | 80  | 87  | 93  | 99  | 104 | 109        | 79.25  | 3.12 | 26.92 | 1.06 |
| B12FS75F13         | ¾         | ¾-14        | NPTF | 105  | 118 | 130 | 141 | 152 | 161 | 169 | 177        | 93.47  | 3.68 | 35.05 | 1.38 |
| B16FS100F21        | 1         | 1-11 ½      | NPTF | 170  | 191 | 210 | 227 | 245 | 260 | 273 | 286        | 116.59 | 4.59 | 44.45 | 1.75 |
| B24FS150F45        | 1 ½       | 1 ½-11 ½    | NPTF | 365  | 410 | 450 | 489 | 525 | 557 | 586 | 615        | 148.84 | 5.86 | 63.50 | 2.50 |

\*All flow sensors have a pressure drop of approximately 2 psid at 80% of shut-off flow.

# Couplings for breathing air applications



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# FD17 Series

Breathing air application



The Danfoss Hansen FD17 high pressure coupling can be connected by hand while under pressure up to 5,500 psi/380 bar. This quick disconnect coupling is most commonly used in SCBA transfilling and buddy-breathing applications and is commonly found on SCBA equipment certified to various NIOSH, NFPA and CBRN standards.

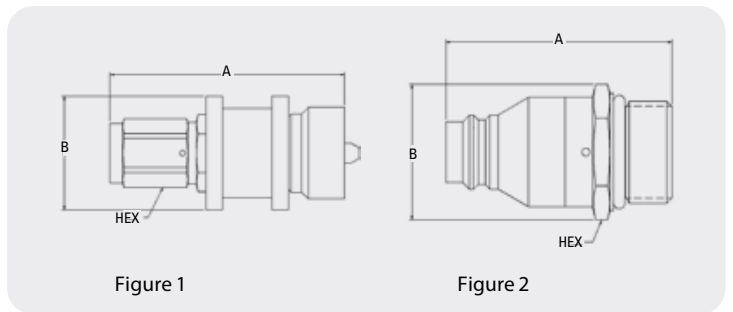
## Product Features

- Connect and disconnect under pressure up to 5,500 psi/380 bar
- Certified on SCBA equipment that meets NIOSH, NFPA and CBRN requirements
- Complies with NFPA 1981 and NFPA 2013
- Standard body material: Stainless steel, aluminums

## Physical characteristics

| Series | Max. Operating Pressure |       | Min. Burst Pressure |        | Rated Flow* |      | Rated Temperature            |
|--------|-------------------------|-------|---------------------|--------|-------------|------|------------------------------|
|        | (bar)                   | (psi) | (bar)               | (psi)  | (lpm)       | scfm |                              |
| FD17   | 380                     | 5,500 | 1,140               | 16,500 | 125         | 4.4  | -40°F (-40°C)/+160°F (+71°C) |

\*Indicated value refer to a 1 bar/14.5 psi pressure drop.



| Part/Order Number | Coupling Type | Body Size (in) | Port Size | Thread  | Type | Dimensions |        |        |        |        |          |          |
|-------------------|---------------|----------------|-----------|---------|------|------------|--------|--------|--------|--------|----------|----------|
|                   |               |                |           |         |      | Fig.       | A (mm) | A (in) | B (mm) | B (in) | Hex (mm) | Hex (in) |
| FD17-1003-04-04   | Socket/Female | ¼              | -4        | 7/16-20 | ORB  | 1          | 72.4   | 2.85   | 35.1   | 1.38   | 19.1     | 0.75     |
| FD17-1082-10-04   | Plug/Male     | ¼              | -10       | 7/8-14  | ORB  | 2          | 49.0   | 1.93   | 36.3   | 1.43   | 25.4     | 1.00     |

### Male Dust Cap

| Part/Order Number |
|-------------------|
| FD17-1064-04*     |

\*Indicates patented product



### Female Dust Cap

| Part/Order Number |
|-------------------|
| FD17-1062-04      |



## Safe Breathe Series

Breathing air application



Danfoss' Safe Breathe series is a coupling made for breathing air application with a specific profile: it is interchangeable with similar breathing air couplings available on the market. The locking-system is made with a push-button, and the connection is automatic. The coupling offers a working pressure of 10 bar.

The two-step disconnection avoids any handling mistake and guarantees the true safety effect. For the disconnection, in case the Danfoss plug would be used with a non-safety socket, the plug valve design has a slow pressure release that ensures by itself the safety function. The 6mm size has only one step operation for disconnection.

### Product Features

- Available in sizes 6 mm, 8 mm and 11 mm
- Color coded for a better identification and to avoid crossing lines
- Automatic connection
- Profile interchangeable with other series in the market
- Working pressure of 10 bar
- Safety feature to avoid accidental disconnection
- Push to connect locking-mechanism
- Optional safety chains available on size 11 mm
- Standard body material: Stainless steel 316L
- Standard seal material: NBR
- Safety padlock can be added to avoid disconnecting

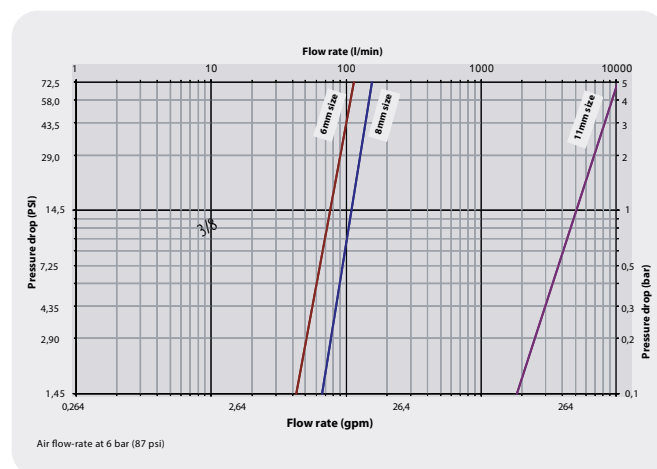
### Physical characteristics

| Body Size<br>(mm) | Working Pressure |       | Nominal Flow Diameter<br>(mm) | Plug Part/Order number | Socket Part/Order number | Thread        |      | Profile certification |
|-------------------|------------------|-------|-------------------------------|------------------------|--------------------------|---------------|------|-----------------------|
|                   | (bar)            | (psi) |                               |                        |                          | Size          | Type |                       |
| 6                 | 10               | 145   | 5.5                           | -                      | GZ1112638                | $\frac{3}{8}$ | BSPP | -                     |
| 6                 | 10               | 145   | 5.5                           | -                      | GZ1112612                | $\frac{1}{2}$ | BSPP | -                     |
| 8                 | 10               | 145   | 8                             | IC1119038              | -                        | $\frac{3}{8}$ | BSPP | -                     |
| 8                 | 10               | 145   | 8                             | IC1119012              | -                        | $\frac{1}{2}$ | BSPP | -                     |
| 8                 | 10               | 145   | 8                             | -                      | IZ1116013                | $\frac{1}{2}$ | BSPP | -                     |
| 11                | 10               | 145   | 11                            | TC1111634              | TZ1112134                | $\frac{3}{4}$ | BSPP | ISO 6150C             |

### Applications & Markets

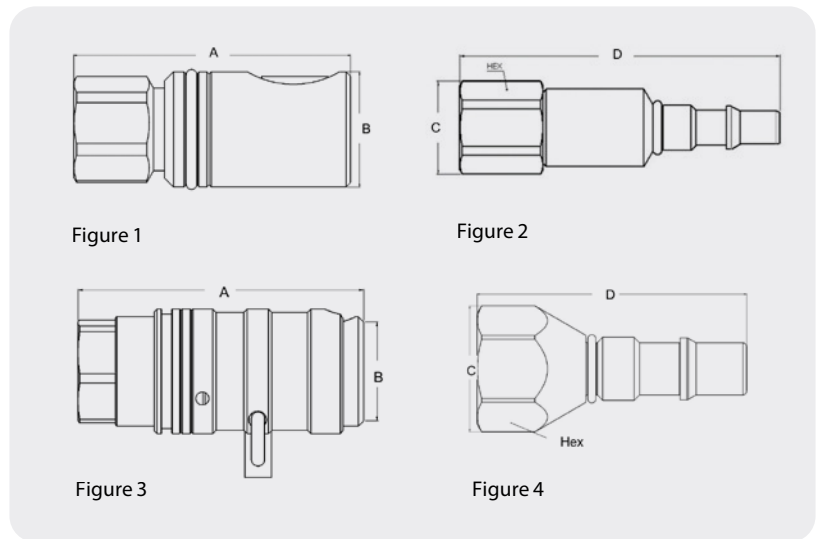
- Breathing air application  
(industrial and chemical field)

### Flow Data



# Safe Breathe Series

Global region



## Dimensions

| Part/Order Number | Fig. | Thread Size BSPP | Socket dimensions |        |        |        | Plug dimensions |          |        |        |        |        | Length connected (mm) |               |          |
|-------------------|------|------------------|-------------------|--------|--------|--------|-----------------|----------|--------|--------|--------|--------|-----------------------|---------------|----------|
|                   |      |                  | A (mm)            | A (in) | B (mm) | B (in) | Hex (mm)        | Hex (in) | C (mm) | C (in) | D (mm) | D (in) |                       | Hex (mm)      | Hex (in) |
| GZ1112638         | 1    | 3/8              | 64.5              | 2.53   | 25.7   | 1.01   | 22              | 0.86     | -      | -      | -      | -      | -                     | -             | -        |
| GZ1112612         | 1    | 1/2              | 66.5              | 2.61   | 25.7   | 1.01   | 27              | 1.06     | -      | -      | -      | -      | -                     | -             | -        |
| IC1119012         | 2    | 1/2              | -                 | -      | -      | -      | -               | -        | 24     | 0.94   | 98.5   | 3.8    | Hex: 22               | 0.86          | -        |
| IC1119038         | 2    | 3/8              | -                 | -      | -      | -      | -               | -        | 29.5   | 1.16   | 102    | 4.01   | Hex: 27               | 1.06          | -        |
| TZ1112134         | 3    | 3/4              | 107.5             | 4.23   | 48.5   | 1.90   | 38              | 1.49     | -      | -      | -      | -      | -                     | -             | 140      |
| TC1111634         | 4    | 3/4              | -                 | -      | -      | -      | -               | -        | 34     | 1.33   | 73     | 2.87   | 2 flats: 30           | 2 flats: 1.18 | 140      |

# 2500 Series

Breathing air application



Danfoss Hansen 2500 series is an aluminium ball latch coupling for breathing air application. Its anti-disconnection safety device eliminates the risk of accidental disconnection. The non-screwed adapter design avoids unscrewing of the adapter and hose-kicking also when the coupling is used with hoses. This coupling is available in size 1/4".

## Product Features

- Anti-disconnection safety device
- Non-screwed adapter
- Size available in 1/4"
- Working pressure of 10 bar

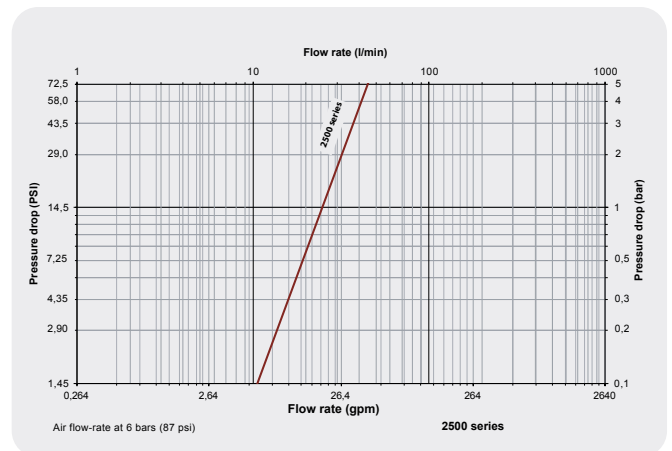
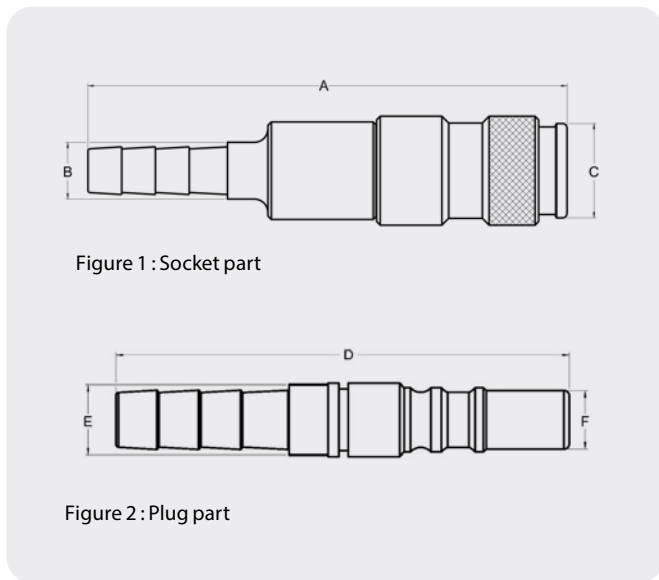
## Physical characteristics

| Body Size<br>(in) | Max. Operating Pressure |       | Nominal Flow Diameter<br>(mm) | Socket Part/<br>Order Number | Plug Part/<br>Order Number | Socket dimensions (Fig. 1) |           |           | Plug dimensions (Fig. 2) |           |           |           |      |      | Length connected<br>(mm) |      |      |       |
|-------------------|-------------------------|-------|-------------------------------|------------------------------|----------------------------|----------------------------|-----------|-----------|--------------------------|-----------|-----------|-----------|------|------|--------------------------|------|------|-------|
|                   | (bar)                   | (psi) |                               |                              |                            | A<br>(mm)                  | B<br>(in) | C<br>(mm) | D<br>(mm)                | E<br>(in) | F<br>(mm) | G<br>(in) |      |      |                          |      |      |       |
| 1/4               | 10                      | 145   | 7.4                           | 2500S37H                     | LL2500P37H                 | 106.45                     | 4.19      | 12.5      | 0.49                     | 20.8      | 0.81      | 81.2      | 3.19 | 12.5 | 0.49                     | 10.4 | 0.12 | 187.6 |

## Applications & Markets

- Breathing air application

## Flow Data



# Couplings for thermal management application



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## ADB Series (Aluminium) Flat Face/Dry Break

Thermal Management Application



Danfoss Hansen Aluminium Flat Face ADB coupling is a flat face/dry break coupling used for cooling systems in electric applications with circulating water and antifreeze fluids. This coupling is providing an enhanced solution for preventing spillage of cooling agent which can cause technical failures, system shutdowns, and difficult clean-ups.

Global region

### Product Features

- Aluminium construction extends life for safer operations and reduced maintenance.
- Enhances operations in demanding applications with heat and vibration compared to plastic couplings.
- Up to 62% higher flow than ISO 16028 requirements to improve efficiency.
- 4-times safety factor at maximum operating pressure of 25 bar
- Options are available for railway applications with an enhanced version for vibration resistance tested according to EN 61373.
- Pre-guided system that helps users pre-position the coupling in difficult environments, making connection easy and reducing maintenance time.
- Full range of optional seals, end connections and sizes,

### Physical characteristics

| ADB Model | ISO size | Body size | Nominal Flow Diameter | Max. Operating Pressure |       | Rated* Flow | Air Inclusion | Fluid Loss | Force to Connect |    |
|-----------|----------|-----------|-----------------------|-------------------------|-------|-------------|---------------|------------|------------------|----|
|           | (mm)     | (in)      |                       | (bar)                   | (psi) |             | (lpm)         | ml-cc.     | ml-cc.           | N  |
| A2DB      | 6.3      | ¼         | 5.9                   | 25                      | 360   | 25          | 0.002         | 0.001      | 77               | 17 |
| A3DB      | 10       | ¾         | 9                     | 25                      | 360   | 80          | 0.012         | 0.03       | 103              | 23 |
| A4DB      | 12.5     | ½         | 11.5                  | 25                      | 360   | 110         | 0.012         | 0.025      | 110              | 25 |
| A6DB      | 19       | ¾         | 15                    | 25                      | 360   | 150         | 0.03          | 0.05       | 193              | 43 |
| A8DB      | 25       | 1         | 18.5                  | 25                      | 360   | 290         | 0.15          | 0.13       | 180              | 40 |

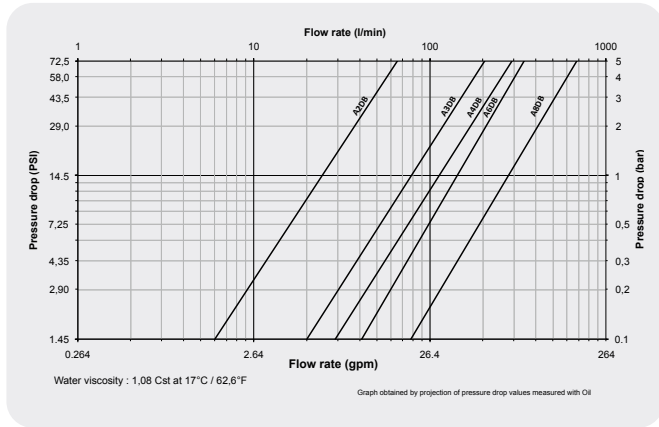
\* Indicated values refer to a 1 bar / 14.5 psi pressure drop with water values obtained by projection of pressure drops measured with Oil.

### Applications & Markets

- Electrical cooling applications
- Renewable energy
- Railway
- Processing industry
- Data centers

# ADB Series (Aluminium) Flat Face/Dry Break

## Flow Data



| Seal Elastomer Data*        |                                  |
|-----------------------------|----------------------------------|
| Seal Elastomer              | Max. Operation Temperature Range |
| EPDM (Ethylene-Propylene)** | -40°C +150°C/-40°F +302°F        |

\*Other sealing material could be available, contact Danfoss technical support for further information on sealing availability.

\*\*For reference only, based on Danfoss recommended temperatures.

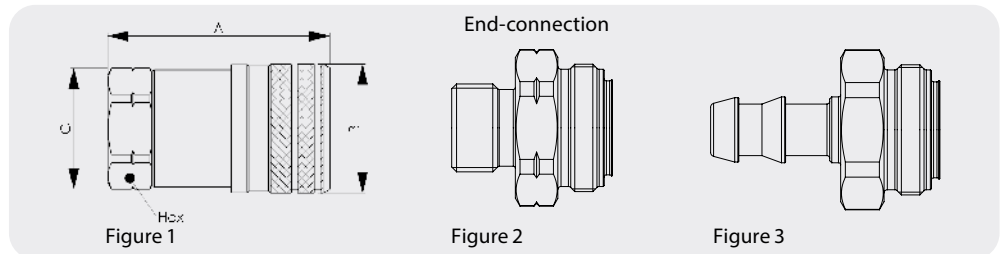
Contact Danfoss technical support for further information on fluid compatibility.

- Integrated relive valve into the front face of the Plug (Male).
- The valve opens at the given relive pressure in disconnected state.
- Applicable with all standard Sockets (Female).
- Flow rates relive valve < 1l/min.
- Seal Elastomer EPDM.
- Very low relive valve spillage.

### Plug (Male) Relive Valve Option\*

| Part/Order Number | ADB Model | Body size (in) | Relive Pressure (bar) | Thread Size |           |
|-------------------|-----------|----------------|-----------------------|-------------|-----------|
|                   |           |                |                       | BSPP female | BSPP male |
| 12027776          | A4DBPS52  | ½              | 9±3                   | -           | 1/2'      |
| 12016893          | A6DBPS51  | ¾              | 9±3                   | 3/4"        | -         |
| 12016878          | A8DBPS51  | 1              | 9±3                   | 1"          | -         |

\* On customer request.



## Sockets (Female)

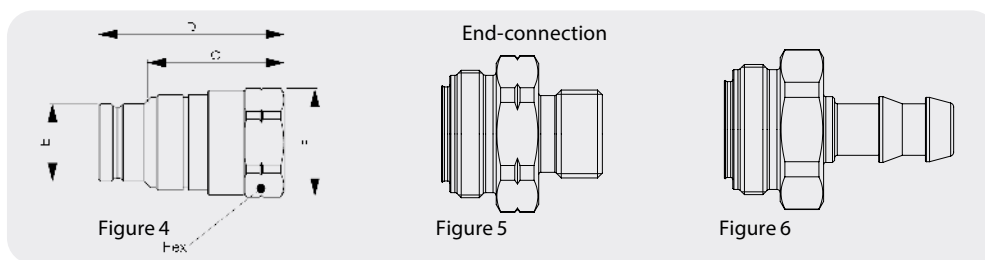
| Part/Order Number | Fig. | Body Size (in) | Thread Size |           |          | Dimensions |        |        |        |        |        |           | Weight    |       |       |
|-------------------|------|----------------|-------------|-----------|----------|------------|--------|--------|--------|--------|--------|-----------|-----------|-------|-------|
|                   |      |                | BSPP female | BSPP male | Hosebarb | A (mm)     | A (in) | B (mm) | B (in) | C (mm) | C (in) | Hex1 (mm) | Hex1 (in) | lbs   | grams |
| A2DBS25BS192      | 1    | ¼              | ¼           | -         | -        | 46.7       | 1.84   | 26.8   | 1.06   | 24.5   | 0.96   | 22        | 0.87      | 0.104 | 47    |
| A2DBS25MBS192     | 2    | ¼              | -           | ¼         | -        | 46.7       | 1.84   | 26.8   | 1.06   | 24.5   | 0.96   | 22        | 0.87      | 0.106 | 48    |
| A2DBS25HT192      | 3    | ¼              | -           | -         | ¼        | 46.7       | 1.84   | 26.8   | 1.06   | 24.5   | 0.96   | 22        | 0.87      | 0.106 | 48    |
| A2DBS37HT192      | 3    | ¼              | -           | -         | ¾        | 46.7       | 1.84   | 26.8   | 1.06   | 24.5   | 0.96   | 22        | 0.87      | 0.106 | 48    |
| A3DBS37BS192      | 1    | ¾              | ¾           | -         | -        | 61.5       | 2.42   | 32     | 1.26   | 29.5   | 1.16   | 27        | 1.06      | 0.192 | 87    |
| A3DBS37MBS192     | 2    | ¾              | -           | ¾         | -        | 61.5       | 2.42   | 32     | 1.26   | 29.5   | 1.16   | 27        | 1.06      | 0.192 | 87    |
| A3DBS37HT192      | 3    | ¾              | -           | -         | ¾        | 61.5       | 2.42   | 32     | 1.26   | 29.5   | 1.16   | 27        | 1.06      | 0.190 | 86    |
| A3DBS50BS192      | 1    | ¾              | ½           | -         | -        | 61.5       | 2.42   | 32     | 1.26   | 29.5   | 1.16   | 27        | 1.06      | 0.192 | 87    |
| A3DBS50MBS192     | 2    | ¾              | -           | ½         | -        | 61.5       | 2.42   | 32     | 1.26   | 29.5   | 1.16   | 27        | 1.06      | 0.205 | 93    |
| A3DBS50HT192      | 3    | ¾              | -           | -         | ½        | 61.5       | 2.42   | 32     | 1.26   | 29.5   | 1.16   | 27        | 1.06      | 0.201 | 91    |
| A4DBS50BS192      | 1    | ½              | ½           | -         | -        | 63.3       | 2.49   | 37.9   | 1.49   | 35.5   | 1.4    | 32        | 1.26      | 0.284 | 129   |
| A6DBS75BS192      | 1    | ¾              | ¾           | -         | -        | 88.5       | 3.48   | 48     | 1.89   | 46.5   | 1.83   | 41        | 1.61      | 0.613 | 278   |
| A8DBS100BS192     | 1    | 1              | 1           | -         | -        | 93.9       | 3.70   | 57.4   | 2.26   | 54.9   | 2.16   | 50        | 1.97      | 0.939 | 426   |

\*Alternative end connections available upon request.

To obtain connected length of coupling, add dimensions A (Fig. 1) and G (Fig. 4) together.

# ADB Series (Aluminium) Flat Face/Dry Break

Global region



## Sockets (Female)

| Part/Order Number | Fig. | Body Size (in) | Thread Size |           |          | Dimensions |        |        |        |        |        |        | Weight |           |           |       |       |
|-------------------|------|----------------|-------------|-----------|----------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|-----------|-------|-------|
|                   |      |                | BSPP female | BSPP male | Hosebarb | D (mm)     | D (in) | E (mm) | E (in) | F (mm) | F (in) | G (mm) | G (in) | Hex1 (mm) | Hex1 (in) | lbs   | grams |
| A2DBP25BS192      | 4    | ¼              | ¼           | –         | –        | 43.5       | 1.71   | 16.5   | 0.65   | 24.5   | 0.96   | 32.1   | 1.26   | 22        | 0.87      | 0.062 | 28    |
| A2DBP25MBS192     | 5    | ¼              | –           | ¼         | –        | 43.5       | 1.71   | 16.5   | 0.65   | 24.5   | 0.96   | 32.1   | 1.26   | 22        | 0.87      | 0.064 | 29    |
| A2DBP25HT192      | 6    | ¼              | –           | –         | ¼        | 43.5       | 1.71   | 16.5   | 0.65   | 24.5   | 0.96   | 32.1   | 1.26   | 22        | 0.87      | 0.064 | 29    |
| A2DBP37HT192      | 6    | ¼              | –           | –         | ¾        | 43.5       | 1.71   | 16.5   | 0.65   | 24.5   | 0.96   | 32.1   | 1.26   | 22        | 0.87      | 0.064 | 29    |
| A3DBP37BS192      | 4    | ¾              | ¾           | –         | –        | 57.1       | 2.25   | 19.7   | 0.77   | 29.5   | 1.16   | 39.5   | 1.45   | 27        | 1.06      | 0.117 | 53    |
| A3DBP37MBS192     | 5    | ¾              | –           | ¾         | –        | 57.1       | 2.25   | 19.7   | 0.77   | 29.5   | 1.16   | 39.5   | 1.45   | 27        | 1.06      | 0.117 | 53    |
| A3DBP37HT192      | 6    | ¾              | –           | –         | ¾        | 57.1       | 2.25   | 19.7   | 0.77   | 29.5   | 1.16   | 39.5   | 1.45   | 27        | 1.06      | 0.115 | 52    |
| A3DBP50BS192      | 4    | ¾              | ½           | –         | –        | 57.1       | 2.25   | 19.7   | 0.77   | 29.5   | 1.16   | 39.5   | 1.45   | 27        | 1.06      | 0.117 | 53    |
| A3DBP50MBS192     | 5    | ¾              | –           | ½         | –        | 57.1       | 2.25   | 19.7   | 0.77   | 29.5   | 1.16   | 39.5   | 1.45   | 27        | 1.06      | 0.130 | 59    |
| A3DBP50HT192      | 6    | ¾              | –           | –         | ½        | 57.1       | 2.25   | 19.7   | 0.77   | 29.5   | 1.16   | 39.5   | 1.45   | 27        | 1.06      | 0.126 | 57    |
| A4DBP50BS192      | 4    | ½              | ½           | –         | –        | 60.6       | 2.39   | 25.2   | 0.99   | 35.5   | 1.4    | 40.4   | 1.59   | 32        | 1.26      | 0.194 | 88    |
| A6DBP75BS192      | 4    | ¾              | ¾           | –         | –        | 83.4       | 3.28   | 32.8   | 1.29   | 46.5   | 1.83   | 57.7   | 2.27   | 41        | 1.61      | 0.375 | 170   |
| A8DBP100BS192     | 4    | 1              | 1           | –         | –        | 89.4       | 3.52   | 40.4   | 1.59   | 54.9   | 2.16   | 62     | 2.44   | 50        | 1.97      | 0.591 | 268   |

\*Alternative end connections available upon request.

To obtain connected length of coupling, add dimensions A (Fig. 1) and G (Fig. 4) together.

## Color Coding Ring Option\*

| Body Size (in) | ISO Size (mm) | Size | Socket/Female Ring Part/Order Number** |           |           |           | Plug/Male Ring Part/Order Number** |           |           |           | Tool Part/Order Number | Tool & Rings Kit Part/Order Number*** |
|----------------|---------------|------|--|-----------|-----------|-----------|------------------------------------|-----------|-----------|-----------|------------------------|---------------------------------------|
|                |               |      | Blue                                   | Red       | Yellow    | Green     | Blue                               | Red       | Yellow    | Green     |                        |                                       |
| ½              | 12.5          | 12FF | CR12FFSLB                              | CR12FFSRD | CR12FFSYL | CR12FFSDG | CR12FFPLB                          | CR12FFPRD | CR12FFPYL | CR12FFPDG | CR12FFSP93             | CRKIT12FF                             |

For color coded rings TPE material is used that offers excellent flexibility which allows a very good shock resistance in demanding applications.

Good thermal, chemical and weather resistance provides a great fit on the coupling and a extended life time in toughest conditions.

The color coded rings are easy to install by using the referenced tools. Please refer to the user guide on danfoss/qdc.com

\* For requests on alternative colors or installation instructions, please contact your Danfoss sales representative.

\*\* Orders must be in multiples of 10 pcs.

\*\*\* The kit consists of a tool plus 10 socket rings and 10 plug rings of each color.

# FD83 Series Full Flow Dual Interlock

Thermal Management Application



Danfoss Hansen’s FD83 coupling is designed for fluid transfer and electronics cooling applications where full flow, fluid compatibility and safety are essential. The FD83 identical halves include two interlock features to eliminate spills and ensure maximum safety. Valves cannot be opened until the coupling halves are mated and coupling halves cannot be disconnected until both halves are closed.

## Product Features

- Dual interlock safety feature eliminates accidental opening of coupling when disconnected with the use of a patented locking pin design and lever handle
- Design provides reliable performance and no spillage during maintenance or service
- Standard seal material: EPDM-P (Peroxide cured)
- Standard body material: 303 stainless steel
- Full flow coupling
- Identical coupling halves
- Maintenance and service friendly
- Passivated 303 stainless steel material provides broad fluid compatibility
- Wide range of terminal end options
- Operation temperature range: -3°C min (26.6°F), 60°C max (140°F)\*

## Physical characteristics

| Couplin Size | Max Operating pressure |       |                   |       |           |       | Min burst pressure |       |           |       |                   |       | Rated Flow |       | Fluid Loss cc. max. | Cv Value |
|--------------|------------------------|-------|-------------------|-------|-----------|-------|--------------------|-------|-----------|-------|-------------------|-------|------------|-------|---------------------|----------|
|              | Connected              |       | Disconnected Half |       | Connected |       | Disconnected Half  |       | Connected |       | Disconnected Half |       | (lpm)      | (gpm) |                     |          |
| (in)         | (bar)                  | (psi) | (bar)             | (psi) | (bar)     | (psi) | (bar)              | (psi) | (bar)     | (psi) | (bar)             | (psi) | (lpm)      | (gpm) |                     |          |
| 1            | 10                     | 150   | 10                | 150   | 10        | 150   | 20                 | 300   | 20        | 300   | 20                | 300   | 189        | 50    | 5.0                 | 30       |
| 2            | 10                     | 150   | 10                | 150   | 10        | 150   | 20                 | 300   | 20        | 300   | 20                | 300   | 800        | 211   | 12                  | 127      |

## Applications & Markets

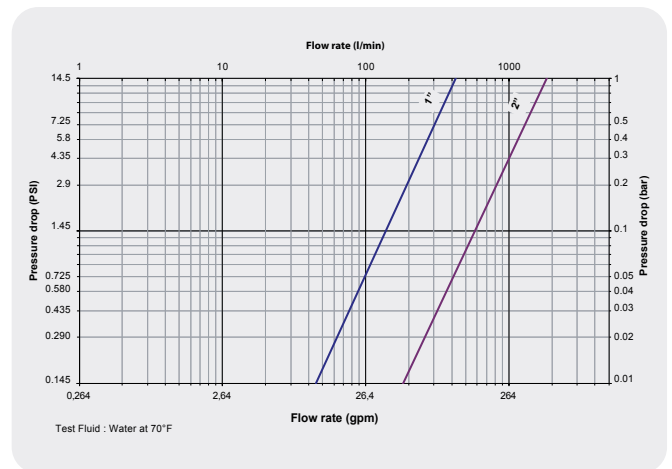
- Data Centers
- Thermal Management Systems
- Industrial Fluid Transfer
- Not intended for two-phase cooling

## Seal Elastomer Data\*

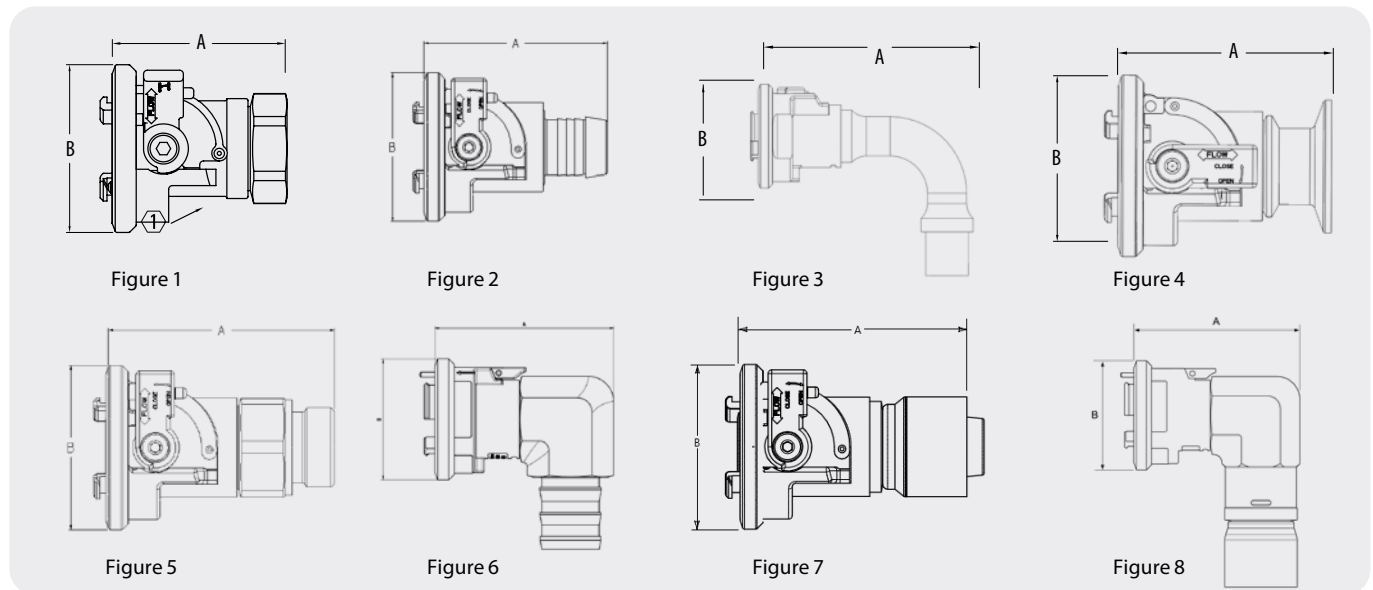
| Seal Elastomer          | Operation Temperature Range |                |
|-------------------------|-----------------------------|----------------|
|                         | C°                          | F°             |
| EPDM-P (Peroxide Cured) | -40C° to 150C°              | -40F° to 302F° |

\*For reference only, based on Danfoss recommended temperatures. Contact Danfoss technical support for further information on fluid compatibility.

## Flow Data



# FD83 Series Full Flow Dual Interlock



## Dimensions (Female, SAE O-Ring Non-Valved)

| Part Number     | Order Number    | Body Size | Port Size | Thread | Type  | Dimensions |       |      |       |      |      |      |
|-----------------|-----------------|-----------|-----------|--------|---|------------|-------|------|-------|------|------|------|
|                 |                 |           |           |        |   | Fig.       | A     |      | B     |      | Hex  |      |
|                 |                 |           |           |        |   |            | (mm)  | (in) | (mm)  | (in) | (mm) | (in) |
| FD83-2052-16-16 | FD83-2052-16-16 | 1         | 1         | 1-11-½ | Female NPTF                                 | 1          | 95.5  | 3.76 | 71.6  | 2.82 | 41   | 1.63 |
| FD83-2052-12-16 | FD83-2052-12-16 | 1         | ¾         | ¾-14   | Female NPTF                                 | 1          | 70.1  | 2.76 | 71.6  | 2.82 | 41   | 1.63 |
| FD83-2046-16-16 | FD83-2046-16-16 | 1         | 1         | NA     | 1" Hose Barb EHW194 hose                    | 2          | 84.2  | 3.31 | 71.6  | 2.82 | -    | -    |
| FD83-2092-16-16 | FD83-2092-16-16 | 1         | 1         | NA     | 1" Hose Barb 90° EHW194 hose                | 3          | 142.3 | 5.60 | 71.6  | 2.82 | -    | -    |
| FD83-2096-16-16 | FD83-2096-16-16 | 1         | 1         | 1 ¾-12 | Male ORB ISO 11926-3                        | 5          | 95.5  | 3.76 | 71.6  | 2.82 | 41   | 1.63 |
| FD83-2140-16-16 | FD83-2140-16-16 | 1         | 1         | G1-11  | Male BSPP ISO 1179-2                        | 5          | 95.5  | 3.76 | 71.6  | 2.82 | 41   | 1.63 |
| FD83-2126-16-16 | FD83-2126-16-16 | 1         | 1         | G1-11  | Female BSPP ISO 1179-1                      | 1          | 84.3  | 3.32 | 71.6  | 2.82 | 41   | 1.63 |
| FD83-2128-16-16 | FD83-2128-16-16 | 1         | 1         | NA     | Sanitary Flange 1"-DIN32676/ISO2852/ BS4825 | 4          | 79.6  | 3.13 | 71.6  | 2.82 | -    | -    |
| FD83-2126-32-32 | FD83-2126-32-32 | 2         | 2         | G2-11  | Female BSPP ISO 1179-1                      | 1          | 112.0 | 4.43 | 105.3 | 4.15 | 70   | 2.76 |
| FD83-2046-32-32 | 11349026        | 2         | 2         | NA     | 2" Hose barb EHW194 hose                    | 2          | 156.8 | 6.17 | 105.3 | 4.15 | -    | -    |
| FD83-2046-24-32 | 11349477        | 2         | 1 ½       | NA     | 1 1/2" Hose Barb EHW194 hose                | 2          | 149.8 | 5.90 | 105.3 | 4.15 | -    | -    |
| FD83-2046-20-32 | 11349492        | 2         | 1 ¼       | NA     | 1 1/4" Hose Barb EHW194 hose                | 2          | 141.6 | 5.57 | 105.3 | 4.15 | -    | -    |
| FD83-2128-32-32 | FD83-2128-32-32 | 2         | 2         | NA     | Sanitary Flange 2"-DIN32676/ISO2852/BS4825  | 4          | 102.4 | 4.03 | 105.3 | 4.15 | -    | -    |
| FD83-2052-32-32 | FD83-2052-32-32 | 2         | 2         | 2-11-½ | Female NPT                                  | 1          | 112.6 | 4.43 | 105.3 | 4.15 | 70   | 2.76 |
| FD83-2092-32-32 | 11358296        | 2         | 2         | NA     | 2" Hose barb EHW194 hose                    | 6          | 155.2 | 6.11 | 105.3 | 4.15 | -    | -    |
| FD83-2175-32-32 | 11369532        | 2         | 2         | G2-11  | Male BSPP ISO 1179-3                        | 5          | 134.3 | 5.29 | 105.3 | 4.15 | 75   | 2.95 |
| FD83-2168-16-16 | 11367128        | 1         | 1         | N/A    | 1" 1G Crimp                                 | 8          | 102.8 | 4.05 | 71.6  | 2.82 | -    | -    |
| FD83-2170-16-16 | 11367142        | 1         | 1         | N/A    | 1" 1G Crimp                                 | 7          | 106.1 | 4.2  | 71.6  | 2.82 | -    | -    |
| FD83-2170-32-32 | 11367130        | 2         | 2         | N/A    | 2" 1G Crimp                                 | 7          | 148.3 | 5.84 | 105.3 | 4.15 | -    | -    |
| FD83-2168-32-32 | 11367129        | 2         | 2         | N/A    | 2" 1G Crimp                                 | 8          | 153.2 | 6.03 | 105.3 | 4.15 | -    | -    |

Other end connections available upon request.

# UQD Series

Thermal Management Application



Danfoss Hansen UQD is designed for thermal management applications, available in 4 sizes and has 2 color options. It complies with OCP (Open Compute Project) and exceeds requirements of specified performance characteristics. Danfoss UQD offers color identification (red and blue) and guarantees 100% helium-leak testing.

Global region

## Product Features

- Designed per OCP (Open Compute Project) UQD specification
- Push-to-connect design
- High flow and no spillage
- Double shut off - flat face valves
- Exceeds OCP flow ratings at least by 25% resulting in reduction in overall energy consumption
- Best in class force to connect
- Standard seal material: EPDM-P (Peroxide cured)
- Standard material: 303/304 stainless steel provides broad fluid compatibility
- Color anodized aluminum sleeves
- Color coded (red/blue) sleeves on socket and O-rings on plug
- Compact socket versions for sizes -02, -04, -06 to better fit in data center applications
- QR code identification to help track parts
- Wide range of terminal end options: ORB, BSPP on plug and push on hose on socket. Additional configurations available upon request
- Operating temperature: 5°C - 65°C (41°F - 149°F)
- Typical working pressure: 6.9 bar, up to 20 bar for smaller sizes
- All wetted o-rings/seals are qualified/ certified as per IEC/UL 62368-1 G.15.2.3



## Physical characteristics

| Size  | Body Size | Nominal Flow Diameter | Max operating pressure |       |                      |       |                  |       | Min burst pressure |       |                      |       |                  |       | Rated Flow* | Cv Value | Air Inclusion | Fluid Loss |          |          |
|-------|-----------|-----------------------|------------------------|-------|----------------------|-------|------------------|-------|--------------------|-------|----------------------|-------|------------------|-------|-------------|----------|---------------|------------|----------|----------|
|       |           |                       | Connected              |       | Socket / Female Half |       | Plug / Male Half |       | Connected          |       | Socket / Female Half |       | Plug / Male Half |       |             |          |               |            |          |          |
|       | (in)      | (mm)                  | (bar)                  | (psi) | (bar)                | (psi) | (bar)            | (psi) | (bar)              | (psi) | (bar)                | (psi) | (bar)            | (psi) | (bar)       | (psi)    | (lpm)         | -          | cc. max. | cc. max. |
| UQD02 | 1/8       | 3.16                  | 20                     | 290   | 20                   | 290   | 20               | 290   | 60                 | 870   | 60                   | 870   | 60               | 870   | 2.1         | 0.6      | 0.33          | 0.004      | 0.007    |          |
| UQD04 | 1/4       | 6.3                   | 16                     | 232   | 16                   | 232   | 16               | 232   | 48                 | 696   | 48                   | 696   | 48               | 696   | 6.4         | 1.7      | 1.37          | 0.024      | 0.01     |          |
| UQD06 | 3/8       | 7.9                   | 6.9                    | 100   | 6.9                  | 100   | 6.9              | 100   | 20.7               | 300   | 20.7                 | 300   | 20.7             | 300   | 11.4        | 3.0      | 2.37          | 0.027      | 0.022    |          |
| UQD08 | 1/2       | 10                    | 8.9                    | 129   | 8.9                  | 129   | 8.9              | 129   | 20.7               | 300   | 20.7                 | 300   | 20.7             | 300   | 17.8        | 4.7      | 5.32          | 0.029      | 0.03     |          |

\* Defined per OCP specifications, Rated Flow is the reference flow rate used to measure pressure drop and determine the published Cv (flow coefficient).

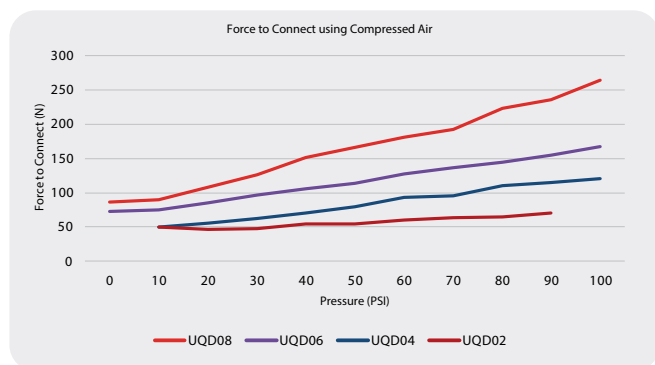
# UQD Series

| Size  | Force to Connect |       | Performance Parameters Recommended Torque |       |          |       |
|-------|------------------|-------|---|-------|----------|-------|
|       | N                | lb    | ORB size                                  | N-m   | BSP Size | N-m   |
| UQD02 | 48               | 10.79 | 7/16-20                                   | 9-10  | 1/8"     | 8-9   |
| UQD04 | 50               | 11.24 | 9/16-18                                   | 15-17 | 3/8"     | 18-20 |
| UQD06 | 73               | 16.41 | 3/4-16                                    | 25-28 | 3/8"     | 18-20 |
| UQD08 | 87               | 19.56 | 7/8-14                                    | 30-33 | 1/2"     | 34-37 |

## Applications & Markets

- Liquid cooling application
- Data center application

## Force to Connect vs Pressure

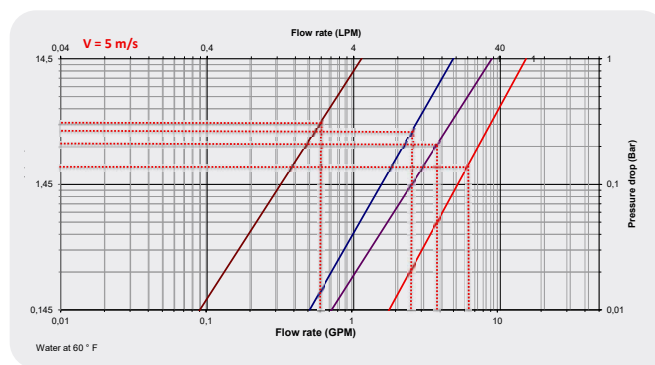


A reference flow rate corresponding to 5 m/s is widely adopted in industry to balance pressure drop and flow stability. While not the maximum allowable flow, it offers an optimal balance between system performance and component sizing.

## Seal Elastomer Data

| Seal Elastomer | Operation Temperature Range |              |
|----------------|-----------------------------|--------------|
|                | C°                          | F°           |
| EPDM-P         | -40°C +150°C                | -40°F +302°F |

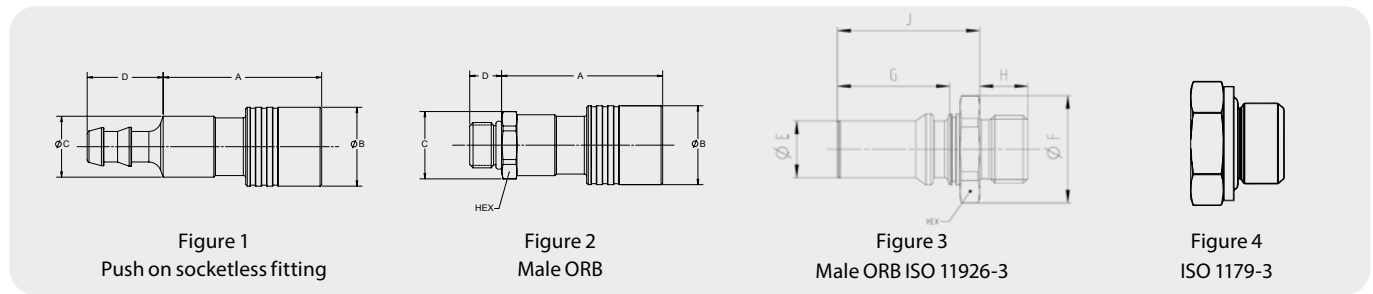
## Flow Data



| Size  | Flow at 5m/s | Flow at 5m/s |
|-------|--------------|--------------|
|       | (lpm)        | (gpm)        |
| UQD02 | 2.4          | 0.62         |
| UQD04 | 9.4          | 2.5          |
| UQD06 | 14.7         | 3.9          |
| UQD08 | 23.6         | 6.2          |

# UQD Series

Global region



## Socket (Female) part

| OCP<br>UQD size | Part number     | Order number   | Material | Details          |      | Fig. | Dimensions |      |      |      |      |      |      |      |      |      |
|-----------------|-----------------|----------------|----------|------------------|------|------|------------|------|------|------|------|------|------|------|------|------|
|                 |                 |                |          | Thread /end size | ORB  |      | A          | B    | C    |      | D    |      | Hex  |      |      |      |
|                 |                 |                |          | Hose Tail        |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) |
| UQD02           | 2UQS25HABLS11   | 2UQS25HABLS11  | SS303    | 1/4              | -    | 1    | 38.4       | 1.51 | 18.5 | 0.73 | 14.0 | 0.55 | 19.1 | 0.75 | -    | -    |
|                 | 2UQS25HARDS11   | 2UQS25HARDS11  |          |                  |      |      |            |      |      |      |      |      |      |      |      |      |
| UQD04           | 4UQS37HABLS11   | 4UQS37HABLS11  | SS303    | 3/8              | -    | 1    | 49.5       | 1.95 | 24.6 | 0.97 | 19.0 | 0.75 | 23.7 | 0.93 | -    | -    |
|                 | 4UQS37HARDS11   | 4UQS37HARDS11  |          |                  |      |      |            |      |      |      |      |      |      |      |      |      |
| UQD04           | 4UQS25HABLS11   | 4UQS25HABLS11  | SS303    | 1/4              | -    | 1    | 51.2       | 2.01 | 24.6 | 0.97 | 19.0 | 0.75 | 22   | 0.87 | -    | -    |
|                 | 4UQS25HARDS11   | 4UQS25HARDS11  |          |                  |      |      |            |      |      |      |      |      |      |      |      |      |
| UQD06           | 4UQS56ORMBLS11  | 4UQS56ORMBLS11 | SS303    | -                | 9/16 | 2    | 50.3       | 1.98 | 24.6 | 0.97 | 21   | 0.83 | 9.9  | 0.39 | 19   | 0.75 |
|                 | 4UQS56ORMRDS11  | 4UQS56ORMRDS11 |          |                  |      |      |            |      |      |      |      |      |      |      |      |      |
| UQD06           | 6UQS50HABLS11   | 6UQS50HABLS11  | SS303    | 1/2              | -    | 1    | 52.3       | 2.06 | 27.8 | 1.10 | 23   | 0.9  | 25.8 | 1.01 | -    | -    |
|                 | 6UQS50HARDS11   | 6UQS50HARDS11  |          |                  |      |      |            |      |      |      |      |      |      |      |      |      |
| UQD08 V2        | 8UQS62HABLS11   | 11368547       | SS303    | 5/8              | -    | 1    | 62,05      | 2,44 | 31,5 | 1,24 | 28   | 1,1  | 39   | 1,54 | -    | -    |
|                 | 8UQS62HARDS11   | 11368540       |          |                  |      |      |            |      |      |      |      |      |      |      |      |      |
|                 | ML8UQS62HABLS11 | 11368473       | SS304    |                  |      |      |            |      |      |      |      |      |      |      |      |      |
|                 | ML8UQS62HABLS11 | 11368468       | SS304    |                  |      |      |            |      |      |      |      |      |      |      |      |      |

Note 1: To obtain connected length of coupling, add dimensions A (Fig. 1) and D (Fig. 2) together.

Note 2: For color options, RD suffix corresponds to RED and BL suffix to BLUE.

## Plug (Male) part

| OCP<br>UQD size | Part number      | Order number | Material | Details          |         | Fig. | Dimensions |      |       |      |      |      |      |      |      |      |    |      |
|-----------------|------------------|--------------|----------|------------------|---------|------|------------|------|-------|------|------|------|------|------|------|------|----|------|
|                 |                  |              |          | Thread /end size | ORB     |      | E          | F    | G     |      | H    |      | J    |      | Hex  |      |    |      |
|                 |                  |              |          | BSP              | ORB     | n°   | (mm)       | (in) | (mm)  | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) |    |      |
| UQD02           | 2UQP43ORMBL      | 2UQP43ORMBL  | SS303    | -                | 7/16-20 | 3    | 6.65       | 0.26 | 16.17 | 0.64 | 8.7  | 0.34 | 9.1  | 0.36 | 29.3 | 1.15 | 14 | 0.55 |
|                 | 2UQP43ORMRD      | 2UQP43ORMRD  |          |                  |         |      |            |      |       |      |      |      |      |      |      |      |    |      |
| UQD04           | 2UQP12MBSBL      | 2UQP12MBSBL  | SS303    | 1/8              | -       | 4    | 6.65       | 0.26 | 17.32 | 0.68 | 8.7  | 0.34 | 8    | 0.31 | 30.4 | 1.20 | 15 | 0.59 |
|                 | 2UQP12MBSRD      | 2UQP12MBSRD  |          |                  |         |      |            |      |       |      |      |      |      |      |      |      |    |      |
| UQD04           | 4UQP56ORMBL      | 4UQP56ORMBL  | SS303    | -                | 9/16-18 | 3    | 11.07      | 0.44 | 19.63 | 0.77 | 9.8  | 0.39 | 9.9  | 0.39 | 37.9 | 1.49 | 17 | 0.67 |
|                 | 4UQP56ORMRD      | 4UQP56ORMRD  |          |                  |         |      |            |      |       |      |      |      |      |      |      |      |    |      |
| UQD06           | 4UQP37MBSBL      | 4UQP37MBSBL  | SS303    | 3/8              | -       | 4    | 11.07      | 0.44 | 25.40 | 1.00 | 9.8  | 0.39 | 11.2 | 0.44 | 37.9 | 1.49 | 22 | 0.87 |
|                 | 4UQP37MBSRD      | 4UQP37MBSRD  |          |                  |         |      |            |      |       |      |      |      |      |      |      |      |    |      |
| UQD06           | 6UQP75ORMBL      | 6UQP75ORMBL  | SS303    | -                | 3/4-16  | 3    | 14.3       | 0.56 | 25.40 | 1.00 | 10   | 0.39 | 11.1 | 0.44 | 41.6 | 1.64 | 22 | 0.87 |
|                 | 6UQP75ORMRD      | 6UQP75ORMRD  |          |                  |         |      |            |      |       |      |      |      |      |      |      |      |    |      |
| UQD08 V2        | 6UQP37MBSBL      | 6UQP37MBSBL  | SS303    | 3/8              | -       | 4    | 14.3       | 0.56 | 25.40 | 1.00 | 10   | 0.39 | 11.2 | 0.44 | 41.6 | 1.64 | 22 | 0.87 |
|                 | 6UQP37MBSRD      | 6UQP37MBSRD  |          |                  |         |      |            |      |       |      |      |      |      |      |      |      |    |      |
| UQD08 V2        | 8UQP870MRDS11    | 12029056     | SS303    | -                | 7/8-14  | 3    | 17,48      | 0,69 | 30    | 1,18 | 33,8 | 1,33 | 12,7 | 0,50 | 42,9 | 1,69 | 27 | 1,06 |
|                 | 8UQP870MBLS11    | 12029057     | SS303    |                  |         |      |            |      |       |      |      |      |      |      |      |      |    |      |
|                 | ML8UQP870MRDS11  | 11368458     | SS304    |                  |         |      |            |      |       |      |      |      |      |      |      |      |    |      |
|                 | ML8UQP870MBLS11  | 11368440     | SS304    |                  |         |      |            |      |       |      |      |      |      |      |      |      |    |      |
| UQD08 V2        | 8UQP50MBSRDS11   | 11368541     | SS303    | 1/2              | -       | 4    | 17,48      | 0,69 | 33    | 1,30 | 33,8 | 1,33 | 14,5 | 0,57 | 42,9 | 1,69 | 30 | 1,18 |
|                 | 8UQP50MBSBLS11   | 11368548     | SS303    |                  |         |      |            |      |       |      |      |      |      |      |      |      |    |      |
|                 | ML8UQP50MBSRDS11 | 11358746     | SS304    |                  |         |      |            |      |       |      |      |      |      |      |      |      |    |      |
|                 | ML8UQP50MBSBLS11 | 11358734     | SS304    |                  |         |      |            |      |       |      |      |      |      |      |      |      |    |      |

Note 1: For color options, RD suffix corresponds to RED and BL suffix to BLUE.

# UQDB Series

## Blind-Mate Couplings



Danfoss Hansen Universal Quick Disconnect Blind-Mate (UQDB) has been designed with OCP (Open Compute Project) community to set industry standard for thermal management application in data centers. This quick disconnect coupling is available in 4 different sizes (as the UQD: -02/-04/-06/-08) and complies with OCP specification requirements. Danfoss UQDB offers a self-alignment feature to help connect in location with limited access or visibility and guarantees 100% helium-leak testing on every coupling.

### Product Features and Benefits

- Designed per OCP UQDB specifications
- “Blind-connection” thanks to self- alignment feature with radial compensation of 1 mm
- Push-to-connect design
- Direct connection between servers and manifolds
- High flow and reduced pressure drop for an improved system efficiency
- Flat-face dry break design to avoid spillage during connection/ disconnection
- Sizes available: -02/-04/-06/-08
- High reliability and 100% helium-leak tested
- Standard material: 303/304 stainless steel for excellent corrosion resistance
- Standard seal material: EPDM-P (Peroxide cured) for excellent fluid compatibility
- Terminal ends are ORB
- Operating temperature: 5°C - 65°C (41°F - 149°F)
- Typical working pressure: 6.9 bar
- QR code marking to help identify and track production parts
- All wetted o-rings/seals are qualified/ certified as per EC/UL 6268-1 G.15.2.3



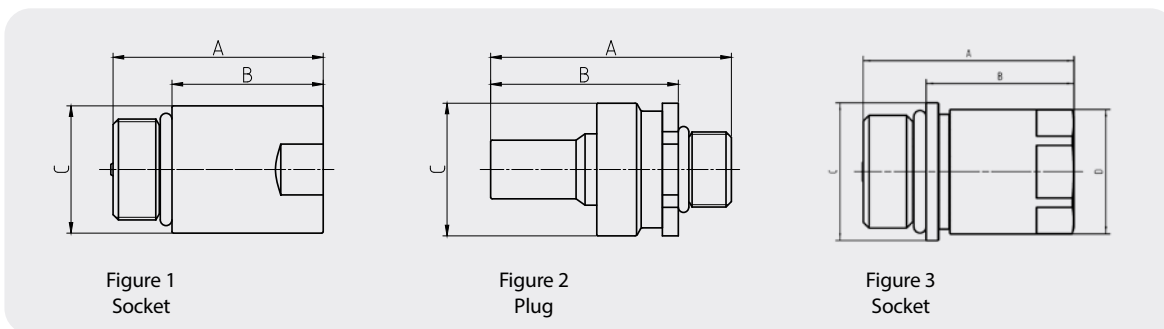
### Physical characteristics

| Size   | Body Size | Nominal Flow Diameter | Max operating pressure |       |                      |       |                  |       | Min burst pressure |       |                      |       |                  |       | Rated Flow* | Cv Value | Air Inclusion | Fluid Loss | Mis-alignment (radial) |      |
|--------|-----------|-----------------------|------------------------|-------|----------------------|-------|------------------|-------|--------------------|-------|----------------------|-------|------------------|-------|-------------|----------|---------------|------------|------------------------|------|
|        |           |                       | Connected              |       | Socket / Female Half |       | Plug / Male Half |       | Connected          |       | Socket / Female Half |       | Plug / Male Half |       |             |          |               |            |                        |      |
|        | (in)      | (mm)                  | (bar)                  | (psi) | (bar)                | (psi) | (bar)            | (psi) | (bar)              | (psi) | (bar)                | (psi) | (bar)            | (psi) | (lpm)       | (gpm)    | -             | cc. max.   | cc. max.               | (mm) |
| UQDB02 | 1/8       | 3.15                  | 20                     | 290   | 20                   | 290   | 20               | 290   | 60                 | 870   | 60                   | 870   | 60               | 870   | 2.1         | 0.55     | 0.31          | 0.04       | 0.02                   | 1    |
| UQDB04 | 1/4       | 5.7                   | 16                     | 232   | 16                   | 232   | 16               | 232   | 48                 | 696   | 48                   | 696   | 48               | 696   | 6.4         | 1.7      | 1.22          | 0.04       | 0.025                  | 1    |
| UQDB06 | 3/8       | 7.9                   | 10                     | 145   | 10                   | 145   | 10               | 145   | 30                 | 435   | 30                   | 435   | 30               | 435   | 11.36       | 3.0      | 2.23          | 0.093      | 0.035                  | 1    |
| UQDB08 | 1/2       | 9.3                   | 6.89                   | 100   | 6.89                 | 100   | 6.89             | 100   | 20.68              | 300   | 20.68                | 300   | 20.68            | 300   | 17.8        | 4.7      | 3.76          | 0.096      | 0.044                  | 1    |

\* Defined per OCP specifications, Rated Flow is the reference flow rate used to measure pressure drop and determine the published Cv (flow coefficient).

# UQDB Series

Global region



## Dimensions

| QCP UQDB size | Part number   | Order number | Part   | Material | Details     | Fig. | Dimensions  |        |        |        | E2E length |        |             |             |
|---------------|---------------|--------------|--------|----------|-------------|------|-------------|--------|--------|--------|------------|--------|-------------|-------------|
|               |               |              |        |          |             |      | Thread/size | A (mm) | A (in) | B (mm) | B (in)     | C (mm) | C (in)      | D (mm)      |
| UQDB02        | 2UQBS56ORM    | 2UQBS56ORM   | Socket | SS303    | ORB 1/16-18 | 1    | 33.60       | 1.32   | 23.6   | 0.93   | 20         | 0.79   | 35.8 - 37.2 | 1.41 - 1.47 |
| UQDB02        | 2UQBP44ORM    | 2UQBP44ORM   | Plug   | SS303    | 7/16-20     | 2    | 36.10       | 1.42   | 27     | 1.06   | 20         | 0.79   |             |             |
| UQDB04        | 4UQBS75ORM    | 4UQBS75ORM   | Socket | SS303    | 3/4-16      | 1    | 39.60       | 1.55   | 28.5   | 1.12   | 23.6       | 0.92   | 44.0 - 45.4 | 1.73 - 1.79 |
| UQDB04        | 4UQBP56ORM    | 4UQBP56ORM   | Plug   | SS303    | 1/16-18     | 2    | 45.32       | 1.78   | 35.3   | 1.39   | 25         | 0.98   |             |             |
| UQDB06        | 6UQBS87ORM    | 6UQBS87ORM   | Socket | SS303    | 7/8-14      | 1    | 44.40       | 1.74   | 31.7   | 1.24   | 28.4       | 1.11   | 47.5 - 48.9 | 1.87 - 1.93 |
| UQDB06        | 6UQBP75ORM    | 6UQBP75ORM   | Plug   | SS303    | 3/4-16      | 2    | 49.90       | 1.96   | 38.9   | 1.53   | 28.4       | 1.11   |             |             |
| UQDB08 v2     | 8UQBS106ORMV2 | 11367197     | Socket | SS303    | 1 1/16-12   | 3    | 50.66       | 2.00   | 35.56  | 1.40   | 33         | 1.30   | 50.9 - 51.9 | 2.00 - 2.04 |
| UQDB08 v2     | 8UQBS106ORMV2 | 11368123     | Socket | SS304    | 1 1/16-12   | 3    | 50.66       | 2.00   | 35.56  | 1.40   | 33         | 1.30   | 50.9 - 51.9 | 2.00 - 2.04 |
| UQDB08        | 8UQBP87ORM    | 8UQBP87ORM   | Plug   | SS303    | 7/8-14      | 2    | 55.60       | 2.19   | 42.9   | 1.69   | 31.3       | 1.23   | 51.8 - 53.2 | 2.04 - 2.09 |

| Size   | Force to Connect |    | Performance Parameters |                        |                 |                        |
|--------|------------------|----|------------------------|------------------------|-----------------|------------------------|
|        | N                | lb | Plug ORB size          | Recommended Torque N.m | Socket ORB size | Recommended Torque N.m |
| UQDB02 | 53               | 12 | 7/16-20 UNF-2A         | 9-10                   | 1/16-18 UNF-2A  | 15-17                  |
| UQDB04 | 62               | 14 | 9/16-18 UNF-2A         | 15-17                  | 3/4-16 UNF-2A   | 25-28                  |
| UQDB06 | 67               | 15 | 3/4-16 UNF-2A          | 25-28                  | 7/8-14 UNF-2A   | 30-33                  |
| UQDB08 | 71               | 16 | 7/8-14 UNF-2A          | 30-33                  | 1 1/16-12 UN-2A | 48-53                  |

## Applications & Markets

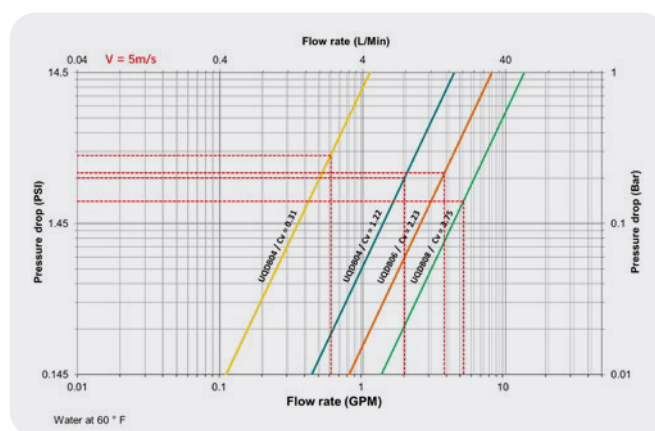
- Direct-to-chip liquid cooling
- Thermal management

## Seal Elastomer Data

| Seal Elastomer | Operation Temperature Range |              |
|----------------|-----------------------------|--------------|
|                | C°                          | F°           |
| EPDM-P         | -40°C +150°C                | -40°F +302°F |

A reference flow rate corresponding to 5 m/s is widely adopted in industry to balance pressure drop and flow stability. While not the maximum allowable flow, it offers an optimal balance between system performance and component sizing.

## Flow Data



| Size   | Flow at 5m/s (lpm) | Flow at 5 m/s (gpm) |
|--------|--------------------|---------------------|
| UQDB02 | 2.3                | 0.60                |
| UQDB04 | 7.8                | 2.0                 |
| UQDB06 | 14.7               | 3.9                 |
| UQDB08 | 20.6               | 5.4                 |

# MQD/MQDB Series



Danfoss Hansen MQD and MQDB are designed for single-phase (water/glycol) systems for liquid cooling of electronics. This product is compliant to NVIDIA Quick Disconnect (MQD & MQDB) Specification 3.2 and can be interchanged with vendors compliant to this specification. Offered with ISO 11926-3 O-ring boss, BSPP and hose tail terminal ends.

## Product Features

- Stainless steel 304 material and EPDM seals
- Color identification (red and blue) for hand mate MQD
- Available in 3 different sizes (MQD02, MQD03, MQD04)
- All parts are 100 % helium-leak tested
- Operating temperature range :  
-40° C to +150 ° C (-40°F to 302°F)

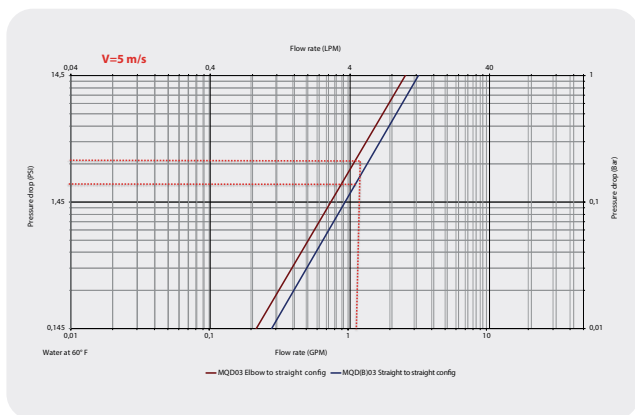
## Physical characteristics

| Body Size | Nominal flow diameter | Max. Operating Pressure |       | Min. Burst Pressure |       | Rated Flow |       | Force to connect | Fluid Loss |
|-----------|-----------------------|-------------------------|-------|---------------------|-------|------------|-------|------------------|------------|
|           |                       | (bar)                   | (psi) | (bar)               | (psi) | (lpm)      | (gpm) | N max.           | cc. max.   |
| (in)      | (mm)                  |                         |       |                     |       |            |       |                  |            |
| MQD02     | 3.3                   | 7                       | 100   | 21                  | 300   | 2.04       | 0.55  | 51               | 0.02       |
| MQD03     | 4.9                   | 7                       | 100   | 21                  | 300   | 4.54       | 1.2   | 55               | 0.023      |
| MQD04     | 6.4                   | 7                       | 100   | 21                  | 300   | 6.81       | 1.8   | 63               | 0.025      |

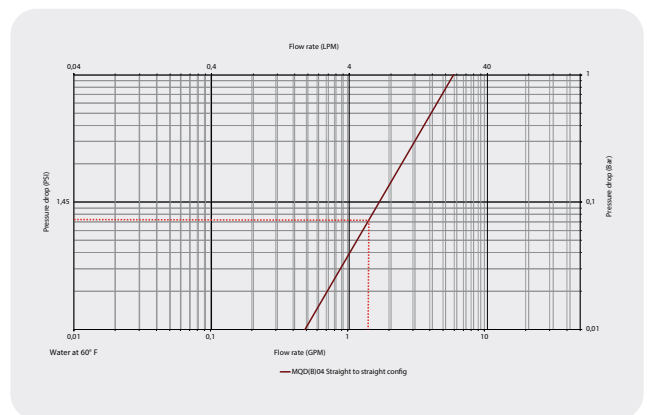
## Applications & Markets

- Technology Cooling System (TCS) for Electronics
- Data Center Liquid Cooling

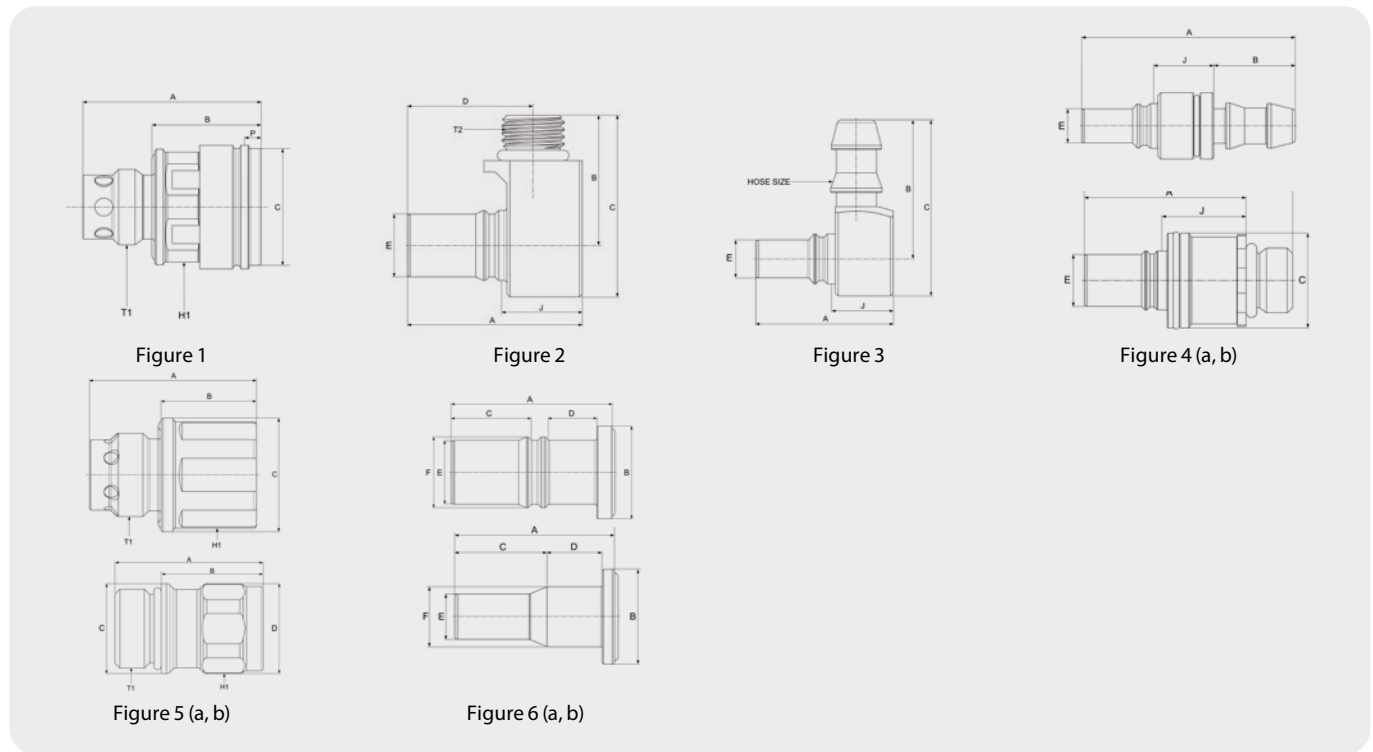
### Flow Data MQ03



### Flow Data MQ04



# MQD/MQDB Series



| Series Description                  | Order Number | Part Number       | Color | Nom Flow dia (mm) | End Type           | Dimensions |        |        |        |        |        |        |         |         |         | Fig |
|-------------------------------------|--------------|-------------------|-------|-------------------|--------------------|------------|--------|--------|--------|--------|--------|--------|---------|---------|---------|-----|
|                                     |              |                   |       |                   |                    | A (mm)     | B (mm) | C (mm) | D (mm) | E (mm) | F (mm) | J (mm) | H1 (mm) | H2 (mm) | H3 (mm) |     |
| Hand Mate Socket                    | 12022881     | ML2MQS43RD        | RED   | 3.3               | 7/16-20 UNF 2A     | 25.67      | 15.37  | 18.00  | -      | -      | -      | -      | 15.9    | -       | -       | 1   |
|                                     | 12022882     | ML2MQS43BL        | BLUE  | 3.3               | 7/16-20 UNF 2A     | 25.67      | 15.37  | 18.00  | -      | -      | -      | -      | 15.9    | -       | -       | 1   |
| Hand Mate Plug, elbow               | 12022869     | ML2MQPEL9025HCRD  | RED   | 3.3               | Hose barb -04 size | 24.20      | 24.50  | 31.00  | 17.7   | 6.65   | -      | 10.50  | -       | -       | -       | 3   |
|                                     | 12022870     | ML2MQPEL9025HCBL  | BLUE  | 3.3               | Hose barb -04 size | 24.20      | 24.50  | 31.00  | 17.7   | 6.65   | -      | 10.50  | -       | -       | -       | 3   |
| Hand Mate Plug, straight            | 12022900     | ML2MQP25HCRD      | RED   | 3.3               | Hose barb -04 size | 39.20      | 15.00  | -      | -      | 6.65   | -      | 10.50  | -       | -       | -       | 4a  |
|                                     | 12022901     | ML2MQP25HCBL      | BLUE  | 3.3               | Hose barb -04 size | 39.20      | 15.00  | -      | -      | 6.65   | -      | 10.50  | -       | -       | -       | 4a  |
| Blind Mate, Socket                  | 12022898     | ML2MQBS43         | -     | 3.3               | 7/16-20 UNF 2A     | 25.90      | 15.60  | 16.85  | -      | -      | -      | -      | 15.9    | -       | -       | 5a  |
| Blind Mate, Plug                    | 12022907     | ML2MQBP           | -     | 3.3               | Floating Body      | 23.40      | 13.90  | 13.50  | 8.5    | 6.65   | 8.8    | -      | -       | -       | -       | 6a  |
| Hand Mate Socket                    | 11359567     | ML3MQS25MBSRD     | RED   | 4.9               | G 1/4-19 BSPP      | 25.25      | 14.45  | 18.00  | -      | -      | -      | -      | 17.0    | -       | -       | 1   |
|                                     | 11359568     | ML3MQS25MBSBL     | BLUE  | 4.9               | G 1/4-19 BSPP      | 25.25      | 14.45  | 18.00  | -      | -      | -      | -      | 17.0    | -       | -       | 1   |
| Hand Mate Plug, elbow               | 11359572     | ML3MQPEL9043ORMRD | RED   | 4.9               | 7/16-20 UNF 2A     | 26.00      | 20.00  | 28.00  | 17.9   | 8.8    | -      | 12.40  | -       | -       | -       | 2   |
|                                     | 11359557     | ML3MQPEL9043ORMBL | BLUE  | 4.9               | 7/16-20 UNF 2A     | 26.00      | 20.00  | 28.00  | 17.9   | 8.8    | -      | 12.40  | -       | -       | -       | 2   |
|                                     | 11359559     | ML3MQPEL9025HCRD  | RED   | 4.9               | Hose barb -04 size | 26.00      | 24.50  | 32.50  | 17.9   | 8.8    | -      | 12.40  | -       | -       | -       | 3   |
|                                     | 11359583     | ML3MQPEL9025HCBL  | BLUE  | 4.9               | Hose barb -04 size | 26.00      | 24.50  | 32.50  | 17.9   | 8.8    | -      | 12.40  | -       | -       | -       | 3   |
| Hand Mate Plug, straight, hose tail | 11359564     | ML3MQP43ORMRD     | RED   | 4.9               | 7/16-20 UNF 2A     | 35.40      | 27.50  | 16.10  | -      | 8.8    | -      | 13.90  | -       | 15.0    | -       | 4b  |
|                                     | 11359565     | ML3MQP43ORMBL     | BLUE  | 4.9               | 7/16-20 UNF 2A     | 35.40      | 27.50  | 16.10  | -      | 8.8    | -      | 13.90  | -       | 15.0    | -       | 4b  |
|                                     | 11359561     | ML3MQP25MBSRD     | RED   | 4.9               | G 1/4-19 BSPP      | 39.00      | 31.00  | -      | -      | 8.8    | -      | 17.40  | -       | -       | 15.0    | 4b  |
|                                     | 11359584     | ML3MQP25MBSBL     | BLUE  | 4.9               | G 1/4-19 BSPP      | 39.00      | 31.00  | -      | -      | 8.8    | -      | 17.40  | -       | -       | 15.0    | 4b  |
| Blind Mate, Socket                  | 11359563     | ML3MQBS25MBS      | -     | 4.9               | G 1/4-19 BSPP      | 25.25      | 14.45  | 18.00  | -      | -      | -      | -      | 16.0    | -       | -       | 5a  |
| Blind Mate, Plug                    | 11359569     | ML3MQBP           | -     | 4.9               | Floating Body      | 23.40      | 14.10  | 11.10  | 8.1    | 8.8    | 10.00  | -      | -       | -       | -       | 6b  |
| Hand Mate Socket                    | 11345074     | ML4MQS37MBSRD     | RED   | 6.4               | G 3/8-19 BSPP      | 31.60      | 21.80  | 21.00  | -      | -      | -      | -      | 20.0    | -       | -       | 1   |
|                                     | 11345075     | ML4MQS37MBSBL     | BLUE  | 6.4               | G 3/8-19 BSPP      | 31.60      | 21.80  | 21.00  | -      | -      | -      | -      | 20.0    | -       | -       | 1   |
| Hand Mate Plug, elbow               | 11345040     | ML4MQPEL9043ORMRD | RED   | 6.4               | 7/16-20 UNF 2A     | 30.75      | 22.95  | 32.00  | 22.1   | 11.07  | -      | 13.25  | -       | -       | -       | 2   |
|                                     | 11345067     | ML4MQPEL9043ORMBL | BLUE  | 6.4               | 7/16-20 UNF 2A     | 30.75      | 22.95  | 32.00  | 22.1   | 11.07  | -      | 13.25  | -       | -       | -       | 2   |
| Hand Mate Plug, straight            | 11345073     | ML4MQP43ORMRD     | RED   | 6.4               | 7/16-20 UNF 2A     | 30.50      | 38.50  | 18.10  | -      | 11.07  | -      | 13.00  | -       | 17.0    | -       | 4b  |
|                                     | 11345061     | ML4MQP43ORMBL     | BLUE  | 6.4               | 7/16-20 UNF 2A     | 30.50      | 38.50  | 18.10  | -      | 11.07  | -      | 13.00  | -       | 17.0    | -       | 4b  |
| Blind Mate, Socket                  | 11345082     | ML4MQBS37MBS      | -     | 6.4               | G 3/8-19 BSPP      | 31.30      | 21.50  | 21.60  | -      | -      | -      | -      | 19.0    | -       | -       | 5b  |
| Blind Mate, Plug                    | 11345092     | ML4MQBP           | -     | 6.4               | Floating Body      | 28.60      | 16.10  | 14.30  | 8.6    | 11.07  | 12.30  | -      | -       | -       | -       | 6a  |
| Blind Mate, Compact Socket          | 11369766     | ML4MQBS37MBS11    | -     | 6.4               | G 3/8-19 BSPP      | 31.30      | 21.50  | 19.00  | 19.0   | -      | -      | -      | 17.9    | -       | -       | 5b  |

Connected Length for Hand mate mounting face on socket to mounting face on plug = B+J  
 Refer MQD spec for more details

# OCP ORV3 BMQC Series

Blind Mate Quick Connector



Danfoss Hansen OCP Open Rack V3 Blind Mate Quick Connector (BMQC) has been designed with OCP (Open Compute Project) community to set industry standard for thermal management application in data centers. This quick disconnect coupling is available in size 5mm and complies with OCP specification requirements. Danfoss BMQC offers a self-alignment feature to help connect in location with limited access or visibility and guarantees 100% helium-leak testing on every coupling.

## Product Features and Benefits

- Designed together with OCP and complies with product specifications
- “Blind-connection” thanks to self- alignment feature with angular and radial compensation:
- +/- 5 mm of pure radial offset between the socket axis and the plug cup axis
- +/- 2.7° of angular offset
- Push-to-connect design
- Direct connection between servers and manifolds
- Static force to connect is max. 99.3 N
- Static force to connect dry is max. 66.71 N
- Dynamic force to connect is max . 120 N max @ 40 mm/sec
- Performance validated up-to 400 mm/sec
- High flow and reduced pressure drop for an improved system efficiency
- Flat-face dry break design to avoid spillage during connection/ disconnection
- High reliability and 100% helium-leak tested
- Danfoss unique patented centering mechanism. This allows end-user to use different types of hoses and a low force to connect.
- Standard material: 303 stainless steel for excellent corrosion resistance
- Standard seal material: EPDM-P (Peroxide cured) for excellent fluid compatibility
- Terminal ends are ORB for socket part and hose tail for plug part
- Operating temperature: 10°C - 65°C (50°F - 149°F)
- Working pressure: 2.4 bar (OCP is checking to increase the pressure – work is in progress)
- All wetted o-rings/seals are qualified/ certified as per IEC/ UL 6268-1 G.15.2.3

## Physical characteristics

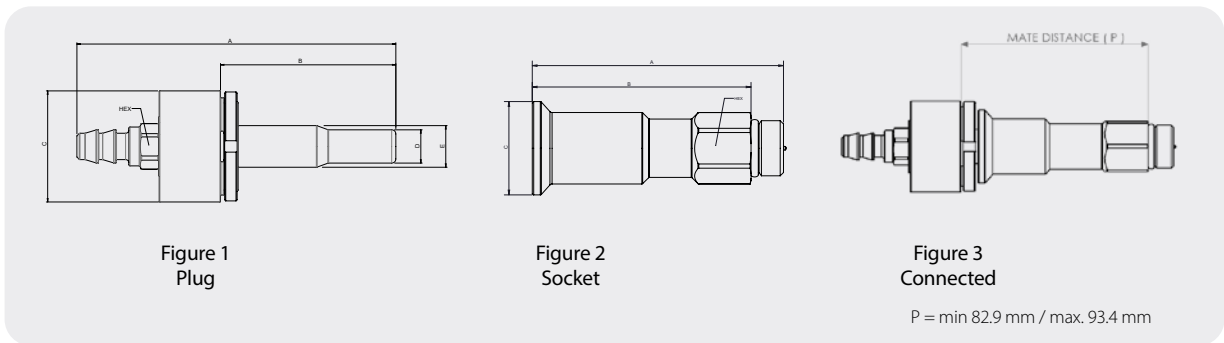


| Size<br>(in) | Working Pressure |       | Min. Burst Pressure |       | Misalign-<br>ment<br>mm | Angular<br>misalign-<br>ment<br>degree | Rated Flow |       | Cv Value* | Torque<br>N/m                      |
|--------------|------------------|-------|---------------------|-------|-------------------------|--|------------|-------|-----------|------------------------------------|
|              | (bar)            | (psi) | (bar)               | (psi) |                         |  | (lpm)      | (gpm) |           |                                    |
| 5            | 2.4              | 35    | 13.8                | 200   | +/-5                    | +/-2.7                                 | 6          | 1.6   | 1.04      | 40 +/-5 (socket)<br>25 +/-5 (plug) |

\*Using PG25, at 40°C.

# OCP ORV3 BMQC Series

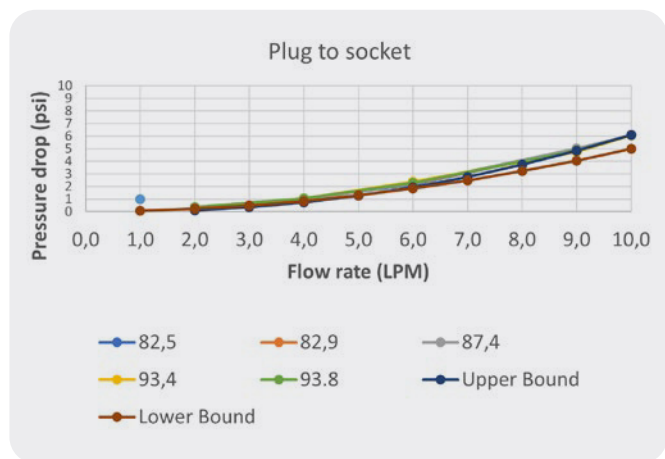
Global region



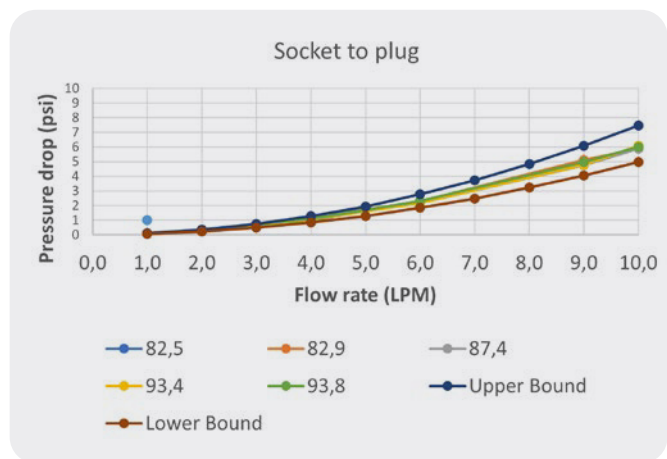
## Dimensions

| Part/Order Number | End connection |           |                | Fig. | Dimensions |        |        |        |        |        |        |        |        |        |          |
|-------------------|----------------|-----------|----------------|------|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|
|                   | Part           | End type  | Thread size    |      | A (mm)     | A (in) | B (mm) | B (in) | C (mm) | C (in) | D (mm) | D (in) | E (mm) | E (in) | Hex (mm) |
| 12001795          | Plug           | Hose barb | -6             | 1    | 115.6      | 4.55   | 67.7   | 2.66   | 40     | 1.57   | 12     | 0.59   | 15     | 0.47   | 15       |
| 12001797          | Socket         | ORB       | 3/4 -16 UNF 2A | 2    | 86.1       | 3.39   | 75     | 2.95   | 32     | 1.25   | -      | -      | -      | -      | 22       |

## Flow Data



## Flow Data



## Applications & Markets

- Liquid cooling application
- Data center application

## Seal Elastomer Data

| Seal Elastomer | Operation Temperature Range |              |
|----------------|-----------------------------|--------------|
|                | C°                          | F°           |
| EPDM-P         | -40°C +150°C                | -40°F +302°F |

# Flo-Temp Series

Thermal Management Application



Danfoss' Flo-Temp™ quick disconnect couplings provide the flow needed to cool or heat molds and die casting dies. Sockets are available non-valved for maximum flow and valved to prevent fluid loss when disconnected. Flo-Temp couplings can be used with water-glycol, hot water and hot oil.

## Product Features

- Non valved straight through models for maximum flow
- Valved sockets/females for automatic shut-off when line is disconnected
- Sockets/Females available with straight, 90° or 45° hose stems or without hose stem
- Brass plugs/males with male pipe thread for recessed mounting to avoid damage to plugs/males when molds are being changed or stored.
- Standard body material: Brass

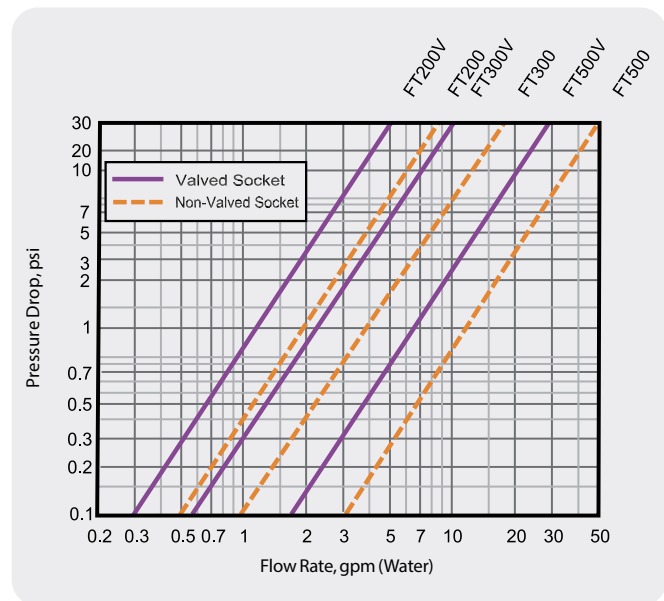
## Physical characteristics

| Series | Max. Operating Pressure |       | Min. Burst Pressure |       | Rated Flow |       |
|--------|-------------------------|-------|---------------------|-------|------------|-------|
|        | (bar)                   | (psi) | (bar)               | (psi) | (lpm)      | (gpm) |
| ¼      | 14                      | 200   | 56                  | 800   | 8.3        | 2.2   |
| ⅜      | 14                      | 200   | 56                  | 800   | 17         | 4.5   |
| ½      | 14                      | 200   | 56                  | 800   | 49         | 13    |

## Applications & Markets

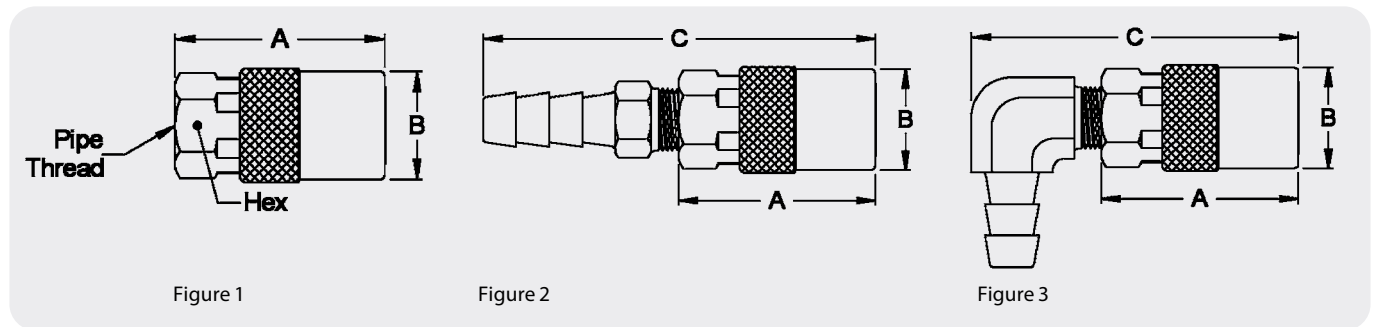
- Injection Molding
- Heating and Cooling

## Flow Data



# Flo-Temp Series

AMER region



## Without Hose Stem

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|--------|------|------|------------|------|------|------|------|------|
|                   |               |           |           |        |      |      | A          |      | B    |      | Hex  |      |
|                   |               |           |           |        |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| LNFT200           | Socket/Female | ¼         | ⅛         | ⅛-27   | NPTF | 1    | 42.7       | 1.68 | 17.0 | 0.67 | 14.2 | 0.56 |
| LNFT300           | Socket/Female | ⅜         | ¼         | ¼-18   | NPTF | 1    | 55.4       | 2.18 | 22.6 | 0.89 | 19.1 | 0.75 |
| LNFT500           | Socket/Female | ½         | ½         | ½-14   | NPTF | 1    | 50.8       | 2.00 | 29.7 | 1.17 | 28.7 | 1.13 |

## Straight Hose Stem

| Part/Order Number |            | Coupling Type | Body Size | Type      | Hose I.D. | Fig. | Dimensions |      |      |      |       |      |
|-------------------|------------|---------------|-----------|-----------|-----------|------|------------|------|------|------|-------|------|
| Non-Valved        | Valved     |               |           |           |           |      | A          |      | B    |      | C     |      |
|                   |            |               |           |           |           |      | (mm)       | (in) | (mm) | (in) | (mm)  | (in) |
| FTS204            | FTS204V    | Socket/Female | ¼         | Hose Stem | ¼         | 2    | 30.5       | 1.20 | 17.0 | 0.67 | 57.2  | 2.25 |
| FTS204HP*         | FTS204VHP* | Socket/Female | ¼         | Hose Stem | ¼         | 2    | 30.5       | 1.20 | 17.0 | 0.67 | 53.1  | 2.09 |
| FTS205            | FTS205V    | Socket/Female | ¼         | Hose Stem | ⅝         | 2    | 30.5       | 1.20 | 17.0 | 0.67 | 53.1  | 2.09 |
| FTS206            | FTS206V    | Socket/Female | ¼         | Hose Stem | ⅜         | 2    | 30.5       | 1.20 | 17.0 | 0.67 | 57.2  | 2.25 |
| FTS206HP*         | -          | Socket/Female | ¼         | Hose Stem | ⅜         | 2    | 30.5       | 1.20 | 17.0 | 0.67 | 59.4  | 2.34 |
| FTS306            | FTS306V    | Socket/Female | ⅜         | Hose Stem | ⅜         | 2    | 40.6       | 1.60 | 23.1 | 0.91 | 68.1  | 2.68 |
| FTS306HP*         | FTS306VHP* | Socket/Female | ⅜         | Hose Stem | ⅜         | 2    | 40.9       | 1.61 | 22.6 | 0.89 | 69.9  | 2.75 |
| FTS308            | FTS308V    | Socket/Female | ⅜         | Hose Stem | ½         | 2    | 40.9       | 1.61 | 22.4 | 0.88 | 71.6  | 2.82 |
| FTS308HP*         | FTS308VHP* | Socket/Female | ⅜         | Hose Stem | ½         | 2    | 40.9       | 1.61 | 22.4 | 0.88 | 71.6  | 2.82 |
| FTS504            | FTS504V    | Socket/Female | ½         | Hose Stem | ½         | 2    | 57.2       | 2.25 | 30.0 | 1.18 | 86.9  | 3.42 |
| FTS504HP*         | FTS504VHP* | Socket/Female | ½         | Hose Stem | ½         | 2    | 57.2       | 2.25 | 30.0 | 1.18 | 91.9  | 3.62 |
| FTS506            | FTS506V    | Socket/Female | ½         | Hose Stem | ¾         | 2    | 56.4       | 2.22 | 30.0 | 1.18 | 97.8  | 3.85 |
| FTS506HP*         | FTS506VHP* | Socket/Female | ½         | Hose Stem | ¾         | 2    | 56.4       | 2.22 | 30.0 | 1.18 | 110.5 | 4.35 |

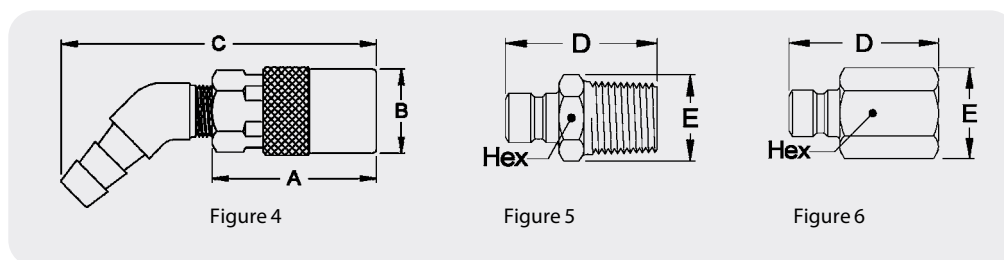
\*Part numbers with HP suffix have push hose barb. All other FTS parts numbers have standard hose barb.

## 90° Hose Stem

| Part/Order Number |            | Coupling Type | Body Size | Type      | Hose I.D. | Fig. | Dimensions |      |      |      |      |      |
|-------------------|------------|---------------|-----------|-----------|-----------|------|------------|------|------|------|------|------|
| Non-Valved        | Valved     |               |           |           |           |      | A          |      | B    |      | C    |      |
|                   |            |               |           |           |           |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| FTS214            | FTS214V    | Socket/Female | ¼         | Hose Stem | ¼         | 3    | 34.5       | 1.36 | 17.0 | 0.67 | 55.1 | 2.17 |
| FTS214HP*         | FTS214VHP* | Socket/Female | ¼         | Hose Stem | ¼         | 3    | 30.0       | 1.18 | 17.0 | 0.67 | 44.7 | 1.76 |
| FTS215            | FTS215V    | Socket/Female | ¼         | Hose Stem | ⅝         | 3    | 30.0       | 1.18 | 17.0 | 0.67 | 44.7 | 1.76 |
| FTS216            | FTS216V    | Socket/Female | ¼         | Hose Stem | ⅜         | 3    | 29.7       | 1.17 | 17.0 | 0.67 | 44.7 | 1.76 |
| FTS216HP*         | FTS216VHP* | Socket/Female | ¼         | Hose Stem | ⅜         | 3    | 29.7       | 1.17 | 17.0 | 0.67 | 44.7 | 1.76 |
| FTS316            | FTS316V    | Socket/Female | ⅜         | Hose Stem | ⅜         | 3    | 40.6       | 1.60 | 22.4 | 0.88 | 61.7 | 2.43 |
| FTS316HP*         | FTS316VHP* | Socket/Female | ⅜         | Hose Stem | ⅜         | 3    | 40.6       | 1.60 | 22.4 | 0.88 | 61.7 | 2.43 |
| FTS318            | FTS318V    | Socket/Female | ⅜         | Hose Stem | ½         | 3    | 40.6       | 1.60 | 22.4 | 0.88 | 61.7 | 2.43 |
| FTS318HP*         | FTS318VHP* | Socket/Female | ⅜         | Hose Stem | ½         | 3    | 40.6       | 1.60 | 22.4 | 0.88 | 61.7 | 2.43 |

\*Part numbers with HP suffix have push hose barb. All other FTS parts numbers have standard hose barb.

# Flo-Temp Series



## 45° Hose Stem

| Part/Order Number | Coupling Type | Body Size     | Type | Hose I.D. | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|---------------|------|-----------|------|------------|------|------|------|------|------|
|                   |               |               |      |           |      | A          |      | B    |      | C    |      |
| Non-Valved        | Valved        |               |      |           |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| FTS224            | FTS224V       | Socket/Female | 1/4  | Hose Stem | 4    | 29.7       | 1.17 | 17.0 | 0.67 | 61.0 | 2.40 |
| FTS224HP*         | FTS224VHP*    | Socket/Female | 1/4  | Hose Stem | 4    | 29.7       | 1.17 | 17.0 | 0.67 | 61.0 | 2.40 |
| FTS225            | FTS225V       | Socket/Female | 1/4  | Hose Stem | 4    | 29.7       | 1.17 | 17.0 | 0.67 | 61.0 | 2.40 |
| FTS226            | FTS226V       | Socket/Female | 1/4  | Hose Stem | 4    | 29.7       | 1.17 | 17.0 | 0.67 | 61.0 | 2.40 |
| FTS226HP*         | FTS226VHP*    | Socket/Female | 1/4  | Hose Stem | 4    | 29.7       | 1.17 | 17.0 | 0.67 | 61.0 | 2.40 |
| FTS326            | FTS326V       | Socket/Female | 3/8  | Hose Stem | 4    | 45.7       | 1.80 | 22.9 | 0.90 | 94.0 | 3.70 |
| FTS326HP*         | FTS326VHP*    | Socket/Female | 3/8  | Hose Stem | 4    | 45.7       | 1.80 | 22.9 | 0.90 | 80.5 | 3.17 |
| FTS328            | FTS328V       | Socket/Female | 3/8  | Hose Stem | 4    | 40.6       | 1.60 | 22.9 | 0.90 | 80.5 | 3.17 |
| FTS328HP*         | FTS328VHP*    | Socket/Female | 3/8  | Hose Stem | 4    | 40.6       | 1.60 | 22.9 | 0.90 | 80.5 | 3.17 |

\*Part numbers with HP suffix have push-on hose barb. All other FTS part numbers have standard hose barb.

## Male Pipe Thread

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type  | Fig. | Dimensions |      |      |      | Installation Recess |      |      |      |       |      |
|-------------------|---------------|-----------|-----------|--------|-------|------|------------|------|------|------|---------------------|------|------|------|-------|------|
|                   |               |           |           |        |       |      | A          |      | B    |      | C                   |      | DIA  |      | Depth |      |
|                   |               |           |           |        |       |      | (mm)       | (in) | (mm) | (in) | (mm)                | (in) | (mm) | (in) | (mm)  | (in) |
| FTP251            | Plug/Male     | 1/4       | 1/8       | 1/8-27 | NPTF  | 5    | 23.9       | 0.94 | 12.4 | 0.49 | 11.2                | 0.44 | 17.5 | 0.69 | 17.5  | 0.69 |
| FTP251BST         | Plug/Male     | 1/4       | 1/8       | 1/8-28 | BSPT  | 5    | 23.9       | 0.94 | 12.4 | 0.49 | 11.2                | 0.44 | 17.5 | 0.69 | 17.5  | 0.69 |
| FTP252            | Plug/Male     | 1/4       | 1/4       | 1/4-18 | NPTF  | 5    | 29.2       | 1.15 | 16.0 | 0.63 | 14.2                | 0.56 | 21.3 | 0.84 | 23.9  | 0.94 |
| FTP252BST         | Plug/Male     | 1/4       | 1/4       | 1/4-19 | BSPT  | 5    | 29.2       | 1.15 | 16.0 | 0.63 | 14.2                | 0.56 | 21.3 | 0.84 | 23.9  | 0.94 |
| FTP253            | Plug/Male     | 1/4       | 3/8       | 3/8-18 | NPTF  | 5    | 30.2       | 1.19 | 19.6 | 0.77 | 17.5                | 0.69 | 25.4 | 1.00 | 23.9  | 0.94 |
| FTP352            | Plug/Male     | 3/8       | 1/4       | 1/4-18 | NPTF  | 5    | 35.6       | 1.40 | 16.0 | 0.63 | 14.2                | 0.56 | 25.4 | 1.00 | 27.7  | 1.09 |
| FTP352BST         | Plug/Male     | 3/8       | 1/4       | 1/4-19 | BSPT  | 5    | 35.6       | 1.40 | 16.0 | 0.63 | 14.2                | 0.56 | 25.4 | 1.00 | 27.7  | 1.09 |
| FTP353            | Plug/Male     | 3/8       | 3/8       | 3/8-18 | NPTF  | 5    | 35.6       | 1.40 | 19.6 | 0.77 | 17.5                | 0.69 | 25.4 | 1.00 | 28.7  | 1.13 |
| FTP353BST         | Plug/Male     | 3/8       | 3/8       | 3/8-19 | BSPT  | 5    | 35.6       | 1.40 | 19.6 | 0.77 | 17.5                | 0.69 | 25.4 | 1.00 | 28.7  | 1.13 |
| FTP354            | Plug/Male     | 3/8       | 1/2       | 1/2-14 | NPT F | 5    | 39.6       | 1.56 | 24.9 | 0.98 | 22.4                | 0.88 | 30.2 | 1.19 | 31.8  | 1.25 |
| FTP554            | Plug/Male     | 1/2       | 1/2       | 1/2-14 | NPTF  | 5    | 44.5       | 1.75 | 24.9 | 0.98 | 22.4                | 0.88 | 31.8 | 1.25 | 38.1  | 1.50 |
| FTP556            | Plug/Male     | 1/2       | 3/4       | 3/4-14 | NPTF  | 5    | 44.5       | 1.75 | 31.8 | 1.25 | 28.7                | 1.13 | 38.1 | 1.50 | 39.6  | 1.56 |

## Female End Connections

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|--------|------|------|------------|------|------|------|------|------|
|                   |               |           |           |        |      |      | D          |      | E    |      | Hex  |      |
|                   |               |           |           |        |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| FTP251F           | Plug/Male     | 1/4       | 1/8       | 1/8-27 | NPTF | 6    | 25.4       | 1.00 | 14.7 | 0.58 | 12.7 | 0.50 |
| FTP251FBS         | Plug/Male     | 1/4       | 1/8       | 1/8-28 | BSPT | 6    | 25.4       | 1.00 | 16.5 | 0.65 | 14.2 | 0.56 |
| FTP252F           | Plug/Male     | 1/4       | 1/4       | 1/4-18 | NPTF | 6    | 30.5       | 1.20 | 18.3 | 0.72 | 16.0 | 0.63 |
| FTP252FBS         | Plug/Male     | 1/4       | 1/4       | 1/4-19 | BSPT | 6    | 30.5       | 1.20 | 22.1 | 0.87 | 19.1 | 0.75 |
| FTP253F           | Plug/Male     | 1/4       | 3/8       | 3/8-18 | NPTF | 6    | 31.8       | 1.25 | 22.1 | 0.87 | 19.1 | 0.75 |
| FTP352F           | Plug/Male     | 3/8       | 1/4       | 1/4-18 | NPTF | 6    | 35.1       | 1.38 | 18.3 | 0.72 | 16.0 | 0.63 |
| FTP352FBS         | Plug/Male     | 3/8       | 1/4       | 1/4-19 | BSPT | 6    | 32.5       | 1.28 | 22.1 | 0.87 | 19.1 | 0.75 |
| FTP353F           | Plug/Male     | 3/8       | 3/8       | 3/8-18 | NPTF | 6    | 35.6       | 1.40 | 22.1 | 0.87 | 19.1 | 0.75 |
| FTP354F           | Plug/Male     | 3/8       | 1/2       | 1/2-14 | NPTF | 6    | 41.1       | 1.62 | 27.4 | 1.08 | 23.9 | 0.94 |
| FTP554F           | Plug/Male     | 1/2       | 1/2       | 1/2-14 | NPTF | 6    | 43.7       | 1.72 | 27.4 | 1.08 | 23.9 | 0.94 |
| FTP556F           | Plug/Male     | 1/2       | 3/4       | 3/4-14 | NPTF | 6    | 45.2       | 1.78 | 33.0 | 1.30 | 28.7 | 1.13 |

# Couplings for refrigerant applications



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# 5400 Series Low Air Inclusion Refrigerant

## Refrigerant Application



Danfoss Hansen 5400 Series low air inclusion product line is designed for air conditioning, refrigerant, gaseous and fluid transfer applications.

### Product Features

- Brazed or threaded end connections for versatility of installation on tubing or hose
- Tubular valve construction for low fluid loss and air inclusion
- The thread-to-connect design allows connection and disconnection under residual pressure of 17 bar
- Lock washer and jam nut standard for optional bulkhead mounting
- Standard seal material: Neoprene
- Dura-Kote™ plating for excellent corrosion resistance

Agency approval: UL Mark, file number: SA16088

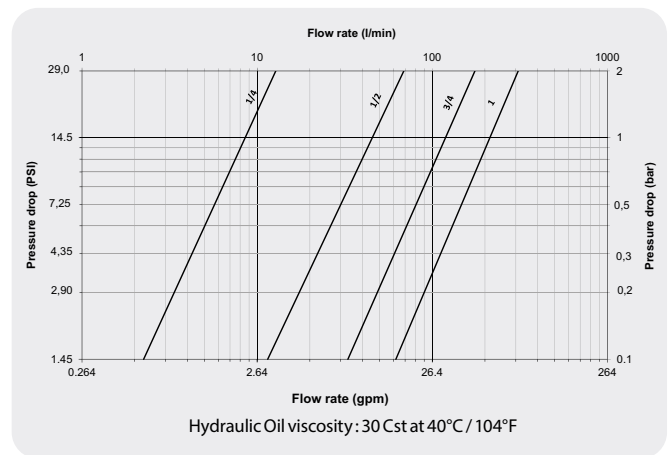
### Physical characteristics

| Coupling Size<br>(in) | Max. Operating Pressure Connected |       | Min. Burst Pressure Connected |       | Max. Operating Pressure Disconnected Male Half |       | Pressure Disconnected Female Half |       | Vacuum Connected<br>(in./Hg) | Rated Flow |       | Air Inclusion<br>cc.max. | Fluid Loss<br>cc.max. |
|-----------------------|-----------------------------------|-------|-------------------------------|-------|--|-------|-----------------------------------|-------|------------------------------|------------|-------|--------------------------|-----------------------|
|                       | (bar)                             | (psi) | (bar)                         | (psi) | (bar)  | (psi) | (bar)                             | (psi) |                              | (lpm)      | (gpm) |                          |                       |
| ¼                     | 207                               | 3,000 | 621                           | 9,000 | 172  | 2,500 | 52                                | 754   | 28                           | 8          | 2     | 0.10                     | 0.05                  |
| ½                     | 121                               | 1,750 | 359                           | 5,200 | 121  | 1,750 | 52                                | 754   | 28                           | 53         | 14    | 0.10                     | 0.10                  |
| ¾                     | 48                                | 700   | 145                           | 2,100 | 48   | 700   | 45                                | 652   | 28                           | 132        | 35    | 0.30                     | 0.10                  |
| 1                     | 48                                | 700   | 145                           | 2,100 | 48   | 700   | 21                                | 300   | 28                           | 284        | 75    | 0.50                     | 0.20                  |

### Applications & Markets

- Mobile air conditioning and refrigerant
- Thermal management

### Flow Data



# 5400 Series Low Air Inclusion Refrigerant

**Male Coupling Half (S2)**

**Female Coupling Half (S5)**

See table "Dimension - No adapter"

See table "Dimension - SAE 37° (JIC)"

See table: "Dimension - Braze Tubing adapter"

| Item number/adapters   | 1 Tubing adapter | 2 Adapter O-ring | 3 Poppet valve assembly | 4 Male body | 5 Gasket seal | 6 Lock washer | 7 Jam nut  | 8 Union nut and female body assembly | 9 Female valve assembly |
|------------------------|------------------|------------------|-------------------------|-------------|---------------|---------------|------------|--------------------------------------|-------------------------|
| SAE 37° (JIC)          | 202208-Y-X       |                  |                         |             |               |               |            |                                      |                         |
| Braze tubing           | 202208-Y-XB      | 22546-Z-X        | 5400-S20-X              | 5400-17-XS  | 22008-X       | 5400-54-XS    | 5400-52-XS | 5400-S16-X                           | 5400-S19-X              |
| Hose fitting SAE 100R5 | 487-Y-XS         |                  |                         |             |               |               |            |                                      |                         |

Note 1: Replace "X", "Y" by size number chosen in below tables.  
 Note 2: "B" stands for Brass and "S" stands for Steel material – availability is presented in below tables.

## Assembly Instructions

### Steps:

- After tubing or hose has been connected to adapters ① and ②, install O-Rings ③ and ④ on adapters. Be sure O-Rings are not twisted.
- Oil O-Rings ③ and ④ liberally with system fluid to prevent them from scuffing and tearing when coupling body is threaded on adapter.
- S2 Half—Lubricate poppet face with system fluid. Insert poppet valve assembly ③ into body ④. Tighten body ④ on adapter ①. After body and adapter make metal-to-metal contact, tighten by rotating body ④ 1/8".  
 S5 Half—Oil O-Ring ⑤ † liberally with system fluid. Insert valve and sleeve assembly ⑥ into body ⑦. Tighten body ⑦ on adapter ②. After body and adapter make metal-to-metal contact, tighten by rotating body ⑦ 1/8".
- Coupling Connection—Lubricate gasket seal ⑤ on male half with system fluid. Thread lubricated union nut ⑧ on 5400-S2 half. Tighten union nut to torque values shown in table. Be sure male part and female part bodies do not rotate during connection.

Note: POE refrigeration oil for lubrication is recommended.  
 Note: Operating temperature: -40°C to 121°C / -104°F to -249,8°F.

## Bulkhead Mounting—Male half (S2)

Install lock washer ⑥ on S2 half. Insert S2 half through bulkhead, and tighten jam nut ⑦ so that lock washer teeth are fully compressed.

NOTE: Lock washer 6 must be between hex of S2 half and bulkhead.

### Maximum Bulkhead Thickness

| Body size | Lock Washer Installed (in) | Lock Washer Not Used (in) |
|-----------|----------------------------|---------------------------|
| ¼         | 0.206                      | 0.256                     |
| ½         | 0.136                      | 0.203                     |
| ¾         | 0.232                      | 0.292                     |
| 1         | 0.101                      | 0.161                     |

### Torque Values

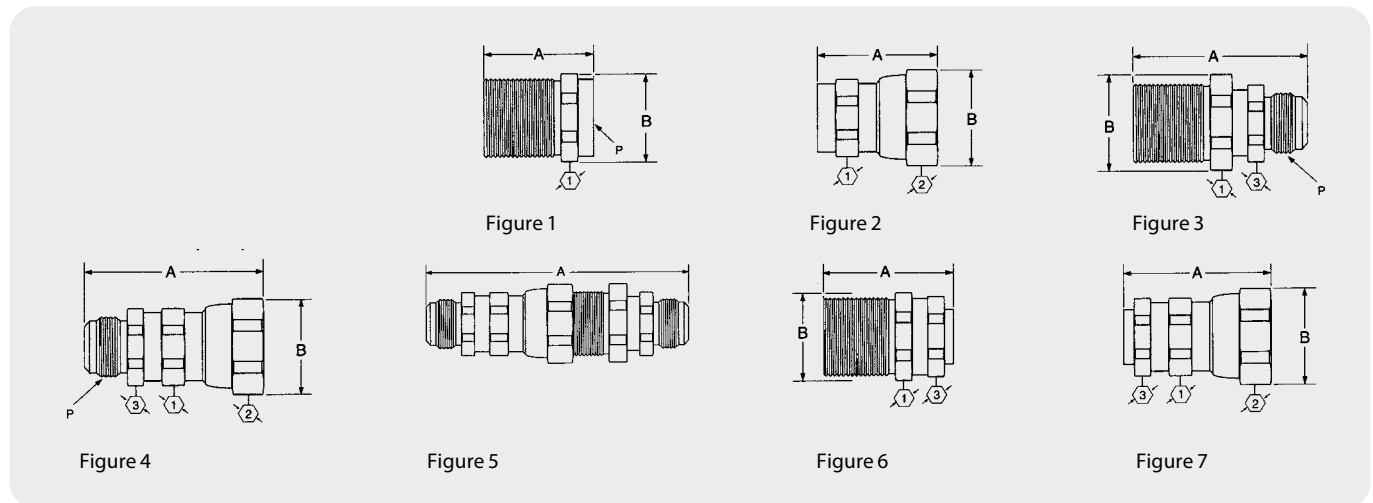
Recommended torque values in ft. lbs., are listed below.

| Dash Size | Adapter to Body        |                               |                    |
|-----------|------------------------|-------------------------------|--------------------|
|           | Braze Type or Aluminum | Non-braze Type Steel or Brass | S2 Half to S5 Half |
| -4        | 6-8                    | 12-15                         | 10-12              |
| -8        | 15-20                  | 35-45                         | 35-37              |
| -12       | 35-40                  | 45-55                         | 45-47              |
| -16       | 50-60                  | 55-65                         | 65-67              |

†IMPORTANT: Generous lubrication is required for all gaskets and O-Rings. Use refrigeration oil only when used in refrigerant system.

# 5400 Series Low Air Inclusion Refrigerant

Global region



### Dimensions – No Adapter

| Part/Order Number<br>Neoprene | Coupling Type | Body Size | Type       | Dimensions |      |      |      |      |       |      |       |      |       |      |
|-------------------------------|---------------|-----------|------------|------------|------|------|------|------|-------|------|-------|------|-------|------|
|                               |               |           |            | Fig.       | A    |      | B    |      | Hex ① |      | Hex ② |      | Hex ③ |      |
|                               |               |           |            |            | (mm) | (in) | (mm) | (in) | (mm)  | (in) | (mm)  | (in) | (mm)  | (in) |
| 5400-S2-4                     | Male          | ¼         | No Adapter | 1          | 27.4 | 1.08 | 21.1 | 0.83 | 19.1  | 0.75 | -     | -    | -     | -    |
| 5400-S5-4                     | Female        | ¼         | No Adapter | 2          | 28.7 | 1.13 | 21.1 | 0.83 | 16.0  | 0.63 | 19.1  | 0.75 | -     | -    |
| 5400-S2-8                     | Male          | ½         | No Adapter | 1          | 34.8 | 1.37 | 32.0 | 1.26 | 29.0  | 1.14 | -     | -    | -     | -    |
| 5400-S5-8                     | Female        | ½         | No Adapter | 2          | 40.6 | 1.60 | 33.0 | 1.30 | 26.0  | 1.02 | 30.0  | 1.18 | -     | -    |
| 5400-S2-12                    | Male          | ¾         | No Adapter | 1          | 44.2 | 1.74 | 46.4 | 1.83 | 41.0  | 1.64 | -     | -    | -     | -    |
| 5400-S5-12                    | Female        | ¾         | No Adapter | 2          | 55.1 | 2.17 | 45.0 | 1.77 | 35.0  | 1.38 | 41.0  | 1.61 | -     | -    |
| 5400-S2-16                    | Male          | 1         | No Adapter | 1          | 46.5 | 1.83 | 53.0 | 2.10 | 48.0  | 1.89 | -     | -    | -     | -    |
| 5400-S5-16                    | Female        | 1         | No Adapter | 2          | 61.1 | 2.41 | 56.0 | 2.20 | 45.0  | 1.77 | 50.0  | 1.97 | -     | -    |

### Dimensions – SAE 37° (JIC)

| Part/Order Number<br>Buna-N | Coupling Type | Body Size | Port Size | Thread    | Type         | Dimensions |      |      |      |      |       |      |       |      |       |      |
|-----------------------------|---------------|-----------|-----------|-----------|--------------|------------|------|------|------|------|-------|------|-------|------|-------|------|
|                             |               |           |           |           |              | Fig.       | A    |      | B    |      | Hex ① |      | Hex ② |      | Hex ③ |      |
|                             |               |           |           |           |              |            | (mm) | (in) | (mm) | (in) | (mm)  | (in) | (mm)  | (in) | (mm)  | (in) |
| 5400 S2-4                   | Male          | ¼         | 7/16      | 7/16-20   | 202220-4-4   | 3          | 47.8 | 1.88 | 21.1 | 0.83 | 19.1  | 0.75 | -     | -    | 16.0  | 0.63 |
| 5400 S5-4                   | Female        | ¼         | 7/16      | 7/16-20   | 202220-4-4   | 4          | 49.0 | 1.93 | 21.1 | 0.83 | 16.0  | 0.63 | 19.1  | 0.75 | 15.7  | 0.62 |
| 5400 S2-4                   | Male          | ¼         | 9/16      | 9/16-18   | 202220-6-8   | 3          | 48.0 | 1.89 | 21.1 | 0.83 | 19.1  | 0.75 | -     | -    | 16.0  | 0.63 |
| 5400 S5-4                   | Female        | ¼         | 9/16      | 9/16-18   | 202220-6-8   | 4          | 49.3 | 1.94 | 21.1 | 0.83 | 16.0  | 0.63 | 19.1  | 0.75 | 15.7  | 0.62 |
| 5400 S2-8                   | Male          | ½         | 9/16      | 9/16-18   | 202220-6-8   | 3          | 55.4 | 2.18 | 31.8 | 1.25 | 28.7  | 1.13 | -     | -    | 25.4  | 1.00 |
| 5400 S5-8                   | Female        | ½         | 9/16      | 9/16-18   | 202220-6-8   | 4          | 61.7 | 2.43 | 33.3 | 1.31 | 25.4  | 1.00 | 30.2  | 1.19 | 25.4  | 1.00 |
| 5400 S2-8                   | Male          | ½         | ¾         | ¾-16      | 202220-8-8   | 3          | 57.9 | 2.28 | 31.8 | 1.25 | 28.7  | 1.13 | -     | -    | 25.4  | 1.00 |
| 5400 S5-8                   | Female        | ½         | ¾         | ¾-16      | 202220-8-8   | 4          | 64.3 | 2.53 | 33.3 | 1.31 | 25.4  | 1.00 | 30.2  | 1.19 | 25.4  | 1.00 |
| 5400 S2-12                  | Male          | ¾         | 7/8       | 7/8-14    | 202220-10-12 | 3          | 69.9 | 2.75 | 46.5 | 1.83 | 41.4  | 1.63 | -     | -    | 35.1  | 1.38 |
| 5400 S5-12                  | Female        | ¾         | 7/8       | 7/8-14    | 202220-10-12 | 4          | 80.3 | 3.16 | 45.7 | 1.80 | 35.1  | 1.38 | 41.1  | 1.62 | 35.1  | 1.38 |
| 5400 S2-12                  | Male          | ¾         | 1 1/16    | 1 1/16-12 | 202220-12-12 | 3          | 72.6 | 2.86 | 46.5 | 1.83 | 41.4  | 1.63 | -     | -    | 35.1  | 1.38 |
| 5400 S5-12                  | Female        | ¾         | 1 1/16    | 1 1/16-12 | 202220-12-12 | 4          | 83.1 | 3.27 | 45.7 | 1.80 | 35.1  | 1.38 | 41.1  | 1.62 | 35.1  | 1.38 |
| 5400 S2-16                  | Male          | 1         | 1 5/16    | 1 5/16-12 | 202220-16-16 | 3          | 75.9 | 2.99 | 53.3 | 2.10 | 47.8  | 1.88 | -     | -    | 44.5  | 1.75 |
| 5400 S5-16                  | Female        | 1         | 1 5/16    | 1 5/16-12 | 202220-16-16 | 4          | 89.7 | 3.53 | 56.9 | 2.24 | 44.5  | 1.75 | 50.8  | 2.00 | 44.5  | 1.75 |

Note: See Adapter SAE 37° (JIC) table for corresponding O-ring and adapter material.

# 5400 Series Low Air Inclusion Refrigerant

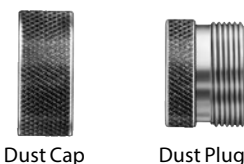
## Dimensions – No Adapter

| Part/Order Number<br>Neoprene | Coupling<br>Type | Body<br>Size | Tube O.D.<br>Size | Type         | Fig. | Dimensions |      |      |      |       |      |       |      |       |      |
|-------------------------------|------------------|--------------|-------------------|--------------|------|------------|------|------|------|-------|------|-------|------|-------|------|
|                               |                  |              |                   |              |      | A          |      | B    |      | Hex ① |      | Hex ② |      | Hex ③ |      |
|                               |                  |              |                   |              |      | (mm)       | (in) | (mm) | (in) | (mm)  | (in) | (mm)  | (in) | (mm)  | (in) |
| 5400 S2-4                     | Male             | ¼            | ¼                 | 202208-4-4   | 6    | 38.6       | 1.52 | 21.1 | 0.83 | 19.1  | 0.75 | -     | -    | 16.0  | 0.63 |
| 5400 S5-4                     | Female           | ¼            | ¼                 | 202208-4-4   | 7    | 39.9       | 1.57 | 21.1 | 0.83 | 16.0  | 0.63 | 19.1  | 0.75 | 16.0  | 0.63 |
| 5400 S2-4                     | Male             | ¼            | ⅜                 | 202208-6-4   | 6    | 38.6       | 1.52 | 21.1 | 0.83 | 19.1  | 0.75 | -     | -    | 16.0  | 0.63 |
| 5400 S5-4                     | Female           | ¼            | ⅜                 | 202208-6-4   | 7    | 39.9       | 1.57 | 21.1 | 0.83 | 16.0  | 0.63 | 19.1  | 0.75 | 16.0  | 0.63 |
| 5400 S2-8                     | Male             | ½            | ⅜                 | 202208-6-8   | 6    | 44.5       | 1.75 | 33.3 | 1.31 | 28.7  | 1.13 | -     | -    | 25.4  | 1.00 |
| 5400 S5-8                     | Female           | ½            | ⅜                 | 202208-6-8   | 7    | 50.8       | 2.00 | 33.3 | 1.31 | 25.4  | 1.00 | 30.2  | 1.19 | 25.4  | 1.00 |
| 5400 S2-8                     | Male             | ½            | ½                 | 202208-8-8   | 6    | 44.5       | 1.75 | 33.3 | 1.31 | 28.7  | 1.13 | -     | -    | 25.4  | 1.00 |
| 5400 S5-8                     | Female           | ½            | ½                 | 202208-8-8   | 7    | 50.8       | 2.00 | 33.3 | 1.31 | 25.4  | 1.00 | 30.2  | 1.19 | 25.4  | 1.00 |
| 5400 S2-12                    | Male             | ¾            | ⅝                 | 202208-10-12 | 6    | 62.7       | 2.47 | 45.7 | 1.80 | 41.4  | 1.63 | -     | -    | 35.1  | 1.38 |
| 5400 S5-12                    | Female           | ¾            | ⅝                 | 202208-10-12 | 7    | 73.2       | 2.88 | 45.7 | 1.80 | 35.1  | 1.38 | 41.4  | 1.63 | 35.1  | 1.38 |
| 5400 S2-12                    | Male             | ¾            | ¾                 | 202208-12-12 | 6    | 62.7       | 2.47 | 45.7 | 1.80 | 41.4  | 1.63 | -     | -    | 35.1  | 1.38 |
| 5400 S5-12                    | Female           | ¾            | ¾                 | 202208-12-12 | 7    | 73.2       | 2.88 | 45.7 | 1.80 | 35.1  | 1.38 | 41.4  | 1.63 | 35.1  | 1.38 |
| 5400 S2-16                    | Male             | 1            | 1                 | 202208-16-16 | 6    | 71.1       | 2.80 | 56.9 | 2.24 | 47.8  | 1.88 | -     | -    | 44.5  | 1.75 |
| 5400 S5-16                    | Female           | 1            | 1                 | 202208-16-16 | 7    | 84.8       | 3.34 | 56.9 | 2.24 | 44.5  | 1.75 | 50.8  | 2.00 | 44.5  | 1.75 |

Note: See "Adapter - Braze" table for corresponding O-ring and adapter material.

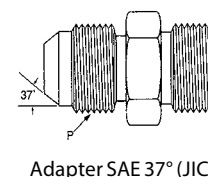
## Dust Caps and Dust Plugs

| Dust Cap with Gasket | Dust Plug with Gasket | Body Size |
|----------------------|-----------------------|-----------|
| 5400-S6-4            | 5400-S8-4             | ¼         |
| 5400-S6-8            | 5400-S8-8             | ½         |
| 5400-S6-12           | 5400-S8-12            | ¾         |
| 5400-S6-16           | 5400-S8-16            | 1         |



## Adapter SAE 37° (JIC)

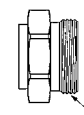
| O-Ring   | Brass       | Steel         | Body Size | Thread    | Tube O.D. Size |
|----------|-------------|---------------|-----------|-----------|----------------|
| 22546-12 | 202220-4-4B | 202220-4-4S   | ¼         | 7/16-20   | ¼              |
| 22546-12 | 202220-6-4B | 202220-6-4S   | ¼         | 9/16-18   | ⅜              |
| 22546-17 | -           | 202220-6-8S   | ½         | 9/16-18   | ⅜              |
| 22546-17 | 202220-8-8B | 202220-8-8S   | ½         | ¾-16      | ½              |
| 22546-23 | -           | 202220-10-12S | ¾         | 7/8-14    | ⅝              |
| 22546-23 | -           | 202220-12-12S | ¾         | 1 1/16-12 | ¾              |
| 22546-28 | -           | 202220-16-16S | 1         | 1 5/16-12 | 1              |



Adapter SAE 37° (JIC)

## Adapter – Braze

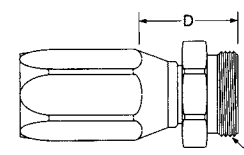
| O-Ring   | Brass         | Steel         | Body Size | Thread     | Tube O.D. Size |
|----------|---------------|---------------|-----------|------------|----------------|
| 22546-12 | 202208-4-4B   | -             | ¼         | 1/2-20     | ¼              |
| 22546-17 | 202208-4-8B   | -             | ½         | 7/8-20     | ¼              |
| 22546-12 | 202208-6-4B   | -             | ¼         | 1/2-20     | ⅜              |
| 22546-17 | 202208-6-8B   | -             | ½         | 7/8-20     | ⅜              |
| 22546-17 | 202208-8-8B   | -             | ½         | 7/8-20     | ½              |
| 2254617  | 202208-10-8B  | 202208-10-8S  | ½         | 7/8-20     | ⅝              |
| 22546-23 | 202208-10-12B | 202208-10-12S | ¾         | 1 1/4-18   | ⅝              |
| 22546-23 | 202208-12-12B | -             | ¾         | 1 1/4-18   | ¾              |
| 22546-23 | 202208-14-12B | -             | ¾         | 1 1/4-18   | 7/8            |
| 22546-28 | 202208-14-16B | -             | 1         | 1 19/32-20 | 7/8            |
| 22546-28 | 202208-16-16B | -             | 1         | 1 19/32-20 | 1              |
| 22546-28 | 202208-18-16B | -             | 1         | 1 19/32-20 | 1 1/8          |
| 22546-28 | 202208-20-16B | -             | 1         | 1 19/32-20 | 1 3/8          |
| 22546-28 | 202208-22-16B | -             | 1         | 1 19/32-20 | 1 1/2          |



Adapter – Braze  
(O-Ring Required)

## Hose Fitting SAE 100R5†

| O-Ring   | Fitting Assembly | Body Size | Hose Size | Thread     | Dimensions |      |
|----------|------------------|-----------|-----------|------------|------------|------|
|          |                  |           |           |            | (mm)       | (in) |
| 22546-12 | 487-4-4S         | ¼         | -4        | 1/2-20     | 23.4       | 0.92 |
| 22546-12 | 487-4-6S         | ¼         | -6        | 1/2-20     | 24.4       | 0.96 |
| 22546-17 | 487-8-6S         | ½         | -6        | 7/8-20     | 24.4       | 0.96 |
| 22546-17 | 487-8-8S         | ½         | -8        | 7/8-20     | 26.9       | 1.06 |
| 22546-23 | 487-12-10S       | ¾         | -10       | 1 1/4-18   | 27.2       | 1.07 |
| 22546-23 | 487-12-12S       | ¾         | -12       | 1 1/4-18   | 27.2       | 1.07 |
| 22546-28 | 487-16-16S       | 1         | -16       | 1 19/32-20 | 25.7       | 1.01 |



Hose Fitting SAE 100R5  
(O-Ring Required)

†Additional dash styles available.

## 5400 Series Low Air Inclusion Refrigerant

### Component Part Numbers

| Item Number                | Dash Size ><br>O.D. Tube Size > | -4<br>1/4"-3/8" | -8<br>1/4"-5/8" | -12<br>5/8"-7/8" | -16<br>7/8"-13/8" |
|----------------------------|---------------------------------|-----------------|-----------------|------------------|-------------------|
| <b>Typical Male Half</b>   |                                 |                 |                 |                  |                   |
| 1                          | Tubing Adapter                  | 202208-*4       | 202208-*8       | 202208-*12       | 202208-*16        |
| 2                          | Adapter O-ring                  | 22546-12        | 22546-17        | 22546-23         | 22546-28          |
| 3                          | Poppet Valve Assembly           | 5400-S20-4      | 5400-S20-8      | 5400-S20-12      | 5400-S20-16       |
| 4                          | Male Body                       | 5400-17-4       | 5400-17-8       | 5400-17-12       | 5400-17-16        |
| 5                          | Gasket Seal                     | 22008-4         | 22008-8         | 22008-12         | 22008-16          |
| 6                          | Lock Washer                     | 5400-54-4S      | 5400-54-8S      | 5400-54-12S      | 5400-54-16S       |
| 7                          | Jam Nut                         | 5400-53-4S      | 5400-53-8S      | 5400-53-12S      | 5400-53-16S       |
| <b>Typical Female Half</b> |                                 |                 |                 |                  |                   |
| 8                          | Union Nut and Body Assembly     | 5400-S16-4      | 5400-S16-8      | 5400-S16-12      | 5400-S16-16       |
| 9                          | Female valve assembly           | 5400-S19-4      | 5400-S19-8      | 5400-S19-12      | 5400-S19-16       |
| 2                          | Adapter O-Ring                  | 22546-12        | 22546-17        | 22546-23         | 22546-28          |
| 1                          | Tubing Adapter                  | 202208-*4       | 202208-*8       | 202208-*12       | 202208-*16        |

\*Specify O.D. Tubing size of adapter required in 16th of an inch. Example: -4 coupling with 3/8" O.D. tubing is 6/16 or -6. Part number is then 202208-6-4.

# Couplings for industrial gas application



# Table of Contents

|                          |     |
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| <b>Thread to connect</b> |     |
| LF Series                | 166 |
| 600/700 Series           | 168 |

# LF Series

Industrial Gas application



Danfoss Hansen LF series is a specific coupling made for industrial applications using SF6 gas. Its design allows a perfect sealing over several decades and an extremely limited permeation of media into the atmosphere during connection and disconnection, in order to limit global warming. The coupling has a dual O-ring design and dust caps ensuring tight sealing while it is disconnected.

## Product Features

- Low gas permeation reduces environmental impact
- Connectable under pressure up to 10 bar
- No leakage under Vacuum
- Easy connection and disconnection
- Standard body material: Brass and aluminum
- Standard seal material: EPDM

## Physical characteristics

| Body Size | Max. Operating Pressure |       | Nominal Flow Diameter | Plug part/order number | Socket part/order number | Fluid Loss | Air Inclusion |
|-----------|-------------------------|-------|-----------------------|------------------------|--------------------------|------------|---------------|
| (in)      | (bar)                   | (psi) | (mm)                  |                        |                          | (g)*       | (ml)          |
| DN12      | 15                      | 218   | 10.2                  | 12LFPS11               | 12LFSS15                 | 0.031      | 0.003         |

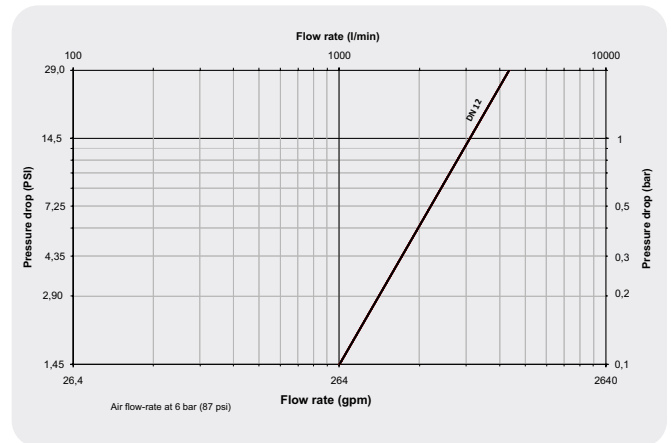
\*Gas SF6

The socket part number ending in S14 has no filter, while the part number ending in S15 has a filter.

## Applications & Markets

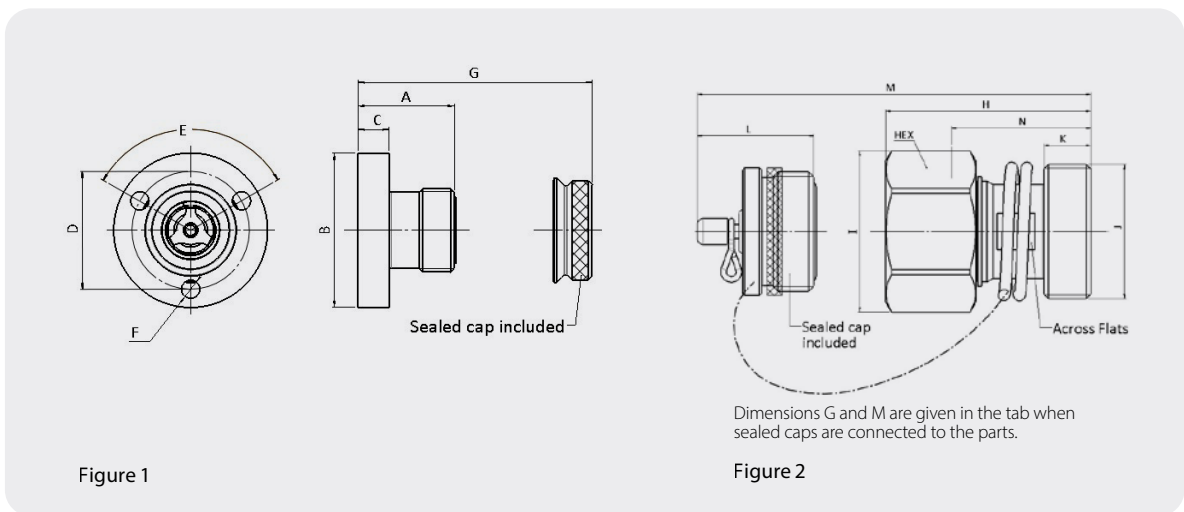
- Industrial application with use of SF6 gas

## Flow Data



# LF Series

Global region



## Dimensions

| Part/Order Number | Fig. | Body Size | Nominal Flow Diameter | Dimensions |       |      |      |      |       |      |       |      |      | Weight |      |       |       |       |
|-------------------|------|-----------|-----------------------|------------|-------|------|------|------|-------|------|-------|------|------|--------|------|-------|-------|-------|
|                   |      |           |                       | A          |       | B    |      | C    |       | D    |       | E    | F    |        | G    |       | lbs   | grams |
|                   |      |           |                       | (mm)       | (in)  | (mm) | (in) | (mm) | (in)  | (mm) | (in)  | (°)  | (mm) | (in)   | (mm) | (in)  |       |       |
| 12LFPS11          | 1    | DN 12     | 10.5                  | 37         | 1.457 | 59   | 2.32 | 12   | 0.470 | 45   | 1.770 | 120° | 7    | 0.276  | 41   | 1.614 | 0.291 | 132   |

| Part/Order Number | Fig. | Body Size | Nominal Flow Diameter | Dimensions |       |      |       |      |       |            |       |      |       | Weight |       |      |       |      |       |       |       |
|-------------------|------|-----------|-----------------------|------------|-------|------|-------|------|-------|------------|-------|------|-------|--------|-------|------|-------|------|-------|-------|-------|
|                   |      |           |                       | H          |       | I    |       | Hex  |       | J          |       | K    |       | L      |       | M    |       | N    |       | lbs   | grams |
|                   |      |           |                       | (mm)       | (in)  | (mm) | (in)  | (mm) | (in)  | (mm)       | (in)  | (mm) | (in)  | (mm)   | (in)  | (mm) | (in)  | (mm) | (in)  |       |       |
| 12LFSS14          | 2    | DN 12     | 10.5                  | 54         | 2.126 | 43   | 1.693 | 38   | 1.496 | M 36 x 2.0 | 1.417 | 12.5 | 0.492 | 26     | 1.024 | 61   | 2.402 | 42   | 1.654 | 0.816 | 370   |

The socket part number ending in S14 has no filter, while the part number ending in S15 has a filter.

# 600/700 Series

Industrial Gas application



Danfoss Hansen 600/700 Series quick connect couplings are designed for use in oxyacetylene service. The 600/700 Series can also be used with compressed air and other gases.

## Product Features

- Safety sleeve lock prevents accidental disconnections
- Non-Interchangeable design prevents crossing of lines
- Color coded sleeves for easy identification:  
–600 green, –700 red
- Designed for use with compressed air and other gases
- OSHA compliant
- Standard body material: Brass
- Standard seal material: Buna-N

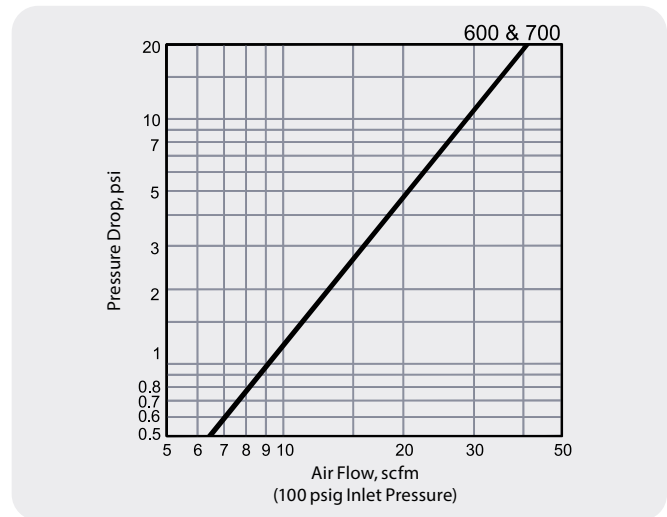
## Physical characteristics

| Series    | Body Size | Max. Operating Pressure |       | Min. Burst Pressure |       | Rated Flow |      |
|-----------|-----------|-------------------------|-------|---------------------|-------|------------|------|
|           | (in)      | (bar)                   | (psi) | (bar)               | (psi) | (lpm)      | scfm |
| 600 & 700 | ¼         | 103                     | 1,500 | 412                 | 6,000 | 595        | 21   |

## Applications & Markets

- Breathing Equipment
- Welding
- Shipyards
- General pneumatics
- Construction
- Nitrous Oxide
- Series 600 couplings are not to be used with oxygen at pressures exceeding 100 psig.
- Series 700 couplings are not to be used with acetylene at pressures exceeding 15 psig.

## Flow Data



**!** Series 600 and 700 couplings with sleeve lock feature comply with OSHA requirements\*, which state couplings shall be a type that cannot be unlocked or disconnected by means of straight pull without rotary motion.

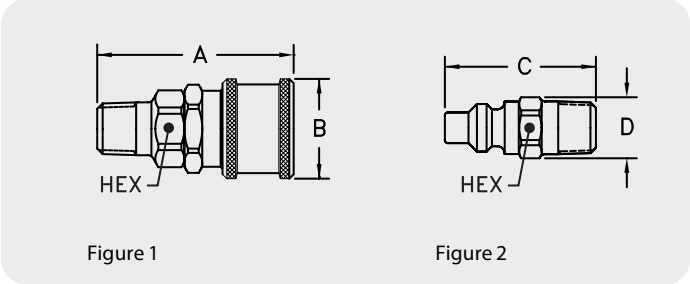
**WARNING!**

Oxygen increases combustibility. Fire and explosion could occur causing severe bodily injury or death. Be sure to select the proper coupling for your application and use it only within the specified service pressure range.

\*Series 600 and 700 couplings with sleeve lock feature comply with O.S.H.A. requirements, Sec. 1915.35 (f)(5), 1916.35 (f)(5), 1917.35 (f)(5), and 1926.350 (f)(5).

# 600 Series

AMER region



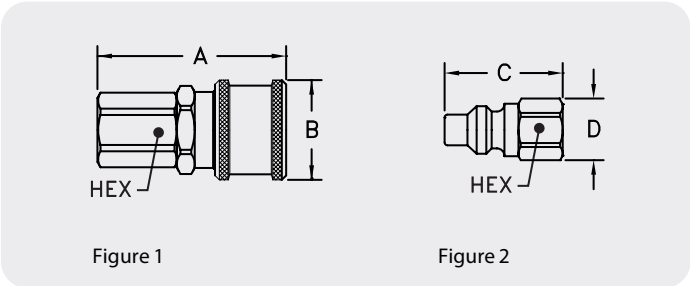
## Male End Connections

| Part/Order Number Standard* | Oxygen Service | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions |      |      |      |      |      |
|-----------------------------|----------------|---------------|-----------|-----------|--------|------|----------|------|------------|------|------|------|------|------|
|                             |                |               |           |           |        |      |          |      | A          |      | B    |      | Hex  |      |
|                             |                |               |           |           |        |      |          |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| GR601                       | GR601SL        | Socket/Female | ¼         | ⅜         | ⅜-27   | NPTF | Brass    | 1    | 46.7       | 1.84 | 25.4 | 1.00 | 17.5 | 0.69 |
| GR603                       | GR603SL        | Socket/Female | ¼         | ¼         | ¼-18   | NPTF | Brass    | 1    | 51.6       | 2.03 | 25.4 | 1.00 | 17.5 | 0.69 |
| GR604R†                     | GR604RSL       | Socket/Female | ¼         | ⅝         | ⅝-18   | UNF  | Brass    | 1    | 48.8       | 1.92 | 25.4 | 1.00 | 17.5 | 0.69 |
| GR605                       | GR605SL        | Socket/Female | ¼         | ⅜         | ⅜-18   | NPTF | Brass    | 1    | 50.5       | 1.99 | 25.4 | 1.00 | 17.5 | 0.69 |

| Part/Order Number Standard* | Oxygen Service | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions |      |      |      |      |      |
|-----------------------------|----------------|---------------|-----------|-----------|--------|------|----------|------|------------|------|------|------|------|------|
|                             |                |               |           |           |        |      |          |      | C          |      | D    |      | Hex  |      |
|                             |                |               |           |           |        |      |          |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 01A                         | —              | Plug/Male     | ¼         | ⅜         | ⅜-27   | NPTF | Brass    | 2    | 35.8       | 1.41 | 16.0 | 0.63 | 14.2 | 0.56 |
| 03A                         | —              | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Brass    | 2    | 39.6       | 1.56 | 16.0 | 0.63 | 14.2 | 0.56 |
| 04R†                        | —              | Plug/Male     | ¼         | ⅝         | ⅝-18   | UNF  | Brass    | 2    | 35.8       | 1.41 | 16.0 | 0.63 | 14.2 | 0.56 |

†R.H. Thread—30° Female Flare.

\*Without sleeve lock.



## Female End Connections

| Part/Order Number Standard* | Oxygen Service | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions |      |      |      |      |      |
|-----------------------------|----------------|---------------|-----------|-----------|--------|------|----------|------|------------|------|------|------|------|------|
|                             |                |               |           |           |        |      |          |      | A          |      | B    |      | Hex  |      |
|                             |                |               |           |           |        |      |          |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| GR600                       | GR600SL        | Socket/Female | ¼         | ⅜         | ⅜-27   | NPTF | Brass    | 1    | 43.9       | 1.73 | 25.4 | 1.00 | 17.5 | 0.69 |
| GR602                       | GR602SL        | Socket/Female | ¼         | ¼         | ¼-18   | NPTF | Brass    | 1    | 49.5       | 1.95 | 25.4 | 1.00 | 17.5 | 0.69 |
| GR604                       | GR604SL        | Socket/Female | ¼         | ⅜         | ⅜-18   | NPTF | Brass    | 1    | 51.6       | 2.03 | 25.4 | 1.00 | 17.5 | 0.69 |
| GR605R‡                     | GR605RSL       | Socket/Female | ¼         | ⅝         | ⅝-18   | UNF  | Brass    | 1    | 49.5       | 1.95 | 25.4 | 1.00 | 17.5 | 0.69 |

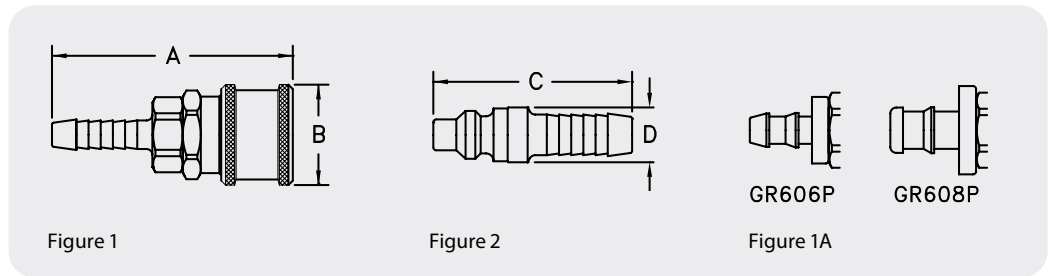
| Part/Order Number Standard* | Oxygen Service | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions |      |      |      |      |      |
|-----------------------------|----------------|---------------|-----------|-----------|--------|------|----------|------|------------|------|------|------|------|------|
|                             |                |               |           |           |        |      |          |      | C          |      | D    |      | Hex  |      |
|                             |                |               |           |           |        |      |          |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 00A                         | —              | Plug/Male     | ¼         | ⅜         | ⅜-27   | NPTF | Brass    | 2    | 31.0       | 1.22 | 16.0 | 0.63 | 14.2 | 0.56 |
| 02A                         | —              | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Brass    | 2    | 35.8       | 1.41 | 19.6 | 0.77 | 17.5 | 0.69 |
| 05R‡                        | —              | Plug/Male     | ¼         | ⅝         | ⅝-18   | UNF  | Brass    | 2    | 35.1       | 1.38 | 19.6 | 0.77 | 17.5 | 0.69 |

‡R.H. Thread—Inverted Flare.

\*Without sleeve lock.

# 600 Series

AMER region



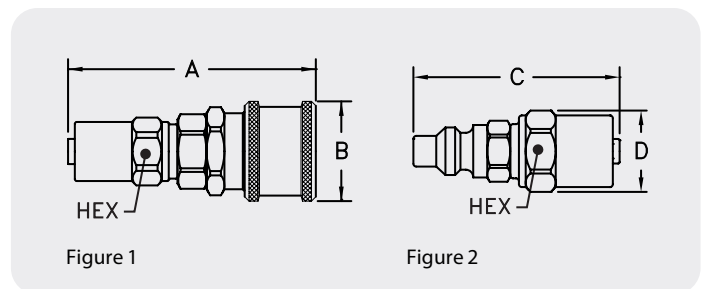
## Hose Stem End Connections

| Part/Order Number<br>Standard* | Oxygen Service | Coupling Type | Body Size | Hose I.D. | Material | Fig.  | Dimensions |      |       |      |
|--------------------------------|----------------|---------------|-----------|-----------|----------|-------|------------|------|-------|------|
|                                |                |               |           |           |          |       | A          |      | B     |      |
|                                |                |               |           |           |          |       | (mm)       | (in) | (mm)  | (in) |
| GR606                          | GR606SL        | Socket/Female | ¼         | ¼         | Brass    | 1     | 62.74      | 2.47 | 25.40 | 1.00 |
| GR606PS                        | GR606PSL\$     | Socket/Female | ¼         | ¼         | Brass    | 1, 1A | 56.90      | 2.24 | 25.40 | 1.00 |
| GR607                          | GR607SL        | Socket/Female | ¼         | ⅝         | Brass    | 1     | 62.74      | 2.47 | 25.40 | 1.00 |
| GR608                          | GR608SL        | Socket/Female | ¼         | ⅜         | Brass    | 1     | 62.74      | 2.47 | 25.40 | 1.00 |
| GR608PS                        | —              | Socket/Female | ¼         | ⅜         | Brass    | 1, 1A | 58.67      | 2.31 | 25.40 | 1.00 |

| Part/Order Number<br>Standard* | Oxygen Service | Coupling Type | Body Size | Hose I.D. | Material | Fig. | Dimensions |      |       |      |
|--------------------------------|----------------|---------------|-----------|-----------|----------|------|------------|------|-------|------|
|                                |                |               |           |           |          |      | C          |      | D     |      |
|                                |                |               |           |           |          |      | (mm)       | (in) | (mm)  | (in) |
| 07A                            | —              | Plug/Male     | ¼         | ¼         | Brass    | 2    | 51.56      | 2.03 | 14.22 | 0.56 |
| 08A                            | —              | Plug/Male     | ¼         | ⅝         | Brass    | 2    | 51.56      | 2.03 | 14.22 | 0.56 |
| 09A                            | —              | Plug/Male     | ¼         | ⅜         | Brass    | 2    | 51.82      | 2.04 | 14.22 | 0.56 |

†R.H. Thread—30° Female Flare.

\*Without sleeve lock.



## Hose Clamp End Connections

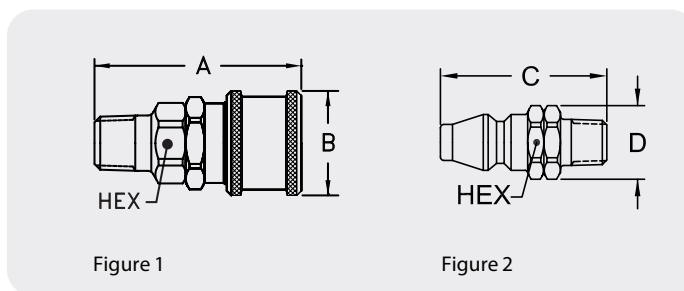
| Part/Order Number<br>Standard* | Oxygen Service | Coupling Type | Body Size | Hose I.D. | Hose O.D. | Material | Fig. | Dimensions |      |      |      |      |      |
|--------------------------------|----------------|---------------|-----------|-----------|-----------|----------|------|------------|------|------|------|------|------|
|                                |                |               |           |           |           |          |      | A          |      | B    |      | Hex  |      |
|                                |                |               |           |           |           |          |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| GR60B3                         | GR60B3SL       | Socket/Female | ¼         | ¼         | ½         | Brass    | 1    | 65.0       | 2.56 | 25.4 | 1.00 | 16.0 | 0.63 |
| GR60B5                         | GR60B5SL       | Socket/Female | ¼         | ¼         | ⅝         | Brass    | 1    | 65.0       | 2.56 | 25.4 | 1.00 | 17.5 | 0.69 |
| GR60B7                         | GR60B7SL       | Socket/Female | ¼         | ¼         | ⅝         | Brass    | 1    | 65.0       | 2.56 | 25.4 | 1.00 | 19.1 | 0.75 |
| GR60C5                         | —              | Socket/Female | ¼         | ⅝         | ⅝         | Brass    | 1    | 66.5       | 2.62 | 25.4 | 1.00 | 17.5 | 0.69 |
| GR60D7                         | —              | Socket/Female | ¼         | ⅜         | ⅝         | Brass    | 1    | 68.1       | 2.68 | 25.4 | 1.00 | 19.1 | 0.75 |
| GR60D9                         | —              | Socket/Female | ¼         | ⅜         | ⅞         | Brass    | 1    | 68.1       | 2.68 | 25.4 | 1.00 | 20.6 | 0.81 |
| GR60D11                        | —              | Socket/Female | ¼         | ⅜         | ¾         | Brass    | 1    | 68.1       | 2.68 | 25.4 | 1.00 | 22.4 | 0.88 |

| Part/Order Number<br>Standard* | Oxygen Service | Coupling Type | Body Size | Hose I.D. | Hose O.D. | Material | Fig. | Dimensions |      |      |      |      |      |
|--------------------------------|----------------|---------------|-----------|-----------|-----------|----------|------|------------|------|------|------|------|------|
|                                |                |               |           |           |           |          |      | C          |      | D    |      | Hex  |      |
|                                |                |               |           |           |           |          |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 6B3                            | —              | Plug/Male     | ¼         | ¼         | ½         | Brass    | 2    | 54.1       | 2.13 | 17.8 | 0.70 | 16.0 | 0.63 |
| 6B5                            | —              | Plug/Male     | ¼         | ¼         | ⅝         | Brass    | 2    | 54.1       | 2.13 | 19.6 | 0.77 | 17.5 | 0.69 |
| 6B7                            | —              | Plug/Male     | ¼         | ¼         | ⅝         | Brass    | 2    | 54.1       | 2.13 | 21.3 | 0.84 | 19.1 | 0.75 |
| 6D7                            | —              | Plug/Male     | ¼         | ⅜         | ⅝         | Brass    | 2    | 57.2       | 2.25 | 21.3 | 0.84 | 19.1 | 0.75 |
| 6D9                            | —              | Plug/Male     | ¼         | ⅜         | ⅞         | Brass    | 2    | 57.2       | 2.25 | 23.1 | 0.91 | 20.6 | 0.81 |
| 6D11                           | —              | Plug/Male     | ¼         | ⅜         | ¾         | Brass    | 2    | 57.2       | 2.25 | 24.9 | 0.98 | 22.4 | 0.88 |

\*Without sleeve lock.

# 700 Series

AMER region



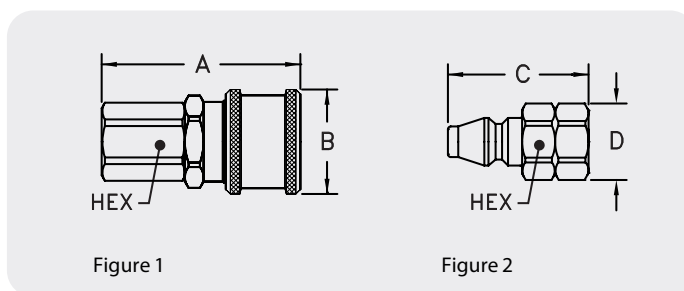
## Male End Connections

| Part/Order Number Standard* | Acetylene Service | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions |      |      |      |      |      |
|-----------------------------|-------------------|---------------|-----------|-----------|--------|------|----------|------|------------|------|------|------|------|------|
|                             |                   |               |           |           |        |      |          |      | A          |      | B    |      | Hex  |      |
|                             |                   |               |           |           |        |      |          |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| RD701                       | —                 | Socket/Female | ¼         | ⅜         | ⅜-27   | NPTF | Brass    | 1    | 47.0       | 1.85 | 25.4 | 1.00 | 17.5 | 0.69 |
| RD703                       | RD703SL           | Socket/Female | ¼         | ¼         | ¼-18   | NPTF | Brass    | 1    | 51.8       | 2.04 | 25.4 | 1.00 | 17.5 | 0.69 |
| RD704L†                     | RD704LSL          | Socket/Female | ¼         | ⅝         | ⅝-18   | UNF  | Brass    | 1    | 49.0       | 1.93 | 25.4 | 1.00 | 17.5 | 0.69 |
| RD705                       | RD705SL           | Socket/Female | ¼         | ⅜         | ⅜-18   | NPTF | Brass    | 1    | 50.8       | 2.00 | 25.4 | 1.00 | 17.5 | 0.69 |

| Part/Order Number Standard* | Acetylene Service | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions |      |      |      |      |      |
|-----------------------------|-------------------|---------------|-----------|-----------|--------|------|----------|------|------------|------|------|------|------|------|
|                             |                   |               |           |           |        |      |          |      | C          |      | D    |      | Hex  |      |
|                             |                   |               |           |           |        |      |          |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| A1                          | —                 | Plug/Male     | ¼         | ⅜         | ⅜-27   | NPTF | Brass    | 2    | 37.3       | 1.47 | 16.0 | 0.63 | 14.2 | 0.56 |
| A3P                         | —                 | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Brass    | 2    | 41.4       | 1.63 | 16.0 | 0.63 | 14.2 | 0.56 |
| A4L†                        | —                 | Plug/Male     | ¼         | ⅝         | ⅝-18   | UNF  | Brass    | 2    | 38.1       | 1.50 | 16.0 | 0.63 | 14.2 | 0.56 |

†L.H. Thread—30° Female Flare.

\*Without sleeve lock.



## Female End Connections

| Part/Order Number Standard* | Acetylene Service | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions |      |      |      |      |      |
|-----------------------------|-------------------|---------------|-----------|-----------|--------|------|----------|------|------------|------|------|------|------|------|
|                             |                   |               |           |           |        |      |          |      | A          |      | B    |      | Hex  |      |
|                             |                   |               |           |           |        |      |          |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| RD700                       | RD700SL           | Socket/Female | ¼         | ⅜         | ⅜-27   | NPTF | Brass    | 1    | 44.2       | 1.74 | 25.4 | 1.00 | 17.5 | 0.69 |
| RD702                       | RD702SL           | Socket/Female | ¼         | ¼         | ¼-18   | NPTF | Brass    | 1    | 49.8       | 1.96 | 25.4 | 1.00 | 17.5 | 0.69 |
| RD704                       | RD704SL           | Socket/Female | ¼         | ⅜         | ⅜-18   | NPTF | Brass    | 1    | 51.8       | 2.04 | 25.4 | 1.00 | 17.5 | 0.69 |
| RD705L‡                     | RD705LSL          | Socket/Female | ¼         | ⅝         | ⅝-18   | UNF  | Brass    | 1    | 49.8       | 1.96 | 25.4 | 1.00 | 17.5 | 0.69 |

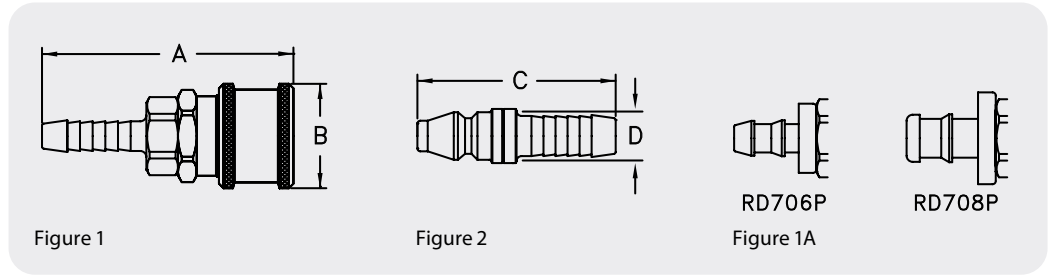
| Part/Order Number Standard* | Acetylene Service | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions |      |      |      |      |      |
|-----------------------------|-------------------|---------------|-----------|-----------|--------|------|----------|------|------------|------|------|------|------|------|
|                             |                   |               |           |           |        |      |          |      | C          |      | D    |      | Hex  |      |
|                             |                   |               |           |           |        |      |          |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| A2                          | —                 | Plug/Male     | ¼         | —         | ¼-18   | NPTF | Brass    | 2    | 37.1       | 1.46 | 19.6 | 0.77 | 17.5 | 0.69 |
| A5L‡                        | —                 | Plug/Male     | ¼         | —         | ⅝-18   | UNF  | Brass    | 2    | 35.1       | 1.38 | 19.6 | 0.77 | 17.5 | 0.69 |

‡L.H. Thread—Inverted Flare

\*Without sleeve lock

# 700 Series

AMER region



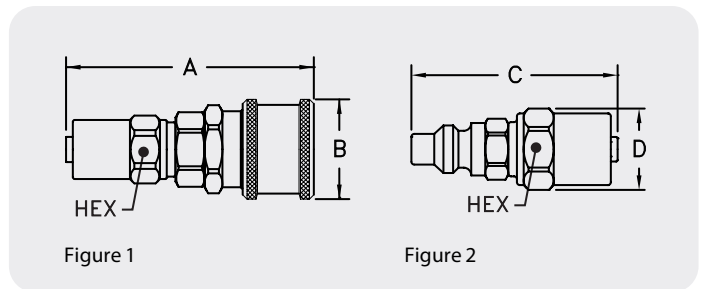
## Hose Stem End Connections

| Part/Order Number<br>Standard* | Acetylene Service | Coupling Type | Body Size | Hose I.D. | Material | Fig. | Dimensions |      |      |      |
|--------------------------------|-------------------|---------------|-----------|-----------|----------|------|------------|------|------|------|
|                                |                   |               |           |           |          |      | A          |      | B    |      |
|                                |                   |               |           |           |          |      | (mm)       | (in) | (mm) | (in) |
| RD706                          | RD706SL           | Socket/Female | ¼         | ¼         | Brass    | 1    | 63.0       | 2.48 | 25.4 | 1.00 |
| RD706PS                        | —                 | Socket/Female | ¼         | ¼         | Brass    | 1    | 57.2       | 2.25 | 25.4 | 1.00 |
| RD707                          | RD707SL           | Socket/Female | ¼         | ⅝         | Brass    | 1    | 63.0       | 2.48 | 25.4 | 1.00 |
| RD708                          | RD708SL           | Socket/Female | ¼         | ⅜         | Brass    | 1    | 63.0       | 2.48 | 25.4 | 1.00 |
| RD708P                         | —                 | Socket/Female | ¼         | ⅜         | Brass    | 1    | 58.9       | 2.32 | 25.4 | 1.00 |

| Part/Order Number<br>Standard* | Acetylene Service | Coupling Type | Body Size | Hose I.D. | Material | Fig. | Dimensions |      |      |      |
|--------------------------------|-------------------|---------------|-----------|-----------|----------|------|------------|------|------|------|
|                                |                   |               |           |           |          |      | C          |      | D    |      |
|                                |                   |               |           |           |          |      | (mm)       | (in) | (mm) | (in) |
| A7                             | —                 | Plug/Male     | ¼         | ¼         | Brass    | 2    | 50.8       | 2.00 | 14.2 | 0.56 |
| A8                             | —                 | Plug/Male     | ¼         | ⅝         | Brass    | 2    | 52.3       | 2.06 | 14.2 | 0.56 |
| A9                             | —                 | Plug/Male     | ¼         | ⅜         | Brass    | 2    | 53.3       | 2.10 | 14.2 | 0.56 |

§For use with push-on style hose.

\*Without sleeve lock.



## Hose Clamp End Connections

| Part/Order Number<br>Standard* | Oxygen Service | Coupling Type | Body Size | Hose I.D. | Hose O.D. | Material | Fig. | Dimensions |      |      |      |      |      |
|--------------------------------|----------------|---------------|-----------|-----------|-----------|----------|------|------------|------|------|------|------|------|
|                                |                |               |           |           |           |          |      | A          |      | B    |      | Hex  |      |
|                                |                |               |           |           |           |          |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| RD70B3                         | RD70B3SL       | Socket        | ¼         | ¼         | ½         | Brass    | 1    | 65.3       | 2.57 | 25.4 | 1.00 | 16.0 | 0.63 |
| RD70B7                         | —              | Socket        | ¼         | ¼         | ⅝         | Brass    | 1    | 65.3       | 2.57 | 25.4 | 1.00 | 19.1 | 0.75 |
| RD70D7                         | —              | Socket        | ¼         | ⅜         | ⅝         | Brass    | 1    | 68.3       | 2.69 | 25.4 | 1.00 | 19.1 | 0.75 |
| RD70D9                         | —              | Socket        | ¼         | ⅜         | ⅞         | Brass    | 1    | 68.3       | 2.69 | 25.4 | 1.00 | 20.6 | 0.81 |

| Part/Order Number<br>Standard* | Oxygen Service | Coupling Type | Body Size | Hose I.D. | Hose O.D. | Material | Fig. | Dimensions |      |      |      |      |      |
|--------------------------------|----------------|---------------|-----------|-----------|-----------|----------|------|------------|------|------|------|------|------|
|                                |                |               |           |           |           |          |      | C          |      | D    |      | Hex  |      |
|                                |                |               |           |           |           |          |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 7B3                            | —              | Plug          | ¼         | ¼         | ½         | Brass    | 2    | 55.6       | 2.19 | 17.8 | 0.70 | 16.0 | 0.63 |
| 7B7                            | —              | Plug          | ¼         | ¼         | ⅝         | Brass    | 2    | 55.6       | 2.19 | 21.3 | 0.84 | 19.1 | 0.75 |

\*Without sleeve lock.

## Dust Caps and Dust Plugs

| Series | Dust Cap | Dust Plug |
|--------|----------|-----------|
| 600    | XPPDC1HK | XPSDC1HK  |
| 700    | XPPDC1HK | XPSDC1HK  |



# Couplings for food & beverage applications



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# 2HKGL Series

Food&Beverage application



Danfoss Hansen 2HKGL series is a specific coupling made for liquid or gas transfer in various field, such as chemical, food and beverage, or aerospace. The coupling is a push/pull and the material used is stainless steel. This series was made based on the 2HKIL/2HKIG Danfoss Hansen series. The socket part has 3 locking balls.

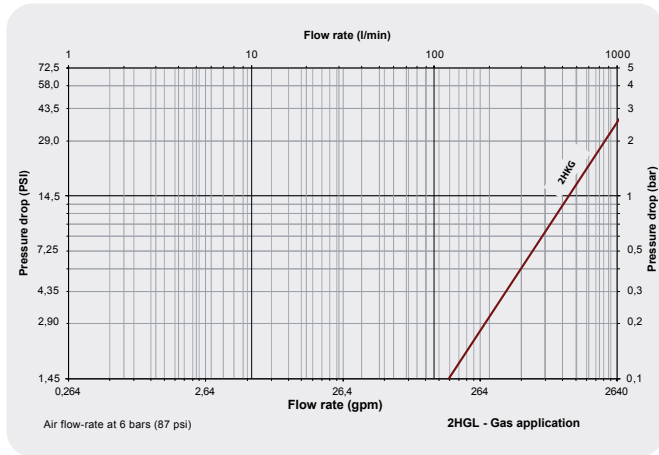
## Product Features

- Specific series made from 2HKIL/2HKIG
- Size 1/4"
- Specific application
- Stainless steel construction

## Physical characteristics

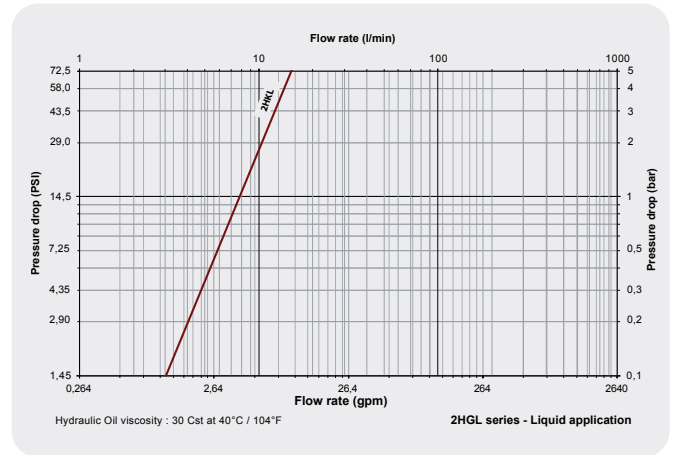
| Coupling Size | Max. Operating Pressure |       | Min. Burst Pressure |       | Nominal Flow Diameter | Rated Flow |       | Air Inclusion | Fluid Loss |       |
|---------------|-------------------------|-------|---------------------|-------|-----------------------|------------|-------|---------------|------------|-------|
|               | (in)                    | (bar) | (psi)               | (bar) |                       | (psi)      | (lpm) |               |            | (gpm) |
| 1/4           |                         | 110   | 1500                | 438   | 6352                  | 5.9        | 8.3   | 2.2           | 2.2        | 1     |

## Flow Data



This flow chart applies for products for gas application, which include "HG" or "KG" letters in their part numbers.

## Flow Data



This flow chart applies for products for liquid application, which include "HL" or "KL" letters in their part numbers.

## Applications & Markets

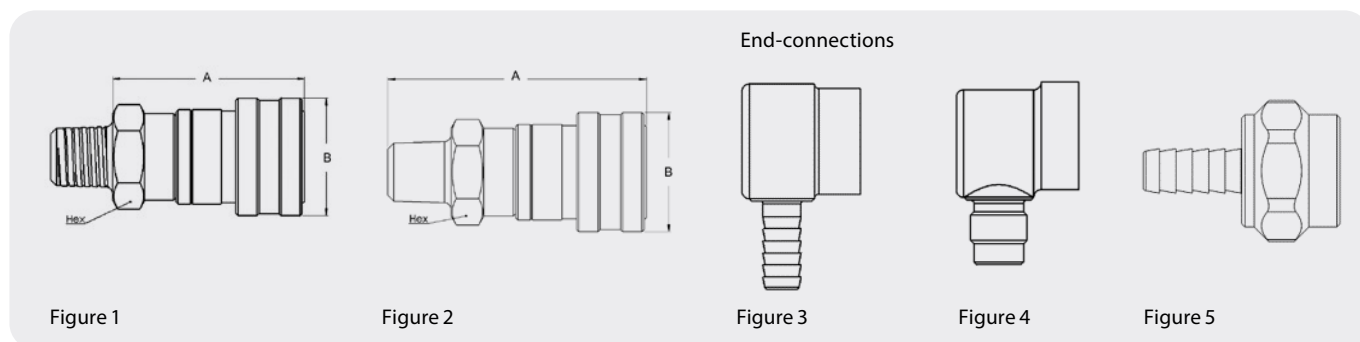
- Food and beverage
- Military
- Aerospace
- Chemical

## Seal Elastomer Data\*

| Seal Elastomer             | Operation Temperature Range |                |
|----------------------------|-----------------------------|----------------|
|                            | C°                          | F°             |
| EPDM (Ethylene-Propylene)* | -40C° to 150C°              | -40F° to 302F° |

\*For reference only, based on Danfoss recommended temperatures. Contact Danfoss technical support for further information on fluid compatibility

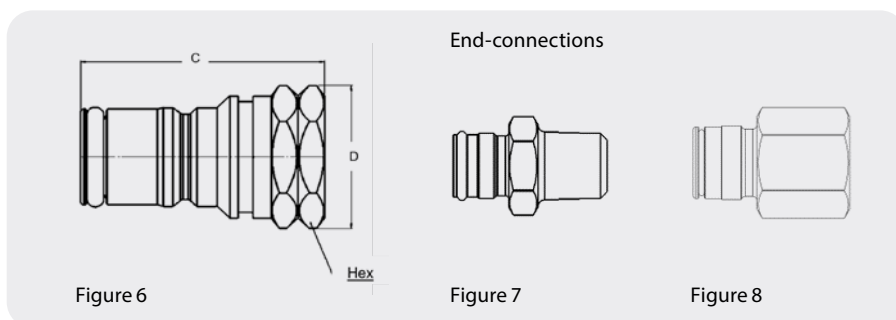
## 2HKGL Series



### Dimensions

| Part/Order Number | Body Size | End connection |     |          |      | Socket dimensions |      |       |      |       |      |
|-------------------|-----------|----------------|-----|----------|------|-------------------|------|-------|------|-------|------|
|                   |           | UNF            | NPT | Hosebarb | Fig. | A                 |      | B     |      | Hex   |      |
|                   |           |                |     |          |      | (mm)              | (in) | (mm)  | (in) | (mm)  | (in) |
| 2HGRB             | ¼         | -              | -   | ¼        | 3    | 54.8              | 2.16 | 41.9  | 1.65 | -     | -    |
| 2HLRB             | ¼         | -              | -   | ¼        | 3    | 54.8              | 2.16 | 41.9  | 1.65 | -     | -    |
| 2HGLLRA720        | ¼         | 7/16-20        | -   | -        | 4    | 53.3              | 2.10 | 36.3  | 1.43 | -     | -    |
| 2HLLRA720         | ¼         | 7/16-20        | -   | -        | 4    | 53.3              | 2.10 | 36.3  | 1.43 | -     | -    |
| 2HGBNB            | ¼         | -              | -   | ¼        | 5    | 69.3              | 2.73 | 25.4  | 1.00 | -     | -    |
| 2HLBNB            | ¼         | -              | -   | ¼        | 5    | 41.6              | 1.64 | 21.0  | 0.83 | -     | -    |
| 2HGDNB            | ¼         | -              | -   | ¾        | 5    | 69.3              | 2.73 | 25.4  | 1.00 | -     | -    |
| 2HLBNB            | ¼         | -              | -   | ¾        | 5    | 41.6              | 1.64 | 21.0  | 0.83 | -     | -    |
| 2HG720            | ¼         | 7/16-20        | -   | -        | 1    | 54.8              | 2.16 | 41.91 | 1.65 | 20.57 | 0.81 |
| 2HL720            | ¼         | 7/16-20        | -   | -        | 1    | 71.1              | 2.80 | 25.4  | 1.00 | 20.57 | 0.81 |
| 2HG15             | ¼         | -              | ¼   | -        | 1    | 69.3              | 2.73 | 25.4  | 1.00 | 20.57 | 0.81 |
| 2HL15             | ¼         | -              | ¼   | -        | 1    | 40.6              | 1.60 | 21.08 | 0.83 | 20.57 | 0.81 |
| 2HG20             | ¼         | -              | ¾   | -        | 1    | 69.3              | 2.73 | 25.4  | 1.00 | 20.57 | 0.81 |
| 2HL20             | ¼         | -              | ¾   | -        | 1    | 44.2              | 1.74 | 25.4  | 1.00 | 20.57 | 0.81 |
| 2HG16             | ¼         | -              | ¼   | -        | 2    | 69.3              | 2.73 | 25.4  | 1.00 | 20.57 | 0.81 |
| 2HL16             | ¼         | -              | ¼   | -        | 2    | 54.8              | 2.16 | 27.68 | 1.09 | 20.57 | 0.81 |

## 2HKGL Series



### Dimensions

| Part/Order Number | Body Size | End connection |     | Fig. | Socket dimensions |      |      |      |       |      |
|-------------------|-----------|----------------|-----|------|-------------------|------|------|------|-------|------|
|                   |           | UNF            | NPT |      | C                 |      | D    |      | Hex   |      |
|                   |           |                |     |      | (mm)              | (in) | (mm) | (in) | (mm)  | (in) |
| 2KGF16            | ¼         | -              | ¼   | 8    | 50.29             | 1.98 | 25.4 | 1.00 | 22.35 | 0.88 |
| 2KLF16            | ¼         | -              | ¼   | 8    | 46.22             | 1.82 | 22.8 | 0.90 | 22.35 | 0.88 |
| 2KLF720           | ¼         | 7/16-20        | -   | 8    | 40.64             | 1.60 | 22.8 | 0.90 | 22.35 | 0.88 |
| 2KGF15            | ¼         | -              | ¼   | 7    | 29.71             | 1.17 | 25.4 | 1.00 | 22.35 | 0.88 |
| 2KLF15            | ¼         | -              | ¼   | 7    | 50.8              | 2.00 | 24.1 | 0.95 | 22.35 | 0.88 |
| 2KGF20            | ¼         | -              | ¾   | 7    | 50.03             | 1.97 | 24.1 | 0.95 | 22.35 | 0.88 |
| 2KLF20            | ¼         | -              | ¾   | 7    | 50.29             | 1.98 | 25.4 | 1.00 | 22.35 | 0.88 |
| 2KGC              | ¼         | 1/16-18        | -   | 6    | 37.08             | 1.46 | 20.3 | 0.80 | 20.57 | 0.81 |
| 2KLC              | ¼         | 1/16-18        | -   | 6    | 37.08             | 1.46 | 25.4 | 1.00 | 22.35 | 0.88 |
| 2KLS3             | ¼         | 7/16-20        | -   | 6    | 36.83             | 1.45 | 19.5 | 0.75 | 21.84 | 0.86 |
| 2KLS4             | ¼         | 7/16-20        | -   | 6    | 38.1              | 1.50 | 19.5 | 0.75 | 21.84 | 0.86 |

# Couplings for pneumatic applications



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# Pneumatic Couplings Selector Chart

| Coupling Series | Coupling Style |                 |                 | Interchange |            |             |           |                    | Body Size           |          |          |          |          | Body Material |          |       |                              | Locking Mechanism |                  |           | Options  |           |                 |             |                          |
|-----------------|----------------|-----------------|-----------------|-------------|------------|-------------|-----------|--------------------|---------------------|----------|----------|----------|----------|---------------|----------|-------|------------------------------|-------------------|------------------|-----------|----------|-----------|-----------------|-------------|--------------------------|
|                 | MANUAL CONNECT | PUSH-TO-CONNECT | SAFETY COUPLING | ISO 6150 B  | ISO 6150 C | ARO 210/310 | TRU-FLATE | CEJN 320/RECTUS 25 | PROPRIETARY PROFILE | 1/8 INCH | 1/4 INCH | 3/8 INCH | 1/2 INCH | 3/4 INCH      | ALUMINUM | BRASS | STEEL (Zinc/chromate Finish) | STAINLESS STEEL   | PLASTIC (Acetal) | BALL LOCK | PIN LOCK | RING LOCK | PLASTIC FINGERS | SLEEVE LOCK | SEAL MATERIALS (Various) |
| G600            |                | ●               |                 | ●           |            |             |           |                    |                     | ●        |          |          |          |               | ●        |       |                              |                   | ●                |           |          |           |                 |             |                          |
| I900            |                | ●               |                 | ●           |            |             |           |                    |                     |          | ●        |          |          |               | ●        |       |                              |                   | ●                |           |          |           |                 |             |                          |
| T1100           |                | ●               |                 | ●           |            |             |           |                    |                     |          |          | ●        |          |               | ●        |       |                              |                   | ●                |           |          |           |                 |             |                          |
| T1300           |                | ●               |                 |             |            |             |           | ●                  |                     |          |          | ●        |          |               | ●        |       |                              |                   | ●                |           |          |           |                 |             |                          |
| 1000            | ●              |                 |                 | ●           |            |             |           |                    |                     | ●        |          |          |          |               | ●        |       | ●                            |                   | ●                |           |          |           | ●               | ●           | ●                        |
| 400             | ●              |                 |                 | ●           |            |             | ●         |                    |                     |          | ●        |          |          |               | ●        |       |                              |                   | ●                |           |          |           | ●               | ●           | ●                        |
| 500             | ●              |                 |                 | ●           |            |             |           |                    |                     |          |          | ●        |          |               | ●        |       |                              |                   | ●                |           |          |           | ●               | ●           |                          |
| 3000            |                | ●               |                 | ●           |            |             |           |                    |                     | ●        |          |          |          |               | ●        |       |                              |                   |                  | ●         |          |           |                 | ●           | ●                        |
| 4000            |                | ●               |                 | ●           |            |             |           |                    |                     |          | ●        |          |          |               | ●        |       |                              |                   |                  | ●         |          |           |                 | ●           | ●                        |
| 5000            |                | ●               |                 | ●           |            |             |           |                    |                     |          |          | ●        |          |               | ●        |       |                              |                   |                  | ●         |          |           |                 | ●           |                          |
| 6000            |                | ●               |                 | ●           |            |             |           |                    |                     |          |          |          | ●        |               | ●        |       |                              |                   |                  | ●         |          |           |                 | ●           | ●                        |
| Auto-Flo 23     |                | ●               |                 | ●           |            | ●           | ●         |                    |                     | ●        |          |          |          |               | ●        |       |                              |                   | ●                |           |          |           |                 |             |                          |
| Auto-Flo 24     |                | ●               |                 |             |            |             |           | ●                  |                     | ●        |          |          |          |               | ●        |       |                              |                   | ●                |           |          |           |                 |             |                          |
| Safeline        |                | ●               | ●               | ●           | ●          |             |           |                    |                     | ●        |          |          |          | ●             |          | ●     |                              |                   | ●                |           |          |           |                 |             |                          |
| 180/280         | ●              |                 |                 |             |            |             |           | ●                  | ●                   |          |          |          |          |               | ●        |       |                              |                   | ●                |           |          |           |                 | ●           |                          |
| 100             | ●              |                 |                 |             |            |             |           | ●                  | ●                   | ●        |          |          |          |               | ●        |       |                              |                   | ●                |           |          |           | ●               | ●           |                          |
| 2RL             |                | ●               |                 |             |            |             |           | ●                  |                     | ●        |          |          |          |               |          | ●     |                              |                   |                  |           | ●        |           |                 | ●           | ●                        |
| 3RL             |                | ●               |                 |             |            |             |           | ●                  |                     |          | ●        |          |          |               |          | ●     |                              |                   |                  |           | ●        |           |                 | ●           | ●                        |
| Full-Bore       |                | ●               | ●               | ●           |            |             |           |                    |                     |          | ●        | ●        |          |               |          | ●     |                              |                   | ●                |           |          |           |                 |             |                          |
| 210             |                | ●               |                 |             |            | ●           |           |                    |                     | ●        |          |          |          |               |          | ●     |                              |                   |                  | ●         |          |           |                 |             |                          |
| 310             |                | ●               |                 |             |            | ●           |           |                    |                     |          | ●        |          |          |               |          | ●     |                              |                   |                  | ●         |          |           |                 |             |                          |

## Safeline Series Operation Guidelines

Elimination of hose whip with two distinct movements:

- 01** Button pressed
- 02** Plug pushed into the socket
- Dissipation of downstream pressure: 1 the plug is retained in the socket
- Disconnection



Coupling connected



The button is pressed



The plug is retained in the socket:  
dissipation of downstream pressure



The plug is pushed toward the socket



Disconnection

**Recommendation  
applicable to all profiles**

Use with vibrating tools:  
A flexible hose at least 300 mm long between the tool and the quick coupling is recommended.

# Safeline Series ISO 6150 B GD10500 Safety-Type Quick-Release Pneumatic application



Danfoss' Safeline Series is an Industrial Interchange pneumatic coupling with push button safety feature designed for use with compressed air. Two-step disconnect procedure shuts off air supply and releases downstream air pressure before plug can be removed from socket/female, which prevents hose whip.

Global region

## Product Features

- Safe and easy to connect and disconnect
- Light weight, compact ergonomic design
- Accepts 1/4" ISO 6150 Series B and A-A-59439 plugs/males
- Accepts all US industrial plugs/males
- Standard body material: Aluminum
- Standard seal material: Buna-N
- Option: Private labelling

## Physical characteristics

| Body Size<br>(in) | Nominal Flow Diameter<br>(mm) | Max. Operating Pressure<br>Connected or Disconnected |       | Air Flow Rate*<br>Δp 0.6 bar/8.7 psi** |       | Δp 1 bar/14.5 psi*** |       | Working Temperature |           |
|-------------------|-------------------------------|--|-------|--|-------|----------------------|-------|---------------------|-----------|
|                   |                               | (bar)  | (psi) | (lpm)                                  | (gpm) | (lpm)                | (gpm) | °C                  | °F        |
| 1/4               | 5.5                           | 16   | 232   | 525                                    | 139   | 660                  | 174   | -20° +100°          | -4° +212° |

\*Indicated values refer to an inlet pressure of 6 bar / 87 psi.

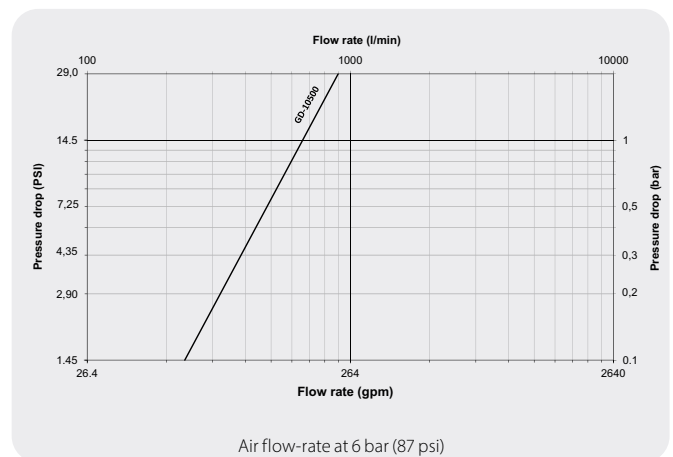
\*\*This flow rate allows the optimum output from a pneumatic tool.

\*\*\* This flow rate is the maximum recommended for a suitable output from a pneumatic tool. For applications needing higher flow rates, it is recommended to select a larger size coupling.

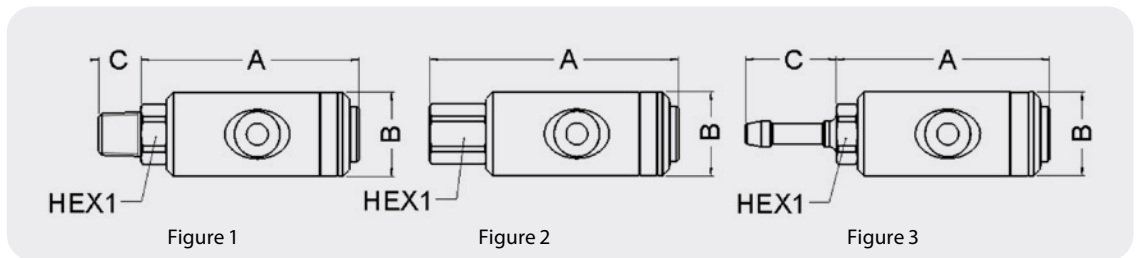
## Applications & Markets

- General Pneumatics
- Air Tools
- Industrial Plants
- Maintenance and Repair

## Flow Data



# Safeline Series ISO 6150 B GD10500 Safety-Type Quick-Release



## Sockets (Female)

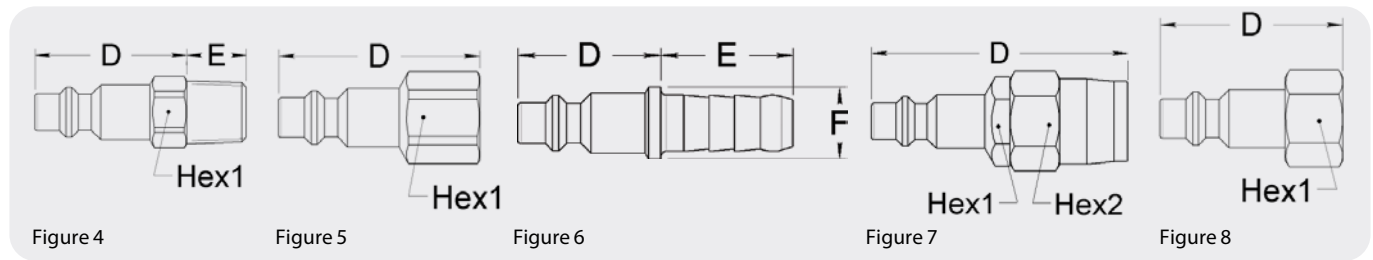
| Part/Order Number | Body Size | Port Size | Thread or Hose Diam. | Type               | Fig. | Dimensions |      |      |      |      |      | Weight |      |      |       |
|-------------------|-----------|-----------|----------------------|--------------------|------|------------|------|------|------|------|------|--------|------|------|-------|
|                   |           |           |                      |                    |      | A          |      | B    |      | C    |      | Hex1   |      | lbs  | grams |
|                   |           |           |                      |                    |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) | (mm)   | (in) |      |       |
| GD1053615         | -         | ¼         | ¼                    | Male BSPP          | 1    | 65.3       | 2.57 | 26.0 | 1.02 | 12.2 | 0.48 | 19     | 0.75 | 0.23 | 106   |
| GD1053614         | -         | ¼         | ¼                    | Male BSPT          | 1    | 67.3       | 2.65 | 26.0 | 1.02 | 13.0 | 0.51 | 17     | 0.67 | 0.23 | 105   |
| GD1053641         | -         | ¼         | ¼                    | Male NPT           | 1    | 67.2       | 2.65 | 26.0 | 1.02 | 15.1 | 0.59 | 17     | 0.67 | 0.26 | 118   |
| GD1053639         | -         | ¾         | ¾                    | Male BSPP          | 1    | 66.3       | 2.61 | 26.0 | 1.02 | 12.0 | 0.47 | 22     | 0.87 | 0.26 | 116   |
| GD1053638         | -         | ¾         | ¾                    | Male BSPT          | 1    | 67.3       | 2.65 | 26.0 | 1.02 | 14.5 | 0.57 | 17     | 0.67 | 0.25 | 113   |
| GD1053683         | -         | ¾         | ¾                    | Male NPT           | 1    | 66.5       | 2.62 | 26.0 | 1.02 | 15.3 | 0.60 | 19     | 0.75 | 0.28 | 129   |
| GD1053613         | -         | ½         | ½                    | Male BSPP          | 1    | 68.3       | 2.69 | 26.0 | 1.02 | 14.0 | 0.55 | 27     | 1.06 | 0.32 | 145   |
| GD1053612         | -         | ½         | ½                    | Male BSPT          | 1    | 66.3       | 2.61 | 26.0 | 1.02 | 17.0 | 0.67 | 22     | 0.87 | 0.28 | 129   |
| GD1053621         | -         | ½         | ½                    | Male NPT           | 1    | 66.3       | 2.61 | 26.0 | 1.02 | 20.0 | 0.79 | 22     | 0.87 | 0.32 | 145   |
| GD1052614         | ¼         | ¼         | ¼                    | Female BSPP        | 2    | 76.8       | 2.33 | 26.0 | 1.02 | -    | -    | 17     | 0.67 | 0.23 | 105   |
| GD1052641         | -         | ¼         | ¼                    | Female NPT         | 2    | 76.3       | 2.33 | 26.0 | 1.02 | -    | -    | 17     | 0.67 | 0.23 | 105   |
| GD1052638         | -         | ¾         | ¾                    | Female BSPP        | 2    | 79.8       | 3.14 | 26.0 | 1.02 | -    | -    | 22     | 0.87 | 0.27 | 124   |
| GD1052683         | -         | ¾         | ¾                    | Female NPT         | 2    | 78.3       | 3.08 | 26.0 | 1.02 | -    | -    | 22     | 0.87 | 0.27 | 123   |
| GD1052612         | -         | ½         | ½                    | Female BSPP        | 2    | 83.8       | 3.30 | 26.0 | 1.02 | -    | -    | 27     | 1.06 | 0.33 | 151   |
| GD1052621         | -         | ½         | ½                    | Female NPT         | 2    | 82.3       | 3.24 | 26.0 | 1.02 | -    | -    | 27     | 1.06 | 0.37 | 166   |
| GD1055667         | -         | -         | 6 mm                 | Reusable Hose Fit. | 3    | 65.8       | 2.59 | 26.0 | 1.02 | 28.0 | 1.10 | 17     | 0.67 | 0.23 | 103   |
| GD1055678         | -         | -         | 7 mm                 | Reusable Hose Fit. | 3    | 65.8       | 2.59 | 26.0 | 1.02 | 28.0 | 1.10 | 17     | 0.67 | 0.25 | 113   |
| GD1055689         | -         | -         | 8 mm                 | Reusable Hose Fit. | 3    | 65.8       | 2.59 | 26.0 | 1.02 | 28.0 | 1.10 | 17     | 0.67 | 0.23 | 104   |
| GD1055690         | -         | -         | 9 mm                 | Reusable Hose Fit. | 3    | 65.8       | 2.59 | 26.0 | 1.02 | 28.0 | 1.10 | 17     | 0.67 | 0.23 | 106   |
| GD1055601         | -         | -         | 10 mm                | Reusable Hose Fit. | 3    | 65.8       | 2.59 | 26.0 | 1.02 | 28.0 | 1.10 | 17     | 0.67 | 0.23 | 105   |

To obtain connected length of coupling add Dimensions A or A+C (Fig. 1, 2, 3) and D or D+E (Fig. 4, 5, 6, 7, 8) together and subtract 23 mm (0.91 in).

\*Alternative end connections available upon request.

# Safeline Series ISO 6150 B GD10500 Safety-Type Quick-Release

Global region



## Plugs (Male)

| Part/Order Number | Body Size | Port Size | Thread or Hose Diam. | Type                 | Dimensions |      |       |      |       |      |       |      |       |      | Weight |         |       |
|-------------------|-----------|-----------|----------------------|----------------------|------------|------|-------|------|-------|------|-------|------|-------|------|--------|---------|-------|
|                   |           |           |                      |                      | Fig.       | D    |       | E    |       | F    |       | Hex1 |       | Hex2 |        | lbs     | grams |
|                   |           |           |                      |                      |            | (mm) | (in)  | (mm) | (in)  | (mm) | (in)  | (mm) | (in)  | (mm) | (in)   |         |       |
| GA0066318         | -         | 1/8       | 1/8-28               | Male BSPT            | 4          | 32   | 1.260 | 9    | 0.354 | -    | -     | 12   | 0.472 | -    | -      | 0.04189 | 19    |
| GA0066314         | -         | 1/4       | 1/4-19               | Male BSPT            | 4          | 32   | 1.260 | 13   | 0.512 | -    | -     | 14   | 0.551 | -    | -      | 0.06    | 25    |
| 10                | -         | 1/4       | 1/4-18               | Male NPT             | 4          | 31   | 1.220 | 14   | 0.551 | -    | -     | 15   | 0.591 | -    | -      | 0.06    | 25    |
| GA0066338         | -         | 3/8       | 3/8-19               | Male BSPT            | 4          | 32   | 1.260 | 15   | 0.591 | -    | -     | 17   | 0.669 | -    | -      | 0.08    | 38    |
| GA0066345         | -         | M14       | M14x1,25             | Male Metric          | 4          | 32   | 1.260 | 13   | 0.512 | -    | -     | 14   | 0.551 | -    | -      | 0.06    | 26    |
| GA0066214         | -         | 1/4       | 1/4-19               | Female BSPP          | 5          | 44   | 1.732 | -    | -     | -    | -     | 17   | 0.669 | -    | -      | 0.07    | 30    |
| 11                | -         | 1/4       | 1/4-18               | Female NPT           | 5          | 41.5 | 1.634 | -    | -     | -    | -     | 18   | 0.709 | -    | -      | 0.07    | 30    |
| GA0066238         | -         | 3/8       | 3/8-19               | Female BSPP          | 5          | 44   | 1.732 | -    | -     | -    | -     | 21   | 0.827 | -    | -      | 0.08    | 37    |
| GA0066245         | -         | M14       | M14x1,25             | Female Metric        | 5          | 44   | 1.732 | -    | -     | -    | -     | 17   | 0.669 | -    | -      | 0.06    | 26    |
| GA0066248         | 1/4       | -         | M14x1,25             | Female Metric        | 5          | 44   | 1.732 | -    | -     | -    | -     | 14   | 0.551 | -    | -      | 0.05    | 24    |
| GA0066767         | -         | -         | 6mm                  | Hose Tail            | 6          | 28   | 1.102 | 26   | 1.024 | 14   | 0.551 | -    | -     | -    | -      | 0.04    | 19    |
| GA0066778         | -         | -         | 7mm                  | Hose Tail            | 6          | 28   | 1.102 | 26   | 1.024 | 14   | 0.551 | -    | -     | -    | -      | 0.04    | 20    |
| GA0066789         | -         | -         | 8mm                  | Hose Tail            | 6          | 28   | 1.102 | 26   | 1.024 | 14   | 0.551 | -    | -     | -    | -      | 0.04    | 20    |
| GA0066790         | -         | -         | 9mm                  | Hose Tail            | 6          | 28   | 1.102 | 26   | 1.024 | 14   | 0.551 | -    | -     | -    | -      | 0.04    | 20    |
| GA0066701         | -         | -         | 10mm                 | Hose Tail            | 6          | 28   | 1.102 | 26   | 1.024 | 14   | 0.551 | -    | -     | -    | -      | 0.05    | 22    |
| GA0066174         | -         | -         | 7x14 mm              | Reusable Hose Fit.   | 7          | 56.5 | 2.224 | -    | -     | -    | -     | 16   | 0.630 | 19   | 0.748  | 0.12    | 56    |
| GA0066184         | -         | -         | 8x14 mm              | Reusable Hose Fit.   | 7          | 56.5 | 2.224 | -    | -     | -    | -     | 16   | 0.630 | 19   | 0.748  | 0.13    | 57    |
| GA0066185         | -         | -         | 8x15 mm              | Reusable Hose Fit.   | 7          | 56.5 | 2.224 | -    | -     | -    | -     | 16   | 0.630 | 19   | 0.748  | 0.12    | 53    |
| GA0066196         | -         | -         | 9x16 mm              | Reusable Hose Fit.   | 7          | 56.5 | 2.224 | -    | -     | -    | -     | 16   | 0.630 | 19   | 0.748  | 0.11    | 51    |
| GA0066814         | -         | 1/4       | 1/4-19               | Female BSPP Swivel   | 8          | 38   | 1.496 | -    | -     | -    | -     | 17   | 0.669 | -    | -      | 0.06    | 26    |
| GA0066845         | -         | M14       | M14x1,25             | Female Metric Swivel | 8          | 38   | 1.496 | -    | -     | -    | -     | 17   | 0.669 | -    | -      | 0.06    | 26    |

To obtain connected length of coupling add Dimensions A or A+C (Fig. 1, 2, 3) and D or D+E (Fig. 4, 5, 6, 7, 8) together and subtract 23 mm (0.91 in).

\*Alternative end connections available upon request.

# Safeline Series ISO 6150 B ID10900 Safety-Type Quick-Release

Pneumatic application



Danfoss ID10900 Series is a single shut-off compressed air coupling that interchanges with ISO 6150 C Standards requirements. Nominal diameter is 8 mm. Thanks to a distinct two-movement action, our couplings guarantee worker safety at disconnection by eliminating the “whiplash” effect. It is a must-have for safe air applications.

## Product Features

- One-hand push-to-connect
- Automatic button for disconnection
- Meets safety standard ISO 4414
- Single shut-off valving
- Good flow capacity
- Wide selection of end connections
- Standard seal material: NBR (Nitrile)
- Standard body material (Female): Aluminum
- Standard body material (Male): Zinc plated steel
- Option: Private labelling

## Physical characteristics

| Body Size<br>(in) | Nominal Flow Diameter<br>(mm) | Max. Operating Pressure<br>Connected or Disconnected |       | Air Flow Rate*<br>Δp 0.6 bar/8.7 psi** |       | Δp 1 bar/14.5 psi*** |       | Working Temperature |           |
|-------------------|-------------------------------|--|-------|--|-------|----------------------|-------|---------------------|-----------|
|                   |                               | (bar)  | (psi) | (lpm)                                  | (gpm) | (lpm)                | (gpm) | °C                  | °F        |
| 3/8               | 8                             | 16   | 232   | 1,590                                  | 420   | 2,000                | 528   | -20° +100°          | -4° +212° |

\*Indicated values refer to an inlet pressure of 6 bar / 87 psi.

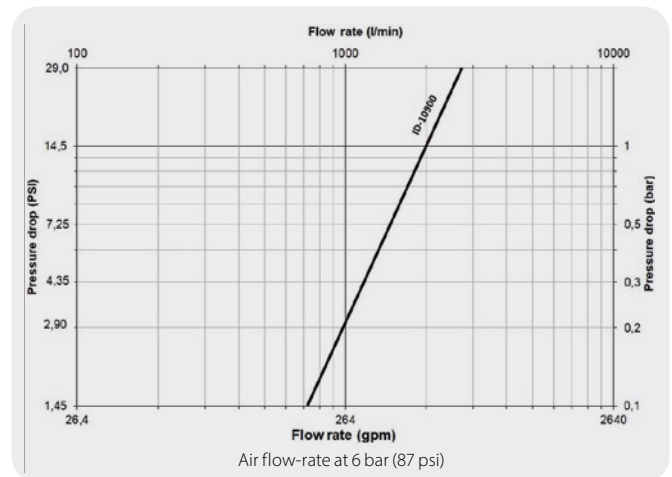
\*\*This flow rate allows the optimum output from a pneumatic tool.

\*\*\* This flow rate is the maximum recommended for a suitable output from a pneumatic tool. For applications needing higher flow rates, it is recommended to select a larger size coupling.

## Applications & Market

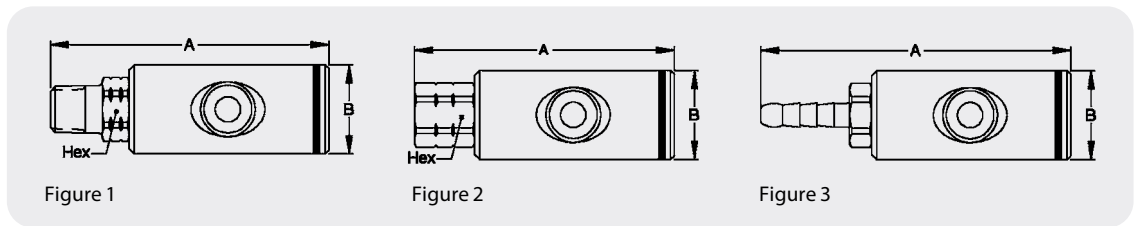
- General Pneumatics
- Air Tools

## Flow Data



# Safeline Series ISO 6150 B ID10900 Safety-Type Quick-Release

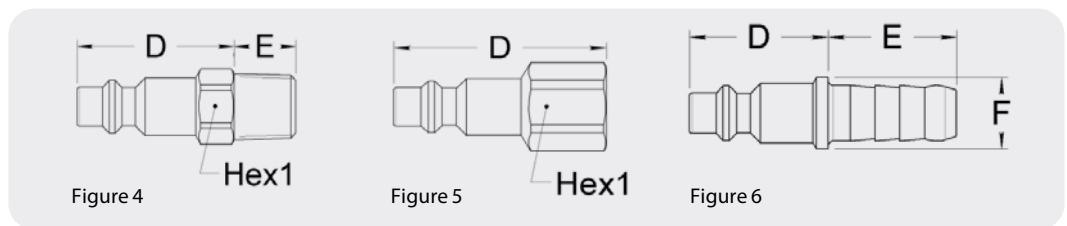
Global region



## Sockets (Female)

| Part/Order Number | Body Size | Port Size | Thread or Hose Diam. | Type        | Fig. | Dimensions |      |      |      |      |      | Weight |      |      |       |
|-------------------|-----------|-----------|----------------------|-------------|------|------------|------|------|------|------|------|--------|------|------|-------|
|                   |           |           |                      |             |      | A          |      | B    |      | C    |      | Hex1   |      | lbs  | grams |
|                   |           |           |                      |             |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) | (mm)   | (in) |      |       |
| ID1096015         | -         | ¼         | ¼                    | Male BSPP   | 1    | 76.2       | 3.0  | 34   | 1.3  | 11.9 | 0.5  | 22     | 0.87 | 0.47 | 214   |
| ID1096014         | -         | ¼         | ¼                    | Male BSPT   | 1    | 76.1       | 3.0  | 34   | 1.3  | 13   | 0.5  | 22     | 0.87 | 0.47 | 213   |
| ID1096041         | -         | ¼         | ¼                    | Male NPT    | 1    | 76         | 3.0  | 34   | 1.3  | 13   | 0.5  | 22     | 0.87 | 0.47 | 213   |
| ID1096039         | -         | ⅜         | ⅜                    | Male BSPP   | 1    | 76.20      | 3.0  | 34   | 1.3  | 11.9 | 0.5  | 22     | 0.87 | 0.48 | 218   |
| ID1096038         | -         | ⅜         | ⅜                    | Male BSPT   | 1    | 76.1       | 3.0  | 34   | 1.3  | 15   | 0.6  | 22     | 0.87 | 0.48 | 219   |
| ID1096083         | -         | ⅜         | ⅜                    | Male NPT    | 1    | 76.1       | 3.0  | 34   | 1.3  | 15   | 0.6  | 22     | 0.87 | 0.48 | 219   |
| ID1096013         | -         | ½         | ½                    | Male BSPP   | 1    | 76.2       | 3.0  | 34   | 1.3  | 13.9 | 0.5  | 27     | 1.06 | 0.52 | 238   |
| ID1096012         | -         | ½         | ½                    | Male BSPT   | 1    | 76.1       | 3.0  | 34   | 1.3  | 17   | 0.7  | 22     | 0.87 | 0.51 | 233   |
| ID1096021         | -         | ½         | ½                    | Male NPT    | 1    | 76.1       | 3.0  | 34   | 1.3  | 17   | 0.7  | 22     | 0.87 | 0.51 | 233   |
| ID1097014         | ¼         | ¼         | ¼                    | Female BSPP | 2    | 88.1       | 3.5  | 34   | 1.3  | -    | -    | 22     | 0.87 | 0.51 | 233   |
| ID1097041         | -         | ¼         | ¼                    | Female NPT  | 2    | 88.10      | 3.5  | 34   | 1.3  | -    | -    | 22     | 0.87 | 0.51 | 233   |
| ID1097038         | -         | ⅜         | ⅜                    | Female BSPP | 2    | 90.60      | 3.6  | 34   | 1.3  | -    | -    | 22     | 0.87 | 0.51 | 232   |
| ID1097083         | -         | ⅜         | ⅜                    | Female NPT  | 2    | 90.6       | 3.6  | 34   | 1.3  | -    | -    | 22     | 0.87 | 0.51 | 232   |
| ID1097012         | -         | ½         | ½                    | Female BSPP | 2    | 94.1       | 3.7  | 34   | 1.3  | -    | -    | 27     | 1.06 | 0.59 | 267   |
| ID1097021         | -         | ½         | ½                    | Female NPT  | 2    | 94.1       | 3.7  | 34   | 1.3  | -    | -    | 27     | 1.06 | 0.59 | 269   |
| ID1095678         | -         | -         | 7 mm                 | Hose Tail   | 3    | 77.1       | 3.0  | 34   | 1.3  | 28   | 1.1  | 22     | 0.87 | 0.47 | 215   |
| ID1095689         | -         | -         | 8 mm                 | Hose Tail   | 3    | 77.1       | 3.0  | 34   | 1.3  | 28   | 1.1  | 22     | 0.87 | 0.48 | 216   |
| ID1095690         | -         | -         | 9 mm                 | Hose Tail   | 3    | 77.1       | 3.0  | 34   | 1.3  | 28   | 1.1  | 22     | 0.87 | 0.48 | 218   |
| ID1095601         | -         | -         | 10 mm                | Hose Tail   | 3    | 77.1       | 3.0  | 34   | 1.3  | 28   | 1.1  | 22     | 0.87 | 0.48 | 219   |

To obtain connected length of coupling add dimensions A or A+C (Fig. 1, 2, 3) and D or D+E (Fig. 4, 5, 6) together and subtract 25,6 mm (1 in.).



## Plugs (Male)

| Part/Order Number | Body Size | Port Size | Thread or Hose Diam. | Type        | Fig. | Dimensions |      |      |      |      |      | Weight |      |      |       |
|-------------------|-----------|-----------|----------------------|-------------|------|------------|------|------|------|------|------|--------|------|------|-------|
|                   |           |           |                      |             |      | D          |      | E    |      | F    |      | Hex1   |      | lbs  | grams |
|                   |           |           |                      |             |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) | (mm)   | (in) |      |       |
| IA0090614         | -         | ¼         | ¼                    | Male BSPT   | 4    | 34.0       | 1.34 | 13.0 | 0.51 | -    | -    | 16.0   | 0.63 | 0.07 | 32.0  |
| IA0090638         | -         | ⅜         | ⅜                    | Male BSPT   | 4    | 36.0       | 1.42 | 15.0 | 0.59 | -    | -    | 17.0   | 0.67 | 0.09 | 41.0  |
| IA0090612         | -         | ½         | ½                    | Male BSPT   | 4    | 40.0       | 1.57 | 17.0 | 0.67 | -    | -    | 23.0   | 0.91 | 0.12 | 56.0  |
| IA0090714         | -         | ¼         | ¼                    | Female BSPP | 5    | 50.0       | 1.97 | -    | -    | -    | -    | 17.0   | 0.67 | 0.08 | 38.0  |
| IA0090738         | -         | ⅜         | ⅜                    | Female BSPP | 5    | 50.0       | 1.97 | -    | -    | -    | -    | 21.0   | 0.83 | 0.11 | 49.0  |
| IA0090712         | ⅜         | ½         | ½                    | Female BSPP | 5    | 53.0       | 2.09 | -    | -    | -    | -    | 26.0   | 1.02 | 0.15 | 69.0  |
| IA0090978         | -         | -         | 7 mm                 | Hose Tail   | 6    | 33.0       | 1.30 | 26.0 | 1.02 | 16.0 | 0.63 | -      | -    | 0.07 | 30.0  |
| IA0090989         | -         | -         | 8 mm                 | Hose Tail   | 6    | 33.0       | 1.30 | 26.0 | 1.02 | 16.0 | 0.63 | -      | -    | 0.07 | 30.0  |
| IA0090990         | -         | -         | 9 mm                 | Hose Tail   | 6    | 33.0       | 1.30 | 26.0 | 1.02 | 16.0 | 0.63 | -      | -    | 0.07 | 31.0  |
| IA0090901         | -         | -         | 10 mm                | Hose Tail   | 6    | 33.0       | 1.30 | 26.0 | 1.02 | 16.0 | 0.63 | -      | -    | 0.07 | 32.0  |
| IA0090912         | -         | -         | 11-12 mm             | Hose Tail   | 6    | 33.0       | 1.30 | 31.0 | 1.22 | 16.0 | 0.63 | -      | -    | 0.08 | 38.0  |

To obtain connected length of coupling add dimensions A or A+C (Fig. 1, 2, 3) and D or D+E (Fig. 4, 5, 6) together and subtract 25,6 mm (1 in.).

# Safeline Series ISO 6150 C GD18500/GK18600

Pneumatic application

Danfoss' Safeline Series is an Industrial Interchange pneumatic coupling with push button safety feature designed for use with compressed air. Two-step disconnect procedure shuts off air supply and releases downstream air pressure before plug can be removed from socket/female, which prevents hose whip.



## Product Features

- Safe and easy to connect and disconnect
- Light weight, compact ergonomic design
- Meets Safety Standard ISO 4414
- Meets ISO 6150 Series C Standard
- Standard body material: Dural
- Standard seal material: Buna-N
- Option: Private labelling

## Physical characteristics

| Body Size<br>(in) | Nominal Flow Diameter<br>(mm) | Max. Operating Pressure<br>Connected or Disconnected |       | Air Flow Rate*<br>Δp 0.6 bar/8.7 psi** |       | Δp 1 bar/14.5 psi*** |       | Working Temperature |           |
|-------------------|-------------------------------|--|-------|--|-------|----------------------|-------|---------------------|-----------|
|                   |                               | (bar)  | (psi) | (lpm)                                  | (gpm) | (lpm)                | (gpm) | °C                  | °F        |
| ¼                 | 5.5                           | 16   | 232   | 515                                    | 136   | 650                  | 172   | -20° +100°          | -4° +212° |

\*Indicated values refer to an inlet pressure of 6 bar / 87 psi.

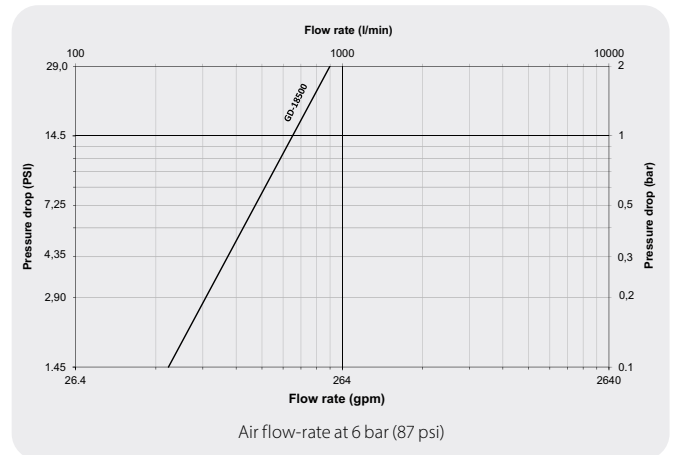
\*\*This flow rate allows the optimum output from a pneumatic tool.

\*\*\* This flow rate is the maximum recommended for a suitable output from a pneumatic tool. For applications needing higher flow rates, it is recommended to select a larger size coupling.

## Applications & Market

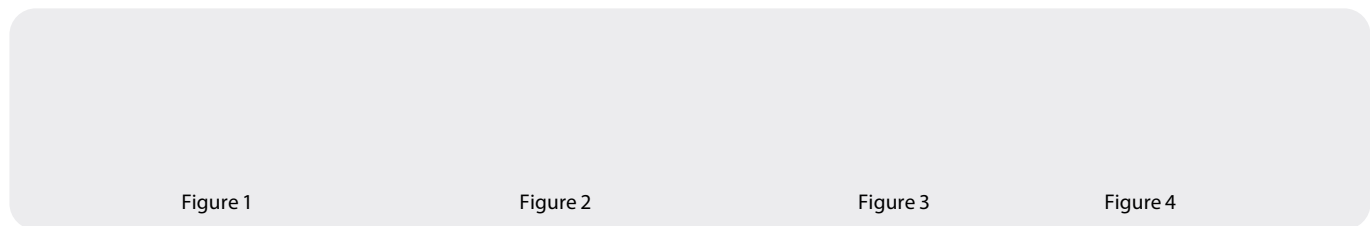
- General Pneumatics
- Air Tools
- Industrial Plants
- Maintenance and Repair

## Flow Data



# Safeline Series ISO 6150 C GD18500/GK18600

Global region



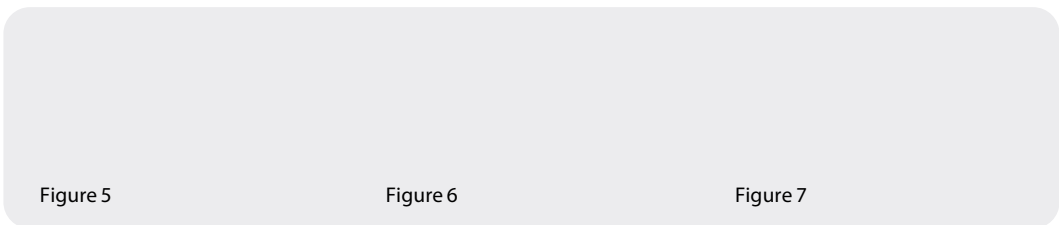
## Sockets (Female)

| Part/Order Number | Body Size | Port Size | Thread or Hose Diam. | Type                    | Fig. | Dimensions |      |      |      |      |      |      |      | Weight |       |
|-------------------|-----------|-----------|----------------------|-------------------------|------|------------|------|------|------|------|------|------|------|--------|-------|
|                   |           |           |                      |                         |      | A          |      | B    |      | C    |      | Hex1 |      | lbs    | grams |
|                   |           |           |                      |                         |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) |        |       |
| GD1853615         | -         | ¼         | ¼                    | Male BSPP               | 1    | 47         | 1.85 | 26   | 1.02 | 12   | 0.47 | 19   | 0.75 | 0.17   | 77    |
| GD1853614         | -         | ¼         | ¼                    | Male BSPT               | 1    | 49         | 1.93 | 26   | 1.02 | 13   | 0.51 | 17   | 0.67 | 0.17   | 76    |
| GD1853639         | -         | ¾         | ¾                    | Male BSPP               | 1    | 48         | 1.89 | 26   | 1.02 | 12   | 0.47 | 22   | 0.87 | 0.20   | 91    |
| GD1853638         | -         | ¾         | ¾                    | Male BSPT               | 1    | 49         | 1.93 | 26   | 1.02 | 14.5 | 0.57 | 17   | 0.67 | 0.19   | 84    |
| GD1853613         | -         | ½         | ½                    | Male BSPP               | 1    | 50         | 1.97 | 26   | 1.02 | 14   | 0.55 | 27   | 1.06 | 0.25   | 115   |
| GD1853612         | -         | ½         | ½                    | Male BSPT               | 1    | 48         | 1.89 | 26   | 1.02 | 17   | 0.67 | 22   | 0.87 | 0.27   | 123   |
| GD1852614         | -         | ¼         | ¼                    | Female BSPP             | 2    | 58.5       | 2.30 | 26   | 1.02 | -    | -    | 17   | 0.67 | 0.17   | 76    |
| GD1852638         | ¼         | ¾         | ¾                    | Female BSPP             | 2    | 61.5       | 2.42 | 26   | 1.02 | -    | -    | 22   | 0.87 | 0.22   | 99    |
| GD1852612         | -         | ½         | ½                    | Female BSPP             | 2    | 65.5       | 2.58 | 26   | 1.02 | -    | -    | 27   | 1.06 | 0.27   | 122   |
| GD1855667         | -         | -         | 6 mm                 | Hose Tail               | 3    | 47.5       | 1.87 | 26   | 1.02 | 28   | 1.10 | 17   | 0.67 | 0.16   | 73    |
| GD1855678         | -         | -         | 7 mm                 | Hose Tail               | 3    | 47.5       | 1.87 | 26   | 1.02 | 28   | 1.10 | 17   | 0.67 | 0.16   | 74    |
| GD1855689         | -         | -         | 8 mm                 | Hose Tail               | 3    | 47.5       | 1.87 | 26   | 1.02 | 28   | 1.10 | 17   | 0.67 | 0.16   | 74    |
| GD1855690         | -         | -         | 9 mm                 | Hose Tail               | 3    | 47.5       | 1.87 | 26   | 1.02 | 28   | 1.10 | 17   | 0.67 | 0.17   | 75    |
| GD1855601         | -         | -         | 10 mm                | Hose Tail               | 3    | 47.5       | 1.87 | 26   | 1.02 | 28   | 1.10 | 17   | 0.67 | 0.17   | 79    |
| GD1855613         | -         | -         | 13 mm                | Hose Tail               | 3    | 47.5       | 1.87 | 26   | 1.02 | 33   | 1.30 | 17   | 0.67 | 0.19   | 87    |
| GD1855014         | -         | ¼         | ¼                    | Female BSPP, Bulkhead*  | 4    | 46.5       | 1.83 | 26   | 1.02 | 17   | 0.67 | 27   | 1.06 | 0.25   | 112   |
| GD1855038         | -         | ¾         | ¾                    | Female BSPP, Bulkhead** | 4    | 47.5       | 1.87 | 26   | 1.02 | 20   | 0.79 | 32   | 1.26 | 0.33   | 150   |

To obtain connected length of coupling add Dimensions A or A+C (Fig. 1, 2, 3, 4) and D or D+E (Fig. 5, 6, 7) together and subtract 26 mm (1,02 in).

\*Max bulkhead thickness: 10 mm (0,39 in) / Bulkhead hole diameter = 21 mm (0,83 in).

\*\*Max bulkhead thickness: 12 mm (0,47 in) / Bulkhead hole diameter = 25 mm (0,98 in).



## Plugs (Male)

| Part/Order Number | Body Size | Port Size | Thread or Hose Diam. | Type          | Fig. | Dimensions |      |      |      |      |      |      |      | Weight |      |      |       |
|-------------------|-----------|-----------|----------------------|---------------|------|------------|------|------|------|------|------|------|------|--------|------|------|-------|
|                   |           |           |                      |               |      | D          |      | E    |      | F    |      | Hex1 |      | Hex2   |      | lbs  | grams |
|                   |           |           |                      |               |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) | (mm)   | (in) |      |       |
| GK1866319         | -         | ⅝         | ⅝                    | Male BSPP     | 5    | 35         | 1.38 | 8    | 0.31 | -    | -    | 14   | 0.55 | -      | -    | 0.04 | 17    |
| GK1866318         | -         | ⅝         | ⅝                    | Male BSPT     | 5    | 34         | 1.34 | 8    | 0.31 | -    | -    | 12   | 0.47 | -      | -    | 0.03 | 14    |
| GK1866381         | -         | ⅝         | ⅝                    | Male NPT      | 5    | 34         | 1.34 | 10   | 0.39 | -    | -    | 12   | 0.47 | -      | -    | 0.03 | 15    |
| GK1866315         | -         | ¼         | ¼                    | Male BSPP     | 5    | 36         | 1.42 | 12   | 0.47 | -    | -    | 17   | 0.67 | -      | -    | 0.06 | 25    |
| GK1866314         | -         | ¼         | ¼                    | Male BSPT     | 5    | 35.5       | 1.40 | 13   | 0.51 | -    | -    | 14   | 0.55 | -      | -    | 0.05 | 23    |
| GK1866341         | -         | ¼         | ¼                    | Male NPT      | 5    | 36         | 1.42 | 15   | 0.59 | -    | -    | 17   | 0.67 | -      | -    | 0.07 | 30    |
| GK1866339         | -         | ¾         | ¾                    | Male BSPP     | 5    | 37         | 1.46 | 12   | 0.47 | -    | -    | 22   | 0.87 | -      | -    | 0.09 | 39    |
| GK1866338         | -         | ¾         | ¾                    | Male BSPT     | 5    | 37.5       | 1.48 | 12   | 0.47 | -    | -    | 19   | 0.75 | -      | -    | 0.08 | 37    |
| GK1866218         | -         | ⅝         | ⅝                    | Female BSPP   | 6    | 41.5       | 1.63 | -    | -    | -    | -    | 14   | 0.55 | -      | -    | 0.04 | 18    |
| GK1866281         | ¼         | ⅝         | ⅝                    | Female NPT    | 6    | -          | 0.00 | -    | -    | -    | -    | -    | 0.00 | -      | -    | 0.04 | 18    |
| GK1866214         | -         | ¼         | ¼                    | Female BSPP   | 6    | 50         | 1.97 | -    | -    | -    | -    | 17   | 0.67 | -      | -    | 0.07 | 33    |
| GK1866241         | -         | ¼         | ¼                    | Female NPT    | 6    | 50         | 1.97 | -    | -    | -    | -    | 17   | 0.67 | -      | -    | 0.07 | 32    |
| GK1866238         | -         | ¾         | ¾                    | Female BSPP   | 6    | 47         | 1.85 | -    | -    | -    | -    | 21   | 0.83 | -      | -    | 0.08 | 35    |
| GK1866245         | -         | M 14      | M 14 x 125           | Female Metric | 6    | 47.5       | 1.87 | -    | -    | -    | -    | 17   | 0.67 | -      | -    | 0.06 | 26    |
| GK1866767         | -         | -         | 6 mm                 | Hose Tail     | 7    | 32         | 1.26 | 28   | 1.10 | 15   | 0.59 | -    | -    | -      | -    | 0.03 | 15    |
| GK1866778         | -         | -         | 7 mm                 | Hose Tail     | 7    | 32         | 1.26 | 28   | 1.10 | 15   | 0.59 | -    | -    | -      | -    | 0.04 | 18    |
| GK1866789         | -         | -         | 8 mm                 | Hose Tail     | 7    | 32         | 1.26 | 28   | 1.10 | 15   | 0.59 | -    | -    | -      | -    | 0.04 | 19    |
| GK1866790         | -         | -         | 9 mm                 | Hose Tail     | 7    | 32         | 1.26 | 28   | 1.10 | 15   | 0.59 | -    | -    | -      | -    | 0.04 | 19    |
| GK1866701         | -         | -         | 10 mm                | Hose Tail     | 7    | 32         | 1.26 | 28   | 1.10 | 15   | 0.59 | -    | -    | -      | -    | 0.04 | 20    |
| GK1866713         | -         | -         | 13 mm                | Hose Tail     | 7    | 32         | 1.26 | 33   | 1.30 | 20   | 0.79 | -    | -    | -      | -    | 0.08 | 34    |

To obtain connected length of coupling add Dimensions A or A+C (Fig. 1, 2, 3, 4) and D or D+E (Fig. 5, 6, 7) together and subtract 26 mm (1,02 in).

# Safeline Series ISO 6150 C ID18900/IK18900

Pneumatic application



Danfoss' Safeline Series is an Industrial Interchange pneumatic coupling with push button safety feature designed for use with compressed air. Two-step disconnect procedure shuts off air supply and releases downstream air pressure before plug can be removed from socket/female, which prevents hose whip.

Global region

## Product Features

- Safe and easy to connect and disconnect
- Light weight, compact ergonomic design
- Meets Safety Standard ISO 4414
- Meets ISO 6150 Series C Standard
- Standard body material: Dural
- Standard seal material: Buna-N
- Option: Private labelling

## Physical characteristics

| Body Size<br>(in) | Nominal Flow Diameter<br>(mm) | Max. Operating Pressure<br>Connected or Disconnected |       | Air Flow Rate*<br>Δp 0.6 bar/8.7 psi** |       | Δp 1 bar/14.5 psi*** |       | Working Temperature |           |
|-------------------|-------------------------------|--|-------|--|-------|----------------------|-------|---------------------|-----------|
|                   |                               | (bar)  | (psi) | (lpm)                                  | (gpm) | (lpm)                | (gpm) | °C                  | °F        |
| 3/8               | 8                             | 16   | 232   | 1,080                                  | 285   | 1,350                | 356   | -20° +100°          | -4° +212° |

\*Indicated values refer to an inlet pressure of 6 bar / 87 psi.

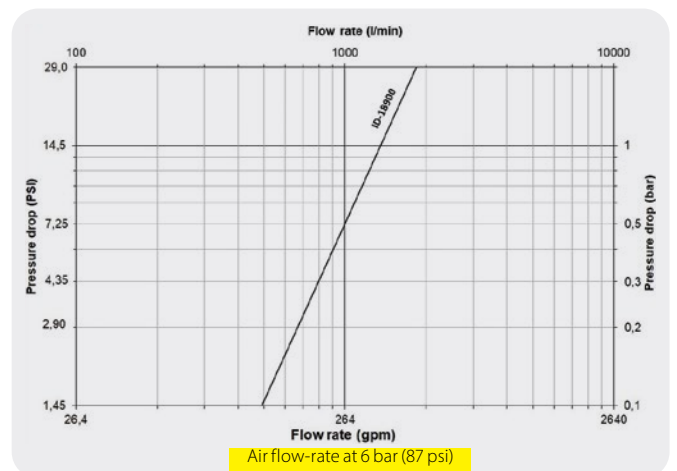
\*\*This flow rate allows the optimum output from a pneumatic tool.

\*\*\* This flow rate is the maximum recommended for a suitable output from a pneumatic tool. For applications needing higher flow rates, it is recommended to select a larger size coupling.

## Applications & Market

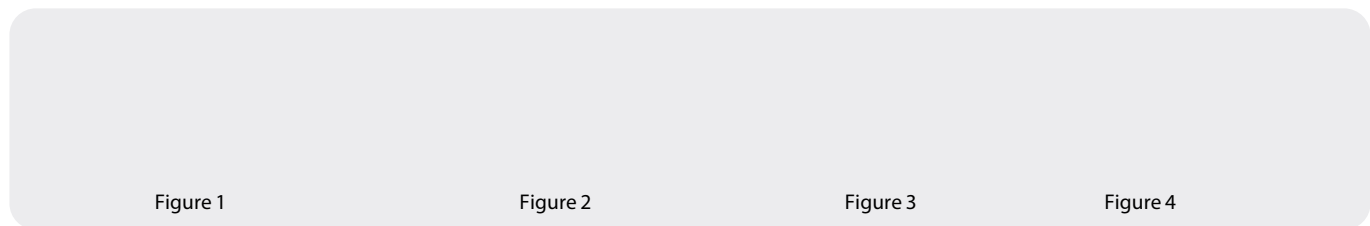
- General Pneumatics
- Air Tools
- Industrial Plants
- Maintenance and Repair

## Flow Data



# Safeline Series ISO 6150 C ID18900/IK18900

Global region



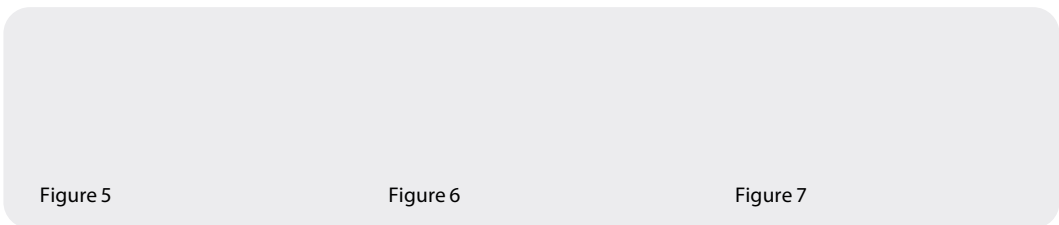
## Sockets (Female)

| Part/Order Number | Body Size | Port Size | Thread or Hose Diam. | Type                    | Fig. | Dimensions |      |      |      |      |      |      |      | Weight |       |
|-------------------|-----------|-----------|----------------------|-------------------------|------|------------|------|------|------|------|------|------|------|--------|-------|
|                   |           |           |                      |                         |      | A          |      | B    |      | C    |      | Hex1 |      | lbs    | grams |
|                   |           |           |                      |                         |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) |        |       |
| ID1896015         | -         | ¼         | ¼                    | Male BSPP               | 1    | 62         | 2.45 | 34   | 1.34 | 12   | 0.47 | 22   | 0.87 | 0.35   | 160   |
| ID1896014         | -         | ¼         | ¼                    | Male BSPT               | 1    | 62         | 2.45 | 34   | 1.34 | 13   | 0.51 | 22   | 0.87 | 0.36   | 162   |
| ID1896039         | -         | ¾         | ¾                    | Male BSPP               | 1    | 62         | 2.45 | 34   | 1.34 | 12   | 0.47 | 22   | 0.87 | 0.36   | 165   |
| ID1896038         | -         | ¾         | ¾                    | Male BSPT               | 1    | 62         | 2.45 | 34   | 1.34 | 15   | 0.59 | 22   | 0.87 | 0.37   | 168   |
| ID1896013         | -         | ½         | ½                    | Male BSPP               | 1    | 62         | 2.45 | 34   | 1.34 | 14   | 0.55 | 27   | 1.06 | 0.37   | 168   |
| ID1896012         | -         | ½         | ½                    | Male BSPT               | 1    | 62         | 2.45 | 34   | 1.34 | 17   | 0.67 | 22   | 0.87 | 0.40   | 180   |
| ID1897014         | -         | ¼         | ¼                    | Female BSPP             | 2    | 74         | 2.92 | 34   | 1.34 | -    | -    | 22   | 0.87 | 0.40   | 182   |
| ID1897038         | ¾         | ¾         | ¾                    | Female BSPP             | 2    | 77         | 3.02 | 34   | 1.34 | -    | -    | 22   | 0.87 | 0.40   | 180   |
| ID1897012         | -         | ½         | ½                    | Female BSPP             | 2    | 80         | 3.16 | 34   | 1.34 | -    | -    | 27   | 1.06 | 0.48   | 216   |
| ID1895689         | -         | -         | 8 mm                 | Hose Tail               | 3    | 63         | 2.49 | 34   | 1.34 | 28   | 1.10 | 22   | 0.87 | 0.36   | 165   |
| ID1895690         | -         | -         | 9 mm                 | Hose Tail               | 3    | 63         | 2.49 | 34   | 1.34 | 28   | 1.10 | 22   | 0.87 | 0.35   | 160   |
| ID1895601         | -         | -         | 10 mm                | Hose Tail               | 3    | 63         | 2.49 | 34   | 1.34 | 28   | 1.10 | 22   | 0.87 | 0.37   | 166   |
| ID1895613         | -         | -         | 13 mm                | Hose Tail               | 3    | 63         | 2.49 | 34   | 1.34 | 33   | 1.30 | 22   | 0.87 | 0.39   | 177   |
| ID1895038         | -         | ¾         | ¾                    | Female BSPP, Bulkhead*  | 4    | 60         | 2.37 | 34   | 1.34 | 20   | 0.79 | 32   | 1.26 | 0.52   | 235   |
| ID1895012         | -         | ½         | ½                    | Female BSPP, Bulkhead** | 4    | 61         | 2.39 | 34   | 1.34 | 23   | 0.91 | 35   | 1.38 | 0.59   | 269   |

To obtain connected length of coupling add Dimensions A or A+C (Fig. 1, 2, 3, 4) and D or D+E (Fig. 5, 6, 7) together and subtract 40 mm (1,57 in).

\*Max bulkhead thickness: 12 mm (0,47 in) / Bulkhead hole diameter = 25 mm (0,98 in).

\*\*Max bulkhead thickness: 15 mm (0,59 in) / Bulkhead hole diameter = 31 mm (1,22 in).



## Plugs (Male)

| Part/Order Number | Body Size | Port Size | Thread or Hose Diam. | Type        | Fig. | Dimensions |      |      |      |      |      |      |      | Weight |       |
|-------------------|-----------|-----------|----------------------|-------------|------|------------|------|------|------|------|------|------|------|--------|-------|
|                   |           |           |                      |             |      | D          |      | E    |      | F    |      | Hex1 |      | lbs    | grams |
|                   |           |           |                      |             |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) |        |       |
| IK1890615         | -         | ¼         | ¼                    | Male BSPP   | 5    | 46         | 1.81 | 12   | 0.47 | -    | -    | 19   | 0.75 | 0.10   | 44    |
| IK1890614         | -         | ¼         | ¼                    | Male BSPT   | 5    | 45         | 1.77 | 13   | 0.51 | -    | -    | 17   | 0.67 | 0.08   | 38    |
| IK1890641         | -         | ¼         | ¼                    | Male NPT    | 5    | 45         | 1.77 | 13   | 0.51 | -    | -    | 17   | 0.67 | 0.09   | 39    |
| IK1890639         | -         | ¾         | ¾                    | Male BSPP   | 5    | 46         | 1.81 | 12   | 0.47 | -    | -    | 22   | 0.87 | 0.11   | 51    |
| IK1890638         | -         | ¾         | ¾                    | Male BSPT   | 5    | 45         | 1.77 | 15   | 0.59 | -    | -    | 19   | 0.75 | 0.11   | 51    |
| IK1890683         | -         | ¾         | ¾                    | Male NPT    | 5    | 45         | 1.77 | 15   | 0.59 | -    | -    | 19   | 0.75 | 0.11   | 52    |
| IK1890613         | -         | ½         | ½                    | Male BSPP   | 5    | 46         | 1.81 | 14   | 0.55 | -    | -    | 26   | 1.02 | 0.16   | 73    |
| IK1890612         | ¾         | ½         | ½                    | Male BSPT   | 5    | 45         | 1.77 | 17   | 0.67 | -    | -    | 22   | 0.87 | 0.15   | 66    |
| IK1890714         | -         | ¼         | ¼                    | Female BSPP | 6    | 60         | 2.36 | -    | -    | -    | -    | 17   | 0.67 | 0.09   | 40    |
| IK1890741         | -         | ¼         | ¼                    | Female NPT  | 6    | 60         | 2.36 | -    | -    | -    | -    | 17   | 0.67 | 0.09   | 40    |
| IK1890738         | -         | ¾         | ¾                    | Female BSPP | 6    | 60         | 2.36 | -    | -    | -    | -    | 21   | 0.83 | 0.11   | 52    |
| IK1890783         | -         | ¾         | ¾                    | Female NPT  | 6    | 60         | 2.36 | -    | -    | -    | -    | 21   | 0.83 | 0.12   | 55    |
| IK1890712         | -         | ½         | ½                    | Female BSPP | 6    | 60         | 2.36 | -    | -    | -    | -    | 26   | 1.02 | 0.15   | 66    |
| IK1890989         | -         | -         | 8 mm                 | Hose Tail   | 7    | 42         | 1.65 | 28   | 1.10 | 16   | 0.63 | -    | -    | 0.07   | 33    |
| IK1890990         | -         | -         | 9 mm                 | Hose Tail   | 7    | 42         | 1.65 | 28   | 1.10 | 16   | 0.63 | -    | -    | 0.07   | 33    |
| IK1890901         | -         | -         | 10 mm                | Hose Tail   | 7    | 42         | 1.65 | 28   | 1.10 | 16   | 0.63 | -    | -    | 0.08   | 35    |
| IK1890913         | -         | -         | 13 mm                | Hose Tail   | 7    | 42         | 1.65 | 33   | 1.30 | 20   | 0.79 | -    | -    | 0.10   | 46    |

To obtain connected length of coupling add Dimensions A or A+C (Fig. 1, 2, 3, 4) and D or D+E (Fig. 5, 6, 7) together and subtract 40 mm (1,57 in).

# Safeline Series ISO 6150 C TD18300/TK18300

Pneumatic application

Danfoss' Safeline Series is an Industrial Interchange pneumatic coupling with push button safety feature designed for use with compressed air. Two-step disconnect procedure shuts off air supply and releases downstream air pressure before plug can be removed from socket/female, which prevents hose whip.



## Product Features

- Safe and easy to connect and disconnect
- Light weight, compact ergonomic design
- Meets Safety Standard ISO 4414
- Meets ISO 6150 Series C Standard
- Standard body material: Dural
- Standard seal material: Buna-N
- Option: Private labelling

## Physical characteristics

| Body Size<br>(in) | Nominal Flow Diameter<br>(mm) | Max. Operating Pressure<br>Connected or Disconnected |       | Air Flow Rate*<br>Δp 0.6 bar/8.7 psi** |       | Δp 1 bar/14.5 psi*** |       | Working Temperature |           |
|-------------------|-------------------------------|--|-------|--|-------|----------------------|-------|---------------------|-----------|
|                   |                               | (bar)  | (psi) | (lpm)                                  | (gpm) | (lpm)                | (gpm) | °C                  | °F        |
| 1/2               | 11                            | 16   | 232   | 2,400                                  | 634   | 3,000                | 793   | -20° +100°          | -4° +212° |

\*Indicated values refer to an inlet pressure of 6 bar / 87 psi.

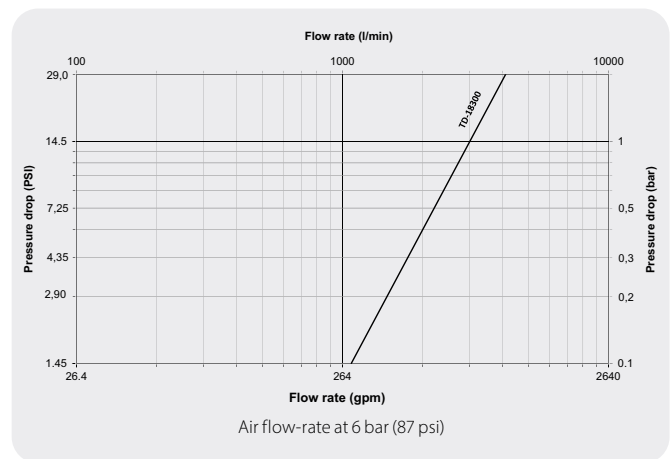
\*\*This flow rate allows the optimum output from a pneumatic tool.

\*\*\* This flow rate is the maximum recommended for a suitable output from a pneumatic tool. For applications needing higher flow rates, it is recommended to select a larger size coupling.

## Applications & Market

- General Pneumatics
- Air Tools
- Industrial Plants
- Maintenance and Repair

## Flow Data



# Safeline Series ISO 6150 C TD18300/TK18300

Figure 1

Figure 2

Figure 3

Figure 4

## Sockets (Female)

| Part/Order Number | Body Size | Port Size | Thread or Hose Diam. | Type                    | Fig. | Dimensions |      |      |      |      |      |      |      | Weight |      |      |       |
|-------------------|-----------|-----------|----------------------|-------------------------|------|------------|------|------|------|------|------|------|------|--------|------|------|-------|
|                   |           |           |                      |                         |      | A          |      | B    |      | C    |      | Hex1 |      | Hex2   |      | lbs  | grams |
|                   |           |           |                      |                         |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) | (mm)   | (in) |      |       |
| TD1832012         | -         | ½         | ½                    | Male BSPT               | 1    | 70.6       | 2.78 | 39.5 | 1.56 | 17   | 0.67 | 27   | 1.06 | -      | -    | 0.58 | 262   |
| TD1832034         | -         | ¾         | ¾                    | Male BSPT               | 1    | 70.6       | 2.78 | 39.5 | 1.56 | 19   | 0.73 | 29   | 1.14 | -      | -    | 0.63 | 287   |
| TD1832138         | -         | ¾         | ¾                    | Female BSPP             | 2    | 83.1       | 3.27 | 39.5 | 1.56 | -    | -    | 27   | 1.06 | -      | -    | 0.62 | 280   |
| TD1832112         | -         | ½         | ½                    | Female BSPP             | 2    | 83.1       | 3.27 | 39.5 | 1.56 | -    | -    | 27   | 1.06 | -      | -    | 0.58 | 261   |
| TD1832134         | ½         | ¾         | ¾                    | Female BSPP             | 2    | 89.1       | 3.51 | 39.5 | 1.56 | -    | -    | 32   | 1.26 | -      | -    | 0.67 | 304   |
| TD1835601         | -         | -         | 10 mm                | Hose Tail               | 3    | 72.1       | 2.84 | 39.5 | 1.56 | 28   | 1.10 | 27   | 1.06 | -      | -    | 0.56 | 256   |
| TD1835613         | -         | -         | 13 mm                | Hose Tail               | 3    | 72.1       | 2.84 | 39.5 | 1.56 | 33   | 1.30 | 27   | 1.06 | -      | -    | 0.59 | 267   |
| TD1835616         | -         | -         | 16 mm                | Hose Tail               | 3    | 72.1       | 2.84 | 39.5 | 1.56 | 33   | 1.30 | 27   | 1.06 | -      | -    | 0.60 | 270   |
| TD1835012         | -         | ½         | ½                    | Female BSPP, Bulkhead*  | 4    | 70.6       | 2.78 | 39.5 | 1.56 | 23   | 0.91 | 35   | 1.38 | -      | -    | 0.76 | 343   |
| TD1835034         | -         | ¾         | ¾                    | Female BSPP, Bulkhead** | 4    | 71.6       | 2.82 | 39.5 | 1.56 | 25   | 0.98 | 38   | 1.50 | -      | -    | 0.77 | 350   |

To obtain connected length of coupling add Dimensions A or A+C (Fig. 1, 2, 3, 4) and D or D+E (Fig. 5, 6, 7) together and subtract 20 mm (0,79 in).

\*Max bulkhead thickness: 15 mm (0,59 in) / Bulkhead hole diameter = 31 mm (1,22 in).

\*\*Max bulkhead thickness: 16 mm (0,63 in) / Bulkhead hole diameter = 33 mm (1,30 in).

Figure 5

Figure 6

Figure 7

## Plugs (Male)

| Part/Order Number | Body Size | Port Size | Thread or Hose Diam. | Type        | Fig. | Dimensions |      |      |      |      |      |      |      | Weight |       |
|-------------------|-----------|-----------|----------------------|-------------|------|------------|------|------|------|------|------|------|------|--------|-------|
|                   |           |           |                      |             |      | D          |      | E    |      | F    |      | Hex1 |      | lbs    | grams |
|                   |           |           |                      |             |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) |        |       |
| TK1831539         | -         | ¾         | ¾                    | Male BSPP   | 5    | 51.1       | 2.01 | 11.9 | 0.47 | -    | -    | 22   | 0.87 | 2.32   | 59    |
| TK1831512         | -         | ½         | ½                    | Male BSPT   | 5    | 50         | 1.97 | 17   | 0.67 | -    | -    | 22   | 0.87 | 2.56   | 65    |
| TK1831534         | -         | ¾         | ¾                    | Male BSPT   | 5    | 53.5       | 2.11 | 18.5 | 0.73 | -    | -    | 29   | 1.14 | 3.86   | 98    |
| TK1831638         | -         | ¾         | ¾                    | Female BSPP | 6    | 65         | 2.56 | -    | -    | -    | -    | 26   | 1.02 | 3.70   | 94    |
| TK1831612         | ½         | ½         | ½                    | Female BSPP | 6    | 65         | 2.56 | -    | -    | -    | -    | 26   | 1.02 | 3.02   | 77    |
| TK1831634         | -         | ¾         | ¾                    | Female BSPP | 6    | 73         | 2.87 | -    | -    | -    | -    | 32   | 1.26 | 5.02   | 128   |
| TK1831889         | -         | -         | 8 mm                 | Hose Tail   | 7    | 47         | 1.85 | 28   | 1.10 | 20   | 0.79 | -    | -    | 1.87   | 48    |
| TK1831801         | -         | -         | 10 mm                | Hose Tail   | 7    | 47         | 1.85 | 28   | 1.10 | 20   | 0.79 | -    | -    | 1.91   | 48    |
| TK1831813         | -         | -         | 13 mm                | Hose Tail   | 7    | 47         | 1.85 | 33   | 1.30 | 20   | 0.79 | -    | -    | 2.19   | 56    |
| TK1831816         | -         | -         | 16 mm                | Hose Tail   | 7    | 47         | 1.85 | 33   | 1.30 | 20   | 0.79 | -    | -    | 2.40   | 61    |

To obtain connected length of coupling add Dimensions A or A+C (Fig. 1, 2, 3, 4) and D or D+E (Fig. 5, 6, 7) together and subtract 20 mm (0,79 in).

# 1000/400/500 Series

Pneumatic application



Danfoss Hansen 1000/400/500 Series is an Industrial Interchange pneumatic coupling that is rugged and reliable designed for use with compressed air, gases, and liquids.

## Product Features

- Ball latching mechanism
- Optional sleeve lock prevents accidental disconnection
- All sizes accept US Industrial Interchange
- 1/4" & 1/2" accept ISO 6150 B and A-A-59439 plugs/males
- 400 series accepts Tru-Flate Interchange
- Standard body material: brass, steel and stainless steel with nickel plated steel sleeve
- Standard seal material: Buna-N
- Optional seal materials: Silicone-138, FKM-143, EPDM-192

## Physical characteristics

| Series | Body Size | Max. Operating Pressure |       | Min. Burst Pressure |       | Rated Flow |       |
|--------|-----------|-------------------------|-------|---------------------|-------|------------|-------|
|        | (in)      | (bar)                   | (psi) | (bar)               | (psi) | (lpm)      | (gpm) |
| 1000   | ¼         | 138                     | 2,000 | 552                 | 8,000 | 9          | 179   |
| 400    | ¾         | 69                      | 1,000 | 276                 | 4,000 | 1,274      | 336   |
| 500    | ½         | 35                      | 500   | 140                 | 2,000 | 2,038      | 538   |

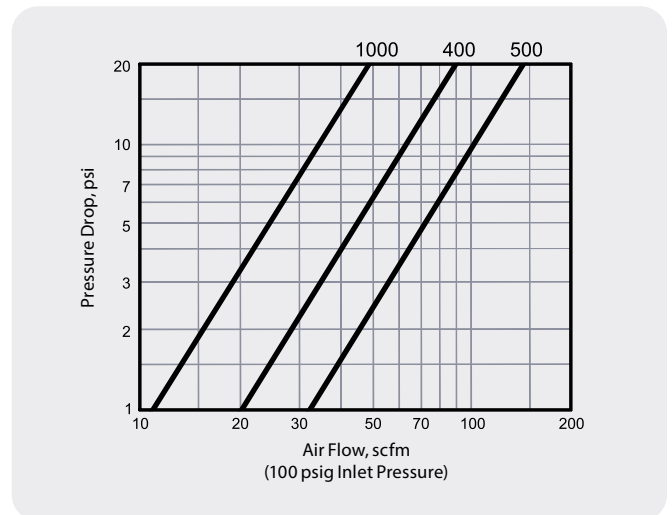
## Applications & Markets

- General Pneumatics
- Construction
- Industrial Plants

## Interchangeability

| All Sizes                 | 1/4" & 1/2"   | 400 Series |
|---------------------------|---|------------|
| US Industrial Interchange | ISO 6150 Series B<br>A-A-59439<br>(former MIL-C-4109) | Tru-Flate  |

## Flow Data



# 1000 Series

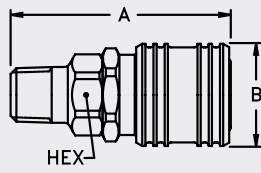


Figure 1

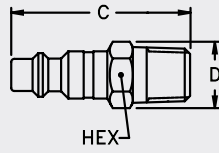


Figure 2

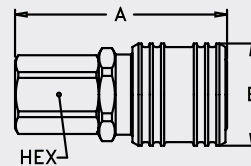


Figure 3

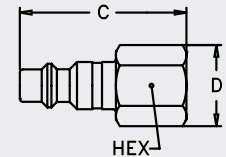


Figure 4

## Male NPTF Connections

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Material  | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|--------|------|-----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |        |      |           |      | A          |      | B     |      | Hex   |      |
|                   |               |           |           |        |      |           |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 900               | Socket/Female | ¼         | ⅜         | ⅝-27   | NPTF | Brass     | 1    | 50.04      | 1.97 | 25.40 | 1.00 | 17.53 | 0.69 |
| 1100              | Socket/Female | ¼         | ¼         | ¼-18   | NPTF | Brass     | 1    | 54.86      | 2.16 | 25.40 | 1.00 | 17.53 | 0.69 |
| 1300              | Socket/Female | ¼         | ⅜         | ⅝-18   | NPTF | Brass     | 1    | 53.85      | 2.12 | 25.40 | 1.00 | 17.53 | 0.69 |
| LL1100            | Socket/Female | ¼         | ¼         | ¼-18   | NPTF | Stainless | 1    | 54.86      | 2.16 | 25.40 | 1.00 | 17.53 | 0.69 |

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Material  | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|--------|------|-----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |        |      |           |      | C          |      | D     |      | Hex   |      |
|                   |               |           |           |        |      |           |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 10                | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Steel     | 2    | 44.45      | 1.75 | 15.75 | 0.62 | 14.22 | 0.56 |
| 10C§              | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Steel     | 2    | 44.45      | 1.75 | 16.51 | 0.65 | 14.22 | 0.56 |
| 10G†              | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Steel     | 2    | 44.45      | 1.75 | 16.51 | 0.65 | 14.22 | 0.56 |
| 12E               | Plug/Male     | ¼         | ⅜         | ⅝-27   | NPTF | Steel     | 2    | 40.38      | 1.59 | 14.73 | 0.58 | 12.7  | 0.50 |
| 12G†              | Plug/Male     | ¼         | ⅜         | ⅝-27   | NPTF | Steel     | 2    | 60.45      | 2.38 | 19.55 | 0.77 | 17.52 | 0.69 |
| 12100412          | Plug/Male     | ¼         | ⅜         | ⅝-18   | NPTF | Steel     | 2    | 44.45      | 1.75 | 20.06 | 0.79 | 17.52 | 0.69 |
| 14G†              | Plug/Male     | ¼         | ⅜         | ⅝-18   | NPTF | Steel     | 2    | 64.26      | 2.53 | 19.55 | 0.77 | 17.52 | 0.69 |
| B10               | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Brass     | 2    | 44.45      | 1.75 | 16.25 | 0.62 | 14.22 | 0.56 |
| LL10              | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Stainless | 2    | 44.45      | 1.75 | 16.51 | 0.62 | 14.22 | 0.56 |
| 10NK*             | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Steel     | 2    | 44.45      | 1.75 | 15.75 | 0.62 | 14.22 | 0.56 |

§ With Ball Check †With Bleeder Ball Check—Reduces Hose Whip \*Nickel plated

## Female NPTF Connections

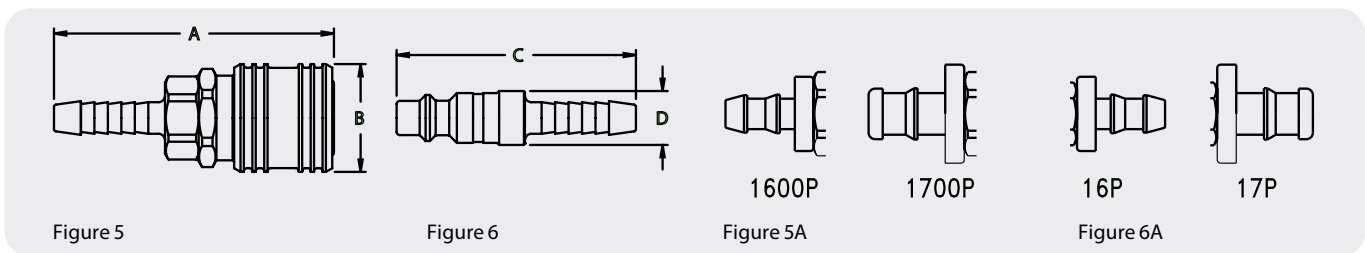
| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Material  | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|--------|------|-----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |        |      |           |      | A          |      | B     |      | Hex   |      |
|                   |               |           |           |        |      |           |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 800E              | Socket/Female | ¼         | ⅜         | ⅝-27   | NPTF | Brass     | 3    | 47.24      | 1.86 | 25.40 | 1.00 | 17.53 | 0.69 |
| 1000E             | Socket/Female | ¼         | ¼         | ¼-18   | NPTF | Brass     | 3    | 52.83      | 2.08 | 25.40 | 1.00 | 17.53 | 0.69 |
| 1200              | Socket/Female | ¼         | ⅜         | ⅝-18   | NPTF | Brass     | 3    | 54.86      | 2.16 | 25.40 | 1.00 | 19.05 | 0.75 |
| LL1000            | Socket/Female | ¼         | ¼         | ¼-18   | NPTF | Stainless | 3    | 52.83      | 2.08 | 25.40 | 1.00 | 17.53 | 0.69 |

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Material  | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|--------|------|-----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |        |      |           |      | C          |      | D     |      | Hex   |      |
|                   |               |           |           |        |      |           |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 11                | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Steel     | 4    | 41.40      | 1.63 | 20.07 | 0.79 | 17.53 | 0.69 |
| 11G†              | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Steel     | 4    | 61.98      | 2.44 | 19.56 | 0.77 | 17.53 | 0.69 |
| 13                | Plug/Male     | ¼         | ⅜         | ⅝-27   | NPTF | Steel     | 4    | 37.34      | 1.47 | 16.51 | 0.65 | 14.22 | 0.56 |
| 15E               | Plug/Male     | ¼         | ⅜         | ⅝-18   | NPTF | Steel     | 4    | 42.93      | 1.69 | 23.88 | 0.94 | 20.57 | 0.81 |
| 11B               | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Brass     | 4    | 41.40      | 1.63 | 19.81 | 0.78 | 17.53 | 0.69 |
| LL11              | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Stainless | 4    | 41.40      | 1.63 | 20.07 | 0.79 | 17.53 | 0.69 |
| 11NK*             | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Steel     | 4    | 41.40      | 1.63 | 20.07 | 0.79 | 17.53 | 0.69 |

†With Bleeder Ball Check—Reduces Hose Whip \*Nickel plated

# 1000 Series

Global region



## Hose Stem End Connections

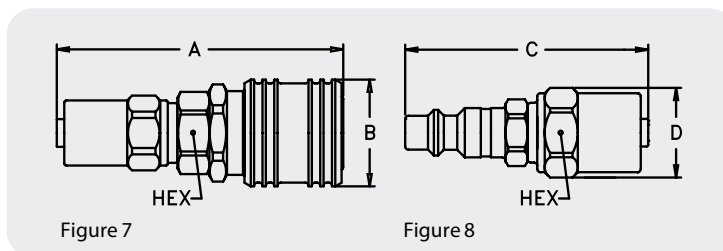
| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Material | Fig.  | Dimensions |      |       |      |
|-------------------|---------------|-----------|-----------|----------|-------|------------|------|-------|------|
|                   |               |           |           |          |       | A          |      | B     |      |
|                   |               |           |           |          |       | (mm)       | (in) | (mm)  | (in) |
| 1600E             | Socket/Female | ¼         | ¼         | Brass    | 5     | 66.04      | 2.60 | 25.40 | 1.00 |
| 1600P‡            | Socket/Female | ¼         | ¼         | Brass    | 5, 5A | 60.20      | 2.37 | 25.40 | 1.00 |
| 1700E             | Socket/Female | ¼         | ⅜         | Brass    | 5     | 66.04      | 2.60 | 25.40 | 1.00 |
| 1700P‡            | Socket/Female | ¼         | ⅜         | Brass    | 5, 5A | 61.98      | 2.44 | 25.40 | 1.00 |
| 1800              | Socket/Female | ¼         | ⅝         | Brass    | 5     | 66.04      | 2.60 | 25.40 | 1.00 |

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Material | Fig.  | Dimensions |      |       |      |
|-------------------|---------------|-----------|-----------|----------|-------|------------|------|-------|------|
|                   |               |           |           |          |       | C          |      | D     |      |
|                   |               |           |           |          |       | (mm)       | (in) | (mm)  | (in) |
| 12103875          | Plug/Male     | ¼         | ¼         | Steel    | 6     | 56.39      | 2.22 | 12.70 | 0.50 |
| 16G†              | Plug/Male     | ¼         | ¼         | Steel    | 6     | 75.44      | 2.97 | 19.56 | 0.77 |
| 16P‡              | Plug/Male     | ¼         | ¼         | Steel    | 6, 6A | 50.80      | 2.00 | 14.73 | 0.58 |
| 17                | Plug/Male     | ¼         | ⅜         | Steel    | 6     | 56.39      | 2.22 | 12.70 | 0.5  |
| 17G‡              | Plug/Male     | ¼         | ⅜         | Steel    | 6     | 75.18      | 2.96 | 19.56 | 0.77 |
| 17P‡              | Plug/Male     | ¼         | ⅜         | Steel    | 6, 6A | 52.32      | 2.06 | 12.70 | 0.5  |
| 18E               | Plug/Male     | ¼         | ⅝         | Steel    | 6     | 56.39      | 2.22 | 12.70 | 0.50 |
| B17               | Plug/Male     | ¼         | ⅜         | Brass    | 6     | 56.39      | 2.22 | 12.70 | 0.5  |
| 16NK*             | Plug/Male     | ¼         | ¼         | Steel    | 6     | 56.39      | 2.22 | 12.70 | 0.50 |
| 17NK*             | Plug/Male     | ¼         | ⅜         | Steel    | 6     | 56.39      | 2.22 | 12.70 | 0.5  |

†With Bleeder Ball Check—Reduces Hose Whip ‡ For use with push-on style hose \*Nickel plated

# 1000 Series

Global region



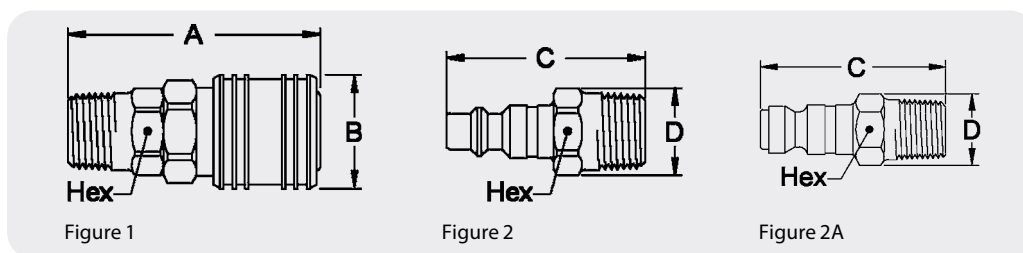
## Hose Clamp End Connections

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Hose O.D. | Material | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|-----------|----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |           |          |      | A          |      | B     |      | Hex   |      |
|                   |               |           |           |           |          |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 1SB1              | Socket/Female | ¼         | ¼         | 1½/2      | Brass    | 7    | 68.33      | 2.69 | 25.40 | 1.00 | 17.53 | 0.69 |
| 1SB3              | Socket/Female | ¼         | ¼         | ½         | Brass    | 7    | 68.33      | 2.69 | 25.40 | 1.00 | 17.53 | 0.69 |
| 1SB5E             | Socket/Female | ¼         | ¼         | 9/16      | Brass    | 7    | 68.33      | 2.69 | 25.40 | 1.00 | 17.53 | 0.69 |
| 1SB7              | Socket/Female | ¼         | ¼         | 5/8       | Brass    | 7    | 68.33      | 2.69 | 25.40 | 1.00 | 17.53 | 0.69 |
| 1SC5              | Socket/Female | ¼         | 5/16      | 9/16      | Brass    | 7    | 69.85      | 2.75 | 25.40 | 1.00 | 17.53 | 0.69 |
| 1SC7              | Socket/Female | ¼         | 5/16      | 5/8       | Brass    | 7    | 69.85      | 2.75 | 25.40 | 1.00 | 17.53 | 0.69 |
| 1SC9              | Socket/Female | ¼         | 5/16      | 11/16     | Brass    | 7    | 69.85      | 2.75 | 25.40 | 1.00 | 17.53 | 0.69 |
| 1SD5              | Socket/Female | ¼         | 3/8       | 9/16      | Brass    | 7    | 71.37      | 2.81 | 25.40 | 1.00 | 17.53 | 0.69 |
| 1SD7              | Socket/Female | ¼         | 3/8       | 5/8       | Brass    | 7    | 71.37      | 2.81 | 25.40 | 1.00 | 17.53 | 0.69 |
| 1SD9              | Socket/Female | ¼         | 3/8       | 11/16     | Brass    | 7    | 71.37      | 2.81 | 25.40 | 1.00 | 17.53 | 0.69 |
| 1SD11             | Socket/Female | ¼         | 3/8       | ¾         | Brass    | 7    | 71.37      | 2.81 | 25.40 | 1.00 | 17.53 | 0.69 |

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Hose O.D. | Material | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|-----------|----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |           |          |      | C          |      | D     |      | Hex   |      |
|                   |               |           |           |           |          |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 3PB1              | Plug/Male     | ¼         | ¼         | 1½/2      | Steel    | 8    | 58.67      | 2.31 | 17.78 | 0.70 | 16.00 | 0.63 |
| 3PB3              | Plug/Male     | ¼         | ¼         | ½         | Steel    | 8    | 58.67      | 2.31 | 17.78 | 0.70 | 16.00 | 0.63 |
| 3PB5              | Plug/Male     | ¼         | ¼         | 9/16      | Steel    | 8    | 58.67      | 2.31 | 19.56 | 0.77 | 17.53 | 0.69 |
| 3PB7              | Plug/Male     | ¼         | ¼         | 5/8       | Steel    | 8    | 58.67      | 2.31 | 21.34 | 0.84 | 19.05 | 0.75 |
| 3PB9              | Plug/Male     | ¼         | ¼         | 11/16     | Steel    | 8    | 58.67      | 2.31 | 23.88 | 0.94 | 20.57 | 0.81 |
| 3PB11             | Plug/Male     | ¼         | ¼         | ¾         | Steel    | 8    | 58.67      | 2.31 | 24.89 | 0.98 | 22.35 | 0.88 |
| 3PC5              | Plug/Male     | ¼         | 5/16      | 9/16      | Steel    | 8    | 60.45      | 2.38 | 19.56 | 0.77 | 17.53 | 0.69 |
| 3PC7              | Plug/Male     | ¼         | 5/16      | 5/8       | Steel    | 8    | 60.45      | 2.38 | 21.34 | 0.84 | 19.05 | 0.75 |
| 3PC9              | Plug/Male     | ¼         | 5/16      | 11/16     | Steel    | 8    | 60.45      | 2.38 | 23.11 | 0.91 | 20.57 | 0.81 |
| 3PD5              | Plug/Male     | ¼         | 3/8       | 9/16      | Steel    | 8    | 61.98      | 2.44 | 19.56 | 0.77 | 17.53 | 0.69 |
| 3PD7              | Plug/Male     | ¼         | 3/8       | 5/8       | Steel    | 8    | 61.98      | 2.44 | 21.34 | 0.84 | 19.05 | 0.75 |
| 3PD9              | Plug/Male     | ¼         | 3/8       | 11/16     | Steel    | 8    | 61.98      | 2.44 | 23.11 | 0.91 | 20.57 | 0.81 |
| 3PD11             | Plug/Male     | ¼         | 3/8       | ¾         | Steel    | 8    | 61.98      | 2.44 | 25.65 | 1.01 | 22.35 | 0.88 |

# 400 Series

Global region

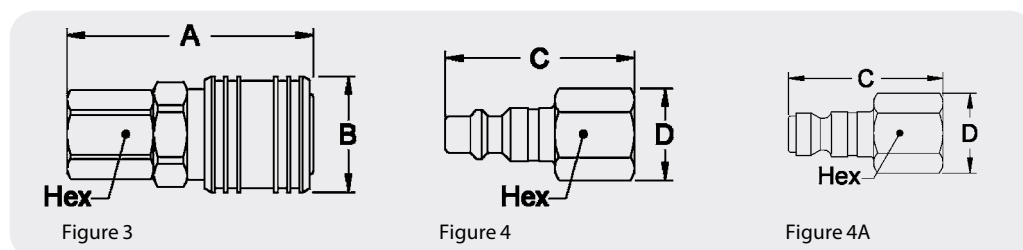


## Male NPTF Connections

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions |        |        |        |          |          |
|-------------------|---------------|-----------|-----------|--------|------|----------|------|------------|--------|--------|--------|----------|----------|
|                   |               |           |           |        |      |          |      | A (mm)     | A (in) | B (mm) | B (in) | Hex (mm) | Hex (in) |
| 410               | Socket/Female | 3/8       | 1/4       | 1/4-18 | NPTF | Brass    | 1    | 59.69      | 2.35   | 28.70  | 1.13   | 22.35    | 0.88     |
| 430               | Socket/Female | 3/8       | 3/8       | 3/8-18 | NPTF | Brass    | 1    | 59.69      | 2.35   | 28.70  | 1.13   | 22.35    | 0.88     |
| 450               | Socket/Female | 3/8       | 1/2       | 1/2-14 | NPTF | Brass    | 1    | 64.52      | 2.54   | 28.70  | 1.13   | 22.35    | 0.88     |

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions |        |        |        |          |          |
|-------------------|---------------|-----------|-----------|--------|------|----------|------|------------|--------|--------|--------|----------|----------|
|                   |               |           |           |        |      |          |      | C (mm)     | C (in) | D (mm) | D (in) | Hex (mm) | Hex (in) |
| 38                | Plug/Male     | 3/8       | 1/8       | 1/8-27 | NPTF | Steel    | 2    | 43.69      | 1.72   | 18.29  | 0.72   | 16.00    | 0.63     |
| 40                | Plug/Male     | 3/8       | 1/4       | 1/4-18 | NPTF | Steel    | 2    | 47.75      | 1.88   | 18.29  | 0.72   | 16.00    | 0.63     |
| 40NK*             | Plug/Male     | 3/8       | 1/4       | 1/4-18 | NPTF | Steel    | 2    | 47.75      | 1.88   | 18.29  | 0.72   | 16.00    | 0.63     |
| 40G†              | Plug/Male     | 3/8       | 1/4       | 1/4-18 | NPTF | Steel    | 2    | 67.31      | 2.65   | 19.56  | 0.77   | 17.53    | 0.69     |
| 42                | Plug/Male     | 3/8       | 3/8       | 3/8-18 | NPTF | Steel    | 2    | 47.75      | 1.88   | 20.07  | 0.79   | 17.53    | 0.69     |
| 42G†              | Plug/Male     | 3/8       | 3/8       | 3/8-18 | NPTF | Steel    | 2    | 67.31      | 2.65   | 19.56  | 0.77   | 17.53    | 0.69     |
| 44                | Plug/Male     | 3/8       | 1/2       | 1/2-14 | NPTF | Steel    | 2    | 53.09      | 2.09   | 25.65  | 1.01   | 22.35    | 0.88     |
| B40               | Plug/Male     | 3/8       | 1/4       | 1/4-18 | NPTF | Brass    | 2    | 47.75      | 1.88   | 17.78  | 0.70   | 16.00    | 0.63     |
| B42               | Plug/Male     | 3/8       | 3/8       | 3/8-18 | NPTF | Brass    | 2    | 47.75      | 1.88   | 19.56  | 0.77   | 17.53    | 0.69     |
| 31AP25M           | Plug/Male     | 3/8       | 1/4       | 1/4-18 | NPTF | Steel    | 2A   | 46.99      | 1.85   | 18.29  | 0.72   | 16.00    | 0.63     |
| 31AP37M           | Plug/Male     | 3/8       | 3/8       | 3/8-18 | NPTF | Steel    | 2A   | 46.99      | 1.85   | 20.07  | 0.79   | 17.53    | 0.69     |

†With Bleeder Ball Check—Reduces Hose Whip \*Nickel plated



## Female NPTF Connections

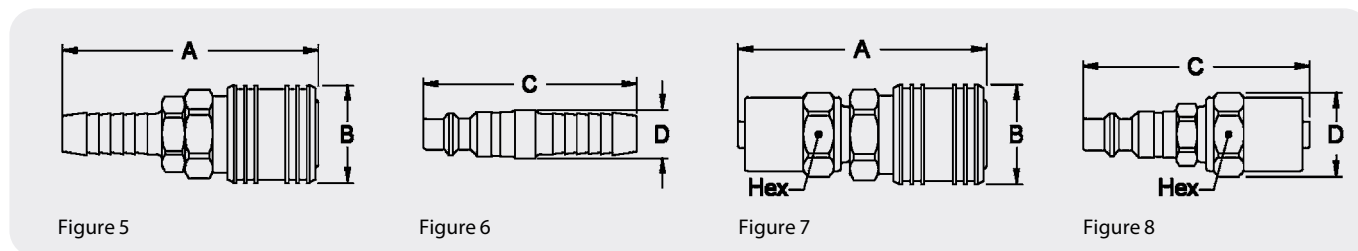
| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions |        |        |        |          |          |
|-------------------|---------------|-----------|-----------|--------|------|----------|------|------------|--------|--------|--------|----------|----------|
|                   |               |           |           |        |      |          |      | A (mm)     | A (in) | B (mm) | B (in) | Hex (mm) | Hex (in) |
| 400               | Socket/Female | 3/8       | 1/4       | 1/4-18 | NPTF | Brass    | 3    | 53.34      | 2.10   | 28.70  | 1.13   | 22.35    | 0.88     |
| 420               | Socket/Female | 3/8       | 3/8       | 3/8-18 | NPTF | Brass    | 3    | 59.69      | 2.35   | 28.70  | 1.13   | 22.35    | 0.88     |
| 440               | Socket/Female | 3/8       | 1/2       | 1/2-14 | NPTF | Brass    | 3    | 66.55      | 2.62   | 28.70  | 1.13   | 25.40    | 1.00     |

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions |        |        |        |          |          |
|-------------------|---------------|-----------|-----------|--------|------|----------|------|------------|--------|--------|--------|----------|----------|
|                   |               |           |           |        |      |          |      | C (mm)     | C (in) | D (mm) | D (in) | Hex (mm) | Hex (in) |
| 41                | Plug/Male     | 3/8       | 1/4       | 1/4-18 | NPTF | Steel    | 4    | 41.40      | 1.63   | 20.07  | 0.79   | 17.53    | 0.69     |
| 41NK*             | Plug/Male     | 3/8       | 1/4       | 1/4-18 | NPTF | Steel    | 4    | 41.40      | 1.63   | 20.07  | 0.79   | 17.53    | 0.69     |
| 41G†              | Plug/Male     | 3/8       | 1/4       | 1/4-18 | NPTF | Steel    | 4    | 65.02      | 2.56   | 19.56  | 0.77   | 17.53    | 0.69     |
| 43                | Plug/Male     | 3/8       | 3/8       | 3/8-18 | NPTF | Steel    | 4    | 45.97      | 1.81   | 23.88  | 0.94   | 20.57    | 0.81     |
| 43G†              | Plug/Male     | 3/8       | 3/8       | 3/8-18 | NPTF | Steel    | 4    | 66.55      | 2.62   | 21.34  | 0.84   | 19.05    | 0.75     |
| 45E               | Plug/Male     | 3/8       | 1/2       | 1/2-14 | NPTF | Steel    | 4    | 52.32      | 2.06   | 29.21  | 1.15   | 25.40    | 1.00     |
| B43               | Plug/Male     | 3/8       | 3/8       | 3/8-18 | NPTF | Brass    | 4    | 45.97      | 1.81   | 23.11  | 0.91   | 20.57    | 0.81     |
| 31AP25F           | Plug/Male     | 3/8       | 1/4       | 1/4-18 | NPTF | Steel    | 4A   | 40.64      | 1.60   | 20.07  | 0.79   | 17.53    | 0.69     |
| 31AP37F           | Plug/Male     | 3/8       | 3/8       | 3/8-18 | NPTF | Steel    | 4A   | 45.21      | 1.78   | 23.88  | 0.94   | 20.57    | 0.81     |

†With Bleeder Ball Check—Reduces Hose Whip \*Nickel plated

# 400 Series

Global region



## Hose Stem End Connections

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Material | Fig. | Dimensions |      |       |      |
|-------------------|---------------|-----------|-----------|----------|------|------------|------|-------|------|
|                   |               |           |           |          |      | A          |      | B     |      |
|                   |               |           |           |          |      | (mm)       | (in) | (mm)  | (in) |
| 4004E             | Socket/Female | 3/8       | 1/4       | Brass    | 5    | 71.63      | 2.82 | 28.70 | 1.13 |
| 4050E             | Socket/Female | 3/8       | 3/16      | Brass    | 5    | 71.63      | 2.82 | 28.70 | 1.13 |
| 4006E             | Socket/Female | 3/8       | 3/8       | Brass    | 5    | 71.63      | 2.82 | 28.70 | 1.13 |
| 4008E             | Socket/Female | 3/8       | 1/2       | Brass    | 5    | 71.63      | 2.82 | 28.70 | 1.13 |

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Material | Fig. | Dimensions |      |       |      |
|-------------------|---------------|-----------|-----------|----------|------|------------|------|-------|------|
|                   |               |           |           |          |      | C          |      | D     |      |
|                   |               |           |           |          |      | (mm)       | (in) | (mm)  | (in) |
| 404               | Plug/Male     | 3/8       | 1/4       | Steel    | 6    | 59.44      | 2.34 | 18.29 | 0.72 |
| 406               | Plug/Male     | 3/8       | 3/8       | Steel    | 6    | 59.44      | 2.34 | 16.00 | 0.63 |
| 408               | Plug/Male     | 3/8       | 1/2       | Steel    | 6    | 59.44      | 2.34 | 20.57 | 0.81 |
| B406E             | Plug/Male     | 3/8       | 3/8       | Brass    | 6    | 59.44      | 2.34 | 16.00 | 0.63 |

## Hose Clamp End Connections

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Hose O.D. | Material | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|-----------|----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |           |          |      | A          |      | B     |      | Hex   |      |
|                   |               |           |           |           |          |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 40SD7             | Socket/Female | 3/8       | 3/8       | 3/8       | Brass    | 7    | 77.22      | 3.04 | 28.70 | 1.13 | 19.05 | 0.75 |
| 40SD9             | Socket/Female | 3/8       | 3/8       | 11/16     | Brass    | 7    | 77.22      | 3.04 | 28.70 | 1.13 | 20.57 | 0.81 |
| 40SD11            | Socket/Female | 3/8       | 3/8       | 3/4       | Brass    | 7    | 77.22      | 3.04 | 28.70 | 1.13 | 22.35 | 0.88 |
| 40SP13            | Socket/Female | 3/8       | 1/2       | 13/16     | Brass    | 7    | 93.22      | 3.67 | 28.70 | 1.13 | 23.88 | 0.94 |
| 40SP15            | Socket/Female | 3/8       | 1/2       | 7/8       | Brass    | 7    | 93.22      | 3.67 | 28.70 | 1.13 | 25.40 | 1.00 |
| 40SP17            | Socket/Female | 3/8       | 1/2       | 3/4       | Brass    | 7    | 93.22      | 3.67 | 28.70 | 1.13 | 25.40 | 1.00 |
| 40SP19            | Socket/Female | 3/8       | 1/2       | 1         | Brass    | 7    | 93.22      | 3.67 | 28.70 | 1.13 | 28.70 | 1.13 |

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Hose O.D. | Material | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|-----------|----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |           |          |      | C          |      | D     |      | Hex   |      |
|                   |               |           |           |           |          |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 4PB3              | Plug/Male     | 3/8       | 1/4       | 1/2       | Steel    | 8    | 61.98      | 2.44 | 17.78 | 0.70 | 16.00 | 0.63 |
| 4PB5              | Plug/Male     | 3/8       | 1/4       | 9/16      | Steel    | 8    | 61.98      | 2.44 | 19.56 | 0.77 | 17.53 | 0.69 |
| 4PB7              | Plug/Male     | 3/8       | 1/4       | 3/8       | Steel    | 8    | 61.98      | 2.44 | 21.34 | 0.84 | 19.05 | 0.75 |
| 4PD7              | Plug/Male     | 3/8       | 3/8       | 3/8       | Steel    | 8    | 65.02      | 2.56 | 21.34 | 0.84 | 19.05 | 0.75 |
| 4PD9              | Plug/Male     | 3/8       | 3/8       | 11/16     | Steel    | 8    | 65.02      | 2.56 | 23.11 | 0.91 | 20.57 | 0.81 |
| 4PD11             | Plug/Male     | 3/8       | 3/8       | 3/4       | Steel    | 8    | 65.02      | 2.56 | 24.89 | 0.98 | 22.35 | 0.88 |
| 4PD15             | Plug/Male     | 3/8       | 3/8       | 7/8       | Steel    | 8    | 65.02      | 2.56 | 28.45 | 1.12 | 25.40 | 1.00 |
| 4PP13             | Plug/Male     | 3/8       | 1/2       | 13/16     | Steel    | 8    | 82.55      | 3.25 | 26.67 | 1.05 | 23.88 | 0.94 |
| 4PP15             | Plug/Male     | 3/8       | 1/2       | 7/8       | Steel    | 8    | 82.55      | 3.25 | 28.45 | 1.12 | 25.40 | 1.00 |
| 4PP19             | Plug/Male     | 3/8       | 1/2       | 1         | Steel    | 8    | 82.55      | 3.25 | 32.00 | 1.26 | 28.58 | 1.13 |

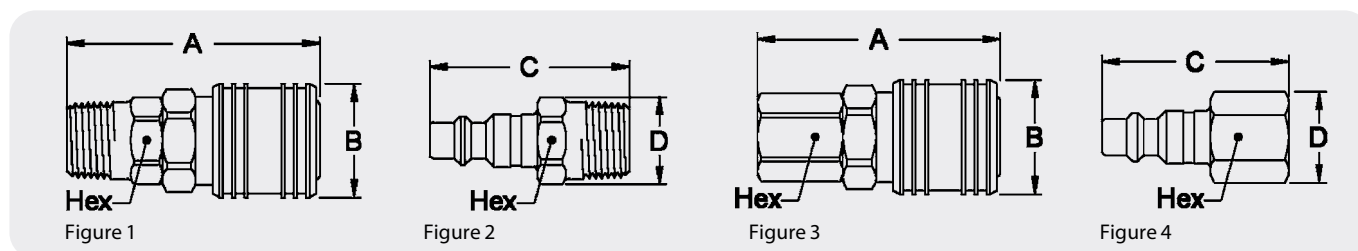
## Dust Plugs

| Series | Dust Plug Number |
|--------|------------------|
| 1000   | XPSC1HK          |
| 400    | XPSC2HK          |



Vinyl Dust Plug

# 500 Series



## Male End Connections

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|--------|------|----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |        |      |          |      | A          |      | B     |      | Hex   |      |
|                   |               |           |           |        |      |          |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 501               | Socket/Female | ½         | ¼         | ¼-18   | NPTF | Brass    | 1    | 70.36      | 2.77 | 30.23 | 1.19 | 25.40 | 1.00 |
| 510               | Socket/Female | ½         | ⅜         | ⅜-18   | NPTF | Brass    | 1    | 70.61      | 2.78 | 30.23 | 1.19 | 25.40 | 1.00 |
| 530E              | Socket/Female | ½         | ½         | ½-14   | NPTF | Brass    | 1    | 75.44      | 2.97 | 30.23 | 1.19 | 25.40 | 1.00 |
| 550               | Socket/Female | ½         | ¾         | ¾-14   | NPTF | Brass    | 1    | 75.44      | 2.97 | 30.23 | 1.19 | 26.92 | 1.06 |
| 530143            | Socket/Female | ½         | ½         | ½-14   | NPTF | Brass    | 1    | 75.44      | 2.97 | 30.23 | 1.19 | 25.40 | 1.00 |
| 550NV             | Socket/Female | ½         | ¾         | ¾-14   | NPTF | Brass    | 1    | 75.44      | 2.97 | 30.23 | 1.19 | 26.92 | 1.06 |

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|--------|------|----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |        |      |          |      | C          |      | D     |      | Hex   |      |
|                   |               |           |           |        |      |          |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 50E               | Plug/Male     | ½         | ¼         | ¼-18   | NPTF | Steel    | 2    | 57.15      | 2.25 | 20.07 | 0.79 | 17.53 | 0.69 |
| 50G†              | Plug/Male     | ½         | ¼         | ¼-18   | NPTF | Steel    | 2    | 73.66      | 2.90 | 24.89 | 0.98 | 22.35 | 0.88 |
| 52                | Plug/Male     | ½         | ⅜         | ⅜-18   | NPTF | Steel    | 2    | 57.15      | 2.25 | 22.10 | 0.87 | 19.05 | 0.75 |
| 52G†              | Plug/Male     | ½         | ⅜         | ⅜-18   | NPTF | Steel    | 2    | 73.66      | 2.90 | 24.89 | 0.98 | 22.35 | 0.88 |
| 54E               | Plug/Male     | ½         | ½         | ½-14   | NPTF | Steel    | 2    | 61.98      | 2.44 | 25.65 | 1.01 | 22.35 | 0.88 |
| 54G†              | Plug/Male     | ½         | ½         | ½-14   | NPTF | Steel    | 2    | 78.49      | 3.09 | 24.89 | 0.98 | 22.35 | 0.88 |
| 56                | Plug/Male     | ½         | ¾         | ¾-14   | NPTF | Steel    | 2    | 63.50      | 2.50 | 31.24 | 1.23 | 26.92 | 1.06 |
| 56G†              | Plug/Male     | ½         | ¾         | ¾-14   | NPTF | Steel    | 2    | 79.76      | 3.14 | 30.23 | 1.19 | 26.92 | 1.06 |
| B52               | Plug/Male     | ½         | ⅜         | ⅜-18   | NPTF | Brass    | 2    | 57.15      | 2.25 | 22.10 | 0.87 | 19.05 | 0.75 |
| B54               | Plug/Male     | ½         | ½         | ½-14   | NPTF | Brass    | 2    | 61.98      | 2.44 | 25.65 | 1.01 | 22.35 | 0.88 |

†With Bleeder Ball Check—Reduces Hose Whip.

## Female End Connections

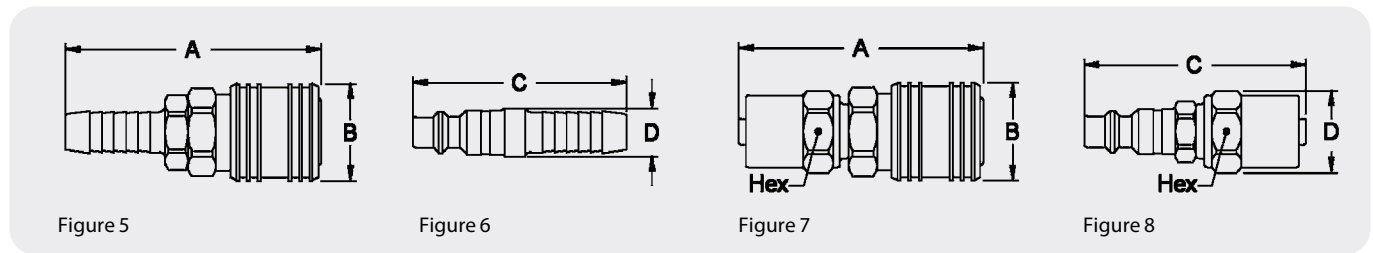
| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|--------|------|----------|------|------------|------|------|------|------|------|
|                   |               |           |           |        |      |          |      | A          |      | B    |      | Hex  |      |
|                   |               |           |           |        |      |          |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 500A              | Socket/Female | ½         | ¼         | ¼-18   | NPTF | Brass    | 3    | 69.1       | 2.72 | 30.2 | 1.19 | 25.4 | 1.00 |
| 500               | Socket/Female | ½         | ⅜         | ⅜-18   | NPTF | Brass    | 3    | 70.6       | 2.78 | 30.2 | 1.19 | 25.4 | 1.00 |
| 520               | Socket/Female | ½         | ½         | ½-14   | NPTF | Brass    | 3    | 77.7       | 3.06 | 30.2 | 1.19 | 25.4 | 1.00 |
| 540               | Socket/Female | ½         | ¾         | ¾-14   | NPTF | Brass    | 3    | 78.5       | 3.09 | 30.2 | 1.19 | 30.2 | 1.19 |

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|--------|------|----------|------|------------|------|------|------|------|------|
|                   |               |           |           |        |      |          |      | C          |      | D    |      | Hex  |      |
|                   |               |           |           |        |      |          |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 53A               | Plug/Male     | ½         | ¼         | ¼-18   | NPTF | Steel    | 4    | 48.8       | 1.92 | 20.1 | 0.79 | 17.5 | 0.69 |
| 53                | Plug/Male     | ½         | ⅜         | ⅜-18   | NPTF | Steel    | 4    | 52.3       | 2.06 | 23.9 | 0.94 | 20.6 | 0.81 |
| 53G†              | Plug/Male     | ½         | ⅜         | ⅜-18   | NPTF | Steel    | 4    | 73.7       | 2.90 | 24.9 | 0.98 | 22.4 | 0.88 |
| 55                | Plug/Male     | ½         | ½         | ½-14   | NPTF | Steel    | 4    | 59.4       | 2.34 | 29.2 | 1.15 | 25.4 | 1.00 |
| 55G†              | Plug/Male     | ½         | ½         | ½-14   | NPTF | Steel    | 4    | 80.5       | 3.17 | 29.2 | 1.15 | 25.4 | 1.00 |
| 57                | Plug/Male     | ½         | ¾         | ¾-14   | NPTF | Steel    | 4    | 62.0       | 2.44 | 34.8 | 1.37 | 30.2 | 1.19 |

†With Bleeder Ball Check—Reduces Hose Whip.

# 500 Series

Global region



## Hose Stem End Connections

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Material | Fig. | Dimensions |      |      |      |
|-------------------|---------------|-----------|-----------|----------|------|------------|------|------|------|
|                   |               |           |           |          |      | A          |      | B    |      |
|                   |               |           |           |          |      | (mm)       | (in) | (mm) | (in) |
| 570               | Socket/Female | ½         | ¾         | Brass    | 5    | 84.3       | 3.32 | 30.2 | 1.19 |
| 580               | Socket/Female | ½         | ½         | Brass    | 5    | 82.3       | 3.24 | 30.2 | 1.19 |
| 590               | Socket/Female | ½         | ¾         | Brass    | 5    | 103.9      | 4.09 | 30.2 | 1.19 |

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Material | Fig. | Dimensions |      |      |      |
|-------------------|---------------|-----------|-----------|----------|------|------------|------|------|------|
|                   |               |           |           |          |      | C          |      | D    |      |
|                   |               |           |           |          |      | (mm)       | (in) | (mm) | (in) |
| 585               | Plug/Male     | ½         | ¾         | Steel    | 6    | 67.6       | 2.66 | 17.5 | 0.69 |
| 585G†             | Plug/Male     | ½         | ¾         | Brass    | 6    | 85.6       | 3.37 | 24.9 | 0.98 |
| 59                | Plug/Male     | ½         | ¾         | Steel    | 6    | 67.6       | 2.66 | 17.5 | 0.69 |
| 59G†              | Plug/Male     | ½         | ¾         | Brass    | 6    | 85.6       | 3.37 | 24.9 | 0.98 |
| 60                | Plug/Male     | ½         | ½         | Steel    | 6    | 67.6       | 2.66 | 19.1 | 0.75 |
| 60G†              | Plug/Male     | ½         | ½         | Brass    | 6    | 85.6       | 3.37 | 24.9 | 0.98 |
| 61E               | Plug/Male     | ½         | ¾         | Steel    | 6    | 88.9       | 3.50 | 25.4 | 1.00 |
| 61G†              | Plug/Male     | ½         | ¾         | Brass    | 6    | 107.2      | 4.22 | 25.4 | 1.00 |

†With Bleeder Ball Check—Reduces Hose Whip.

## Hose Clamp End Connections

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Hose O.D. | Material | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|-----------|----------|------|------------|------|------|------|------|------|
|                   |               |           |           |           |          |      | A          |      | B    |      | Hex  |      |
|                   |               |           |           |           |          |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 50SP13            | Socket/Female | ½         | ½         | 1⅜        | Brass    | 7    | 103.9      | 4.09 | 30.2 | 1.19 | 23.9 | 0.94 |
| 50SP15            | Socket/Female | ½         | ½         | 7/8       | Brass    | 7    | 103.9      | 4.09 | 30.2 | 1.19 | 25.4 | 1.00 |
| 5019E             | Socket/Female | ½         | ½         | 1         | Brass    | 7    | 103.9      | 4.09 | 32.0 | 1.26 | 28.7 | 1.13 |
| 50SR23            | Socket/Female | ½         | ¾         | 1 ⅛       | Brass    | 7    | 107.2      | 4.22 | 30.2 | 1.19 | 31.8 | 1.25 |
| 50SR25            | Socket/Female | ½         | ¾         | 1 ⅜       | Brass    | 7    | 107.2      | 4.22 | 30.2 | 1.19 | 33.3 | 1.31 |
| 50SR27            | Socket/Female | ½         | ¾         | 1 ¼       | Brass    | 7    | 107.2      | 4.22 | 30.2 | 1.19 | 35.1 | 1.38 |

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Hose O.D. | Material | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|-----------|----------|------|------------|------|------|------|------|------|
|                   |               |           |           |           |          |      | C          |      | D    |      | Hex  |      |
|                   |               |           |           |           |          |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 5PB3              | Plug/Male     | ½         | ¼         | ½         | Steel    | 8    | 71.4       | 2.81 | 17.8 | 0.70 | 16.0 | 0.63 |
| 5PB5              | Plug/Male     | ½         | ¼         | 9/16      | Steel    | 8    | 71.4       | 2.81 | 19.6 | 0.77 | 17.5 | 0.69 |
| 5PB7              | Plug/Male     | ½         | ¼         | ¾         | Steel    | 8    | 71.4       | 2.81 | 21.3 | 0.84 | 19.1 | 0.75 |
| 5PD5              | Plug/Male     | ½         | ¾         | 9/16      | Steel    | 8    | 74.7       | 2.94 | 19.6 | 0.77 | 17.5 | 0.69 |
| 5PD7              | Plug/Male     | ½         | ¾         | 5/8       | Steel    | 8    | 74.7       | 2.94 | 21.3 | 0.84 | 19.1 | 0.75 |
| 5PD9              | Plug/Male     | ½         | ¾         | 11/16     | Steel    | 8    | 74.7       | 2.94 | 23.1 | 0.91 | 20.6 | 0.81 |
| 5PD11             | Plug/Male     | ½         | ¾         | ¾         | Steel    | 8    | 74.7       | 2.94 | 24.9 | 0.98 | 22.4 | 0.88 |
| 5PD13             | Plug/Male     | ½         | ¾         | 13/16     | Steel    | 8    | 74.7       | 2.94 | 26.7 | 1.05 | 23.9 | 0.94 |
| 5PP13             | Plug/Male     | ½         | ½         | 13/16     | Steel    | 8    | 91.9       | 3.62 | 26.7 | 1.05 | 23.9 | 0.94 |
| 5PP15             | Plug/Male     | ½         | ½         | 7/8       | Steel    | 8    | 91.9       | 3.62 | 28.4 | 1.12 | 25.4 | 1.00 |
| 5PR23             | Plug/Male     | ½         | ¾         | 1 ⅛       | Steel    | 8    | 95.3       | 3.75 | 35.6 | 1.40 | 31.8 | 1.25 |
| 5PR25             | Plug/Male     | ½         | ¾         | 1 ⅜       | Steel    | 8    | 95.3       | 3.75 | 37.3 | 1.47 | 33.3 | 1.31 |
| 5PR27             | Plug/Male     | ½         | ¾         | 1 ¼       | Steel    | 8    | 95.3       | 3.75 | 39.1 | 1.54 | 35.1 | 1.38 |

# G600 Series ISO 6150 B Interchange

Pneumatic application



Danfoss Hansen G600 Series is a single shut-off compressed air coupling that interchanges with ISO 6150 B and US A-A-59439 Standards requirements. Nominal diameter is 5.5 mm. Its new revamped design and the materials used make it a rugged and long-lasting coupling, offered in a wide selection of end connections. It is used in general pneumatic applications.

## Product Features

- Automatic sleeve for one-hand push-to-connect operation with ball-locking mechanism
- Single shut-off valving
- Excellent flow capacity
- Easy to connect
- Shock-resistant ergonomic sleeve
- Standard body material (Socket): Nickel-plated brass
- Standard body material (Plug): Zinc trivalent-plated steel
- Standard seal material: NBR
- Option: Private labelling

## Physical characteristics

| Body Size<br>(in) | Nominal Flow Diameter<br>(mm) | Max. Operating Pressure<br>Connected or Disconnected |       | Air Flow Rate*<br>Δp 0.6 bar/8.7 psi** |       | Δp 1 bar/14.5 psi*** |       | Working Temperature |           |
|-------------------|-------------------------------|--|-------|--|-------|----------------------|-------|---------------------|-----------|
|                   |                               | (bar)  | (psi) | (lpm)                                  | (gpm) | (lpm)                | (gpm) | °C                  | °F        |
| 1/4               | 5.5                           | 20   | 290   | 1,050                                  | 277   | 1,315                | 347   | -20° +100°          | -4° +212° |

\*Indicated values refer to an inlet pressure of 6 bar / 87 psi.

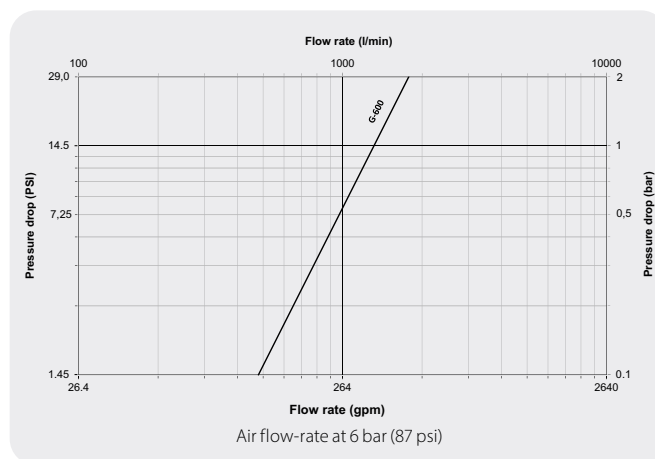
\*\*This flow rate allows the optimum output from a pneumatic tool.

\*\*\* This flow rate is the maximum recommended for a suitable output from a pneumatic tool. For applications needing higher flow rates, it is recommended to select a larger size coupling.

## Applications & Market

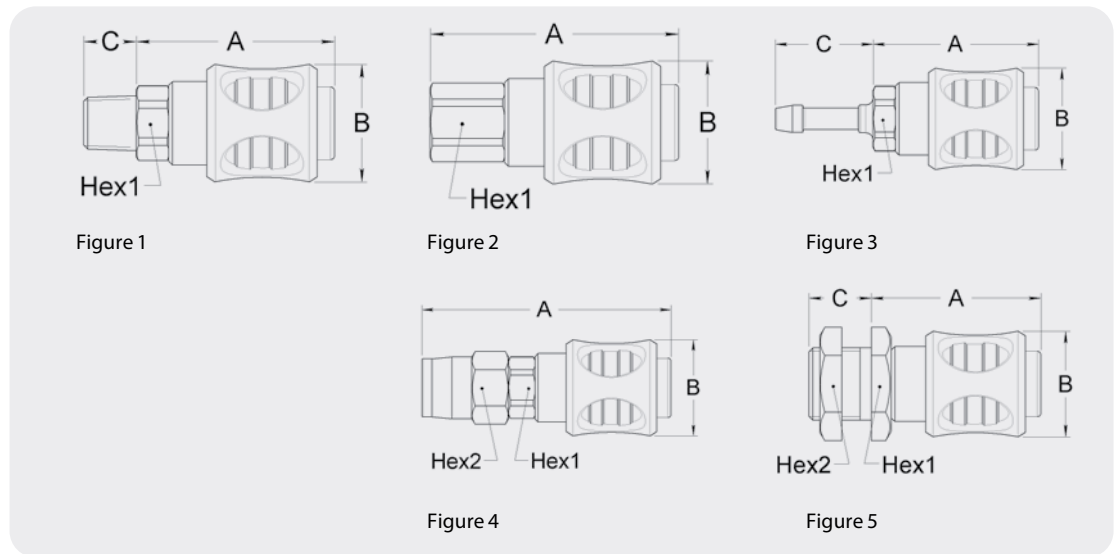
- Compressed Air
- Pneumatic Tools

## Flow Data



# G600 Series ISO 6150 B Interchange

EMEA region



## Sockets (Female)

| Part/Order Number | Body Size | Port Size | Thread or Hose Diam. | Type                  | Fig. | Dimensions |        |        |        |        |        |           |           | Weight    |           |      |       |
|-------------------|-----------|-----------|----------------------|-----------------------|------|------------|--------|--------|--------|--------|--------|-----------|-----------|-----------|-----------|------|-------|
|                   |           |           |                      |                       |      | A (mm)     | A (in) | B (mm) | B (in) | C (mm) | C (in) | Hex1 (mm) | Hex1 (in) | Hex2 (mm) | Hex2 (in) | lbs  | grams |
| GL0063614         | -         | ¼         | ¼-19                 | Male BSPT             | 1    | 49         | 1.93   | 29     | 1.14   | 13     | 0.51   | 17        | 0.67      | -         | -         | 0.23 | 103   |
| GL0063638         | -         | ⅜         | ⅜-19                 | Male BSPT             | 1    | 49         | 1.93   | 29     | 1.14   | 14.5   | 0.57   | 17        | 0.67      | -         | -         | 0.25 | 112   |
| GL0063612         | -         | ½         | ½-14                 | Male BSPT             | 1    | 48         | 1.89   | 29     | 1.14   | 17     | 0.67   | 22        | 0.87      | -         | -         | 0.28 | 126   |
| GL0063645         | -         | M14       | M14x1,25             | Male Metric           | 1    | 49         | 1.93   | 29     | 1.14   | 13     | 0.51   | 17        | 0.67      | -         | -         | 0.23 | 105   |
| GL0062614         | -         | ¼         | ¼-19                 | Female BSPP           | 2    | 58.5       | 2.30   | 29     | 1.14   | -      | -      | 17        | 0.67      | -         | -         | 0.22 | 102   |
| GL0062638         | -         | ⅜         | ⅜-19                 | Female BSPP           | 2    | 61.5       | 2.42   | 29     | 1.14   | -      | -      | 22        | 0.87      | -         | -         | 0.27 | 121   |
| GL0062645         | -         | M14       | M14x1,25             | Female Metric         | 2    | 59.5       | 2.34   | 29     | 1.14   | -      | -      | 17        | 0.67      | -         | -         | 0.22 | 101   |
| GL0065667         | -         | -         | 6 mm                 | Hose Tail             | 3    | 47.5       | 1.87   | 29     | 1.14   | 28     | 1.10   | 17        | 0.67      | -         | -         | 0.22 | 99    |
| GL0065678         | ¼         | -         | 7 mm                 | Hose Tail             | 3    | 47.5       | 1.87   | 29     | 1.14   | 28     | 1.10   | 17        | 0.67      | -         | -         | 0.22 | 101   |
| GL0065689         | -         | -         | 8 mm                 | Hose Tail             | 3    | 47.5       | 1.87   | 29     | 1.14   | 28     | 1.10   | 17        | 0.67      | -         | -         | 0.22 | 101   |
| GL0065690         | -         | -         | 9 mm                 | Hose Tail             | 3    | 47.5       | 1.87   | 29     | 1.14   | 28     | 1.10   | 17        | 0.67      | -         | -         | 0.22 | 102   |
| GL0065601         | -         | -         | 10 mm                | Hose Tail             | 3    | 47.5       | 1.87   | 29     | 1.14   | 28     | 1.10   | 17        | 0.67      | -         | -         | 0.22 | 102   |
| GL0061674         | -         | -         | 7x14 mm              | Reusable Hose Fit.    | 4    | 75         | 2.95   | 29     | 1.14   | -      | -      | 17        | 0.67      | 19        | 0.75      | 0.30 | 134   |
| GL0061684         | -         | -         | 8x14 mm              | Reusable Hose Fit.    | 4    | 75         | 2.95   | 29     | 1.14   | -      | -      | 17        | 0.67      | 19        | 0.75      | 0.29 | 130   |
| GL0061685         | -         | -         | 8x15 mm              | Reusable Hose Fit.    | 4    | 75         | 2.95   | 29     | 1.14   | -      | -      | 17        | 0.67      | 19        | 0.75      | 0.28 | 126   |
| GL0061696         | -         | -         | 9x16mm               | Reusable Hose Fit.    | 4    | 75         | 2.95   | 29     | 1.14   | -      | -      | 17        | 0.67      | 19        | 0.75      | 0.28 | 128   |
| GL0065014         | -         | ¼         | ¼-19                 | Female BSPPBulkhead** | 5    | 46.5       | 1.83   | 29     | 1.14   | 17     | 0.67   | 27        | 1.06      | 27        | 1.06      | 0.33 | 148   |

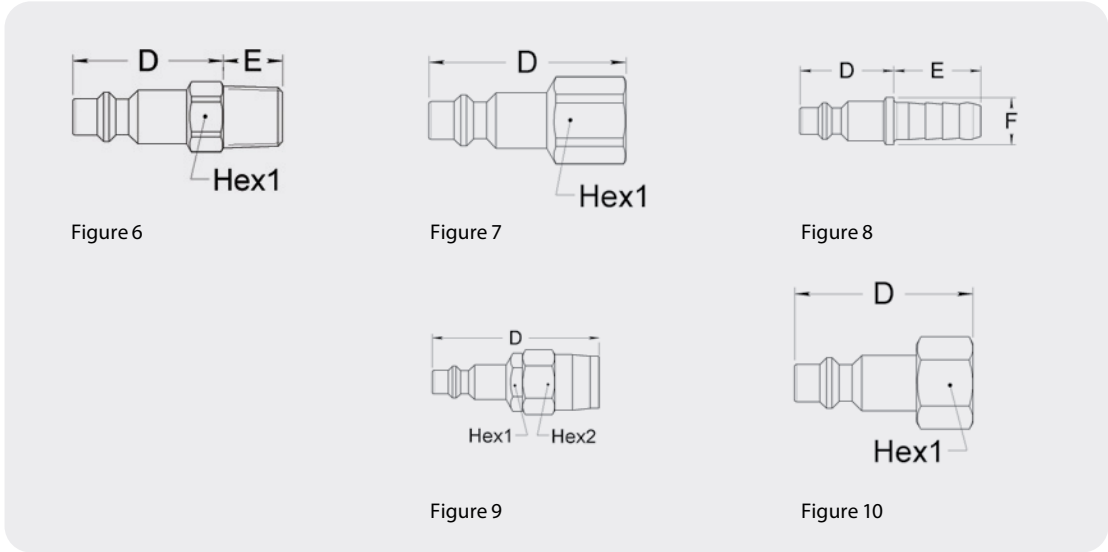
To obtain connected length of coupling add dimensions A or A+C (Fig. 1, 2, 3, 4, 5) and D or D+E (Fig. 6, 7, 8, 9, 10) together and subtract 20 mm (0.79 in.).

\*Alternative end connections available upon request.

\*\*Max bulkhead thickness: 10 mm (0.39 in.) / Bulkhead hole diameter: 21 mm (0.83 in.).

# G600 Series ISO 6150 B Interchange

EMEA region



## Plugs (Male)

| Part/Order Number | Body Size | Port Size | Thread or Hose Diam. | Type                 | Fig. | Dimensions |        |        |        |        |        |           |           | Weight    |           |      |       |
|-------------------|-----------|-----------|----------------------|----------------------|------|------------|--------|--------|--------|--------|--------|-----------|-----------|-----------|-----------|------|-------|
|                   |           |           |                      |                      |      | D (mm)     | D (in) | E (mm) | E (in) | F (mm) | F (in) | Hex1 (mm) | Hex1 (in) | Hex2 (mm) | Hex2 (in) | lbs  | grams |
| GA0066318         | -         | 1/8       | 1/8-28               | Male BSPT            | 6    | 32         | 1.26   | 9      | 0.35   | -      | -      | 12        | 0.47      | -         | -         | 0.04 | 19    |
| GA0066314         | -         | 1/4       | 1/4-19               | Male BSPT            | 6    | 32         | 1.26   | 13     | 0.51   | -      | -      | 14        | 0.55      | -         | -         | 0.06 | 25    |
| 10                | -         | 1/4       | 1/4-18               | Male NPT             | 6    | 31         | 1.22   | 14     | 0.55   | -      | -      | 15        | 0.59      | -         | -         | 0.06 | 25    |
| GA0066338         | -         | 1/8       | 3/8-19               | Male BSPT            | 6    | 32         | 1.26   | 15     | 0.59   | -      | -      | 17        | 0.67      | -         | -         | 0.08 | 38    |
| GA0066345         | -         | M14       | M14x1,25             | Male Metric          | 6    | 32         | 1.26   | 13     | 0.51   | -      | -      | 14        | 0.55      | -         | -         | 0.06 | 26    |
| GA0066214         | -         | 1/4       | 1/4-19               | Female BSPP          | 7    | 44         | 1.73   | -      | -      | -      | -      | 17        | 0.67      | -         | -         | 0.07 | 30    |
| 11                | -         | 1/4       | 1/4-18               | Female NPT           | 7    | 41.5       | 1.63   | -      | -      | -      | -      | 18        | 0.71      | -         | -         | 0.07 | 30    |
| GA0066238         | -         | 3/8       | 3/8-19               | Female BSPP          | 7    | 44         | 1.73   | -      | -      | -      | -      | 21        | 0.83      | -         | -         | 0.08 | 37    |
| GA0066245         | -         | M14       | M14x1,25             | Female Metric        | 7    | 44         | 1.73   | -      | -      | -      | -      | 17        | 0.67      | -         | -         | 0.06 | 25    |
| GA0066248         | 1/4       | -         | M10,4x0,80           | Female Metric        | 7    | 44         | 1.73   | -      | -      | -      | -      | 14        | 0.55      | -         | -         | 0.05 | 24    |
| GA0066767         | -         | -         | 6mm                  | Hose Tail            | 8    | 28         | 1.10   | 26     | 1.02   | 14     | 0.55   | -         | -         | -         | -         | 0.04 | 19    |
| GA0066778         | -         | -         | 7mm                  | Hose Tail            | 8    | 28         | 1.10   | 26     | 1.02   | 14     | 0.55   | -         | -         | -         | -         | 0.04 | 20    |
| GA0066789         | -         | -         | 8mm                  | Hose Tail            | 8    | 28         | 1.10   | 26     | 1.02   | 14     | 0.55   | -         | -         | -         | -         | 0.04 | 20    |
| GA0066790         | -         | -         | 9mm                  | Hose Tail            | 8    | 28         | 1.10   | 26     | 1.02   | 14     | 0.55   | -         | -         | -         | -         | 0.04 | 20    |
| GA0066701         | -         | -         | 10mm                 | Hose Tail            | 8    | 28         | 1.10   | 26     | 1.02   | 14     | 0.55   | -         | -         | -         | -         | 0.05 | 22    |
| GA0066174         | -         | -         | 7x14 mm              | Reusable Hose Fit.   | 9    | 56.5       | 2.22   | -      | -      | -      | -      | 16        | 0.63      | 19        | 0.75      | 0.12 | 56    |
| GA0066184         | -         | -         | 8x14 mm              | Reusable Hose Fit.   | 9    | 56.5       | 2.22   | -      | -      | -      | -      | 16        | 0.63      | 19        | 0.75      | 0.13 | 57    |
| GA0066185         | -         | -         | 8x15 mm              | Reusable Hose Fit.   | 9    | 56.5       | 2.22   | -      | -      | -      | -      | 16        | 0.63      | 19        | 0.75      | 0.12 | 53    |
| GA0066196         | -         | -         | 9x16 mm              | Reusable Hose Fit.   | 9    | 56.5       | 2.22   | -      | -      | -      | -      | 16        | 0.63      | 19        | 0.75      | 0.11 | 51    |
| GA0066814         | -         | 1/4       | 1/4-19               | Female BSPP Swivel   | 10   | 38         | 1.50   | -      | -      | -      | -      | 17        | 0.67      | -         | -         | 0.06 | 26    |
| GA0066845         | -         | M14       | M14x1,25             | Female Metric Swivel | 10   | 38         | 1.50   | -      | -      | -      | -      | 17        | 0.67      | -         | -         | 0.06 | 26    |

To obtain connected length of coupling add dimensions A or A+C (Fig. 1, 2, 3, 4, 5) and D or D+E (Fig. 6, 7, 8, 9, 10) together and subtract 20 mm (0.79 in).

\*Alternative end connections available upon request.

# I900 Series ISO 6150 B Interchange

Pneumatic application



Danfoss Hansen I900 Series is a single shut-off compressed air coupling that interchanges with ISO 6150 B and US A-A-59439 Standards requirements. Nominal diameter is 8 mm.

## Product Features

- Automatic sleeve for one-hand push-to-connect operation with ball-locking mechanism
- Single shut-off valving
- Excellent flow capacity
- Easy to connect
- Standard body material (Socket): Nickel-plated brass
- Standard body material (Plug): Zinc trivalent-plated steel
- Standard seal material: NBR

## Physical characteristics

| Body Size<br>(in) | Nominal Flow Diameter<br>(mm) | Max. Operating Pressure<br>Connected or Disconnected |       | Air Flow Rate*<br>Δp 0.6 bar/8.7 psi** |       | Δp 1 bar/14.5 psi*** |       | Working Temperature |           |
|-------------------|-------------------------------|--|-------|--|-------|----------------------|-------|---------------------|-----------|
|                   |                               | (bar)  | (psi) | (lpm)                                  | (gpm) | (lpm)                | (gpm) | °C                  | °F        |
| 3/8               | 8                             | 20   | 290   | 2,200                                  | 580   | 2,700                | 710   | -20° +100°          | -4° +212° |

\*Indicated values refer to an inlet pressure of 6 bar/87 psi.

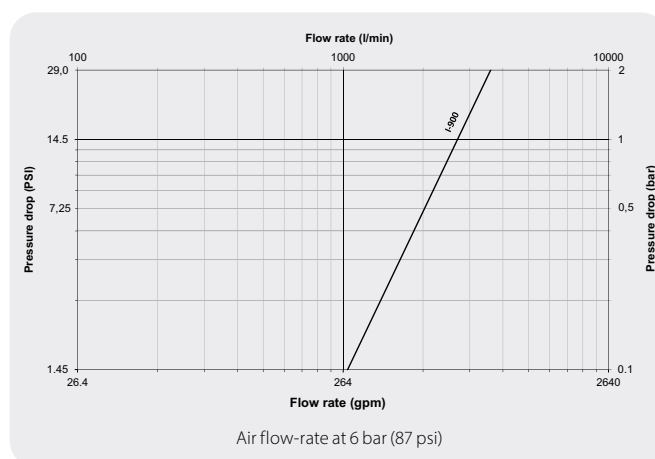
\*\*This flow rate allows the optimum output from a pneumatic tool.

\*\*\* This flow rate is the maximum recommended for a suitable output from a pneumatic tool. For applications needing higher flow rates, it is recommended to select a larger size coupling.

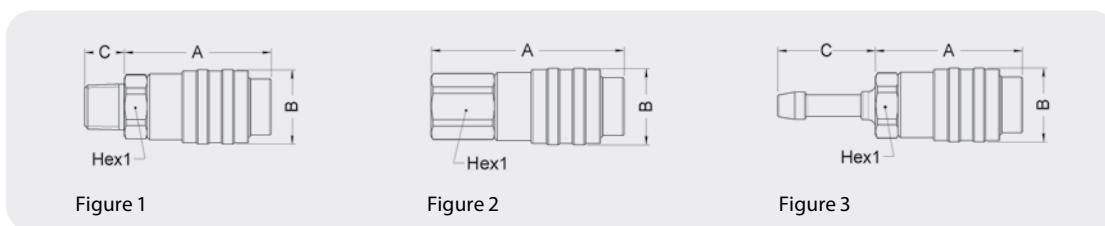
## Applications & Market

- Compressed Air
- Pneumatic Tools

## Flow Data



# 1900 Series ISO 6150 B Interchange

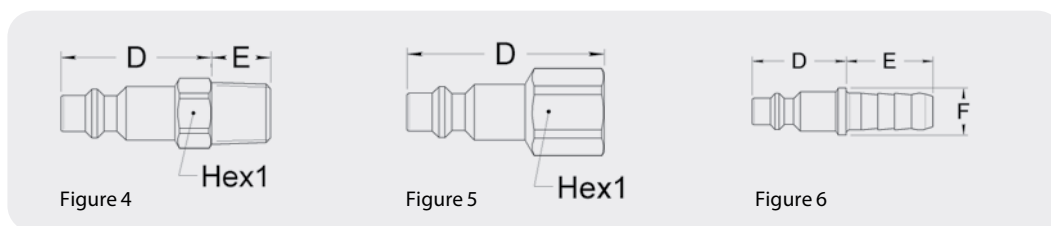


## Sockets (Female)

| Part/Order Number | Body Size | Port Size | Thread or Hose Diam.* | Type        | Fig. | Dimensions |      |      |      |      |      | Weight |      |      |       |
|-------------------|-----------|-----------|-----------------------|-------------|------|------------|------|------|------|------|------|--------|------|------|-------|
|                   |           |           |                       |             |      | A          |      | B    |      | C    |      | Hex1   |      | lbs  | grams |
|                   |           |           |                       |             |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) | (mm)   | (in) |      |       |
| IL0096014         | -         | ¼         | ¼-19                  | Male BSPT   | 1    | 55         | 2.16 | 27.7 | 1.09 | 13   | 0.51 | 22     | 0.87 | 0.30 | 135   |
| IL0096038         | -         | ¾         | ¾-19                  | Male BSPT   | 1    | 55         | 2.16 | 27.7 | 1.09 | 15   | 0.59 | 22     | 0.87 | 0.31 | 139   |
| IL0096012         | -         | ½         | ½-14                  | Male BSPT   | 1    | 55         | 2.16 | 27.7 | 1.09 | 17   | 0.67 | 22     | 0.87 | 0.34 | 152   |
| IL0097014         | -         | ¼         | ¼-19                  | Female BSPP | 2    | 67         | 2.64 | 27.7 | 1.09 | -    | -    | 22     | 0.87 | 0.34 | 153   |
| IL0097038         | ¾         | ¾         | ¾-19                  | Female BSPP | 2    | 70         | 2.76 | 27.7 | 1.09 | -    | -    | 22     | 0.87 | 0.35 | 157   |
| IL0097012         | -         | ½         | ½-14                  | Female BSPP | 2    | 73         | 2.87 | 27.7 | 1.09 | -    | -    | 27     | 1.06 | 0.41 | 187   |
| IL0095689         | -         | -         | 8 mm                  | Hose Tail   | 3    | 56         | 2.20 | 27.7 | 1.09 | 28   | 1.10 | 22     | 0.87 | 0.30 | 135   |
| IL0095690         | -         | -         | 9 mm                  | Hose Tail   | 3    | 56         | 2.20 | 27.7 | 1.09 | 28   | 1.10 | 22     | 0.87 | 0.30 | 138   |
| IL0095601         | -         | -         | 10 mm                 | Hose Tail   | 3    | 56         | 2.20 | 27.7 | 1.09 | 28   | 1.10 | 22     | 0.87 | 0.31 | 139   |

To obtain connected length of coupling add dimensions A or A+C (Fig. 1, 2, 3) and D or D+E (Fig. 4, 5, 6) together and subtract 25,6 mm (1 in.)

\*Alternative end connections available upon request.



## Plugs (Male)

| Part/Order Number | Body Size | Port Size | Thread or Hose Diam.* | Type        | Fig. | Dimensions |      |      |      |      |      | Weight |      |      |       |
|-------------------|-----------|-----------|-----------------------|-------------|------|------------|------|------|------|------|------|--------|------|------|-------|
|                   |           |           |                       |             |      | D          |      | E    |      | F    |      | Hex1   |      | lbs  | grams |
|                   |           |           |                       |             |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) | (mm)   | (in) |      |       |
| IA0090614         | -         | ¼         | ¼-19                  | Male BSPT   | 4    | 34         | 1.34 | 13   | 0.51 | -    | -    | 16     | 0.63 | 0.07 | 32    |
| IA0090638         | -         | ¾         | ¾-19                  | Male BSPT   | 4    | 36         | 1.42 | 15   | 0.59 | -    | -    | 17     | 0.67 | 0.09 | 41    |
| IA0090612         | -         | ½         | ½-14                  | Male BSPT   | 4    | 40         | 1.57 | 17   | 0.67 | -    | -    | 23     | 0.91 | 0.12 | 56    |
| IA0090714         | -         | ¼         | ¼-19                  | Female BSPP | 5    | 50         | 1.97 | -    | -    | -    | -    | 17     | 0.67 | 0.08 | 38    |
| IA0090738         | -         | ¾         | ¾-19                  | Female BSPP | 5    | 50         | 1.97 | -    | -    | -    | -    | 21     | 0.83 | 0.11 | 49    |
| IA0090712         | ¾         | ½         | ½-14                  | Female BSPP | 5    | 53         | 2.09 | -    | -    | -    | -    | 26     | 1.02 | 0.15 | 69    |
| IA0090978         | -         | -         | 7 mm                  | Hose Tail   | 6    | 33         | 1.30 | 26   | 1.02 | 16   | 0.63 | -      | -    | 0.07 | 30    |
| IA0090989         | -         | -         | 8 mm                  | Hose Tail   | 6    | 33         | 1.30 | 26   | 1.02 | 16   | 0.63 | -      | -    | 0.07 | 30    |
| IA0090990         | -         | -         | 9 mm                  | Hose Tail   | 6    | 33         | 1.30 | 26   | 1.02 | 16   | 0.63 | -      | -    | 0.07 | 31    |
| IA0090901         | -         | -         | 10 mm                 | Hose Tail   | 6    | 33         | 1.30 | 26   | 1.02 | 16   | 0.63 | -      | -    | 0.07 | 32    |
| IA0090912         | -         | -         | 12 mm                 | Hose Tail   | 6    | 33         | 1.30 | 31   | 1.22 | 16   | 0.63 | -      | -    | 0.08 | 38    |

To obtain connected length of coupling add dimensions A or A+C (Fig. 1, 2, 3) and D or D+E (Fig. 4, 5, 6) together and subtract 25,6 mm (1 in.)

\*Alternative end connections available upon request.

# T1100 Series ISO 6150 B Interchange

Pneumatic application



Danfoss Hansen T1100 Series is a single shut-off compressed air coupling that interchanges with ISO 6150 B and US A-A-59439 Standards requirements. This coupling offers excellent flow capacity and is used in many compressed air applications.

EMEA region

## Product Features

- Automatic sleeve for one-hand push-to-connect operation with ball-locking mechanism
- Single shut-off valving
- Excellent flow capacity
- Easy to connect
- Standard body material (Socket): Nickel-plated brass
- Standard body material (Plug): Zinc trivalent plated steel
- Standard seal material: NBR

## Physical characteristics

| Body Size<br>(in) | Nominal Flow Diameter<br>(mm) | Max. Operating Pressure<br>Connected or Disconnected |       | Air Flow Rate*<br>Δp 0.6 bar/8.7 psi** |       | Δp 1 bar/14.5 psi*** |       | Working Temperature |           |
|-------------------|-------------------------------|--|-------|--|-------|----------------------|-------|---------------------|-----------|
|                   |                               | (bar)  | (psi) | (lpm)                                  | (gpm) | (lpm)                | (gpm) | °C                  | °F        |
| 1/2               | 11                            | 20   | 290   | 3,450                                  | 910   | 4,300                | 1,130 | -20° +100°          | -4° +212° |

\*Indicated values refer to an inlet pressure of 6 bar/87 psi.

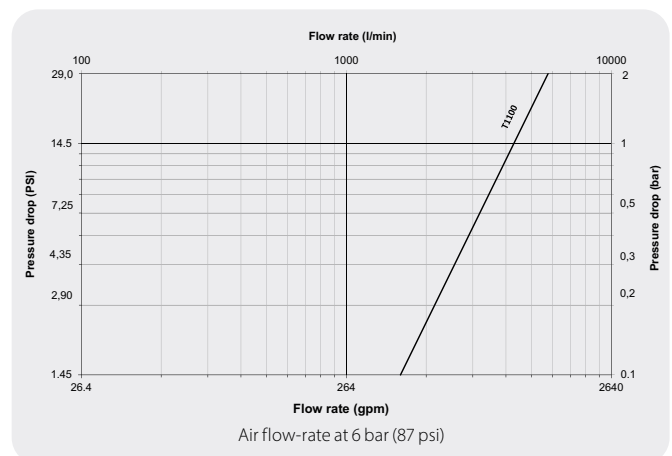
\*\*This flow rate allows the optimum output from a pneumatic tool.

\*\*\* This flow rate is the maximum recommended for a suitable output from a pneumatic tool. For applications needing higher flow rates, it is recommended to select a larger size coupling.

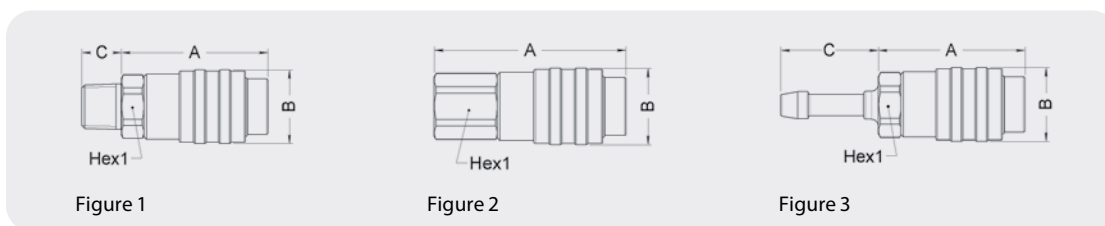
## Applications & Market

- Compressed Air
- Pneumatic Tools

## Flow Data



# T1100 Series ISO 6150 B Interchange

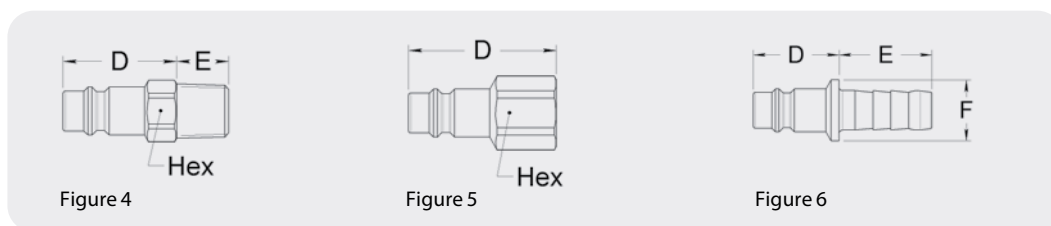


## Sockets (Female)

| Part/Order Number | Body Size | Port Size | Thread or Hose Diam.* | Type        | Fig. | Dimensions |      |      |      |      |      | Weight |      |      |       |
|-------------------|-----------|-----------|-----------------------|-------------|------|------------|------|------|------|------|------|--------|------|------|-------|
|                   |           |           |                       |             |      | A          |      | B    |      | C    |      | Hex1   |      | lbs  | grams |
|                   |           |           |                       |             |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) | (mm)   | (in) |      |       |
| TL0112038         |           | 3/8       | 3/8-19                | Male BSPT   | 1    | 71         | 2.80 | 33.6 | 1.32 | 15   | 0.59 | 27     | 1.06 | 0.58 | 265   |
| TL0112012         |           | 1/2       | 1/2-14                | Male BSPT   | 1    | 71         | 2.80 | 33.6 | 1.32 | 17.0 | 0.67 | 27     | 1.06 | 0.60 | 270   |
| TL0112034         |           | 3/4       | 3/4-14                | Male BSPT   | 1    | 71         | 2.80 | 33.6 | 1.32 | 18.5 | 0.73 | 29     | 1.14 | 0.63 | 288   |
| TL0112138         |           | 3/8       | 3/8-19                | Female BSPP | 2    | 83.5       | 3.29 | 33.6 | 1.32 | -    | -    | 27     | 1.06 | 0.63 | 286   |
| TL0112112         |           | 1/2       | 1/2-14                | Female BSPP | 2    | 83.5       | 3.29 | 33.6 | 1.32 | -    | -    | 27     | 1.06 | 0.59 | 266   |
| TL0112134         |           | 3/4       | 3/4-14                | Female BSPP | 2    | 89.5       | 3.52 | 33.6 | 1.32 | -    | -    | 32     | 1.26 | 0.69 | 312   |
| TL0115601         |           | -         | 10 mm                 | Hose Tail   | 3    | 72.5       | 2.85 | 33.6 | 1.32 | 28   | 1.10 | 27     | 1.06 | 0.58 | 264   |
| TL0115613         |           | -         | 13 mm                 | Hose Tail   | 3    | 72.5       | 2.85 | 33.6 | 1.32 | 33   | 1.30 | 27     | 1.06 | 0.60 | 274   |
| TL0115616         |           | -         | 16 mm                 | Hose Tail   | 3    | 72.5       | 2.85 | 33.6 | 1.32 | 33   | 1.30 | 27     | 1.06 | 0.62 | 279   |

To obtain connected length of coupling add dimensions A or A+C (Fig. 1, 2, 3) and D or D+E (Fig. 4, 5, 6) together and subtract 34 mm ( 1,34 in.)

\*Alternative end connections available upon request.



## Plugs (Male)

| Part/Order Number | Body Size | Port Size | Thread or Hose Diam.* | Type        | Fig. | Dimensions |      |      |      |      |      | Weight |      |      |       |
|-------------------|-----------|-----------|-----------------------|-------------|------|------------|------|------|------|------|------|--------|------|------|-------|
|                   |           |           |                       |             |      | D          |      | E    |      | F    |      | Hex1   |      | lbs  | grams |
|                   |           |           |                       |             |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) | (mm)   | (in) |      |       |
| TA0111538         |           | 3/8       | 3/8-19                | Male BSPT   | 4    | 43.5       | 1.71 | 14.5 | 0.57 | -    | -    | 17     | 0.67 | 0.11 | 51    |
| TA0111512         |           | 1/2       | 1/2-14                | Male BSPT   | 4    | 46         | 1.81 | 17   | 0.67 | -    | -    | 22     | 0.87 | 0.15 | 70    |
| TA0111638         |           | 3/8       | 3/8-19                | Female BSPP | 5    | 53         | 2.09 | -    | -    | -    | -    | 21     | 0.83 | 0.12 | 55    |
| TA0111612         |           | 1/2       | 1/2-14                | Female BSPP | 5    | 58         | 2.28 | -    | -    | -    | -    | 27     | 1.06 | 0.19 | 88    |
| TA0111813         |           | -         | 13 mm                 | Hose Tail   | 6    | 39         | 1.54 | 26   | 1.02 | 19   | 0.75 | -      | -    | 0.09 | 43    |
| TA0111816         |           | -         | 16 mm                 | Hose Tail   | 6    | 39         | 1.54 | 26   | 1.02 | 22   | 0.87 | -      | -    | 0.10 | 47    |
| TA0111819         |           | -         | 19 mm                 | Hose Tail   | 6    | 39         | 1.54 | 26   | 1.02 | 25   | 0.98 | -      | -    | 0.11 | 51    |

To obtain connected length of coupling add dimensions A or A+C (Fig. 1, 2, 3) and D or D+E (Fig. 4, 5, 6) together and subtract 34 mm ( 1,34 in.)

\*Alternative end connections available upon request.

# T1300 Series Proprietary Profile

Pneumatic application



Danfoss Hansen T1300 Series is a proprietary profile single shut-off compressed air coupling. This coupling offers excellent flow capacity and is used in high flow compressed air applications.

## Product Features

- Automatic sleeve for one-hand push-to-connect operation with ball-locking mechanism
- Single shut-off valving
- Excellent flow capacity
- Easy to connect
- Standard body material (Socket): Nickel-plated brass
- Standard body material (Plug): Zinc trivalent plated steel
- Standard seal material: NBR

## Physical characteristics

| Body Size<br>(in) | Nominal Flow Diameter<br>(mm) | Max. Operating Pressure<br>Connected or Disconnected |       | Air Flow Rate*<br>Δp 0.6 bar/8.7 psi** |       | Δp 1 bar/14.5 psi*** |       | Working Temperature |           |
|-------------------|-------------------------------|--|-------|--|-------|----------------------|-------|---------------------|-----------|
|                   |                               | (bar)  | (psi) | (lpm)                                  | (gpm) | (lpm)                | (gpm) | °C                  | °F        |
| 1/2               | 12                            | 20   | 290   | 3,800                                  | 1,000 | 4,600                | 1,210 | -20° +100°          | -4° +212° |

\*Indicated values refer to an inlet pressure of 6 bar / 87 psi.

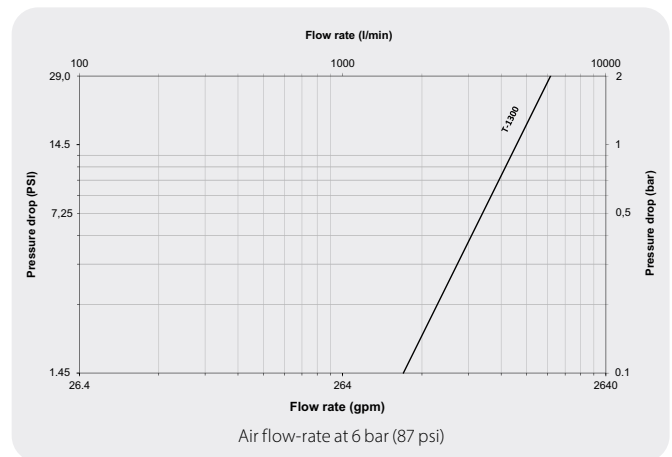
\*\*This flow rate allows the optimum output from a pneumatic tool.

\*\*\* This flow rate is the maximum recommended for a suitable output from a pneumatic tool. For applications needing higher flow rates, it is recommended to select a larger size coupling.

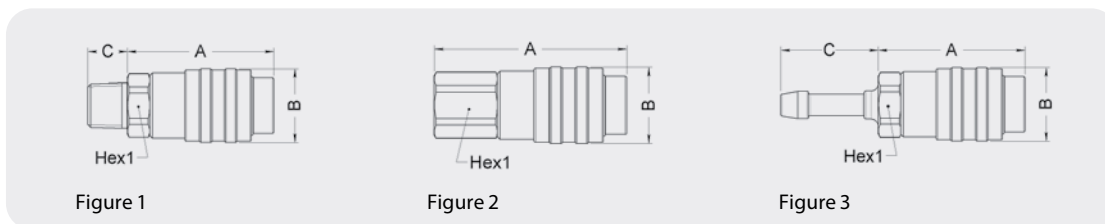
## Applications & Market

- Compressed Air
- Pneumatic Tools

## Flow Data



# T1300 Series Proprietary Profile

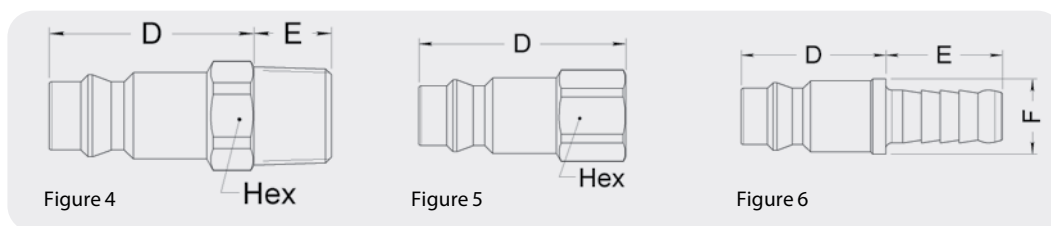


## Sockets (Female)

| Part/Order Number | Body Size | Port Size | Thread or Hose Diam.* | Type        | Fig. | Dimensions |        |        |        |        |        | Weight    |           |      |       |
|-------------------|-----------|-----------|-----------------------|-------------|------|------------|--------|--------|--------|--------|--------|-----------|-----------|------|-------|
|                   |           |           |                       |             |      | A (mm)     | A (in) | B (mm) | B (in) | C (mm) | C (in) | Hex1 (mm) | Hex1 (in) | lbs  | grams |
| TL0132038         |           | 3/8       | 3/8 -19               | Male BSPT   | 1    | 69.7       | 2.74   | 33.6   | 1.32   | 15     | 0.59   | 27        | 1.06      | 0.54 | 247   |
| TL0132012         |           | 1/2       | 1/2 -14               | Male BSPT   | 1    | 69.7       | 2.74   | 33.6   | 1.32   | 17.0   | 0.67   | 27        | 1.06      | 0.56 | 255   |
| TL0132034         |           | 3/4       | 3/4 -14               | Male BSPT   | 1    | 69.7       | 2.74   | 33.6   | 1.32   | 18.5   | 0.73   | 29        | 1.14      | 0.62 | 279   |
| TL0132138         |           | 3/8       | 3/8 -19               | Female BSPP | 2    | 82.2       | 3.24   | 33.6   | 1.32   | -      | -      | 27        | 1.06      | 0.60 | 272   |
| TL0132112         |           | 1/2       | 1/2 -14               | Female BSPP | 2    | 82.2       | 3.24   | 33.6   | 1.32   | -      | -      | 27        | 1.06      | 0.60 | 270   |
| TL0132134         |           | 3/4       | 3/4 -14               | Female BSPP | 2    | 88.2       | 3.47   | 33.6   | 1.32   | -      | -      | 32        | 1.26      | 0.65 | 295   |
| TL0135601         |           | -         | 10 mm                 | Hose Tail   | 3    | 71.2       | 2.80   | 33.6   | 1.32   | 28     | 1.10   | 27        | 1.06      | 0.55 | 249   |
| TL0135613         |           | -         | 13 mm                 | Hose Tail   | 3    | 71.2       | 2.80   | 33.6   | 1.32   | 33     | 1.30   | 27        | 1.06      | 0.57 | 259   |
| TL0135616         |           | -         | 16 mm                 | Hose Tail   | 3    | 71.2       | 2.80   | 33.6   | 1.32   | 33     | 1.30   | 27        | 1.06      | 0.58 | 264   |

To obtain connected length of coupling add dimensions A or A+C (Fig. 1, 2, 3) and D or D+E (Fig. 4, 5, 6) together and subtract 32,5 mm ( 1,28 in.).

\*Alternative end connections available upon request.



## Plugs (Male)

| Part/Order Number | Body Size | Port Size | Thread or Hose Diam.* | Type        | Fig. | Dimensions |        |        |        |        |        | Weight    |           |      |       |
|-------------------|-----------|-----------|-----------------------|-------------|------|------------|--------|--------|--------|--------|--------|-----------|-----------|------|-------|
|                   |           |           |                       |             |      | D (mm)     | D (in) | E (mm) | E (in) | F (mm) | F (in) | Hex1 (mm) | Hex1 (in) | lbs  | grams |
| TA0131538         |           | 3/8       | 3/8 -19               | Male BSPT   | 4    | 44.5       | 1.75   | 15     | 0.59   | -      | -      | 21        | 0.83      | 0.14 | 65    |
| TA0131512         |           | 1/2       | 1/2 -14               | Male BSPT   | 4    | 46.5       | 1.83   | 17     | 0.67   | -      | -      | 22        | 0.87      | 0.19 | 85    |
| TA0131638         |           | 3/8       | 3/8 -19               | Female BSPP | 5    | 55         | 2.17   | -      | -      | -      | -      | 21        | 0.83      | 0.14 | 65    |
| TA0131612         |           | 1/2       | 1/2 -14               | Female BSPP | 5    | 63         | 2.48   | -      | -      | -      | -      | 26        | 1.02      | 0.21 | 95    |
| TA0131813         |           | -         | 13 mm                 | Hose Tail   | 6    | 38.5       | 1.52   | 31     | 1.22   | 20     | 0.79   | -         | -         | 0.13 | 57    |
| TA0131816         |           | -         | 16 mm                 | Hose Tail   | 6    | 38.5       | 1.52   | 37     | 1.46   | 20     | 0.79   | -         | -         | 0.15 | 70    |
| TA0131819         |           | -         | 19 mm                 | Hose Tail   | 6    | 38.5       | 1.52   | 42     | 1.65   | 27     | 1.06   | -         | -         | 0.19 | 87    |

To obtain connected length of coupling add dimensions A or A+C (Fig. 1, 2, 3) and D or D+E (Fig. 4, 5, 6) together and subtract 32,5 mm ( 1,28 in.).

\*Alternative end connections available upon request.

# 3000/4000/5000/6000 Series

Pneumatic application



Danfoss Hansen 3000/4000/5000/6000 Series Industrial Interchange pin lock pneumatic quick disconnect couplings are designed for compressed air, gases, and liquids. This series sets the industry standard for pin lock style pneumatic couplings.

Global region

## Product Features

- Easy, automatic, push-to-connect design provides instantaneous connection and disconnection of lines, plus automatic shut-off of socket/female end of line
- All sizes accept US industrial Interchange; 1/4" & 1/2" also accept ISO 6150 Series B and A-A-59439 plugs/males
- Optional sleeve lock option prevents accidental disconnection
- Standard body material: Brass
- Standard seal material: Buna-N
- Optional seal and valve materials: Silicone-138, FKM-143, EPDM-192

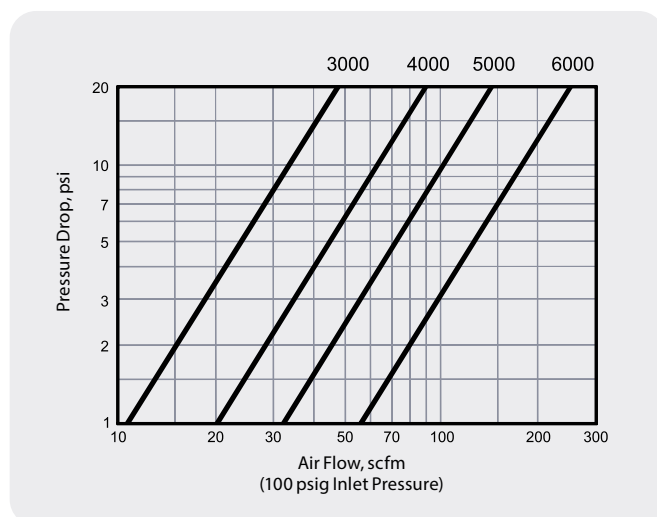
## Physical characteristics

| Series | Body Size | Max. Operating Pressure |       | Min. Burst Pressure |       | Rated Flow |       |
|--------|-----------|-------------------------|-------|---------------------|-------|------------|-------|
|        | (in)      | (bar)                   | (psi) | (bar)               | (psi) | (lpm)      | (gpm) |
| 3000   | 1/4       | 138                     | 2,000 | 552                 | 8,000 | 680        | 24    |
| 4000   | 3/8       | 69                      | 1,000 | 276                 | 4,000 | 1,274      | 45    |
| 5000   | 1/2       | 35                      | 500   | 140                 | 2,000 | 2,040      | 72    |
| 6000   | 3/4       | 15                      | 220   | 60                  | 880   | 3,540      | 125   |

## Applications & Markets

- Industrial Breathing Air
- General Pneumatics
- Maintenance & Repair
- Fluid Transfer

## Flow Data

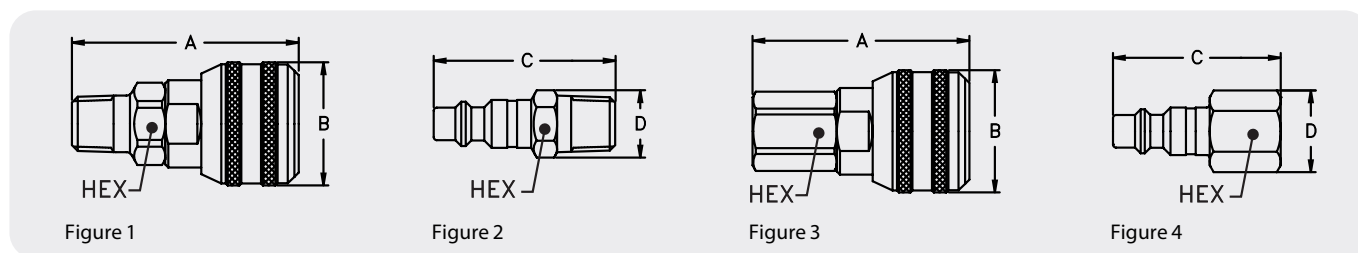


## Interchangeability

| All Sizes                 | 1/4" & 1/2"   |
|---------------------------|---|
| US Industrial Interchange | ISO 6150 Series B<br>A-A-59439<br>(former MIL-C-4109) |

# 3000 Series

Global region



## Male NPTF Connections

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|--------|------|----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |        |      |          |      | A          |      | B     |      | Hex   |      |
|                   |               |           |           |        |      |          |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 2900              | Socket/Female | ¼         | ⅜         | ⅜-27   | NPTF | Brass    | 1    | 50.80      | 2.00 | 30.23 | 1.19 | 17.53 | 0.69 |
| 3100E             | Socket/Female | ¼         | ¼         | ¼-18   | NPTF | Brass    | 1    | 55.63      | 2.19 | 30.23 | 1.19 | 17.53 | 0.69 |
| 3300E             | Socket/Female | ¼         | ⅜         | ¼-18   | NPTF | Brass    | 1    | 54.61      | 2.15 | 30.23 | 1.19 | 17.53 | 0.69 |
| 300043*           | Socket/Female | ¼         | ⅞         | ⅞-20   | UNF  | Brass    | 1    | 53.34      | 2.10 | 30.23 | 1.19 | 17.53 | 0.69 |

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Material  | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|--------|------|-----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |        |      |           |      | C          |      | D     |      | Hex   |      |
|                   |               |           |           |        |      |           |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 10                | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Steel     | 2    | 44.45      | 1.75 | 15.85 | 0.62 | 14.22 | 0.56 |
| 10C§              | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Steel     | 2    | 44.45      | 1.75 | 16.51 | 0.65 | 14.22 | 0.56 |
| 10G†              | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Steel     | 2    | 44.45      | 1.75 | 16.51 | 0.65 | 14.22 | 0.56 |
| 12E               | Plug/Male     | ¼         | ⅜         | ⅜-27   | NPTF | Steel     | 2    | 40.39      | 1.59 | 14.73 | 0.58 | 12.70 | 0.50 |
| 12G†              | Plug/Male     | ¼         | ⅜         | ⅜-27   | NPTF | Steel     | 2    | 60.45      | 2.38 | 19.56 | 0.77 | 17.53 | 0.69 |
| 14                | Plug/Male     | ¼         | ⅜         | ⅜-18   | NPTF | Steel     | 2    | 44.45      | 1.75 | 20.07 | 0.79 | 17.53 | 0.69 |
| 14G†              | Plug/Male     | ¼         | ⅜         | ⅜-18   | NPTF | Steel     | 2    | 64.26      | 2.53 | 19.56 | 0.77 | 17.53 | 0.69 |
| B10               | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Brass     | 2    | 44.45      | 1.75 | 15.75 | 0.62 | 14.22 | 0.56 |
| LL10              | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Stainless | 2    | 44.45      | 1.75 | 15.85 | 0.62 | 14.22 | 0.56 |
| 10NK**            | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Steel     | 2    | 44.45      | 1.75 | 15.75 | 0.62 | 14.22 | 0.56 |

\*45° Male Flare § With Ball Check †With Bleeder Ball Check—Reduces Hose Whip \*\*Nickel plated

## Female NPTF Connections

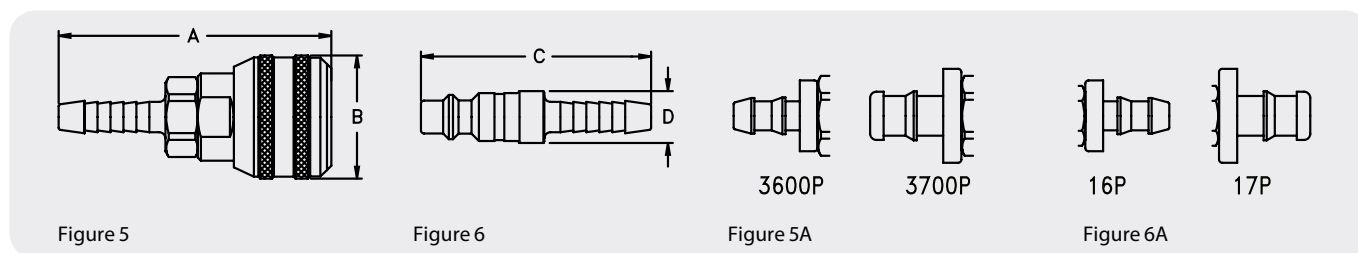
| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|--------|------|----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |        |      |          |      | A          |      | B     |      | Hex   |      |
|                   |               |           |           |        |      |          |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 2800              | Socket/Female | ¼         | ⅜         | ⅜-27   | NPTF | Brass    | 3    | 48.01      | 1.89 | 30.23 | 1.19 | 17.53 | 0.69 |
| 3000              | Socket/Female | ¼         | ¼         | ¼-18   | NPTF | Brass    | 3    | 53.59      | 2.11 | 30.23 | 1.19 | 17.53 | 0.69 |
| 3200              | Socket/Female | ¼         | ⅜         | ⅜-18   | NPTF | Brass    | 3    | 55.63      | 2.19 | 30.23 | 1.19 | 19.05 | 0.75 |

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Material  | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|--------|------|-----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |        |      |           |      | C          |      | D     |      | Hex   |      |
|                   |               |           |           |        |      |           |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 11                | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Steel     | 4    | 41.40      | 1.63 | 20.07 | 0.79 | 17.53 | 0.69 |
| 11G†              | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Steel     | 4    | 61.98      | 2.44 | 19.56 | 0.77 | 17.53 | 0.69 |
| 13                | Plug/Male     | ¼         | ⅜         | ⅜-27   | NPTF | Steel     | 4    | 37.34      | 1.47 | 16.51 | 0.65 | 14.22 | 0.56 |
| 15E               | Plug/Male     | ¼         | ⅜         | ⅜-18   | NPTF | Steel     | 4    | 42.93      | 1.69 | 23.88 | 0.94 | 20.57 | 0.81 |
| 11B               | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Brass     | 4    | 41.40      | 1.63 | 20.07 | 0.79 | 17.53 | 0.69 |
| LL11              | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Stainless | 4    | 41.40      | 1.63 | 20.07 | 0.79 | 17.53 | 0.69 |
| 11NK*             | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Steel     | 4    | 41.40      | 1.63 | 20.07 | 0.79 | 17.53 | 0.69 |

†With Bleeder Ball Check—Reduces Hose Whip \*Nickel plated

# 3000 Series

Global region



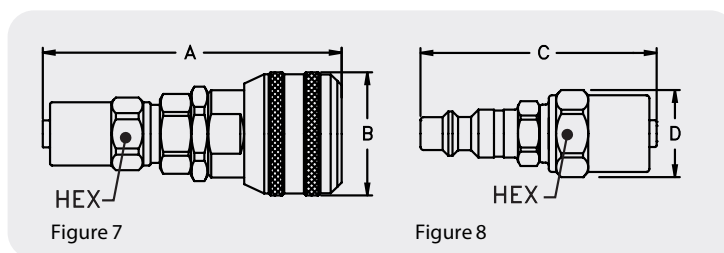
## Hose Stem End Connections

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Material | Fig.  | Dimensions |      |       |      |
|-------------------|---------------|-----------|-----------|----------|-------|------------|------|-------|------|
|                   |               |           |           |          |       | A          |      | B     |      |
|                   |               |           |           |          |       | (mm)       | (in) | (mm)  | (in) |
| 3600              | Socket/Female | ¼         | ¼         | Brass    | 5     | 66.80      | 2.63 | 30.23 | 1.19 |
| 3600P‡            | Socket/Female | ¼         | ¼         | Brass    | 5, 5A | 60.96      | 2.40 | 30.23 | 1.19 |
| 3700E             | Socket/Female | ¼         | ⅜         | Brass    | 5     | 66.80      | 2.63 | 30.23 | 1.19 |
| 3700P‡            | Socket/Female | ¼         | ⅜         | Brass    | 5, 5A | 62.74      | 2.47 | 30.23 | 1.19 |
| 3800              | Socket/Female | ¼         | ⅝         | Brass    | 5     | 66.80      | 2.63 | 30.23 | 1.19 |

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Material | Fig.  | Dimensions |      |       |      |
|-------------------|---------------|-----------|-----------|----------|-------|------------|------|-------|------|
|                   |               |           |           |          |       | C          |      | D     |      |
|                   |               |           |           |          |       | (mm)       | (in) | (mm)  | (in) |
| 16                | Plug/Male     | ¼         | ¼         | Steel    | 6     | 56.39      | 2.22 | 12.70 | 0.50 |
| 16G†              | Plug/Male     | ¼         | ¼         | Steel    | 6     | 75.44      | 2.97 | 19.56 | 0.77 |
| 16P‡              | Plug/Male     | ¼         | ¼         | Steel    | 6, 6A | 50.80      | 2.00 | 14.73 | 0.58 |
| 17                | Plug/Male     | ¼         | ⅜         | Steel    | 6     | 56.39      | 2.22 | 12.70 | 0.50 |
| 17G†              | Plug/Male     | ¼         | ⅜         | Steel    | 6     | 75.18      | 2.96 | 19.56 | 0.77 |
| 17P‡              | Plug/Male     | ¼         | ⅜         | Steel    | 6, 6A | 52.32      | 2.06 | 12.70 | 0.5  |
| 18E               | Plug/Male     | ¼         | ⅝         | Steel    | 6     | 56.39      | 2.22 | 12.70 | 0.50 |
| B17               | Plug/Male     | ¼         | ⅜         | Brass    | 6     | 56.39      | 2.22 | 12.70 | 0.50 |
| 16NK*             | Plug/Male     | ¼         | ¼         | Steel    | 6     | 56.39      | 2.22 | 12.70 | 0.5  |
| 17NK*             | Plug/Male     | ¼         | ⅜         | Steel    | 6     | 56.39      | 2.22 | 12.70 | 0.5  |

†With Bleeder Ball Checkv—Reduces Hose Whip ‡ For use with push-on style hose \*Nickel plated

# 3000 Series



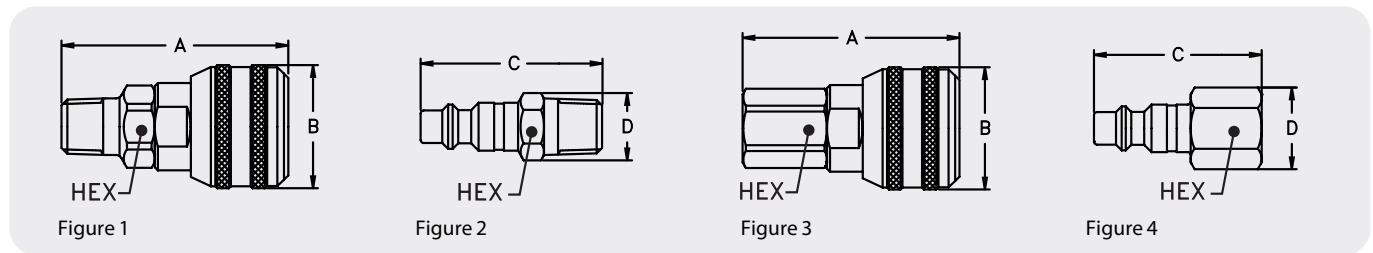
## Hose Clamp End Connections

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Hose O.D. | Material | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|-----------|----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |           |          |      | A          |      | B     |      | Hex   |      |
|                   |               |           |           |           |          |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 3SA0              | Socket/Female | ¼         | ⅜         | ⅞         | Brass    | 7    | 67.31      | 2.65 | 30.23 | 1.19 | 14.22 | 0.56 |
| 3SB1              | Socket/Female | ¼         | ¼         | ⅜         | Brass    | 7    | 69.09      | 2.72 | 30.23 | 1.19 | 16.00 | 0.63 |
| 3SB3              | Socket/Female | ¼         | ¼         | ½         | Brass    | 7    | 69.09      | 2.72 | 30.23 | 1.19 | 16.00 | 0.63 |
| 3SB5              | Socket/Female | ¼         | ¼         | ⅝         | Brass    | 7    | 69.09      | 2.72 | 30.23 | 1.19 | 17.53 | 0.69 |
| 3SB7              | Socket/Female | ¼         | ¼         | ¾         | Brass    | 7    | 69.09      | 2.72 | 30.23 | 1.19 | 19.05 | 0.75 |
| 3SB9              | Socket/Female | ¼         | ¼         | ⅞         | Brass    | 7    | 69.09      | 2.72 | 30.23 | 1.19 | 20.57 | 0.81 |
| 3SC5              | Socket/Female | ¼         | ⅜         | ⅝         | Brass    | 7    | 70.61      | 2.78 | 30.23 | 1.19 | 17.53 | 0.69 |
| 3SC7              | Socket/Female | ¼         | ⅜         | ¾         | Brass    | 7    | 70.61      | 2.78 | 30.23 | 1.19 | 19.05 | 0.75 |
| 3SC9              | Socket/Female | ¼         | ⅜         | ⅞         | Brass    | 7    | 70.61      | 2.78 | 30.23 | 1.19 | 20.57 | 0.81 |
| 3SD5              | Socket/Female | ¼         | ⅜         | ⅝         | Brass    | 7    | 72.14      | 2.84 | 30.23 | 1.19 | 17.53 | 0.69 |
| 3SD7              | Socket/Female | ¼         | ⅜         | ¾         | Brass    | 7    | 72.14      | 2.84 | 30.23 | 1.19 | 19.05 | 0.75 |
| 3SD9              | Socket/Female | ¼         | ⅜         | ⅞         | Brass    | 7    | 72.14      | 2.84 | 30.23 | 1.19 | 20.57 | 0.81 |
| 3SD11             | Socket/Female | ¼         | ⅜         | ¾         | Brass    | 7    | 72.14      | 2.84 | 30.23 | 1.19 | 22.35 | 0.88 |

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Hose O.D. | Material | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|-----------|----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |           |          |      | C          |      | D     |      | Hex   |      |
|                   |               |           |           |           |          |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 3PB1              | Plug/Male     | ¼         | ¼         | ⅜         | Steel    | 8    | 58.67      | 2.31 | 17.78 | 0.70 | 16.00 | 0.63 |
| 3PB3              | Plug/Male     | ¼         | ¼         | ½         | Steel    | 8    | 58.67      | 2.31 | 17.78 | 0.70 | 16.00 | 0.63 |
| 3PB5              | Plug/Male     | ¼         | ¼         | ⅝         | Steel    | 8    | 58.67      | 2.31 | 19.56 | 0.77 | 17.53 | 0.69 |
| 3PB7              | Plug/Male     | ¼         | ¼         | ¾         | Steel    | 8    | 58.67      | 2.31 | 21.34 | 0.84 | 19.05 | 0.75 |
| 3PB9              | Plug/Male     | ¼         | ¼         | ⅞         | Steel    | 8    | 58.67      | 2.31 | 23.11 | 0.91 | 20.57 | 0.81 |
| 3PB11             | Plug/Male     | ¼         | ¼         | ¾         | Steel    | 8    | 58.67      | 2.31 | 24.89 | 0.98 | 22.35 | 0.88 |
| 3PC5              | Plug/Male     | ¼         | ⅜         | ⅝         | Steel    | 8    | 60.45      | 2.38 | 19.56 | 0.77 | 17.53 | 0.69 |
| 3PC7              | Plug/Male     | ¼         | ⅜         | ¾         | Steel    | 8    | 60.45      | 2.38 | 21.34 | 0.84 | 19.05 | 0.75 |
| 3PC9              | Plug/Male     | ¼         | ⅜         | ⅞         | Steel    | 8    | 60.45      | 2.38 | 23.11 | 0.91 | 20.57 | 0.81 |
| 3PD5              | Plug/Male     | ¼         | ⅜         | ⅝         | Steel    | 8    | 61.98      | 2.44 | 19.56 | 0.77 | 17.53 | 0.69 |
| 3PD7              | Plug/Male     | ¼         | ⅜         | ¾         | Steel    | 8    | 61.98      | 2.44 | 21.34 | 0.84 | 19.05 | 0.75 |
| 3PD9              | Plug/Male     | ¼         | ⅜         | ⅞         | Steel    | 8    | 61.98      | 2.44 | 23.11 | 0.91 | 20.57 | 0.81 |
| 3PD11             | Plug/Male     | ¼         | ⅜         | ¾         | Steel    | 8    | 61.98      | 2.44 | 24.89 | 0.98 | 22.35 | 0.88 |

# 4000 Series

Global region



## Male End Connections

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|--------|------|----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |        |      |          |      | A          |      | B     |      | Hex   |      |
|                   |               |           |           |        |      |          |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 4100A             | Socket/Female | 3/8       | 1/8       | 1/8-27 | NPTF | Brass    | 1    | 55.88      | 2.20 | 35.05 | 1.38 | 22.35 | 0.88 |
| 4100              | Socket/Female | 3/8       | 1/4       | 1/4-18 | NPTF | Brass    | 1    | 59.69      | 2.35 | 35.05 | 1.38 | 22.35 | 0.88 |
| 4300              | Socket/Female | 3/8       | 3/8       | 3/8-18 | NPTF | Brass    | 1    | 59.69      | 2.35 | 35.05 | 1.38 | 22.35 | 0.88 |
| 4500E             | Socket/Female | 3/8       | 1/2       | 1/2-14 | NPTF | Brass    | 1    | 64.52      | 2.54 | 35.05 | 1.38 | 22.35 | 0.88 |

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|--------|------|----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |        |      |          |      | C          |      | D     |      | Hex   |      |
|                   |               |           |           |        |      |          |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 38                | Plug/Male     | 3/8       | 1/8       | 1/8-27 | NPTF | Steel    | 2    | 43.69      | 1.72 | 18.29 | 0.72 | 16.00 | 0.63 |
| 40                | Plug/Male     | 3/8       | 1/4       | 1/4-18 | NPTF | Steel    | 2    | 47.75      | 1.88 | 18.29 | 0.72 | 16.00 | 0.63 |
| 40G†              | Plug/Male     | 3/8       | 1/4       | 1/4-18 | NPTF | Steel    | 2    | 67.31      | 2.65 | 19.56 | 0.77 | 17.53 | 0.69 |
| 42                | Plug/Male     | 3/8       | 3/8       | 3/8-18 | NPTF | Steel    | 2    | 47.75      | 1.88 | 20.07 | 0.79 | 17.53 | 0.69 |
| 42G†              | Plug/Male     | 3/8       | 3/8       | 3/8-18 | NPTF | Steel    | 2    | 67.31      | 2.65 | 19.56 | 0.77 | 17.53 | 0.69 |
| 44                | Plug/Male     | 3/8       | 1/2       | 1/2-14 | NPTF | Steel    | 2    | 53.09      | 2.09 | 25.65 | 1.01 | 22.35 | 0.88 |
| B40               | Plug/Male     | 3/8       | 1/4       | 1/4-18 | NPTF | Brass    | 2    | 47.75      | 1.88 | 17.78 | 0.70 | 16.00 | 0.63 |
| B42               | Plug/Male     | 3/8       | 3/8       | 3/8-18 | NPTF | Brass    | 2    | 47.75      | 1.88 | 19.56 | 0.77 | 17.53 | 0.69 |
| 40NK*             | Plug/Male     | 3/8       | 1/4       | 1/4-18 | NPTF | Steel    | 2    | 47.75      | 1.88 | 18.29 | 0.72 | 16.00 | 0.63 |

†With Bleeder Ball Check—Reduces Hose Whip \*Nickel plated

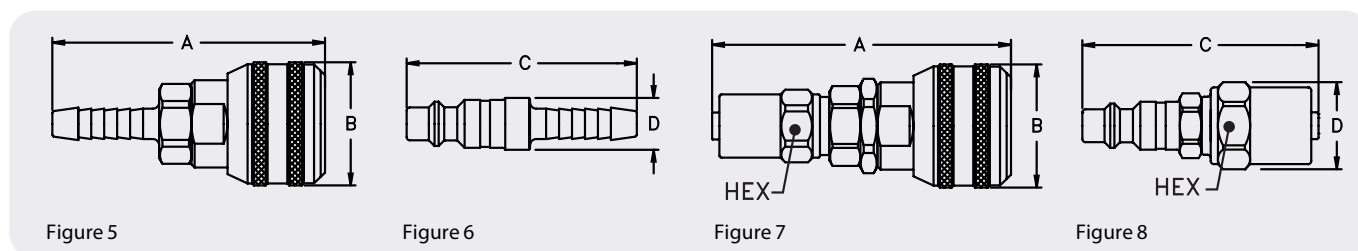
## Female End Connections

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|--------|------|----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |        |      |          |      | A          |      | B     |      | Hex   |      |
|                   |               |           |           |        |      |          |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 4000A             | Socket/Female | 3/8       | 1/8       | 1/8-27 | NPTF | Brass    | 3    | 53.34      | 2.10 | 35.05 | 1.38 | 22.35 | 0.88 |
| 4000              | Socket/Female | 3/8       | 1/4       | 1/4-18 | NPTF | Brass    | 3    | 53.34      | 2.10 | 35.05 | 1.38 | 22.35 | 0.88 |
| 4200              | Socket/Female | 3/8       | 3/8       | 3/8-18 | NPTF | Brass    | 3    | 59.69      | 2.35 | 35.05 | 1.38 | 22.35 | 0.88 |
| 4400              | Socket/Female | 3/8       | 1/2       | 1/2-14 | NPTF | Brass    | 3    | 66.55      | 2.62 | 35.05 | 1.38 | 25.40 | 1    |

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|--------|------|----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |        |      |          |      | C          |      | D     |      | Hex   |      |
|                   |               |           |           |        |      |          |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 41                | Plug/Male     | 3/8       | 1/4       | 1/4-18 | NPTF | Steel    | 4    | 41.40      | 1.63 | 20.07 | 0.79 | 17.53 | 0.69 |
| 41G†              | Plug/Male     | 3/8       | 1/4       | 1/4-18 | NPTF | Steel    | 4    | 65.02      | 2.56 | 19.56 | 0.77 | 17.53 | 0.69 |
| 43                | Plug/Male     | 3/8       | 3/8       | 3/8-18 | NPTF | Steel    | 4    | 45.97      | 1.81 | 23.88 | 0.94 | 20.57 | 0.81 |
| 43G†              | Plug/Male     | 3/8       | 3/8       | 3/8-18 | NPTF | Steel    | 4    | 66.55      | 2.62 | 21.34 | 0.84 | 19.05 | 0.75 |
| 45E               | Plug/Male     | 3/8       | 1/2       | 1/2-14 | NPTF | Steel    | 4    | 52.32      | 2.06 | 29.21 | 1.15 | 25.40 | 1    |
| B43               | Plug/Male     | 3/8       | 3/8       | 3/8-18 | NPTF | Brass    | 4    | 45.97      | 1.81 | 23.11 | 0.91 | 20.57 | 0.81 |
| 41NK*             | Plug/Male     | 3/8       | 1/4       | 1/4-18 | NPTF | Steel    | 4    | 41.40      | 1.63 | 20.07 | 0.79 | 17.53 | 0.69 |

†With Bleeder Ball Check—Reduces Hose Whip \*Nickel plated

## 4000 Series



### Hose Stem End Connections

| Part/Order Number | Coupling Type | Body Size     | Hose I.D.      | Material | Fig. | Dimensions |      |       |      |
|-------------------|---------------|---------------|----------------|----------|------|------------|------|-------|------|
|                   |               |               |                |          |      | A          |      | B     |      |
|                   |               |               |                |          |      | (mm)       | (in) | (mm)  | (in) |
| 40400E            | Socket/Female | $\frac{3}{8}$ | $\frac{1}{4}$  | Brass    | 5    | 71.63      | 2.82 | 35.05 | 1.38 |
| 40500E            | Socket/Female | $\frac{3}{8}$ | $\frac{5}{16}$ | Brass    | 5    | 71.63      | 2.82 | 35.05 | 1.38 |
| 40600             | Socket/Female | $\frac{3}{8}$ | $\frac{3}{8}$  | Brass    | 5    | 71.63      | 2.82 | 35.05 | 1.38 |
| 40800             | Socket/Female | $\frac{3}{8}$ | $\frac{1}{2}$  | Brass    | 5    | 71.63      | 2.82 | 35.05 | 1.38 |

| Part/Order Number | Coupling Type | Body Size     | Hose I.D.     | Material | Fig. | Dimensions |      |       |      |
|-------------------|---------------|---------------|---------------|----------|------|------------|------|-------|------|
|                   |               |               |               |          |      | C          |      | D     |      |
|                   |               |               |               |          |      | (mm)       | (in) | (mm)  | (in) |
| 404               | Plug/Male     | $\frac{3}{8}$ | $\frac{1}{4}$ | Steel    | 6    | 59.44      | 2.34 | 18.29 | 0.72 |
| 406               | Plug/Male     | $\frac{3}{8}$ | $\frac{3}{8}$ | Steel    | 6    | 59.44      | 2.34 | 16.00 | 0.63 |
| 408               | Plug/Male     | $\frac{3}{8}$ | $\frac{1}{2}$ | Steel    | 6    | 59.44      | 2.34 | 20.57 | 0.81 |
| B406E             | Plug/Male     | $\frac{3}{8}$ | $\frac{3}{8}$ | Brass    | 6    | 59.44      | 2.34 | 16.00 | 0.63 |

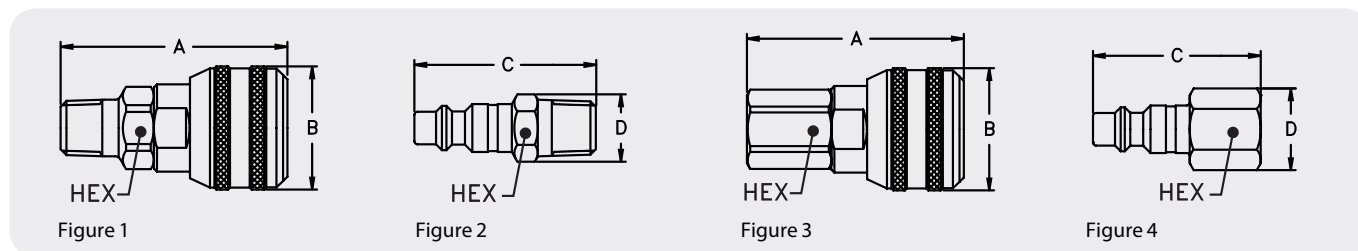
### Hose Clamp End Connections

| Part/Order Number | Coupling Type | Body Size     | Hose I.D.      | Hose O.D.       | Material | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|---------------|----------------|-----------------|----------|------|------------|------|-------|------|-------|------|
|                   |               |               |                |                 |          |      | A          |      | B     |      | Hex   |      |
|                   |               |               |                |                 |          |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 4SB3              | Socket/Female | $\frac{3}{8}$ | $\frac{1}{4}$  | $\frac{1}{2}$   | Brass    | 7    | 74.17      | 2.92 | 35.05 | 1.38 | 16.00 | 0.63 |
| 4SB7              | Socket/Female | $\frac{3}{8}$ | $\frac{1}{4}$  | $\frac{5}{8}$   | Brass    | 7    | 74.17      | 2.92 | 35.05 | 1.38 | 19.05 | 0.75 |
| 4SC7              | Socket/Female | $\frac{3}{8}$ | $\frac{5}{16}$ | $\frac{5}{8}$   | Brass    | 7    | 75.69      | 2.98 | 35.05 | 1.38 | 19.05 | 0.75 |
| 4SD7              | Socket/Female | $\frac{3}{8}$ | $\frac{3}{8}$  | $\frac{5}{8}$   | Brass    | 7    | 77.22      | 3.04 | 35.05 | 1.38 | 19.05 | 0.75 |
| 4SD9              | Socket/Female | $\frac{3}{8}$ | $\frac{3}{8}$  | $\frac{13}{16}$ | Brass    | 7    | 77.22      | 3.04 | 35.05 | 1.38 | 20.57 | 0.81 |
| 4SD11             | Socket/Female | $\frac{3}{8}$ | $\frac{3}{8}$  | $\frac{3}{4}$   | Brass    | 7    | 77.22      | 3.04 | 35.05 | 1.38 | 22.35 | 0.88 |
| 4SP13             | Socket/Female | $\frac{3}{8}$ | $\frac{1}{2}$  | $\frac{13}{16}$ | Brass    | 7    | 93.22      | 3.67 | 35.05 | 1.38 | 23.88 | 0.94 |
| 4SP15             | Socket/Female | $\frac{3}{8}$ | $\frac{1}{2}$  | $\frac{7}{8}$   | Brass    | 7    | 93.22      | 3.67 | 35.05 | 1.38 | 25.40 | 1.00 |

| Part/Order Number | Coupling Type | Body Size     | Hose I.D.     | Hose O.D.       | Material | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|---------------|---------------|-----------------|----------|------|------------|------|-------|------|-------|------|
|                   |               |               |               |                 |          |      | C          |      | D     |      | Hex   |      |
|                   |               |               |               |                 |          |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 4PB3              | Plug/Male     | $\frac{3}{8}$ | $\frac{1}{4}$ | $\frac{1}{2}$   | Steel    | 8    | 61.98      | 2.44 | 17.78 | 0.70 | 16.00 | 0.63 |
| 4PB7              | Plug/Male     | $\frac{3}{8}$ | $\frac{1}{4}$ | $\frac{5}{8}$   | Steel    | 8    | 61.98      | 2.44 | 21.34 | 0.84 | 19.05 | 0.75 |
| 4PD7              | Plug/Male     | $\frac{3}{8}$ | $\frac{3}{8}$ | $\frac{5}{8}$   | Steel    | 8    | 65.02      | 2.56 | 21.34 | 0.84 | 19.05 | 0.75 |
| 4PD9              | Plug/Male     | $\frac{3}{8}$ | $\frac{3}{8}$ | $\frac{13}{16}$ | Steel    | 8    | 65.02      | 2.56 | 23.11 | 0.91 | 20.57 | 0.81 |
| 4PD11             | Plug/Male     | $\frac{3}{8}$ | $\frac{3}{8}$ | $\frac{3}{4}$   | Steel    | 8    | 65.02      | 2.56 | 24.89 | 0.98 | 22.35 | 0.88 |
| 4PD15             | Plug/Male     | $\frac{3}{8}$ | $\frac{3}{8}$ | $\frac{7}{8}$   | Steel    | 8    | 65.02      | 2.56 | 28.45 | 1.12 | 25.40 | 1.00 |
| 4PP13             | Plug/Male     | $\frac{3}{8}$ | $\frac{1}{2}$ | $\frac{13}{16}$ | Steel    | 8    | 82.55      | 3.25 | 26.67 | 1.05 | 23.88 | 0.94 |
| 4PP15             | Plug/Male     | $\frac{3}{8}$ | $\frac{1}{2}$ | $\frac{7}{8}$   | Steel    | 8    | 82.55      | 3.25 | 28.45 | 1.12 | 25.40 | 1.00 |
| 4PP19             | Plug/Male     | $\frac{3}{8}$ | $\frac{1}{2}$ | 1               | Steel    | 8    | 82.55      | 3.25 | 32.00 | 1.26 | 28.70 | 1.13 |
| 4PB5              | Plug/Male     | $\frac{3}{8}$ | $\frac{1}{4}$ | $\frac{5}{16}$  | Steel    | 8    | 61.98      | 2.44 | 19.56 | 0.77 | 17.53 | 0.69 |

# 5000 Series

Global region



## Male End Connections

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|--------|------|----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |        |      |          |      | A          |      | B     |      | Hex   |      |
|                   |               |           |           |        |      |          |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 50100             | Socket/Female | ½         | ¼         | ¼-18   | NPTF | Brass    | 1    | 70.61      | 2.78 | 38.10 | 1.50 | 25.40 | 1.00 |
| 5100E             | Socket/Female | ½         | ⅜         | ⅜-18   | NPTF | Brass    | 1    | 70.87      | 2.79 | 38.10 | 1.50 | 25.40 | 1.00 |
| 5300E             | Socket/Female | ½         | ½         | ½-14   | NPTF | Brass    | 1    | 75.69      | 2.98 | 38.10 | 1.50 | 25.40 | 1.00 |
| 5500              | Socket/Female | ½         | ¾         | ¾-14   | NPTF | Brass    | 1    | 75.69      | 2.98 | 38.10 | 1.50 | 26.92 | 1.06 |

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|--------|------|----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |        |      |          |      | C          |      | D     |      | Hex   |      |
|                   |               |           |           |        |      |          |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 50E               | Plug/Male     | ½         | ¼         | ¼-18   | NPTF | Steel    | 2    | 57.15      | 2.25 | 20.07 | 0.79 | 17.53 | 0.69 |
| 50G†              | Plug/Male     | ½         | ¼         | ¼-18   | NPTF | Steel    | 2    | 73.66      | 2.90 | 24.89 | 0.98 | 22.35 | 0.88 |
| 52                | Plug/Male     | ½         | ⅜         | ⅜-18   | NPTF | Steel    | 2    | 57.15      | 2.25 | 22.10 | 0.87 | 19.05 | 0.75 |
| 52G†              | Plug/Male     | ½         | ⅜         | ⅜-18   | NPTF | Steel    | 2    | 73.66      | 2.90 | 24.89 | 0.98 | 22.35 | 0.88 |
| 54E               | Plug/Male     | ½         | ½         | ½-14   | NPTF | Steel    | 2    | 61.98      | 2.44 | 25.65 | 1.01 | 22.35 | 0.88 |
| 54G†              | Plug/Male     | ½         | ½         | ½-14   | NPTF | Steel    | 2    | 78.49      | 3.09 | 24.89 | 0.98 | 22.35 | 0.88 |
| 56                | Plug/Male     | ½         | ¾         | ¾-14   | NPTF | Steel    | 2    | 63.50      | 2.50 | 31.24 | 1.23 | 26.92 | 1.06 |
| 56G†              | Plug/Male     | ½         | ¾         | ¾-14   | NPTF | Steel    | 2    | 79.76      | 3.14 | 30.23 | 1.19 | 26.92 | 1.06 |
| B52               | Plug/Male     | ½         | ⅜         | ⅜-18   | NPTF | Brass    | 2    | 57.15      | 2.25 | 22.10 | 0.87 | 19.05 | 0.75 |
| B54               | Plug/Male     | ½         | ½         | ½-14   | NPTF | Brass    | 2    | 61.98      | 2.44 | 25.65 | 1.01 | 22.35 | 0.88 |

†With Bleeder Ball Check—Reduces Hose Whip

## Female End Connections

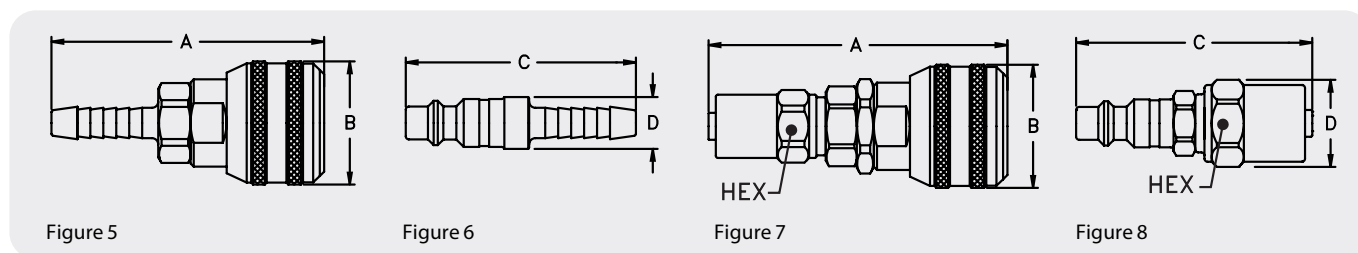
| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|--------|------|----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |        |      |          |      | A          |      | B     |      | Hex   |      |
|                   |               |           |           |        |      |          |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 5000A             | Socket/Female | ½         | ¼         | ¼-18   | NPTF | Brass    | 3    | 69.09      | 2.72 | 38.10 | 1.50 | 25.40 | 1.00 |
| 5000              | Socket/Female | ½         | ⅜         | ⅜-18   | NPTF | Brass    | 3    | 70.87      | 2.79 | 38.10 | 1.50 | 25.40 | 1.00 |
| 5200              | Socket/Female | ½         | ½         | ½-14   | NPTF | Brass    | 3    | 77.98      | 3.07 | 38.10 | 1.50 | 25.40 | 1.00 |
| 5400E             | Socket/Female | ½         | ¾         | ¾-14   | NPTF | Brass    | 3    | 78.74      | 3.10 | 38.10 | 1.50 | 30.23 | 1.19 |

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|--------|------|----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |        |      |          |      | C          |      | D     |      | Hex   |      |
|                   |               |           |           |        |      |          |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 53A               | Plug/Male     | ½         | ¼         | ¼-18   | NPTF | Steel    | 4    | 48.77      | 1.92 | 20.07 | 0.79 | 17.53 | 0.69 |
| 53                | Plug/Male     | ½         | ⅜         | ⅜-18   | NPTF | Steel    | 4    | 52.32      | 2.06 | 23.88 | 0.94 | 20.57 | 0.81 |
| 53G†              | Plug/Male     | ½         | ⅜         | ⅜-18   | NPTF | Steel    | 4    | 73.66      | 2.9  | 24.89 | 0.98 | 22.35 | 0.88 |
| 55                | Plug/Male     | ½         | ½         | ½-14   | NPTF | Steel    | 4    | 59.44      | 2.34 | 29.21 | 1.15 | 25.40 | 1    |
| 55G†              | Plug/Male     | ½         | ½         | ½-14   | NPTF | Steel    | 4    | 80.52      | 3.17 | 29.21 | 1.15 | 25.40 | 1.00 |
| 57                | Plug/Male     | ½         | ¾         | ¾-14   | NPTF | Steel    | 4    | 61.98      | 2.44 | 34.80 | 1.37 | 30.23 | 1.19 |

†With Bleeder Ball Check—Reduces Hose Whip

# 5000 Series

Global region



## Hose Stem End Connections

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Material | Fig. | Dimensions |      |       |      |
|-------------------|---------------|-----------|-----------|----------|------|------------|------|-------|------|
|                   |               |           |           |          |      | A          |      | B     |      |
|                   |               |           |           |          |      | (mm)       | (in) | (mm)  | (in) |
| 50400             | Socket/Female | ½         | ¼         | Brass    | 5    | 83.57      | 3.29 | 38.10 | 1.50 |
| 5700E             | Socket/Female | ½         | ⅜         | Brass    | 5    | 84.58      | 3.33 | 38.10 | 1.50 |
| 5800E             | Socket/Female | ½         | ½         | Brass    | 5    | 82.55      | 3.25 | 38.10 | 1.50 |
| 5900              | Socket/Female | ½         | ¾         | Brass    | 5    | 104.14     | 4.10 | 38.10 | 1.50 |

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Material | Fig. | Dimensions |      |       |      |
|-------------------|---------------|-----------|-----------|----------|------|------------|------|-------|------|
|                   |               |           |           |          |      | C          |      | D     |      |
|                   |               |           |           |          |      | (mm)       | (in) | (mm)  | (in) |
| 585               | Plug/Male     | ½         | ⅙         | Steel    | 6    | 67.56      | 2.66 | 17.53 | 0.69 |
| 585G†             | Plug/Male     | ½         | ⅙         | Brass    | 6    | 85.60      | 3.37 | 24.89 | 0.98 |
| 59                | Plug/Male     | ½         | ⅜         | Steel    | 6    | 67.56      | 2.66 | 17.53 | 0.69 |
| 59G†              | Plug/Male     | ½         | ⅜         | Brass    | 6    | 85.60      | 3.37 | 24.89 | 0.98 |
| 60                | Plug/Male     | ½         | ½         | Steel    | 6    | 67.56      | 2.66 | 19.05 | 0.75 |
| 60G†              | Plug/Male     | ½         | ½         | Brass    | 6    | 85.60      | 3.37 | 24.89 | 0.98 |
| 61E               | Plug/Male     | ½         | ¾         | Steel    | 6    | 88.90      | 3.50 | 25.40 | 1.00 |
| 61G†              | Plug/Male     | ½         | ¾         | Brass    | 6    | 107.19     | 4.22 | 24.89 | 0.98 |
| B60               | Plug/Male     | ½         | ½         | Brass    | 6    | 69.85      | 2.75 | 22.35 | 0.88 |

†With Bleeder Ball Check—Reduces Hose Whip

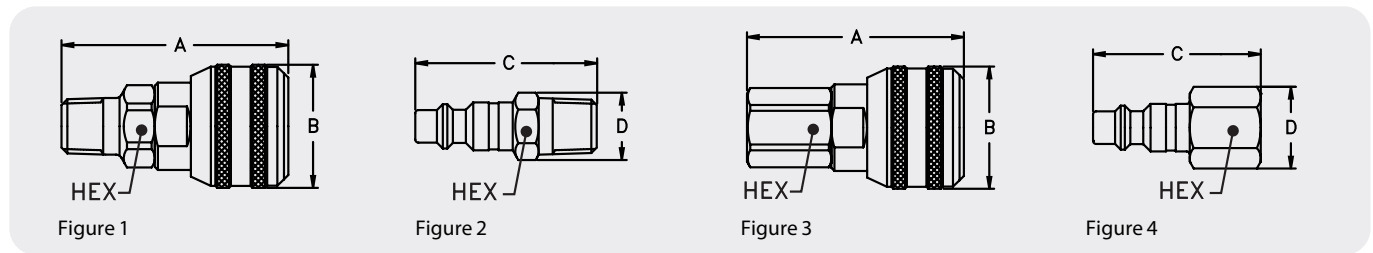
## Hose Clamp End Connections

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Hose O.D. | Material | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|-----------|----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |           |          |      | A          |      | B     |      | Hex   |      |
|                   |               |           |           |           |          |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 5SD5              | Socket/Female | ½         | ⅜         | ⅙         | Brass    | 7    | 88.90      | 3.50 | 38.10 | 1.50 | 17.53 | 0.69 |
| 5SD7              | Socket/Female | ½         | ⅜         | ⅝         | Brass    | 7    | 88.90      | 3.50 | 38.10 | 1.50 | 19.05 | 0.75 |
| 5SD9              | Socket/Female | ½         | ⅜         | ⅞         | Brass    | 7    | 88.90      | 3.50 | 38.10 | 1.50 | 20.57 | 0.81 |
| 5SD11             | Socket/Female | ½         | ⅜         | ¾         | Brass    | 7    | 88.90      | 3.50 | 38.10 | 1.50 | 22.35 | 0.88 |
| 5SP13             | Socket/Female | ½         | ½         | ⅞         | Brass    | 7    | 104.14     | 4.10 | 38.10 | 1.50 | 23.88 | 0.94 |
| 5SP15             | Socket/Female | ½         | ½         | ⅞         | Brass    | 7    | 104.14     | 4.10 | 38.10 | 1.50 | 25.40 | 1.00 |
| 5SR23             | Socket/Female | ½         | ¾         | 1 ⅙       | Brass    | 7    | 107.44     | 4.23 | 38.10 | 1.50 | 31.75 | 1.25 |
| 5SR25             | Socket/Female | ½         | ¾         | 1 ⅜       | Brass    | 7    | 107.44     | 4.23 | 38.10 | 1.50 | 33.27 | 1.31 |
| 5SR27             | Socket/Female | ½         | ¾         | 1 ¼       | Brass    | 7    | 107.44     | 4.23 | 39.12 | 1.54 | 35.05 | 1.38 |

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Hose O.D. | Material | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|-----------|----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |           |          |      | C          |      | D     |      | Hex   |      |
|                   |               |           |           |           |          |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 5PB3              | Plug/Male     | ½         | ¼         | ½         | Steel    | 8    | 71.37      | 2.81 | 17.78 | 0.70 | 16.00 | 0.63 |
| 5PB5              | Plug/Male     | ½         | ¼         | ⅝         | Steel    | 8    | 71.37      | 2.81 | 19.56 | 0.77 | 17.53 | 0.69 |
| 5PB7              | Plug/Male     | ½         | ¼         | ⅝         | Steel    | 8    | 71.37      | 2.81 | 21.34 | 0.84 | 19.05 | 0.75 |
| 5PD5              | Plug/Male     | ½         | ⅜         | ⅙         | Steel    | 8    | 74.68      | 2.94 | 19.56 | 0.77 | 17.53 | 0.69 |
| 5PD7              | Plug/Male     | ½         | ⅜         | ⅝         | Steel    | 8    | 74.68      | 2.94 | 21.34 | 0.84 | 19.05 | 0.75 |
| 5PD9              | Plug/Male     | ½         | ⅜         | ⅞         | Steel    | 8    | 74.68      | 2.94 | 23.11 | 0.91 | 20.57 | 0.81 |
| 5PD11             | Plug/Male     | ½         | ⅜         | ¾         | Steel    | 8    | 74.68      | 2.94 | 24.89 | 0.98 | 22.35 | 0.88 |
| 5PD13             | Plug/Male     | ½         | ⅜         | ⅞         | Steel    | 8    | 74.68      | 2.94 | 26.67 | 1.05 | 23.88 | 0.94 |
| 5PP13             | Plug/Male     | ½         | ½         | ⅞         | Steel    | 8    | 91.95      | 3.62 | 26.67 | 1.05 | 23.88 | 0.94 |
| 5PP15             | Plug/Male     | ½         | ½         | ⅞         | Steel    | 8    | 91.95      | 3.62 | 28.45 | 1.12 | 25.40 | 1.00 |
| 5PR23             | Plug/Male     | ½         | ¾         | 1 ⅙       | Steel    | 8    | 95.25      | 3.75 | 35.56 | 1.40 | 31.75 | 1.25 |
| 5PR25             | Plug/Male     | ½         | ¾         | 1 ⅜       | Steel    | 8    | 95.25      | 3.75 | 37.34 | 1.47 | 33.27 | 1.31 |
| 5PR27             | Plug/Male     | ½         | ¾         | 1 ¼       | Steel    | 8    | 95.25      | 3.75 | 39.12 | 1.54 | 35.05 | 1.38 |

# 6000 Series

Global region



## Male End Connections

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread   | Type | Material | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|----------|------|----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |          |      |          |      | A          |      | B     |      | Hex   |      |
|                   |               |           |           |          |      |          |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 6300              | Socket/Female | 3/4       | 1/2       | 1/2-14   | NPTF | Brass    | 1    | 74.68      | 2.94 | 48.26 | 1.90 | 33.27 | 1.31 |
| 6500              | Socket/Female | 3/4       | 3/4       | 3/4-14   | NPTF | Brass    | 1    | 74.68      | 2.94 | 48.26 | 1.90 | 33.27 | 1.31 |
| 6700E             | Socket/Female | 3/4       | 1         | 1-11 1/2 | NPTF | Brass    | 1    | 79.50      | 3.13 | 48.26 | 1.90 | 33.27 | 1.31 |

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread   | Type | Material | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|----------|------|----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |          |      |          |      | C          |      | D     |      | Hex   |      |
|                   |               |           |           |          |      |          |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 64A               | Plug/Male     | 3/4       | 1/2       | 1/2-14   | NPTF | Steel    | 2    | 58.67      | 2.31 | 29.21 | 1.15 | 25.40 | 1.00 |
| 64GA†             | Plug/Male     | 3/4       | 1/2       | 1/2-14   | NPTF | Steel    | 2    | 82.80      | 3.26 | 28.45 | 1.12 | 25.40 | 1.00 |
| 66AE              | Plug/Male     | 3/4       | 3/4       | 3/4-14   | NPTF | Steel    | 2    | 60.45      | 2.38 | 31.24 | 1.23 | 26.92 | 1.06 |
| 66GA†             | Plug/Male     | 3/4       | 3/4       | 3/4-14   | NPTF | Steel    | 2    | 82.80      | 3.26 | 30.23 | 1.19 | 26.92 | 1.06 |
| 68A               | Plug/Male     | 3/4       | 1         | 1-11 1/2 | NPTF | Steel    | 2    | 65.02      | 2.56 | 38.35 | 1.51 | 33.27 | 1.31 |
| B64A              | Plug/Male     | 3/4       | 1/2       | 1/2-14   | NPTF | Brass    | 2    | 58.67      | 2.31 | 28.45 | 1.12 | 25.40 | 1.00 |
| B66A              | Plug/Male     | 3/4       | 3/4       | 3/4-14   | NPTF | Brass    | 2    | 60.45      | 2.38 | 30.07 | 1.18 | 26.92 | 1.06 |

†With Bleeder Ball Check—Reduces Hose Whip

## Female End Connections

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread   | Type | Material | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|----------|------|----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |          |      |          |      | A          |      | B     |      | Hex   |      |
|                   |               |           |           |          |      |          |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 6200E             | Socket/Female | 3/4       | 1/2       | 1/2-14   | NPTF | Brass    | 3    | 72.39      | 2.85 | 48.26 | 1.90 | 33.27 | 1.31 |
| 6400E             | Socket/Female | 3/4       | 3/4       | 3/4-14   | NPTF | Brass    | 3    | 76.20      | 3.00 | 48.26 | 1.90 | 33.27 | 1.31 |
| 6600E             | Socket/Female | 3/4       | 1         | 1-11 1/2 | NPTF | Brass    | 3    | 81.03      | 3.19 | 48.26 | 1.90 | 39.62 | 1.56 |

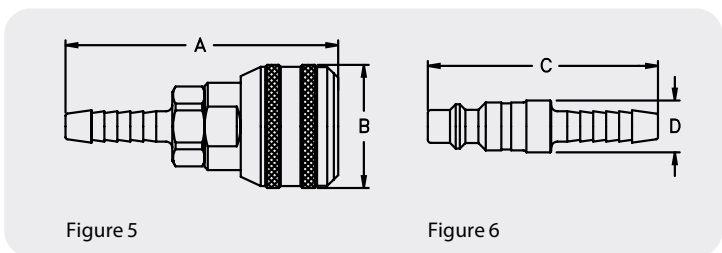
  

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread   | Type | Material | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|----------|------|----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |          |      |          |      | C          |      | D     |      | Hex   |      |
|                   |               |           |           |          |      |          |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 65A               | Plug/Male     | 3/4       | 1/2       | 1/2-14   | NPTF | Steel    | 4    | 56.39      | 2.22 | 29.21 | 1.15 | 25.40 | 1.00 |
| 65GAS†            | Plug/Male     | 3/4       | 1/2       | 1/2-14   | NPTF | Steel    | 4    | 85.09      | 3.35 | 28.45 | 1.12 | 25.40 | 1.00 |
| 67A               | Plug/Male     | 3/4       | 3/4       | 3/4-14   | NPTF | Steel    | 4    | 56.39      | 2.22 | 33.78 | 1.33 | 30.23 | 1.19 |
| 67GAS†            | Plug/Male     | 3/4       | 3/4       | 3/4-14   | NPTF | Steel    | 4    | 85.85      | 3.38 | 33.78 | 1.33 | 30.23 | 1.19 |
| 69A               | Plug/Male     | 3/4       | 1         | 1-11 1/2 | NPTF | Steel    | 4    | 61.21      | 2.41 | 45.72 | 1.80 | 39.62 | 1.56 |

†With Bleeder Ball Check—Reduces Hose Whip

# 6000 Series

Global region



## Hose Stem End Connections

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Material | Fig. | Dimensions |      |       |      |
|-------------------|---------------|-----------|-----------|----------|------|------------|------|-------|------|
|                   |               |           |           |          |      | A          |      | B     |      |
|                   |               |           |           |          |      | (mm)       | (in) | (mm)  | (in) |
| 6800E             | Socket/Female | 3/4       | 1/2       | Brass    | 5    | 81.53      | 3.21 | 47.75 | 1.88 |
| 6900              | Socket/Female | 3/4       | 3/4       | Brass    | 5    | 103.12     | 4.06 | 47.75 | 1.88 |
| 7000E             | Socket/Female | 3/4       | 1         | Brass    | 5    | 103.38     | 4.07 | 47.75 | 1.88 |

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Material | Fig. | Dimensions |      |       |      |
|-------------------|---------------|-----------|-----------|----------|------|------------|------|-------|------|
|                   |               |           |           |          |      | C          |      | D     |      |
|                   |               |           |           |          |      | (mm)       | (in) | (mm)  | (in) |
| 70A               | Plug/Male     | 3/4       | 1/2       | Steel    | 6    | 64.26      | 2.53 | 23.88 | 0.94 |
| 70GA†             | Plug/Male     | 3/4       | 1/2       | Steel    | 6    | 89.66      | 3.53 | 28.45 | 1.12 |
| 71A               | Plug/Male     | 3/4       | 3/4       | Steel    | 6    | 87.38      | 3.44 | 26.92 | 1.06 |
| 71GA†             | Plug/Male     | 3/4       | 3/4       | Steel    | 6    | 111.25     | 4.38 | 28.45 | 1.12 |
| 72A               | Plug/Male     | 3/4       | 1         | Steel    | 6    | 87.38      | 3.44 | 33.27 | 1.31 |
| B71A              | Plug/Male     | 3/4       | 3/4       | Steel    | 6    | 87.38      | 3.44 | 26.92 | 1.06 |

†With Bleeder Ball Check—Reduces Hose Whip

## Dust Caps and Dust Plugs

| Series | Dust Cap  |          | Dust Plug |          |
|--------|-----------|----------|-----------|----------|
|        | Metal     | Vinyl    | Metal     | Vinyl    |
| 3000   | XPDC3000* | -        | SDC3000*  | XPSDC1HK |
| 4000   | -         | -        | -         | XPSDC2HK |
| 5000   | -         | XPPDC2HK | -         | -        |
| 6000   | -         | XPPDC3HK | -         | -        |

\*Brass



# Auto-Flo 23/24 Series

Pneumatic application



Danfoss' Auto-Flo 23/24 Series of pneumatic couplings were designed with high flow and easy automatic connection for compressed air in mind. The universal design makes the Auto-Flo an extremely flexible coupling series.

## Product Features

- Auto-Flo 23 is the first automatic universal quick disconnect coupling designed to operate with Industrial, ARO 210 and Tru-Flate Interchange plugs/males
- Auto-Flo 24 operates with CEJN 320 and Rectus 25 Interchange plugs/males
- Easy, automatic, push-to-connect design provides instantaneous connection and disconnection of lines, plus automatic shut-off of socket/female end of line
- Sleeve guard protects against accidental disconnection
- Standard body material: Brass
- Standard seal material: Buna-N

## Physical characteristics

| Series      | Max. Operating Pressure |       | Min. Burst Pressure |       | Rated Flow |      |
|-------------|-------------------------|-------|---------------------|-------|------------|------|
|             | (bar)                   | (psi) | (bar)               | (psi) | (lpm)      | scfm |
| Auto-Flo 23 | 10                      | 150   | 40                  | 600   | 792        | 28   |
| Auto-Flo 24 | 10                      | 150   | 40                  | 600   | 1,274      | 45   |

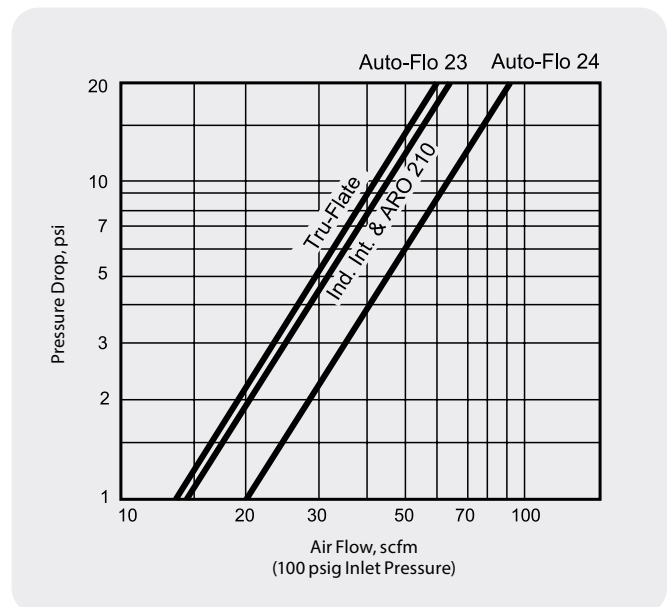
## Applications & Markets

- General Pneumatics
- Air Tools
- Construction

## Interchangeability

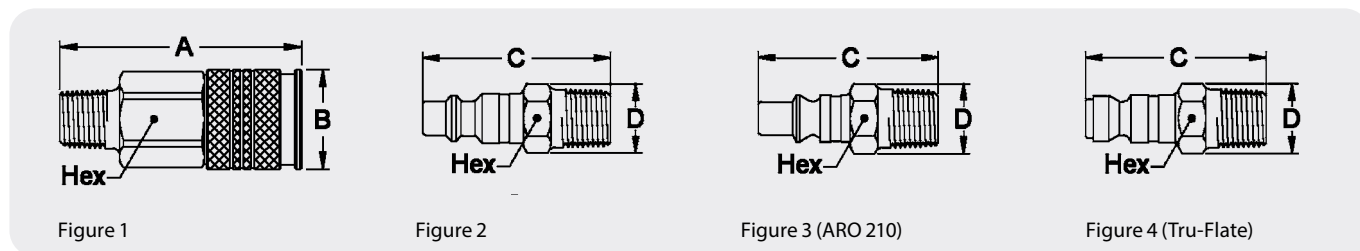
| Auto-Flo 23                                    | Auto-Flo 24        |
|--|--------------------|
| US Industrial Interchange<br>ISO 6150 Series B | (Euro Interchange) |
| A-A-59439<br>(former MIL-C-4109)               | CEJN 320           |
| Tru-Flate Interchange<br>ARO 210 Interchange   | RECTUS 25          |

## Flow Data



# Auto-Flo 23 Series

Global region



## Male End Connections

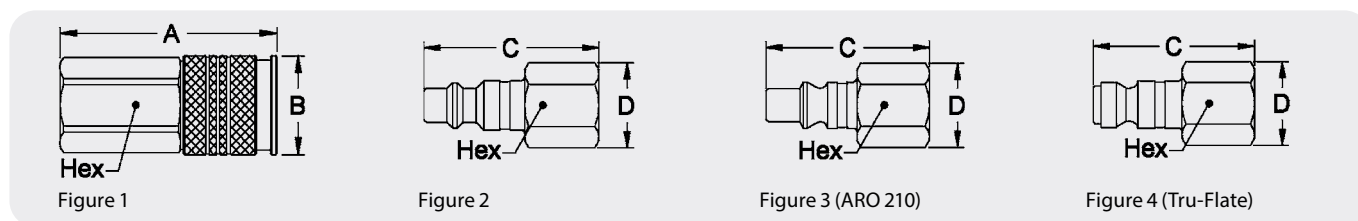
| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|--------|------|----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |        |      |          |      | A          |      | B     |      | Hex   |      |
|                   |               |           |           |        |      |          |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| B23AS25M          | Socket/Female | ¼         | ¼         | ¼-18   | NPTF | Brass    | 1    | 56.64      | 2.23 | 24.38 | 0.96 | 20.57 | 0.81 |
| B23AS25MBST       | Socket/Female | ¼         | ¼         | ¼-19   | BSPT | Brass    | 1    | 56.64      | 2.23 | 24.38 | 0.96 | 20.57 | 0.81 |
| B23AS37M          | Socket/Female | ¼         | ¾         | ¾-18   | NPTF | Brass    | 1    | 56.64      | 2.23 | 24.38 | 0.96 | 20.57 | 0.81 |
| B23AS37MBST       | Socket/Female | ¼         | ¾         | ¾-19   | BSPT | Brass    | 1    | 56.64      | 2.23 | 24.38 | 0.96 | 20.57 | 0.81 |
| B23AS50MBST       | Socket/Female | ¼         | ½         | ½-14   | BSPT | Brass    | 1    | 56.64      | 2.23 | 24.38 | 0.96 | 22.35 | 0.88 |

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Material  | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|--------|------|-----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |        |      |           |      | C          |      | D     |      | Hex   |      |
|                   |               |           |           |        |      |           |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 10                | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Steel     | 2    | 44.45      | 1.75 | 15.75 | 0.62 | 14.22 | 0.56 |
| 10C§              | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Steel     | 2    | 44.45      | 1.75 | 16.51 | 0.65 | 14.22 | 0.56 |
| 10G†              | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Steel     | 2    | 44.45      | 1.75 | 16.51 | 0.65 | 14.22 | 0.56 |
| 12E               | Plug/Male     | ¼         | ⅝         | ⅝-27   | NPTF | Steel     | 2    | 40.39      | 1.59 | 14.73 | 0.58 | 12.70 | 0.5  |
| 12G†              | Plug/Male     | ¼         | ⅝         | ⅝-27   | NPTF | Steel     | 2    | 60.45      | 2.38 | 19.56 | 0.77 | 17.53 | 0.69 |
| 14                | Plug/Male     | ¼         | ¾         | ¾-18   | NPTF | Steel     | 2    | 44.45      | 1.75 | 20.07 | 0.79 | 17.53 | 0.69 |
| 14G†              | Plug/Male     | ¼         | ¾         | ¾-18   | NPTF | Steel     | 2    | 64.26      | 2.53 | 19.56 | 0.77 | 17.53 | 0.69 |
| B10               | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Brass     | 2    | 44.45      | 1.75 | 15.75 | 0.62 | 14.22 | 0.56 |
| LL10              | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Stainless | 2    | 44.45      | 1.75 | 15.75 | 0.62 | 14.22 | 0.56 |
| 2607              | Plug/Male     | ¼         | ⅝         | ⅝-27   | NPTF | Steel     | 3    | 36.07      | 1.42 | 14.73 | 0.58 | 12.70 | 0.5  |
| 2608              | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Steel     | 3    | 42.67      | 1.68 | 16.51 | 0.65 | 14.22 | 0.56 |
| 2608B             | Plug/Male     | ¼         | ¼         | ¼-19   | BSPT | Steel     | 3    | 42.67      | 1.68 | 16.51 | 0.65 | 14.22 | 0.56 |
| 20AP37M           | Plug/Male     | ¼         | ¾         | ¾-18   | NPTF | Steel     | 3    | 42.67      | 1.68 | 20.07 | 0.79 | 17.53 | 0.69 |
| 21AP25M           | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Steel     | 4    | 41.91      | 1.65 | 16.51 | 0.65 | 14.22 | 0.56 |
| 10NK*             | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Steel     | 2    | 44.45      | 1.75 | 15.75 | 0.62 | 14.22 | 0.56 |

§With Ball Check †With Bleeder Ball Check—Reduces Hose Whip \*Nickel plated

# Auto-Flo 23 Series

Global region

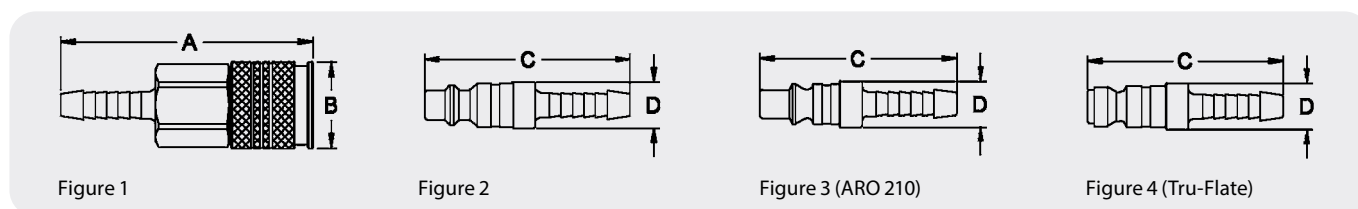


## Female End Connections

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions |        |        |          |          |      |
|-------------------|---------------|-----------|-----------|--------|------|----------|------|------------|--------|--------|----------|----------|------|
|                   |               |           |           |        |      |          |      | A (mm)     | A (in) | B (mm) | Hex (mm) | Hex (in) |      |
| B23AS25F          | Socket/Female | ¼         | ¼         | ¼-18   | NPTF | Brass    | 1    | 51.31      | 2.02   | 24.38  | 0.96     | 20.57    | 0.81 |
| B23AS25FBS        | Socket/Female | ¼         | ¼         | ¼-19   | BSPP | Brass    | 1    | 51.31      | 2.02   | 24.38  | 0.96     | 20.57    | 0.81 |
| B23AS37F          | Socket/Female | ¼         | ⅜         | ⅜-18   | NPTF | Brass    | 1    | 51.31      | 2.02   | 24.38  | 0.96     | 20.57    | 0.81 |
| B23AS37FBS        | Socket/Female | ¼         | ⅜         | ⅜-19   | BSPP | Brass    | 1    | 51.31      | 2.02   | 24.38  | 0.96     | 20.57    | 0.81 |

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Material  | Fig. | Dimensions |        |        |          |          |      |
|-------------------|---------------|-----------|-----------|--------|------|-----------|------|------------|--------|--------|----------|----------|------|
|                   |               |           |           |        |      |           |      | C (mm)     | C (in) | D (mm) | Hex (mm) | Hex (in) |      |
| 11                | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Steel     | 2    | 41.40      | 1.63   | 20.07  | 0.79     | 17.53    | 0.69 |
| 11G†              | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Steel     | 2    | 61.98      | 2.44   | 19.56  | 0.77     | 17.53    | 0.69 |
| 13                | Plug/Male     | ¼         | ⅜         | ⅜-27   | NPTF | Steel     | 2    | 37.34      | 1.47   | 16.51  | 0.65     | 14.22    | 0.56 |
| 15E               | Plug/Male     | ¼         | ⅜         | ⅜-18   | NPTF | Steel     | 2    | 42.93      | 1.69   | 23.88  | 0.94     | 20.57    | 0.81 |
| 11B               | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Brass     | 2    | 41.40      | 1.63   | 20.07  | 0.79     | 17.53    | 0.69 |
| LL11              | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Stainless | 2    | 41.40      | 1.63   | 20.07  | 0.79     | 17.53    | 0.69 |
| 2609              | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Steel     | 3    | 39.37      | 1.55   | 20.07  | 0.79     | 17.53    | 0.69 |
| 2609B             | Plug/Male     | ¼         | ¼         | ¼-19   | BSPP | Steel     | 3    | 38.61      | 1.52   | 20.07  | 0.79     | 17.53    | 0.69 |
| 20AP37F           | Plug/Male     | ¼         | ⅜         | ⅜-18   | NPTF | Steel     | 3    | 40.89      | 1.61   | 23.88  | 0.94     | 20.57    | 0.81 |
| 21AP25F           | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Steel     | 4    | 38.86      | 1.53   | 20.07  | 0.79     | 17.53    | 0.69 |
| 11NK*             | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Steel     | 2    | 41.40      | 1.63   | 20.07  | 0.79     | 17.53    | 0.69 |

†With Bleeder Ball Check—Reduces Hose Whip \*Nickel plated



## Hose Stem End Connections

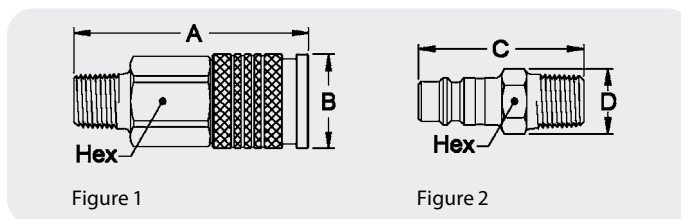
| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Material | Fig. | Dimensions |        |        |        |
|-------------------|---------------|-----------|-----------|----------|------|------------|--------|--------|--------|
|                   |               |           |           |          |      | A (mm)     | A (in) | B (mm) | B (in) |
| B23AS25H          | Socket/Female | ¼         | ¼         | Brass    | 1    | 70.10      | 2.76   | 24.38  | 0.96   |
| B23AS31H          | Socket/Female | ¼         | ⅜         | Brass    | 1    | 69.34      | 2.73   | 24.38  | 0.96   |
| B23AS37H          | Socket/Female | ¼         | ⅜         | Brass    | 1    | 69.34      | 2.73   | 24.38  | 0.96   |
| B23AS50H          | Socket/Female | ¼         | ½         | Brass    | 1    | 68.58      | 2.7    | 24.38  | 0.96   |

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Material | Fig. | Dimensions |        |        |        |
|-------------------|---------------|-----------|-----------|----------|------|------------|--------|--------|--------|
|                   |               |           |           |          |      | C (mm)     | C (in) | D (mm) | D (in) |
| 16                | Plug/Male     | ¼         | ¼         | Steel    | 2    | 56.39      | 2.22   | 12.70  | 0.5    |
| 16G†              | Plug/Male     | ¼         | ¼         | Steel    | 2    | 75.44      | 2.97   | 19.56  | 0.77   |
| 16P†              | Plug/Male     | ¼         | ¼         | Steel    | 2    | 50.80      | 2.00   | 14.73  | 0.58   |
| 17                | Plug/Male     | ¼         | ⅜         | Steel    | 2    | 56.39      | 2.22   | 12.70  | 0.5    |
| 17G†              | Plug/Male     | ¼         | ⅜         | Steel    | 2    | 75.18      | 2.96   | 19.56  | 0.77   |
| 17P†              | Plug/Male     | ¼         | ⅜         | Steel    | 2    | 52.32      | 2.06   | 12.70  | 0.5    |
| 18E               | Plug/Male     | ¼         | ⅜         | Steel    | 2    | 56.39      | 2.22   | 12.70  | 0.5    |
| B17               | Plug/Male     | ¼         | ⅜         | Brass    | 2    | 56.39      | 2.22   | 12.70  | 0.5    |
| 3946              | Plug/Male     | ¼         | ¼         | Steel    | 3    | 54.36      | 2.14   | 12.70  | 0.5    |
| 3947              | Plug/Male     | ¼         | ⅜         | Steel    | 3    | 54.36      | 2.14   | 12.70  | 0.5    |
| 22238E            | Plug/Male     | ¼         | ⅜         | Steel    | 3    | 54.36      | 2.14   | 12.70  | 0.5    |
| 21AP25H           | Plug/Male     | ¼         | ¼         | Steel    | 4    | 53.85      | 2.12   | 12.70  | 0.5    |
| 16NK*             | Plug/Male     | ¼         | ¼         | Steel    | 2    | 56.39      | 2.22   | 12.70  | 0.5    |
| 17NK*             | Plug/Male     | ¼         | ⅜         | Steel    | 2    | 56.39      | 2.22   | 12.70  | 0.5    |

†With Bleeder Ball Check—Reduces Hose Whip

# Auto-Flo 24 Series

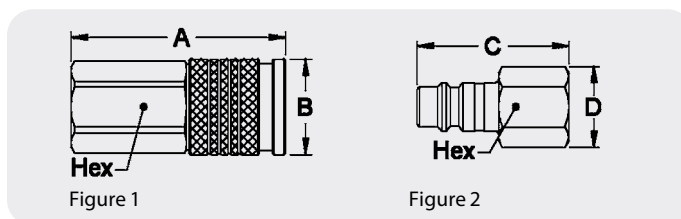
Global region



## Male End Connections

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|--------|------|----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |        |      |          |      | A          |      | B     |      | Hex   |      |
|                   |               |           |           |        |      |          |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| B24AS25M          | Socket/Female | ¼         | ¼         | ¼-18   | NPTF | Brass    | 1    | 57.66      | 2.27 | 24.38 | 0.96 | 20.57 | 0.81 |

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|--------|------|----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |        |      |          |      | C          |      | D     |      | Hex   |      |
|                   |               |           |           |        |      |          |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 24AP25MBST        | Plug/Male     | ¼         | ¼         | ¼-19   | BSPT | Steel    | 2    | 41.15      | 1.62 | 16.51 | 0.65 | 14.22 | 0.56 |
| 24AP50MBST        | Plug/Male     | ¼         | ½         | ½-14   | BSPT | Steel    | 2    | 47.75      | 1.88 | 25.65 | 1.01 | 22.35 | 0.88 |



## Female End Connections

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|--------|------|----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |        |      |          |      | A          |      | B     |      | Hex   |      |
|                   |               |           |           |        |      |          |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| B24AS25F          | Socket/Female | ¼         | ¼         | ¼-18   | NPTF | Brass    | 1    | 52.32      | 2.06 | 24.38 | 0.96 | 20.57 | 0.81 |
| B24AS25FBS        | Socket/Female | ¼         | ¼         | ¼-19   | BSPP | Brass    | 1    | 52.32      | 2.06 | 24.38 | 0.96 | 20.57 | 0.81 |
| B24AS37FBS        | Socket/Female | ¼         | ¾         | ¾-19   | BSPP | Brass    | 1    | 52.32      | 2.06 | 24.38 | 0.96 | 20.57 | 0.81 |
| B24AS50FBS        | Socket/Female | ¼         | ½         | ½-14   | BSPP | Brass    | 1    | 60.45      | 2.38 | 24.38 | 0.96 | 26.92 | 1.06 |

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions |      |       |      |       |      |
|-------------------|---------------|-----------|-----------|--------|------|----------|------|------------|------|-------|------|-------|------|
|                   |               |           |           |        |      |          |      | C          |      | D     |      | Hex   |      |
|                   |               |           |           |        |      |          |      | (mm)       | (in) | (mm)  | (in) | (mm)  | (in) |
| 24AP25FG          | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | Steel    | 2    | 37.85      | 1.49 | 20.07 | 0.79 | 17.53 | 0.69 |
| 24AP25FBS         | Plug/Male     | ¼         | ¼         | ¼-19   | BSPP | Steel    | 2    | 37.08      | 1.46 | 20.07 | 0.79 | 17.53 | 0.69 |

# 210/310 Series

Pneumatic application



Danfoss' 210/310 series pneumatic couplings have a pin-type one-way shut off operation.

AMER region

## Product Features

- Automatic push-to-connect
- Pin-lock design
- Alloy steel locking pins
- Standard body material: Zinc trivalent plated carbon steel
- Standard seal material: Buna-N

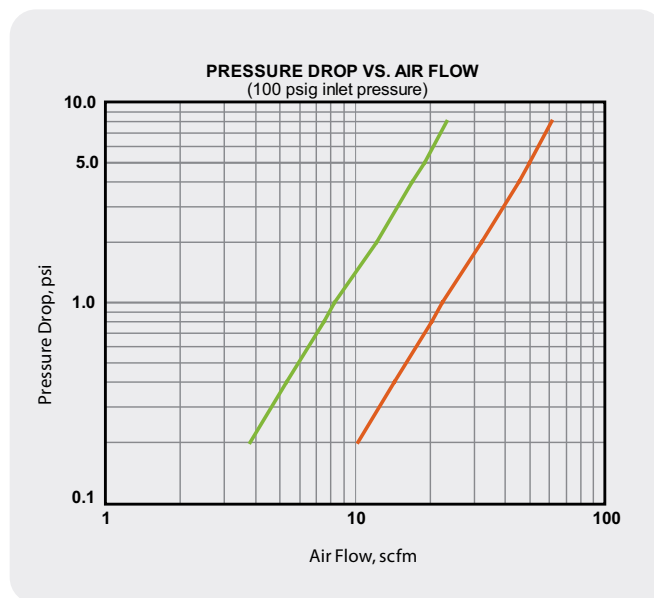
## Physical characteristics

| Series | Body Size | Max. Operating Pressure |       | Min. Burst Pressure |       | Rated Flow |      |
|--------|-----------|-------------------------|-------|---------------------|-------|------------|------|
|        | (in)      | (bar)                   | (psi) | (bar)               | (psi) | (lpm)      | scfm |
| 210    | ¼         | 17                      | 250   | 68                  | 1,000 | 538        | 19   |
| 310    | ¾         | 17                      | 250   | 68                  | 1,000 | 1,415      | 50   |

## Applications & Markets

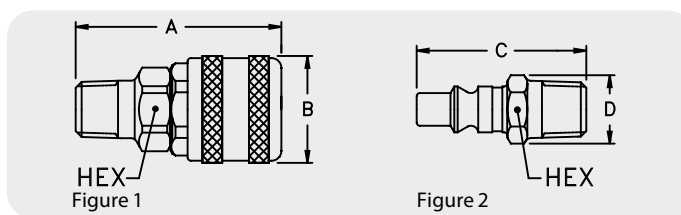
- Construction
- Maintenance and Repair
- In-plant/Industrial
- Pneumatic Tools

## Flow Data



# 210 Series

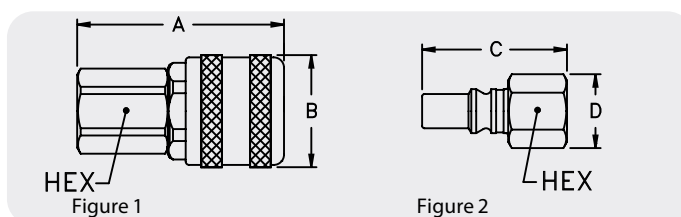
AMER region



## Male End Connections

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|--------|------|------|------------|------|------|------|------|------|
|                   |               |           |           |        |      |      | A          |      | B    |      | Hex  |      |
|                   |               |           |           |        |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 210212            | Socket/Female | ¼         | ¼         | ¼-18   | NPTF | 1    | 49.5       | 1.95 | 25.9 | 1.02 | 17.5 | 0.69 |
| 210213            | Socket/Female | ¼         | ⅜         | ⅜-18   | NPTF | 1    | 48.5       | 1.91 | 25.9 | 1.02 | 17.5 | 0.69 |

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|--------|------|------|------------|------|------|------|------|------|
|                   |               |           |           |        |      |      | C          |      | D    |      | Hex  |      |
|                   |               |           |           |        |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 2607              | Plug/Male     | ¼         | ⅛         | ⅛-27   | NPTF | 2    | 36.1       | 1.42 | 14.7 | 0.58 | 12.7 | 0.5  |
| 2608              | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | 2    | 42.7       | 1.68 | 16.5 | 0.65 | 14.2 | 0.56 |
| 2608B             | Plug/Male     | ¼         | ¼         | ¼-19   | BSPT | 2    | 42.7       | 1.68 | 16.5 | 0.65 | 14.2 | 0.56 |
| 20AP37M           | Plug/Male     | ¼         | ⅜         | ⅜-18   | NPTF | 2    | 42.7       | 1.68 | 20.1 | 0.79 | 17.5 | 0.69 |

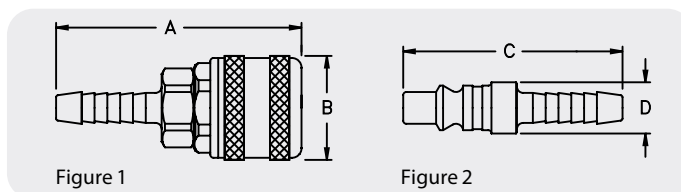


## Female End Connections

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|--------|------|------|------------|------|------|------|------|------|
|                   |               |           |           |        |      |      | A          |      | B    |      | Hex  |      |
|                   |               |           |           |        |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 210               | Socket/Female | ¼         | ¼         | ¼-18   | NPTF | 1    | 47.5       | 1.87 | 25.9 | 1.02 | 17.5 | 0.69 |
| 62210*            | Socket/Female | ¼         | ¼         | ¼-18   | NPTF | 1    | 47.5       | 1.87 | 25.9 | 1.02 | 17.5 | 0.69 |
| 210B              | Socket/Female | ¼         | ¼         | ¼-19   | BSPP | 1    | 41.7       | 1.64 | 25.9 | 1.02 | 19.1 | 0.75 |

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|--------|------|------|------------|------|------|------|------|------|
|                   |               |           |           |        |      |      | C          |      | D    |      | Hex  |      |
|                   |               |           |           |        |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 2609              | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | 2    | 39.4       | 1.55 | 20.1 | 0.79 | 17.5 | 0.69 |
| 2609B             | Plug/Male     | ¼         | ¼         | ¼-19   | BSPP | 2    | 38.6       | 1.52 | 20.1 | 0.79 | 17.5 | 0.69 |
| 20AP37F           | Plug/Male     | ¼         | ⅜         | ⅜-18   | NPTF | 2    | 40.9       | 1.61 | 23.9 | 0.94 | 20.6 | 0.81 |

\*Same as Model 210 but with brass valve.



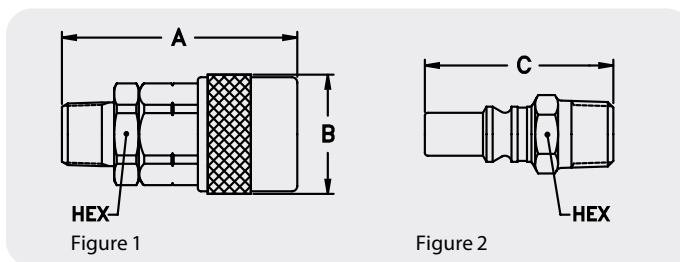
## Hose Stem End Connections

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Fig. | Dimensions |      |      |      |
|-------------------|---------------|-----------|-----------|------|------------|------|------|------|
|                   |               |           |           |      | A          |      | B    |      |
|                   |               |           |           |      | (mm)       | (in) | (mm) | (in) |
| 210022            | Socket/Female | ¼         | ¼         | 1    | 60.7       | 2.39 | 25.9 | 1.02 |
| 210215            | Socket/Female | ¼         | ⅜         | 1    | 60.7       | 2.39 | 25.9 | 1.02 |

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Fig. | Dimensions |      |      |      |
|-------------------|---------------|-----------|-----------|------|------------|------|------|------|
|                   |               |           |           |      | C          |      | D    |      |
|                   |               |           |           |      | (mm)       | (in) | (mm) | (in) |
| 3946              | Plug/Male     | ¼         | ¼         | 2    | 54.4       | 2.14 | 11.9 | 0.47 |
| 3947              | Plug/Male     | ¼         | ⅝         | 2    | 54.4       | 2.14 | 11.9 | 0.47 |
| 22238E            | Plug/Male     | ¼         | ⅜         | 2    | 54.4       | 2.14 | 12.7 | 0.5  |

# 310 Series

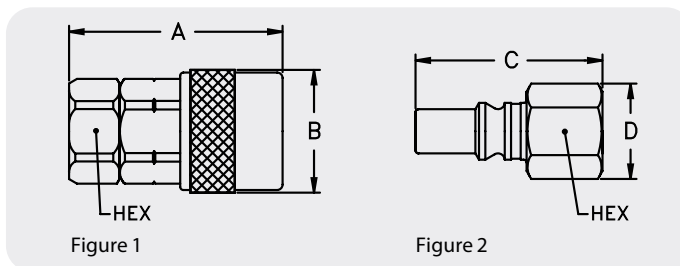
AMER region



## Male End Connections

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|--------|------|------|------------|------|------|------|------|------|
|                   |               |           |           |        |      |      | A          |      | B    |      | Hex  |      |
|                   |               |           |           |        |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 310313            | Socket/Female | 3/8       | 3/8       | 3/8-18 | NPTF | 1    | 60.2       | 2.37 | 30.7 | 1.21 | 23.9 | 0.94 |

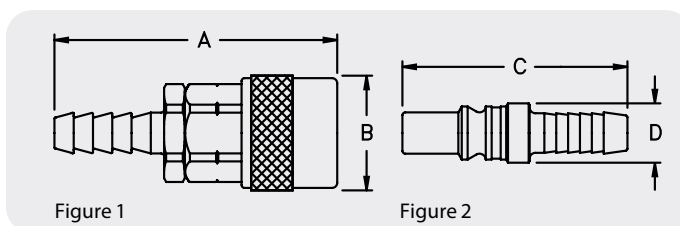
| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|--------|------|------|------------|------|------|------|------|------|
|                   |               |           |           |        |      |      | C          |      | D    |      | Hex  |      |
|                   |               |           |           |        |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 22239E            | Plug/Male     | 3/8       | 1/4       | 1/4-18 | NPTF | 2    | 48.5       | 1.91 | 18.3 | 0.72 | 16.0 | 0.63 |
| 3804              | Plug/Male     | 3/8       | 3/8       | 3/8-18 | NPTF | 2    | 48.5       | 1.91 | 20.1 | 0.79 | 17.5 | 0.69 |



## Female End Connections

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|--------|------|------|------------|------|------|------|------|------|
|                   |               |           |           |        |      |      | A          |      | B    |      | Hex  |      |
|                   |               |           |           |        |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 310               | Socket/Female | 3/8       | 3/8       | 3/8-18 | NPTF | 1    | 53.3       | 2.1  | 30.7 | 1.21 | 23.9 | 0.94 |

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|--------|------|------|------------|------|------|------|------|------|
|                   |               |           |           |        |      |      | C          |      | D    |      | Hex  |      |
|                   |               |           |           |        |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 3806              | Plug/Male     | 3/8       | 3/8       | 3/8-18 | NPTF | 2    | 46.7       | 1.84 | 23.9 | 0.94 | 20.6 | 0.81 |



## Hose Stem End Connections

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Fig. | Dimensions |      |      |      |
|-------------------|---------------|-----------|-----------|------|------------|------|------|------|
|                   |               |           |           |      | A          |      | B    |      |
|                   |               |           |           |      | (mm)       | (in) | (mm) | (in) |
| 310222            | Socket/Female | 3/8       | 3/8       | 1    | 75.4       | 2.97 | 30.7 | 1.21 |

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Fig. | Dimensions |      |      |      |
|-------------------|---------------|-----------|-----------|------|------------|------|------|------|
|                   |               |           |           |      | C          |      | D    |      |
|                   |               |           |           |      | (mm)       | (in) | (mm) | (in) |
| 3807              | Plug/Male     | 3/8       | 3/8       | 2    | 60.2       | 2.37 | 15.0 | 0.59 |

# 100 Series

Pneumatic application



Danfoss' 100 Series quick disconnect couplings are designed to prevent the crossing of lines. These couplings are used for compressed air and gases.

## Product Features

- Non-interchangeable design prevents crossing of lines
- Standard seal material: Buna-N
- Standard body material: Brass

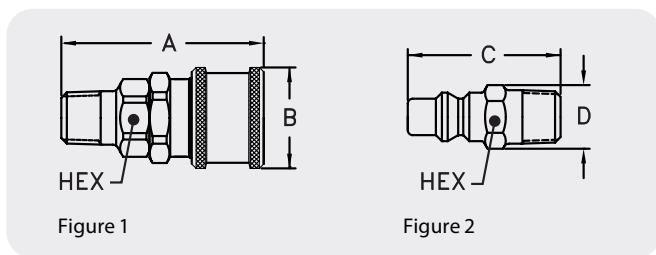
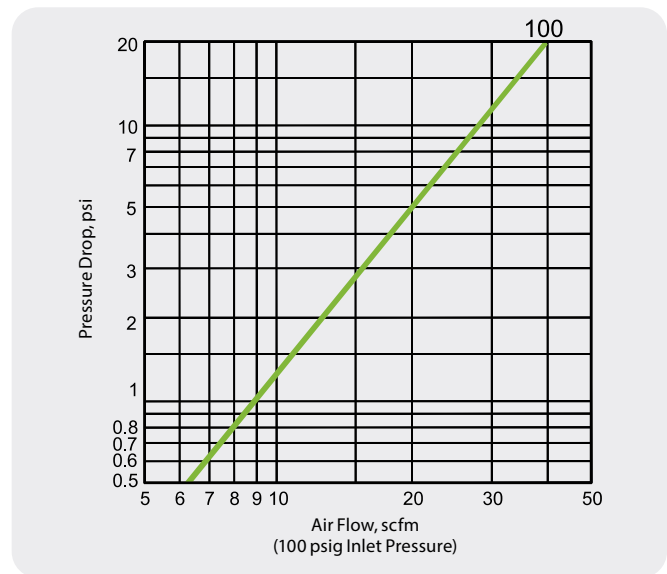
## Physical characteristics

| Series | Body Size | Max. Operating Pressure |       | Min. Burst Pressure |       | Rated Flow |      |
|--------|-----------|-------------------------|-------|---------------------|-------|------------|------|
|        | (in)      | (bar)                   | (psi) | (bar)               | (psi) | (lpm)      | scfm |
| 100    | ¼         | 24                      | 350   | 96                  | 2,800 | 566        | 20   |

## Applications & Markets

- General Pneumatics
- Industrial Plants

## Flow Data



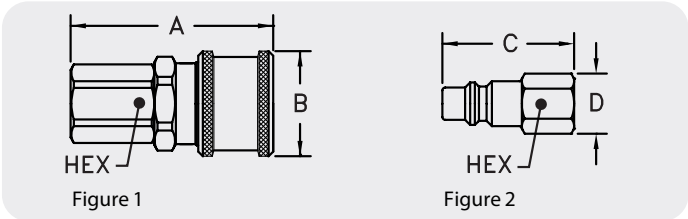
## Male End Connections

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|--------|------|------|------------|------|------|------|------|------|
|                   |               |           |           |        |      |      | A          |      | B    |      | Hex  |      |
|                   |               |           |           |        |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 101               | Socket/Female | ¼         | ⅜         | ⅜-27   | NPTF | 1    | 47.2       | 1.86 | 26.2 | 1.03 | 17.5 | 0.69 |
| 103               | Socket/Female | ¼         | ¼         | ¼-18   | NPTF | 1    | 52.1       | 2.05 | 26.2 | 1.03 | 17.5 | 0.69 |
| 105               | Socket/Female | ¼         | ⅜         | ⅜-18   | NPTF | 1    | 51.1       | 2.01 | 26.2 | 1.03 | 17.5 | 0.69 |

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|--------|------|------|------------|------|------|------|------|------|
|                   |               |           |           |        |      |      | C          |      | D    |      | Hex  |      |
|                   |               |           |           |        |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 1G1               | Plug/Male     | ¼         | ⅜         | ⅜-27   | NPTF | 2    | 35.1       | 1.38 | 16.5 | 0.65 | 14.2 | 0.56 |
| 1G3E              | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | 2    | 39.6       | 1.56 | 16.5 | 0.65 | 14.2 | 0.56 |
| 1G5E              | Plug/Male     | ¼         | ⅜         | ⅜-18   | NPTF | 2    | 39.6       | 1.56 | 20.1 | 0.79 | 17.5 | 0.69 |

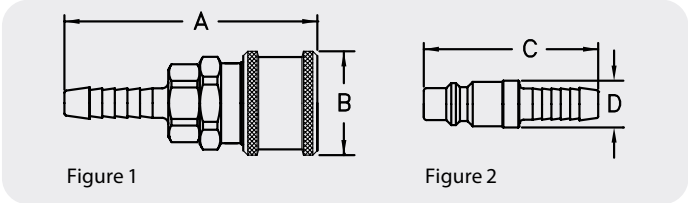
# 100 Series



## Female End Connections

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|--------|------|------|------------|------|------|------|------|------|
|                   |               |           |           |        |      |      | A          |      | B    |      | Hex  |      |
|                   |               |           |           |        |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 100E              | Socket/Female | ¼         | ⅜         | ⅝-27   | NPTF | 1    | 44.5       | 1.75 | 26.2 | 1.03 | 17.5 | 0.69 |
| 102E              | Socket/Female | ¼         | ¼         | ¼-18   | NPTF | 1    | 50.0       | 1.97 | 26.2 | 1.03 | 17.5 | 0.69 |
| 104               | Socket/Female | ¼         | ⅜         | ⅜-18   | NPTF | 1    | 52.1       | 2.05 | 26.2 | 1.03 | 19.1 | 0.75 |

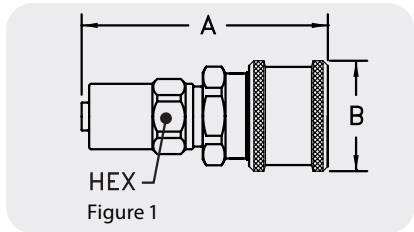
| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|--------|------|------|------------|------|------|------|------|------|
|                   |               |           |           |        |      |      | C          |      | D    |      | Hex  |      |
|                   |               |           |           |        |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 1G2               | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | 2    | 36.3       | 1.43 | 20.1 | 0.79 | 17.5 | 0.69 |



## Hose Stem End Connections

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Fig. | Dimensions |      |      |      |
|-------------------|---------------|-----------|-----------|------|------------|------|------|------|
|                   |               |           |           |      | A          |      | B    |      |
|                   |               |           |           |      | (mm)       | (in) | (mm) | (in) |
| 110E              | Socket/Female | ¼         | ¼         | 1    | 63.2       | 2.49 | 26.2 | 1.03 |
| 111E              | Socket/Female | ¼         | ⅝         | 1    | 63.2       | 2.49 | 26.2 | 1.03 |
| 112E              | Socket/Female | ¼         | ⅜         | 1    | 63.2       | 2.49 | 26.2 | 1.03 |

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Fig. | Dimensions |      |      |      |
|-------------------|---------------|-----------|-----------|------|------------|------|------|------|
|                   |               |           |           |      | C          |      | D    |      |
|                   |               |           |           |      | (mm)       | (in) | (mm) | (in) |
| 1G10E             | Plug/Male     | ¼         | ¼         | 2    | 50.8       | 2.00 | 14.2 | 0.56 |
| 1G12E             | Plug/Male     | ¼         | ⅜         | 2    | 51.6       | 2.03 | 14.2 | 0.56 |



## Hose Clamp End Connections

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Hose O.D. | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|-----------|------|------------|------|------|------|------|------|
|                   |               |           |           |           |      | A          |      | B    |      | Hex  |      |
|                   |               |           |           |           |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 1GB3              | Socket/Female | ¼         | ¼         | ½         | 1    | 65.5       | 2.58 | 26.2 | 1.03 | 16.0 | 0.63 |
| 1GB7              | Socket/Female | ¼         | ¼         | ⅝         | 1    | 65.5       | 2.58 | 26.2 | 1.03 | 19.1 | 0.75 |
| 1GD9              | Socket/Female | ¼         | ⅜         | ⅞         | 1    | 68.6       | 2.70 | 26.2 | 1.03 | 20.6 | 0.81 |

## Dust Caps and Dust Plugs

| Series | Dust Cap | Dust Plug |
|--------|----------|-----------|
| 600    | XPPDC1HK | XPSDC1HK  |
| 700    | XPPDC1HK | XPSDC1HK  |



# 180/280 Series

Pneumatic application



Danfoss' 180/280 series miniature ball lock quick disconnect couplings are designed for use with compressed air, gases and liquids.

AMER region

## Product Features

- Series 180 and 280 sockets/females mate with all Series 180 plugs/males
- Series 180 sockets/females have a tire valve
- Series 280 sockets/females have a 1HK valve, which provides higher flow capacity
- Chrome plating available as well as additional seal options
- Standard body material: Brass
- Standard seal material: Buna-N
- Interchange is proprietary to Danfoss

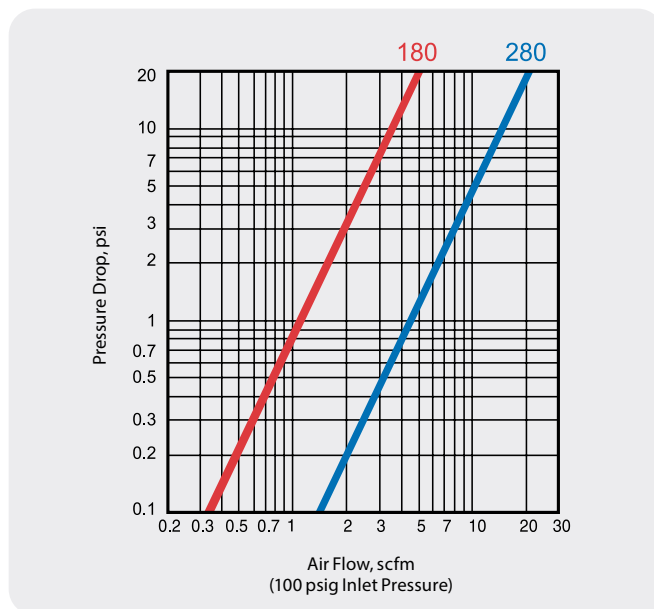
## Physical characteristics

| Series | Body Size | Max. Operating Pressure |       | Min. Burst Pressure |       | Rated Flow |      |
|--------|-----------|-------------------------|-------|---------------------|-------|------------|------|
|        | (in)      | (bar)                   | (psi) | (bar)               | (psi) | (lpm)      | scfm |
| 180    | 1/8       | 48                      | 700   | 192                 | 2,800 | 71         | 2.5  |
| 280    | 1/8       | 207                     | 3,000 | 828                 | 1,200 | 283        | 10   |

## Applications & Markets

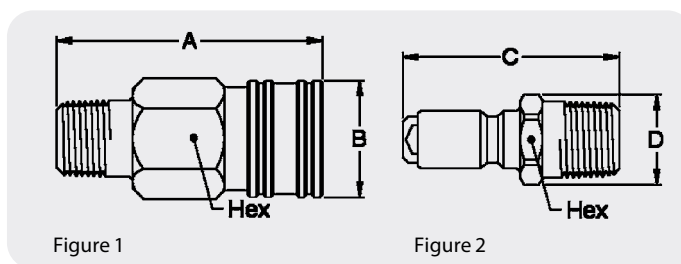
- Recreation and Entertainment
- Breathing Air
- General Pneumatics
- Pharmaceutical
- Laboratory Uses
- Medical

## Flow Data



# 180/280 Series

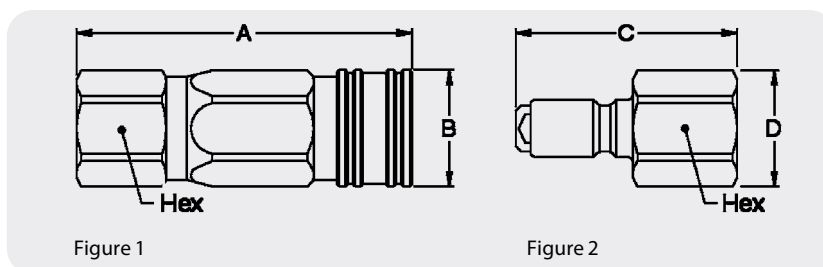
AMER region



## Male End Connections

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|--------|------|------|------------|------|------|------|------|------|
|                   |               |           |           |        |      |      | A          |      | B    |      | Hex  |      |
|                   |               |           |           |        |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 180               | Socket/Female | 1/8       | 1/8       | 1/8-27 | NPTF | 1    | 36.1       | 1.42 | 16.0 | 0.63 | 14.2 | 0.56 |
| 28S25M            | Socket/Female | 1/8       | 1/4       | 1/4-18 | NPTF | 1    | 35.3       | 1.39 | 16.0 | 0.63 | 14.2 | 0.56 |

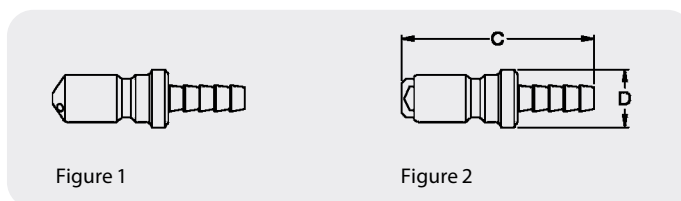
| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|--------|------|------|------------|------|------|------|------|------|
|                   |               |           |           |        |      |      | C          |      | D    |      | Hex  |      |
|                   |               |           |           |        |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 185E              | Plug/Male     | 1/8       | 1/8       | 1/8-27 | NPTF | 2    | 29.5       | 1.16 | 13.0 | 0.51 | 11.2 | 0.44 |
| 186               | Plug/Male     | 1/8       | 1/4       | 1/4-18 | NPTF | 2    | 36.6       | 1.44 | 16.0 | 0.63 | 14.2 | 0.56 |



## Female End Connections

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|--------|------|------|------------|------|------|------|------|------|
|                   |               |           |           |        |      |      | A          |      | B    |      | Hex  |      |
|                   |               |           |           |        |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 28S12F            | Socket/Female | 1/8       | 1/8       | 1/8-27 | NPTF | 1    | 45.5       | 1.79 | 16.0 | 0.63 | 14.2 | 0.56 |

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|--------|------|------|------------|------|------|------|------|------|
|                   |               |           |           |        |      |      | C          |      | D    |      | Hex  |      |
|                   |               |           |           |        |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 183               | Plug/Male     | 1/8       | 1/8       | 1/8-27 | NPTF | 2    | 30.2       | 1.19 | 14.7 | 0.58 | 12.7 | 0.50 |



## Hose Stem End Connections

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Fig. | Dimensions |      |      |      |
|-------------------|---------------|-----------|-----------|------|------------|------|------|------|
|                   |               |           |           |      | A          |      | B    |      |
|                   |               |           |           |      | (mm)       | (in) | (mm) | (in) |
| 187               | Plug/Male     | 1/8       | 1/8       | 1    | 31.8       | 1.25 | 9.7  | 0.38 |
| 189               | Plug/Male     | 1/8       | 3/16      | 2    | 38.1       | 1.50 | 9.7  | 0.38 |

# Full-Bore Series

Pneumatic application



Danfoss' Full-Bore Series is a premium automatic one-way shutoff quick disconnect coupling. Two sleeves must be actuated in sequence to bleed off back pressure and release the connector, preventing accidental uncoupling.

## Product Features

- Pressure relieving feature fully vents downstream air, making connection/disconnection fast and easy, and eliminating hose whip
- Unique straight through design eliminates restrictive springs and poppet valves, allowing unimpeded air flow
- Two sleeve activation prevents accidental disconnect
- Standard body material: Zinc trivalent plated carbon steel
- Standard seal material: Buna-N

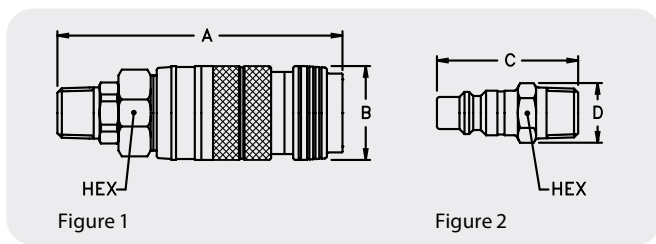
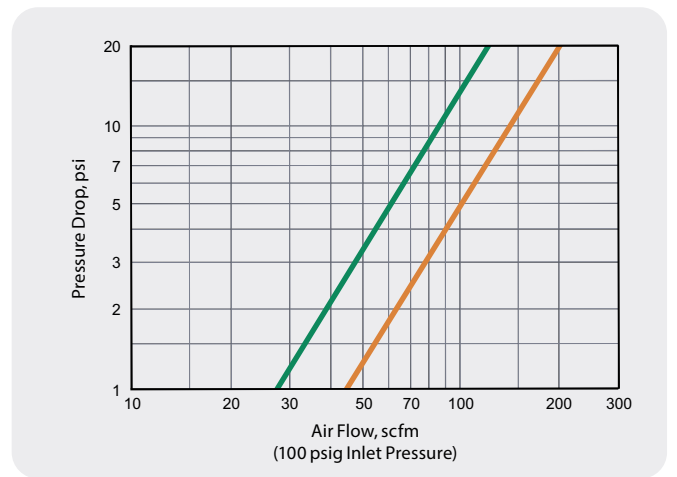
## Physical characteristics

| Series | Max. Operating Pressure |       | Min. Burst Pressure |       | Rated Flow |      |
|--------|-------------------------|-------|---------------------|-------|------------|------|
|        | (bar)                   | (psi) | (bar)               | (psi) | (lpm)      | scfm |
| 3/8    | 15                      | 250   | 60                  | 1,000 | 1,784      | 63   |
| 1/2    | 15                      | 250   | 60                  | 1,000 | 2,860      | 101  |

## Applications & Markets

- Construction
- Maintenance and Repair
- In-Plant/Industrial
- Railyards
- General Pneumatics

## Flow Data



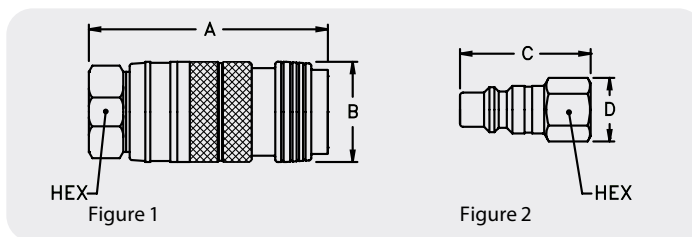
## Male End Connections

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|--------|------|------|------------|------|------|------|------|------|
|                   |               |           |           |        |      |      | A          |      | B    |      | Hex  |      |
|                   |               |           |           |        |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 23203013          | Socket/Female | 3/8       | 3/8       | 3/8-18 | NPTF | 1    | 96.5       | 3.80 | 31.8 | 1.25 | 25.4 | 1.00 |
| 23203014          | Socket/Female | 3/8       | 1/2       | 1/2-14 | NPTF | 1    | 71.1       | 4.10 | 31.8 | 1.25 | 25.4 | 1.00 |
| 23204014          | Socket/Female | 1/2       | 1/2       | 1/2-14 | NPTF | 1    | 112.5      | 4.43 | 35.1 | 1.38 | 28.7 | 1.13 |
| 23204015          | Socket/Female | 1/2       | 3/4       | 3/4-14 | NPTF | 1    | 118.6      | 4.67 | 35.1 | 1.38 | 28.7 | 1.13 |

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|--------|------|------|------------|------|------|------|------|------|
|                   |               |           |           |        |      |      | C          |      | D    |      | Hex  |      |
|                   |               |           |           |        |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 40                | Plug/Male     | 3/8       | 1/4       | 1/4-18 | NPTF | 2    | 47.8       | 1.88 | 18.3 | 0.72 | 16.0 | 0.63 |
| 42                | Plug/Male     | 3/8       | 3/8       | 3/8-18 | NPTF | 2    | 47.8       | 1.88 | 20.1 | 0.79 | 17.5 | 0.69 |
| 44                | Plug/Male     | 3/8       | 1/2       | 1/2-14 | NPTF | 2    | 53.1       | 2.09 | 25.7 | 1.01 | 22.4 | 0.88 |
| 52                | Plug/Male     | 1/2       | 3/8       | 3/8-18 | NPTF | 2    | 57.2       | 2.25 | 22.1 | 0.87 | 19.1 | 0.75 |
| 54E               | Plug/Male     | 1/2       | 1/2       | 1/2-14 | NPTF | 2    | 62.0       | 2.44 | 25.7 | 1.01 | 22.4 | 0.88 |
| 56                | Plug/Male     | 1/2       | 3/4       | 3/4-14 | NPTF | 2    | 63.5       | 2.50 | 31.2 | 1.23 | 26.9 | 1.06 |

# Full-Bore Series

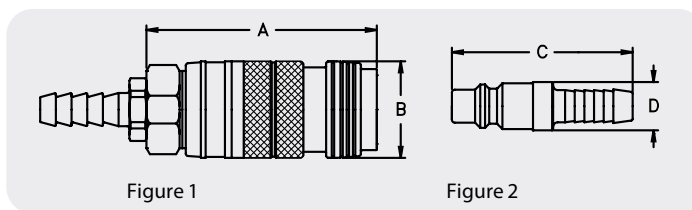
AMER region



## Female End Connections

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|--------|------|------|------------|------|------|------|------|------|
|                   |               |           |           |        |      |      | A          |      | B    |      | Hex  |      |
|                   |               |           |           |        |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 23203300          | Socket/Female | 3/8       | 3/8       | 3/8-18 | NPTF | 1    | 80.5       | 3.17 | 31.8 | 1.25 | 25.4 | 1.00 |
| 23203004          | Socket/Female | 3/8       | 1/2       | 1/2-14 | NPTF | 1    | 99.6       | 3.92 | 31.8 | 1.25 | 25.4 | 1.00 |
| 23204400          | Socket/Female | 1/2       | 1/2       | 1/2-14 | NPTF | 1    | 84.1       | 3.31 | 35.1 | 1.38 | 28.7 | 1.13 |
| 23204005          | Socket/Female | 1/2       | 3/4       | 3/4-14 | NPTF | 1    | 109.2      | 4.30 | 35.1 | 1.38 | 28.7 | 1.13 |

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|--------|------|------|------------|------|------|------|------|------|
|                   |               |           |           |        |      |      | C          |      | D    |      | Hex  |      |
|                   |               |           |           |        |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 41                | Plug/Male     | 3/8       | 1/4       | 1/4-18 | NPTF | 2    | 41.4       | 1.63 | 20.1 | 0.79 | 17.5 | 0.69 |
| 43                | Plug/Male     | 3/8       | 3/8       | 3/8-18 | NPTF | 2    | 46.0       | 1.81 | 23.9 | 0.94 | 20.6 | 0.81 |
| 45E               | Plug/Male     | 3/8       | 1/2       | 1/2-14 | NPTF | 2    | 52.3       | 2.06 | 29.2 | 1.15 | 25.4 | 1.00 |
| 53                | Plug/Male     | 1/2       | 3/8       | 3/8-18 | NPTF | 2    | 52.3       | 2.06 | 23.9 | 0.94 | 20.6 | 0.81 |
| 55                | Plug/Male     | 1/2       | 1/2       | 1/2-14 | NPTF | 2    | 59.4       | 2.34 | 29.2 | 1.15 | 25.4 | 1.00 |
| 57                | Plug/Male     | 1/2       | 3/4       | 3/4-14 | NPTF | 2    | 62.0       | 2.44 | 34.8 | 1.37 | 30.2 | 1.19 |



## Hose Stem End Connections

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Fig. | Dimensions |      |      |      |
|-------------------|---------------|-----------|-----------|------|------------|------|------|------|
|                   |               |           |           |      | A          |      | B    |      |
|                   |               |           |           |      | (mm)       | (in) | (mm) | (in) |
| 23203024          | Socket/Female | 3/8       | 1/4       | 1    | 110.7      | 4.36 | 31.8 | 1.25 |
| 23203025          | Socket/Female | 3/8       | 3/8       | 1    | 113.8      | 4.48 | 31.8 | 1.25 |
| 23204025          | Socket/Female | 1/2       | 1/2       | 1    | 121.9      | 4.80 | 35.1 | 1.38 |
| 23204026          | Socket/Female | 1/2       | 3/4       | 1    | 121.9      | 4.80 | 35.1 | 1.38 |

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Fig. | Dimensions |      |      |      |
|-------------------|---------------|-----------|-----------|------|------------|------|------|------|
|                   |               |           |           |      | C          |      | D    |      |
|                   |               |           |           |      | (mm)       | (in) | (mm) | (in) |
| 404               | Plug/Male     | 3/8       | 1/4       | 2    | 59.4       | 2.34 | 16.0 | 0.63 |
| 406               | Plug/Male     | 3/8       | 3/8       | 2    | 59.4       | 2.34 | 16.0 | 0.63 |
| 408               | Plug/Male     | 3/8       | 1/2       | 2    | 59.4       | 2.34 | 20.6 | 0.81 |
| 59                | Plug/Male     | 1/2       | 3/8       | 2    | 67.6       | 2.66 | 17.5 | 0.69 |
| 60                | Plug/Male     | 1/2       | 1/2       | 2    | 67.6       | 2.66 | 19.1 | 0.75 |
| 61E               | Plug/Male     | 1/2       | 3/4       | 2    | 88.9       | 3.50 | 25.4 | 1.00 |

# Gas-Mate Series

Pneumatic application



Danfoss' Gas-Mate™ Series quick disconnect couplings are a one-way shut-off safety couplings designed for the connection of gas fired devices or applications.

## Product Features

- Connect and disconnect without the need for wrenches
- Automatic shut off when plug is removed from socket
- In case of fire, heat sensitive plug allows socket valve to close, stopping gas flow
- Tested to meet operating temperatures -40°F to 200°F (-40°C to 93°C) in sizes 3/8", 1/2", 3/4", and 1" when used in accordance with the CSA standard ANSI Z21.41b-2010/CSA 6.9b-2010 in both indoor and outdoor applications. Please note that the 1 1/4" size coupling is rated for indoor use only.
- Standard body material: Brass

## Physical characteristics

| Sizes     | Max. Operating Pressure |       | Min. Burst Pressure |       |
|-----------|-------------------------|-------|---------------------|-------|
|           | (bar)                   | (psi) | (bar)               | (psi) |
| All sizes | 0.03                    | 0.5   | 68                  | 1,000 |

## Applications & Markets

- Industrial
- Fuel Gas Systems
- Food & Beverage

## Capacities

| Body Size | Socket/Female P/O/N | Plug/Male P/O/N | Capacity |
|-----------|---------------------|-----------------|----------|
| (in)      |                     |                 | btu/hr   |
| 3/8       | 100006E             | 100506          | 60,000   |
| 1/2       | 100008              | 100508          | 90,000   |
| 3/4       | 100010              | 100510          | 245,000  |
| 1         | 100012E             | 100512          | 310,000  |
| 1 1/4     | GMS1250FH           | GMP1250F        | 500,000  |

\* Capacity is based on natural gas having a specific gravity of 0.64 and heat capacity of 1,000 BTU per cubic foot. Inlet pressure is 12 inches water column and the pressure drop is 0.3 inch water column.

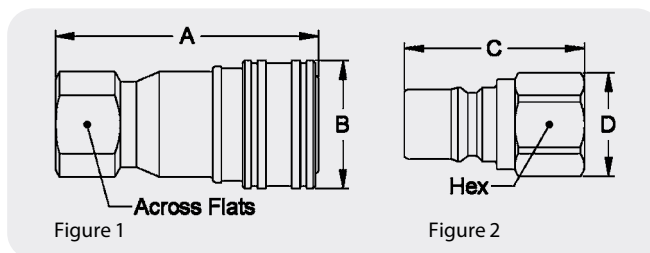


Complies with the requirements of ANSI Z21.41B-2010/CSA 6.96-2010.

\* CSA design certified, in both the United States and Canada, for natural gas, manufactured gas, liquified petroleum and LP gas-air mixtures at pressures not in excess of 1/2 psig (3.5 kPa).

# Gas-Mate Series

AMER region

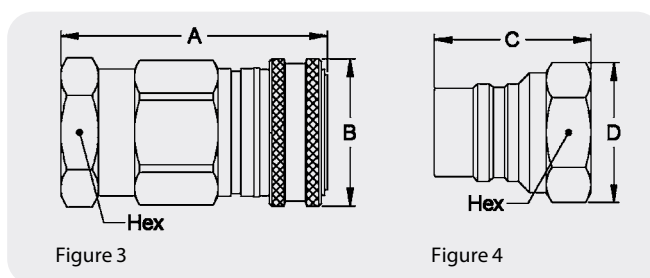


## Sockets/Females

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread   | Type | Fig. | Dimensions |      |      |      |              |      |
|-------------------|---------------|-----------|-----------|----------|------|------|------------|------|------|------|--------------|------|
|                   |               |           |           |          |      |      | A          |      | B    |      | Across Flats |      |
|                   |               |           |           |          |      |      | (mm)       | (in) | (mm) | (in) | (mm)         | (in) |
| 100006E           | Socket/Female | 3/8       | 3/8       | 3/8-18   | NPTF | 1    | 62.0       | 2.44 | 28.7 | 1.13 | 22.1         | 0.87 |
| 100008            | Socket/Female | 1/2       | 1/2       | 1/2-14   | NPTF | 1    | 72.1       | 2.84 | 35.1 | 1.38 | 25.4         | 1.00 |
| 100010            | Socket/Female | 3/4       | 3/4       | 3/4-14   | NPTF | 1    | 80.5       | 3.17 | 44.5 | 1.75 | 33.3         | 1.31 |
| 100012E           | Socket/Female | 1         | 1         | 1-11 1/2 | NPTF | 1    | 100.1      | 3.94 | 54.1 | 2.13 | 38.1         | 1.50 |

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread       | Type | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|--------------|------|------|------------|------|------|------|------|------|
|                   |               |           |           |              |      |      | A          |      | B    |      | Hex  |      |
|                   |               |           |           |              |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| GMS1250FH*        | Socket/Female | 1 1/4     | 1 1/4     | 1 1/4-11 1/2 | NPTF | 3    | 105.4      | 4.15 | 57.9 | 2.28 | 50.8 | 2.00 |

\*For indoor use only



## Plugs/Males

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread   | Type | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|----------|------|------|------------|------|------|------|------|------|
|                   |               |           |           |          |      |      | C          |      | D    |      | Hex  |      |
|                   |               |           |           |          |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 100506            | Plug/Male     | 3/8       | 3/8       | 3/8-18   | NPTF | 2    | 40.4       | 1.59 | 23.9 | 0.94 | 20.6 | 0.81 |
| 100508            | Plug/Male     | 1/2       | 1/2       | 1/2-14   | NPTF | 2    | 49.3       | 1.94 | 29.2 | 1.15 | 25.4 | 1.00 |
| 100510            | Plug/Male     | 3/4       | 3/4       | 3/4-14   | NPTF | 2    | 52.3       | 2.06 | 38.4 | 1.51 | 33.3 | 1.31 |
| 100512            | Plug/Male     | 1         | 1         | 1-11 1/2 | NPTF | 2    | 62.7       | 2.47 | 43.9 | 1.73 | 38.1 | 1.50 |
| GMP1250F*         | Plug/Male     | 1 1/4     | 1 1/4     | 1 1/4-11 | NPTF | 4    | 62.0       | 2.44 | 55.1 | 2.17 | 47.8 | 1.88 |

\*For indoor use only

## Dust Caps and Dust Plugs

| Series | Dust Cap  |          | Dust Plug |          |
|--------|-----------|----------|-----------|----------|
|        | Metal     | Vinyl    | Metal     | Vinyl    |
| 3/8    | XPDC2HK*  | XPPDC2HK | XPDC2HK*  | XPPDC2HK |
| 1/2    | XPDC3HK*  | XPPDC3HK | XPDC3HK*  | XPPDC3HK |
| 3/4    | XPDC4HK** | XPPDC4HK | XPDC4HK** | XPPDC4HK |
| 1      | XPDC6HK** | XPPDC6HK | XPDC6HK** | XPPDC6HK |

\*Brass

\*\*Aluminum



CANADIAN STANDARDS ASSOCIATION\*

Complies with the requirements of ANSI Z21.41B-2010/CSA 6.96-2010.

\* CSA design certified, in both the United States and Canada, for natural gas, manufactured gas, liquified petroleum and LP gas-air mixtures at pressures not in excess of 1/2 psig (3.5 kPa).

# 2RL/3RL Series

Pneumatic application



Danfoss' 2RL/3RL ring lock series quick disconnect pneumatic couplings have a unique interchange which Danfoss designed for use with compressed air.

## Product Features

- High Flow capacity
- Push to connect with a ring lock sleeve
- Ring lock design prevents accidental disconnection
- To disconnect rotate sleeve 20 degrees
- Standard body material: Zinc trivalent plated steel
- Standard seal material: Buna-N
- Optional seal materials: Silicone-138, FKM-143, EPDM-192

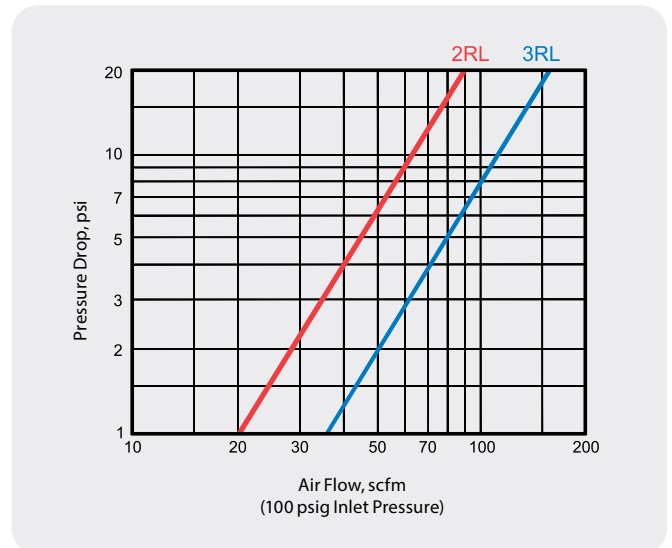
## Physical characteristics

| Series | Body Size (in) | Max. Operating Pressure |       | Min. Burst Pressure |       | Rated Flow |      |
|--------|----------------|-------------------------|-------|---------------------|-------|------------|------|
|        |                | (bar)                   | (psi) | (bar)               | (psi) | (lpm)      | scfm |
| 2RL    | ¼              | 20                      | 300   | 80                  | 1,200 | 1,350      | 48   |
| 3RL    | ⅜              | 20                      | 300   | 80                  | 1,200 | 2,250      | 80   |

## Applications & Markets

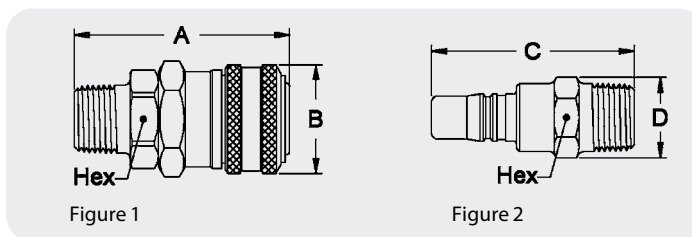
- Shipyards
- General Pneumatics
- Mining
- Marine

## Flow Data



# 2RL Series

AMER region

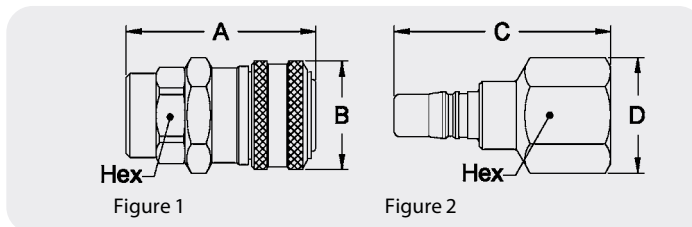


## Male End Connections

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|--------|------|------|------------|------|------|------|------|------|
|                   |               |           |           |        |      |      | A          |      | B    |      | Hex  |      |
|                   |               |           |           |        |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 2R10              | Socket/Female | ¼         | ⅜         | ⅝-27   | NPTF | 1    | 51.1       | 2.01 | 26.9 | 1.06 | 22.4 | 0.88 |
| 2R15              | Socket/Female | ¼         | ¼         | ¼-18   | NPTF | 1    | 54.9       | 2.16 | 26.9 | 1.06 | 22.4 | 0.88 |
| 2R20              | Socket/Female | ¼         | ⅜         | ⅜-18   | NPTF | 1    | 54.9       | 2.16 | 26.9 | 1.06 | 22.4 | 0.88 |
| 2R25              | Socket/Female | ¼         | ½         | ½-14   | NPTF | 1    | 59.7       | 2.35 | 26.9 | 1.06 | 22.4 | 0.88 |

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|--------|------|------|------------|------|------|------|------|------|
|                   |               |           |           |        |      |      | C          |      | D    |      | Hex  |      |
|                   |               |           |           |        |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 2L10              | Plug/Male     | ¼         | ⅜         | ⅝-27   | NPTF | 2    | 38.4       | 1.51 | 14.7 | 0.58 | 12.7 | 0.50 |
| 2L15              | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | 2    | 42.2       | 1.66 | 16.5 | 0.65 | 14.2 | 0.56 |
| 2L15G†            | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | 2    | 67.1       | 2.64 | 19.6 | 0.77 | 17.5 | 0.69 |
| 2L20              | Plug/Male     | ¼         | ⅜         | ⅜-18   | NPTF | 2    | 51.8       | 2.04 | 20.1 | 0.79 | 17.5 | 0.69 |
| 2L20G†            | Plug/Male     | ¼         | ⅜         | ⅜-18   | NPTF | 2    | 67.1       | 2.64 | 19.6 | 0.77 | 17.5 | 0.69 |
| 2L25              | Plug/Male     | ¼         | ½         | ½-14   | NPTF | 2    | 58.7       | 2.31 | 25.7 | 1.01 | 22.4 | 0.88 |

†With Bleeder Ball Check—Reduces Hose Whip



## Female End Connections

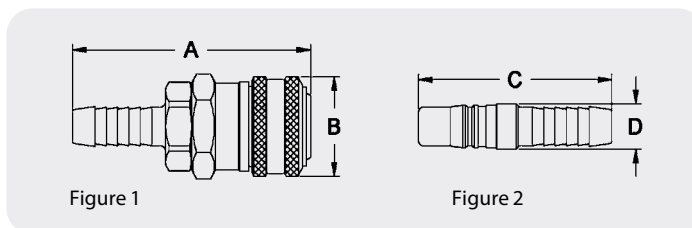
| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|--------|------|------|------------|------|------|------|------|------|
|                   |               |           |           |        |      |      | A          |      | B    |      | Hex  |      |
|                   |               |           |           |        |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 2R11              | Socket/Female | ¼         | ⅜         | ⅝-27   | NPTF | 1    | 48.5       | 1.91 | 26.9 | 1.06 | 22.4 | 0.88 |
| 2R16              | Socket/Female | ¼         | ¼         | ¼-18   | NPTF | 1    | 48.5       | 1.91 | 26.9 | 1.06 | 22.4 | 0.88 |
| 2R21              | Socket/Female | ¼         | ⅜         | ⅜-18   | NPTF | 1    | 54.9       | 2.16 | 26.9 | 1.06 | 22.4 | 0.88 |
| 2R26              | Socket/Female | ¼         | ½         | ½-14   | NPTF | 1    | 61.7       | 2.43 | 26.9 | 1.06 | 25.4 | 1.00 |

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|--------|------|------|------------|------|------|------|------|------|
|                   |               |           |           |        |      |      | C          |      | D    |      | Hex  |      |
|                   |               |           |           |        |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 2L11              | Plug/Male     | ¼         | ⅜         | ⅝-27   | NPTF | 2    | 34.5       | 1.36 | 16.5 | 0.65 | 14.2 | 0.56 |
| 2L16              | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | 2    | 39.1       | 1.54 | 20.1 | 0.79 | 17.5 | 0.69 |
| 2L16G†            | Plug/Male     | ¼         | ¼         | ¼-18   | NPTF | 2    | 64.8       | 2.55 | 19.6 | 0.77 | 17.5 | 0.69 |
| 2L21              | Plug/Male     | ¼         | ⅜         | ⅜-18   | NPTF | 2    | 47.8       | 1.88 | 23.9 | 0.94 | 20.6 | 0.81 |
| 2L26              | Plug/Male     | ¼         | ½         | ½-14   | NPTF | 2    | 55.4       | 2.18 | 29.2 | 1.15 | 25.4 | 1.00 |

†With Bleeder Ball Check—Reduces Hose Whip

# 2RL Series

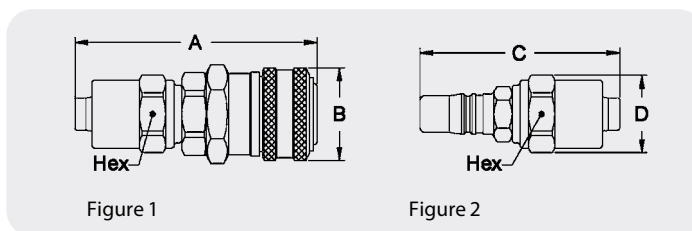
AMER region



## Hose Stem End Connections

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Fig. | Dimensions |      |      |      |
|-------------------|---------------|-----------|-----------|------|------------|------|------|------|
|                   |               |           |           |      | A          |      | B    |      |
|                   |               |           |           |      | (mm)       | (in) | (mm) | (in) |
| 2R17              | Socket/Female | ¼         | ¼         | 1    | 66.8       | 2.63 | 26.9 | 1.06 |
| 2R195             | Socket/Female | ¼         | ⅜         | 1    | 66.8       | 2.63 | 26.9 | 1.06 |
| 2R22              | Socket/Female | ¼         | ⅝         | 1    | 66.8       | 2.63 | 26.9 | 1.06 |
| 2R27              | Socket/Female | ¼         | ½         | 1    | 66.8       | 2.63 | 26.9 | 1.06 |

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Fig. | Dimensions |      |      |      |
|-------------------|---------------|-----------|-----------|------|------------|------|------|------|
|                   |               |           |           |      | C          |      | D    |      |
|                   |               |           |           |      | (mm)       | (in) | (mm) | (in) |
| 2L17              | Plug/Male     | ¼         | ¼         | 2    | 54.1       | 2.13 | 12.7 | 0.50 |
| 2L195             | Plug/Male     | ¼         | ⅜         | 2    | 54.1       | 2.13 | 12.7 | 0.50 |
| 2L22              | Plug/Male     | ¼         | ⅝         | 2    | 54.1       | 2.13 | 12.7 | 0.50 |
| 2L27              | Plug/Male     | ¼         | ½         | 2    | 63.5       | 2.5  | 20.6 | 0.81 |



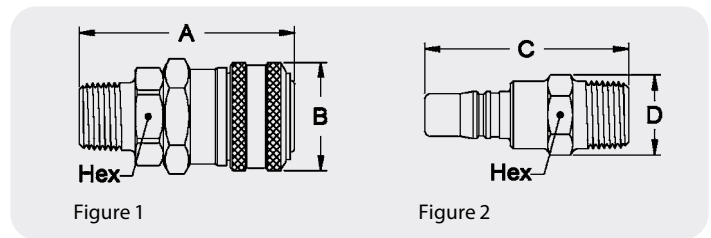
## Hose Clamp End Connections

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Hose O.D. | Fig. | Dimensions |      |      |      |       |      |
|-------------------|---------------|-----------|-----------|-----------|------|------------|------|------|------|-------|------|
|                   |               |           |           |           |      | A          |      | B    |      | Hex   |      |
|                   |               |           |           |           |      | (mm)       | (in) | (mm) | (in) | (mm)  | (in) |
| 2R18B1            | Socket/Female | ¼         | ¼         | 1½/2      | 1    | 69.3       | 2.73 | 26.9 | 1.06 | 16.00 | 0.63 |
| 2R18B3            | Socket/Female | ¼         | ¼         | ½         | 1    | 69.3       | 2.73 | 26.9 | 1.06 | 16.00 | 0.63 |
| 2R18B7            | Socket/Female | ¼         | ¼         | ⅝         | 1    | 69.3       | 2.73 | 26.9 | 1.06 | 19.05 | 0.75 |
| 2R18B11           | Socket/Female | ¼         | ¼         | ¾         | 1    | 69.3       | 2.73 | 26.9 | 1.06 | 22.35 | 0.88 |
| 2R185C7           | Socket/Female | ¼         | ⅜         | ⅝         | 1    | 70.9       | 2.79 | 26.9 | 1.06 | 19.05 | 0.75 |
| 2R185C9           | Socket/Female | ¼         | ⅜         | 1¼/6      | 1    | 70.9       | 2.79 | 26.9 | 1.06 | 20.57 | 0.81 |
| 2R23D7            | Socket/Female | ¼         | ⅝         | ⅝         | 1    | 72.4       | 2.85 | 26.9 | 1.06 | 19.05 | 0.75 |
| 2R23D9            | Socket/Female | ¼         | ⅝         | 1¼/6      | 1    | 72.4       | 2.85 | 26.9 | 1.06 | 20.57 | 0.81 |
| 2R23D11           | Socket/Female | ¼         | ⅝         | ¾         | 1    | 72.4       | 2.85 | 26.9 | 1.06 | 22.35 | 0.88 |
| 2R23D13           | Socket/Female | ¼         | ⅝         | 1¾/6      | 1    | 72.4       | 2.85 | 26.9 | 1.06 | 23.88 | 0.94 |
| 2R28P13           | Socket/Female | ¼         | ½         | 1¾/6      | 1    | 88.4       | 3.48 | 26.9 | 1.06 | 23.88 | 0.94 |
| 2R28P15           | Socket/Female | ¼         | ½         | 7/8       | 1    | 88.4       | 3.48 | 26.9 | 1.06 | 25.40 | 1.00 |

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Hose O.D. | Fig. | Dimensions |      |      |      |       |      |
|-------------------|---------------|-----------|-----------|-----------|------|------------|------|------|------|-------|------|
|                   |               |           |           |           |      | C          |      | D    |      | Hex   |      |
|                   |               |           |           |           |      | (mm)       | (in) | (mm) | (in) | (mm)  | (in) |
| 2L18B3            | Plug/Male     | ¼         | ¼         | ½         | 2    | 56.6       | 2.23 | 17.8 | 0.70 | 16.00 | 0.63 |
| 2L185C7           | Plug/Male     | ¼         | ⅜         | ⅝         | 2    | 58.2       | 2.29 | 21.3 | 0.84 | 19.05 | 0.75 |
| 2L185C9           | Plug/Male     | ¼         | ⅜         | 1¼/6      | 2    | 58.2       | 2.29 | 23.1 | 0.91 | 20.57 | 0.81 |
| 2L23D5            | Plug/Male     | ¼         | ⅝         | 9/16      | 2    | 59.7       | 2.35 | 19.6 | 0.77 | 17.53 | 0.69 |
| 2L23D7            | Plug/Male     | ¼         | ⅝         | ⅝         | 2    | 59.7       | 2.35 | 21.3 | 0.84 | 19.05 | 0.75 |
| 2L23D9            | Plug/Male     | ¼         | ⅝         | 1¼/6      | 2    | 59.7       | 2.35 | 23.1 | 0.91 | 20.57 | 0.81 |
| 2L23D11           | Plug/Male     | ¼         | ⅝         | ¾         | 2    | 59.7       | 2.35 | 24.9 | 0.98 | 22.35 | 0.88 |
| 2L23D13           | Plug/Male     | ¼         | ⅝         | 1¾/6      | 2    | 59.7       | 2.35 | 26.7 | 1.05 | 23.88 | 0.94 |
| 2L28P13           | Plug/Male     | ¼         | ½         | 1¾/6      | 2    | 86.6       | 3.41 | 26.7 | 1.05 | 23.88 | 0.94 |
| 2L28P15           | Plug/Male     | ¼         | ½         | 7/8       | 2    | 86.6       | 3.41 | 28.4 | 1.12 | 25.40 | 1.00 |

# 3RL Series

AMER region

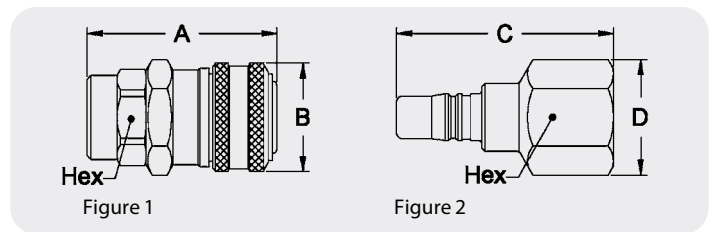


## Male End Connections

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|--------|------|------|------------|------|------|------|------|------|
|                   |               |           |           |        |      |      | A          |      | B    |      | Hex  |      |
|                   |               |           |           |        |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 3R15              | Socket/Female | 3/8       | 1/4       | 1/4-18 | NPTF | 1    | 59.4       | 2.34 | 33.3 | 1.31 | 25.4 | 1.00 |
| 3R20              | Socket/Female | 3/8       | 3/8       | 3/8-18 | NPTF | 1    | 59.7       | 2.35 | 33.3 | 1.31 | 25.4 | 1.00 |
| 3R25              | Socket/Female | 3/8       | 1/2       | 1/2-14 | NPTF | 1    | 64.5       | 2.54 | 33.3 | 1.31 | 25.4 | 1.00 |
| 3R30              | Socket/Female | 3/8       | 3/4       | 3/4-14 | NPTF | 1    | 64.5       | 2.54 | 33.3 | 1.31 | 26.9 | 1.06 |

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|--------|------|------|------------|------|------|------|------|------|
|                   |               |           |           |        |      |      | C          |      | D    |      | Hex  |      |
|                   |               |           |           |        |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 3L10              | Plug/Male     | 3/8       | 1/8       | 1/8-27 | NPTF | 2    | 39.1       | 1.54 | 18.3 | 0.72 | 16.0 | 0.63 |
| 3L15              | Plug/Male     | 3/8       | 1/4       | 1/4-18 | NPTF | 2    | 43.2       | 1.70 | 18.3 | 0.72 | 16.0 | 0.63 |
| 3L15G†            | Plug/Male     | 3/8       | 1/4       | 1/4-18 | NPTF | 2    | 67.1       | 2.64 | 24.9 | 0.98 | 22.4 | 0.88 |
| 3L20              | Plug/Male     | 3/8       | 3/8       | 3/8-18 | NPTF | 2    | 44.7       | 1.76 | 20.1 | 0.79 | 17.5 | 0.69 |
| 3L20G†            | Plug/Male     | 3/8       | 3/8       | 3/8-18 | NPTF | 2    | 67.1       | 2.64 | 24.9 | 0.98 | 22.4 | 0.88 |
| 3L25              | Plug/Male     | 3/8       | 1/2       | 1/2-14 | NPTF | 2    | 58.7       | 2.31 | 25.7 | 1.01 | 22.4 | 0.88 |
| 3L25G†            | Plug/Male     | 3/8       | 1/2       | 1/2-14 | NPTF | 2    | 71.9       | 2.83 | 24.9 | 0.98 | 22.4 | 0.88 |
| 3L30              | Plug/Male     | 3/8       | 3/4       | 3/4-14 | NPTF | 2    | 60.5       | 2.38 | 31.2 | 1.23 | 26.9 | 1.06 |
| 3L30G†            | Plug/Male     | 3/8       | 3/4       | 3/4-14 | NPTF | 2    | 73.2       | 2.88 | 30.2 | 1.19 | 26.9 | 1.06 |

†With Bleeder Ball Check—Reduces Hose Whip



## Female End Connections

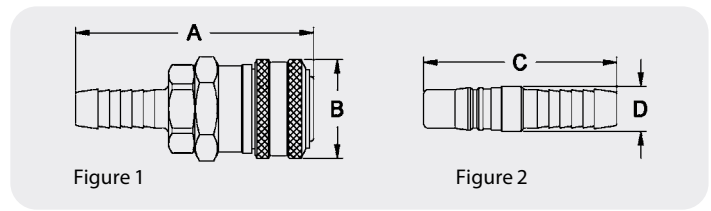
| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|--------|------|------|------------|------|------|------|------|------|
|                   |               |           |           |        |      |      | A          |      | B    |      | Hex  |      |
|                   |               |           |           |        |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 3R16              | Socket/Female | 3/8       | 1/4       | 1/4-18 | NPTF | 1    | 58.2       | 2.29 | 33.3 | 1.31 | 25.4 | 1.00 |
| 3R21              | Socket/Female | 3/8       | 3/8       | 3/8-18 | NPTF | 1    | 59.7       | 2.35 | 33.3 | 1.31 | 25.4 | 1.00 |
| 3R26              | Socket/Female | 3/8       | 1/2       | 1/2-14 | NPTF | 1    | 66.8       | 2.63 | 33.3 | 1.31 | 25.4 | 1.00 |
| 3R31A             | Socket/Female | 3/8       | 3/4       | 3/4-14 | NPTF | 1    | 67.6       | 2.66 | 33.3 | 1.31 | 30.2 | 1.19 |

| Part/Order Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions |      |      |      |      |      |
|-------------------|---------------|-----------|-----------|--------|------|------|------------|------|------|------|------|------|
|                   |               |           |           |        |      |      | C          |      | D    |      | Hex  |      |
|                   |               |           |           |        |      |      | (mm)       | (in) | (mm) | (in) | (mm) | (in) |
| 3L16              | Plug/Male     | 3/8       | 1/4       | 1/4-18 | NPTF | 2    | 37.6       | 1.48 | 20.1 | 0.79 | 17.5 | 0.69 |
| 3L16G†            | Plug/Male     | 3/8       | 1/4       | 1/4-18 | NPTF | 2    | 60.7       | 2.39 | 24.9 | 0.98 | 22.4 | 0.88 |
| 3L21              | Plug/Male     | 3/8       | 3/8       | 3/8-18 | NPTF | 2    | 41.4       | 1.63 | 23.9 | 0.94 | 20.6 | 0.81 |
| 3L26              | Plug/Male     | 3/8       | 1/2       | 1/2-14 | NPTF | 2    | 57.2       | 2.25 | 29.2 | 1.15 | 25.4 | 1.00 |
| 3L26G†            | Plug/Male     | 3/8       | 1/2       | 1/2-14 | NPTF | 2    | 73.9       | 2.91 | 24.9 | 0.98 | 25.4 | 1.00 |
| 3L31              | Plug/Male     | 3/8       | 3/4       | 3/4-14 | NPTF | 2    | 57.2       | 2.25 | 34.8 | 1.37 | 30.2 | 1.19 |

†With Bleeder Ball Check—Reduces Hose Whip

# 3RL Series

AMER region

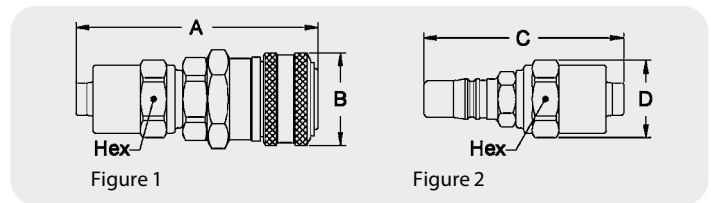


## Hose Stem End Connections

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Fig. | Dimensions |      |      |      |
|-------------------|---------------|-----------|-----------|------|------------|------|------|------|
|                   |               |           |           |      | A          |      | B    |      |
|                   |               |           |           |      | (mm)       | (in) | (mm) | (in) |
| 3R17              | Socket/Female | 3/8       | 1/4       | 1    | 72.4       | 2.85 | 33.3 | 1.31 |
| 3R195             | Socket/Female | 3/8       | 5/16      | 1    | 72.4       | 2.85 | 33.3 | 1.31 |
| 3R22              | Socket/Female | 3/8       | 3/8       | 1    | 73.4       | 2.89 | 33.3 | 1.31 |
| 3R27              | Socket/Female | 3/8       | 1/2       | 1    | 71.4       | 2.81 | 33.3 | 1.31 |
| 3R32              | Socket/Female | 3/8       | 3/4       | 1    | 93.0       | 3.66 | 33.3 | 1.31 |

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Fig. | Dimensions |      |      |      |
|-------------------|---------------|-----------|-----------|------|------------|------|------|------|
|                   |               |           |           |      | C          |      | D    |      |
|                   |               |           |           |      | (mm)       | (in) | (mm) | (in) |
| 3L17              | Plug/Male     | 3/8       | 1/4       | 2    | 54.9       | 2.16 | 16.0 | 0.63 |
| 3L17G†            | Plug/Male     | 3/8       | 1/4       | 2    | 79.0       | 3.11 | 24.9 | 0.98 |
| 3L195             | Plug/Male     | 3/8       | 5/16      | 2    | 54.9       | 2.16 | 16.0 | 0.63 |
| 3L195G†           | Plug/Male     | 3/8       | 5/16      | 2    | 79.0       | 3.11 | 24.9 | 0.98 |
| 3L22              | Plug/Male     | 3/8       | 3/8       | 2    | 54.9       | 2.16 | 19.1 | 0.75 |
| 3L22G†            | Plug/Male     | 3/8       | 3/8       | 2    | 79.0       | 3.11 | 24.9 | 0.98 |
| 3L27              | Plug/Male     | 3/8       | 1/2       | 2    | 54.9       | 2.16 | 20.6 | 0.81 |
| 3L27G†            | Plug/Male     | 3/8       | 1/2       | 2    | 79.0       | 3.11 | 24.9 | 0.98 |
| 3L32              | Plug/Male     | 3/8       | 3/4       | 2    | 79.5       | 3.13 | 25.4 | 1.00 |
| 3L32G†            | Plug/Male     | 3/8       | 3/4       | 2    | 100.6      | 3.96 | 24.9 | 0.98 |

†With Bleeder Ball Check—Reduces Hose Whip



## Hose Clamp End Connections

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Hose O.D. | Fig. | Dimensions |      |      |      |       |      |
|-------------------|---------------|-----------|-----------|-----------|------|------------|------|------|------|-------|------|
|                   |               |           |           |           |      | A          |      | B    |      | Hex   |      |
|                   |               |           |           |           |      | (mm)       | (in) | (mm) | (in) | (mm)  | (in) |
| 3R23D7            | Socket/Female | 3/8       | 3/8       | 5/8       | 1    | 77.7       | 3.06 | 33.3 | 1.31 | 19.05 | 0.75 |
| 3R23D9            | Socket/Female | 3/8       | 3/8       | 11/16     | 1    | 77.7       | 3.06 | 33.3 | 1.31 | 20.57 | 0.81 |
| 3R23D11           | Socket/Female | 3/8       | 3/8       | 3/4       | 1    | 77.7       | 3.06 | 33.3 | 1.31 | 22.35 | 0.88 |
| 3R28P13           | Socket/Female | 3/8       | 1/2       | 19/16     | 1    | 93.0       | 3.66 | 33.3 | 1.31 | 23.88 | 0.94 |
| 3R28P15           | Socket/Female | 3/8       | 1/2       | 7/8       | 1    | 93.0       | 3.66 | 33.3 | 1.31 | 25.40 | 1.00 |
| 3R28P17           | Socket/Female | 3/8       | 1/2       | 15/16     | 1    | 93.0       | 3.66 | 33.3 | 1.31 | 26.92 | 1.06 |
| 3R33R23           | Socket/Female | 3/8       | 3/4       | 1 1/8     | 1    | 96.3       | 3.79 | 33.3 | 1.31 | 31.75 | 1.25 |
| 3R33R25           | Socket/Female | 3/8       | 3/4       | 1 3/16    | 1    | 96.3       | 3.79 | 33.3 | 1.31 | 33.27 | 1.31 |

| Part/Order Number | Coupling Type | Body Size | Hose I.D. | Hose O.D. | Fig. | Dimensions |      |      |      |       |      |
|-------------------|---------------|-----------|-----------|-----------|------|------------|------|------|------|-------|------|
|                   |               |           |           |           |      | C          |      | D    |      | Hex   |      |
|                   |               |           |           |           |      | (mm)       | (in) | (mm) | (in) | (mm)  | (in) |
| 3L23D7            | Plug/Male     | 3/8       | 3/8       | 5/8       | 2    | 62.2       | 2.45 | 21.3 | 0.84 | 19.05 | 0.75 |
| 3L23D9            | Plug/Male     | 3/8       | 3/8       | 11/16     | 2    | 62.2       | 2.45 | 23.1 | 0.91 | 20.57 | 0.81 |
| 3L23D11           | Plug/Male     | 3/8       | 3/8       | 3/4       | 2    | 62.2       | 2.45 | 24.9 | 0.98 | 22.35 | 0.88 |
| 3L28P13           | Plug/Male     | 3/8       | 1/2       | 19/16     | 2    | 79.8       | 3.14 | 26.7 | 1.05 | 23.88 | 0.94 |
| 3L28P15           | Plug/Male     | 3/8       | 1/2       | 7/8       | 2    | 79.8       | 3.14 | 28.4 | 1.12 | 25.40 | 1.00 |
| 3L33R23           | Plug/Male     | 3/8       | 3/4       | 1 1/8     | 2    | 90.4       | 3.56 | 35.6 | 1.40 | 31.75 | 1.25 |
| 3L33R25           | Plug/Male     | 3/8       | 3/4       | 1 3/16    | 2    | 90.4       | 3.56 | 37.3 | 1.47 | 33.27 | 1.31 |

## Dust Caps and Dust Plugs

| Series | Dust Cap | Dust Plug |
|--------|----------|-----------|
| 2RL    | XPPDC1HK | XPSDC1HK  |
| 3RL    | XPPDC2HK | XPSDC2HK  |



# Flex-Air Series

Pneumatic application



Danfoss' Flex-Air™ fittings are designed to rotate 360 degrees up to a 75° angle. These fittings help to alleviate Carpal Tunnel Syndrome and other stress related injuries in the workplace.

AMER region

## Product Features

- Unique design provides free 360 degree rotation with up to a 75° flex angle in any direction
- Many styles and sizes available
- Prevents kinking of air supply hose

## Physical characteristics

| Sizes     | Max. Operating Pressure |       | Min. Burst Pressure |       |
|-----------|-------------------------|-------|---------------------|-------|
|           | (bar)                   | (psi) | (bar)               | (psi) |
| All sizes | 10                      | 145   | 40                  | 580   |

## Applications & Markets

- General Industry
- Pneumatic Tools

## Capacities

## Flex-Air Series

| Part/Order Number | Type                    | Fig. | Connector Ends                              | ID            |
|-------------------|-------------------------|------|---|---------------|
| FA25F25M          | Female to Male          | 1    | 1/4" NPT Female & 1/4" NPT Male             | 0.2" (5 mm)   |
| FA25F37M          | Female to Male          | 2    | 1/4" NPT Female & 3/8" NPT Male             | 0.3" (7.5 mm) |
| FA37F37M          | Female to Male          | 3    | 3/8" NPT Female & 3/8" NPT Male             | 0.3" (7.5 mm) |
| FA37H37M          | Hose Barb to Male       | 4    | 3/8" Barb & 3/8" NPT Male                   | 0.3" (7.5 mm) |
| FA25M25M          | Male to Male            | 5    | 1/4" NPT Male & 1/4" NPT Male               | 0.2" (5 mm)   |
| FA37M37M          | Male to Male            | 6    | 3/8" NPT Male & 3/8" NPT Male               | 0.3" (7.5 mm) |
| FA25AR25M         | ARO to Male             | 7    | ARO 210 Interchange & 1/4" NPT              | 0.2" (5 mm)   |
| FA25P25M          | Industrial Plug to Male | 8    | 1/4" Industrial Interchange & 1/4" NPT Male | 0.2" (5 mm)   |
| FA37P25M          | Industrial Plug to Male | 9    | 3/8" Industrial Interchange & 1/4" NPT Male | 0.3" (7.5 mm) |



Figure 1



Figure 2



Figure 3



Figure 4



Figure 5



Figure 6



Figure 7



Figure 8



Figure 9

# Blow-Guns

Pneumatic application



Danfoss offers two styles of blow-guns to fit your application needs.

## Product Features

### 100 Series

- Progressive flow-control
- The airscreen version protects the operator against particle blow-back
- Body material: Nickel-plated brass
- Seals: NBR

### 200 Series

- Pressure reduces to 2 bar(30 PSI) if the nozzle is obstructed by an obstacle
- Complies with OSHA STD 01-13-2001 standard

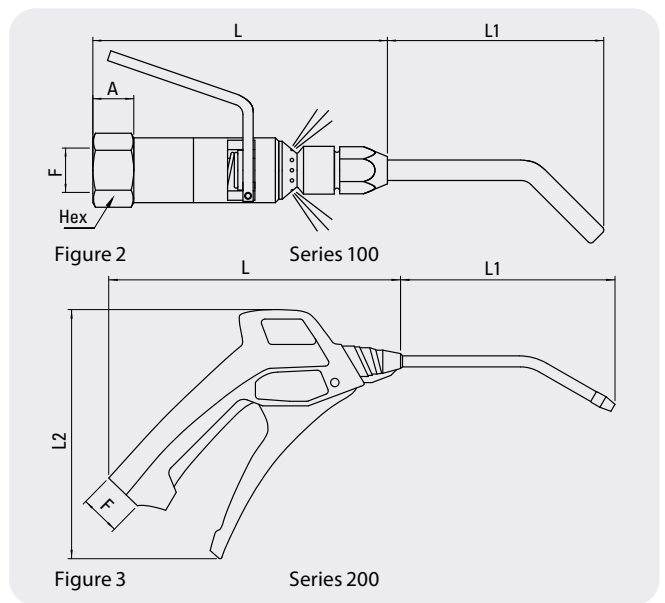
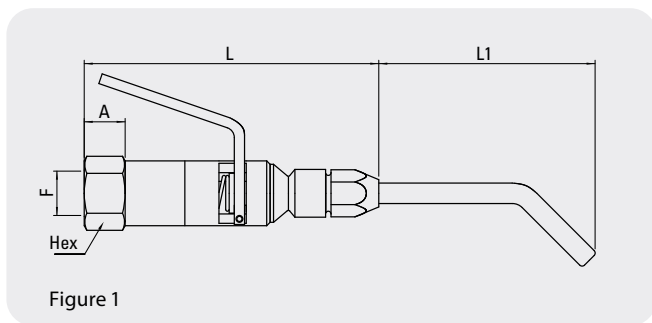
- When in use, the gun is designed to produce low noise levels with the comfort of the operator in mind. Complies with Directive 2003/10/EC and OSHA 1910.95(b) standard
- The "soft touch" trigger and ergonomic design make it easy to grip and handle, even with work gloves. The graduated-opening system enables the operator to adjust the flow rate to his/her requirements.
- Body material: Nylon
- Nozzle: Stainless steel
- Seals: NBR

## Physical characteristics

| Series | Type    | Connection | Max. Operating Pressure |       | Temperature Range |           |
|--------|---------|------------|-------------------------|-------|-------------------|-----------|
|        |         |            | (bar)                   | (psi) | C                 | F         |
| 100    | Metal   | G ¼        | 20                      | 290   | +100C/-20C        | +212F/-4F |
| 200    | Plastic | G ¼        | 10                      | 145   | +70C/-20C         | +158F/-4F |

## Applications & Markets

- Pneumatic
- Manufacturing and Assembly



| Series | Part/Order Number | Description               | Fig. | F    | L    | L1   | Hex  | A   | Weight |
|--------|-------------------|---------------------------|------|------|------|------|------|-----|--------|
|        |                   |                           |      | (mm) | (mm) | (mm) | (mm) | (g) |        |
| 100    | SA0017014         | Progressive flow blow gun | 1    | G¼   | 90   | 65   | 19   | 12  | 150    |
| 100    | SA0017514         | Blow gun with airscreen   | 2    | G¼   | 90   | 65   | 19   | 12  | 150    |

| Series | Part/Order Number | Description                | Fig. | F    | L    | L1   | L2  | Weight |
|--------|-------------------|----------------------------|------|------|------|------|-----|--------|
|        |                   |                            |      | (mm) | (mm) | (mm) | (g) |        |
| 200    | SP0020014         | Blow gun with metal nozzle | 3    | G¼   | 153  | 105  | 130 | 140    |

# Adapters

Pneumatic application



200 Series



700 Series

## Product Features

200 Series

- Zinc-plated steel

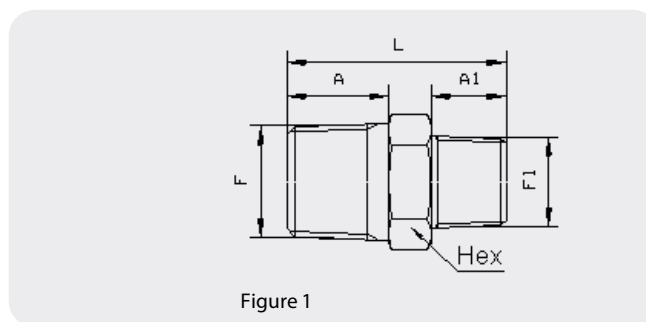
700 Series

- Zinc-plated steel

\*EL is brass

## Physical characteristics

| Series | Max. Operating Pressure |           |
|--------|-------------------------|-----------|
|        | (bar)                   | (psi)     |
| 200    | 120-250                 | 1740-3625 |
| 700    | 35                      | 508       |

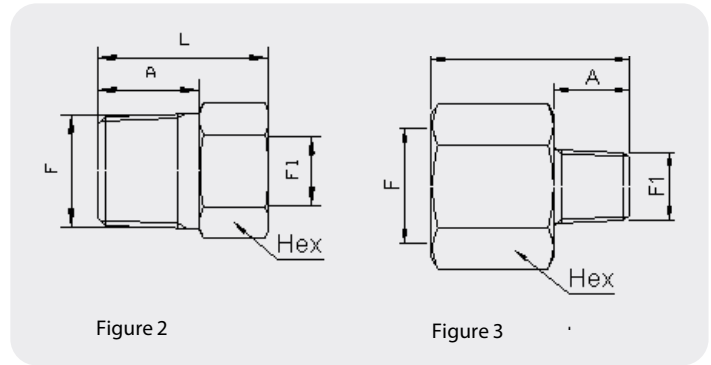


### 200 Series

| Male BSP Taper Nipple |               |                   |      | Dimensions |        |          |         | Weight (g) | Pressure (bar) |
|-----------------------|---------------|-------------------|------|------------|--------|----------|---------|------------|----------------|
| Connection F          | Connection F1 | Part/Order Number | Fig. | L (mm)     | A (mm) | Hex (mm) | A1 (mm) |            |                |
| R 1/8                 | R 1/8         | MA0024318         | 1    | 26         | 10     | 12       | 10      | 13         | 250            |
| R 1/4                 | R 1/8         | MA0024484         | 1    | 31         | 14     | 14       | 10      | 20         | 250            |
| R 3/8                 | R 1/8         | MA0024588         | 1    | 32         | 15     | 17       | 9       | 29         | 250            |
| R 1/4                 | R 1/4         | MA0024314         | 1    | 35         | 14     | 14       | 14      | 25         | 250            |
| R 3/8                 | R 1/4         | MA0024448         | 1    | 36         | 15     | 17       | 14      | 34         | 250            |
| R 1/2                 | R 1/4         | MA0024524         | 1    | 41         | 19     | 22       | 14      | 62         | 250            |
| R 3/8                 | R 3/8         | MA0024338         | 1    | 37         | 15     | 17       | 15      | 39         | 250            |
| R 1/2                 | R 3/8         | MA0024482         | 1    | 42         | 19     | 22       | 15      | 67         | 250            |
| R 3/4                 | R 3/8         | MA0024548         | 1    | 44         | 20     | 27       | 15      | 95         | 175            |
| R 1/2                 | R 1/2         | MA0024312         | 1    | 46         | 19     | 22       | 19      | 68         | 250            |
| R 3/4                 | R 1/2         | MA0024424         | 1    | 48         | 20     | 27       | 19      | 94         | 175            |
| R 1                   | R 1/2         | MA0024512         | 1    | 53         | 24     | 36       | 19      | 191        | 150            |
| R 3/4                 | R 3/4         | MA0024334         | 1    | 49         | 20     | 27       | 20      | 107        | 175            |
| R 1                   | R 3/4         | MA0024441         | 1    | 54         | 24     | 36       | 20      | 182        | 150            |
| R 1                   | R 1           | MA0024310         | 1    | 58         | 24     | 36       | 24      | 205        | 150            |

# Adapters

EMEA region

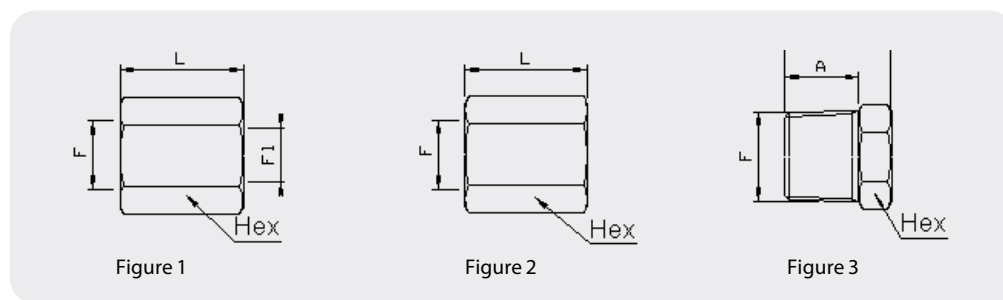


## 200 Series (cont.)

| Reducing Bush |               |                   |      | Dimensions |      |      |        |          |
|---------------|---------------|-------------------|------|------------|------|------|--------|----------|
| Connection F  | Connection F1 | Part/Order Number | Fig. | L          | A    | Hex  | Weight | Pressure |
|               |               |                   |      | (mm)       | (mm) | (mm) | (g)    | (bar)    |
| R ¼           | G ⅝           | MA0025548         | 2    | 21         | 14   | 14   | 14     | 250      |
| R ⅜           | G ⅝           | MA0025688         | 2    | 22         | 15   | 17   | 27     | 250      |
| R ⅜           | G ¾           | MA0025584         | 2    | 23         | 15   | 19   | 20     | 250      |
| R ½           | G ¾           | MA0025624         | 2    | 27         | 19   | 22   | 49     | 250      |
| R ½           | G ⅞           | MA0025528         | 2    | 27         | 19   | 22   | 37     | 250      |
| R ¾           | G ⅞           | MA0025648         | 2    | 29         | 20   | 27   | 77     | 175      |
| R ¾           | G 1           | MA0025542         | 2    | 29         | 20   | 27   | 52     | 175      |
| R 1           | G 1           | MA0025612         | 2    | 34         | 24   | 36   | 139    | 150      |
| R 1           | G ¾           | MA0025514         | 2    | 34         | 24   | 36   | 100    | 150      |

| Female/Male Reducer |               |                   |      | Dimensions |      |      |        |          |
|---------------------|---------------|-------------------|------|------------|------|------|--------|----------|
| Connection F        | Connection F1 | Part/Order Number | Fig. | L          | A    | Hex  | Weight | Pressure |
|                     |               |                   |      | (mm)       | (mm) | (mm) | (g)    | (bar)    |
| G ¼                 | R ⅝           | MA0024248         | 3    | 31         | 10   | 19   | 40     | 250      |
| G ⅜                 | R ⅝           | MA0026888         | 3    | 32         | 10   | 22   | 49     | 250      |
| G ⅜                 | R ¾           | MA0024284         | 3    | 35         | 14   | 22   | 46     | 250      |
| G ½                 | R ¾           | MA0026824         | 3    | 41         | 14   | 27   | 84     | 250      |
| G ½                 | R ⅞           | MA0024228         | 3    | 40         | 15   | 27   | 80     | 250      |
| G ¾                 | R ⅞           | MA0026848         | 3    | 44         | 15   | 36   | 172    | 175      |
| G ¾                 | R 1           | MA0024242         | 3    | 47         | 19   | 32   | 125    | 175      |
| G 1                 | R 1           | MA0026812         | 3    | 56         | 19   | 41   | 230    | 150      |
| G 1                 | R ¾           | MA0024214         | 3    | 55         | 20   | 41   | 240    | 150      |

# Adapters



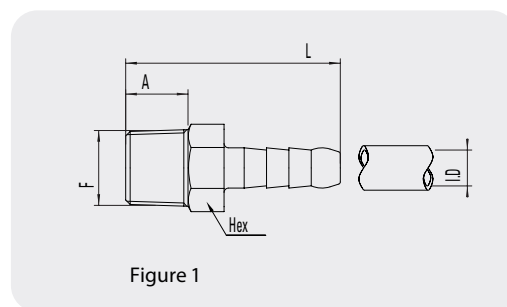
## 200 Series (cont.)

| Reducing Socket |               |                   |      | Dimensions |      |      |        |          |  |
|-----------------|---------------|-------------------|------|------------|------|------|--------|----------|--|
| Connection F    | Connection F1 | Part/Order Number | Fig. | L          | A    | Hex  | Weight | Pressure |  |
|                 |               |                   |      | (mm)       | (mm) | (mm) | (g)    | (bar)    |  |
| G ¼             | G ½           | MA0026748         | 1    | 24         | -    | 19   | 39     | 250      |  |
| G ⅜             | G ¼           | MA0026784         | 1    | 27         | -    | 22   | 53     | 250      |  |
| G ½             | G ⅜           | MA0026728         | 1    | 32         | -    | 27   | 89     | 250      |  |
| G ¾             | G ½           | MA0026742         | 1    | 36         | -    | 32   | 126    | 175      |  |
| G 1             | G ¾           | MA0026714         | 1    | 45         | -    | 41   | 131    | 150      |  |

| Equal Socket |               |                   |      | Dimensions |      |      |        |          |  |
|--------------|---------------|-------------------|------|------------|------|------|--------|----------|--|
| Connection F | Connection F1 | Part/Order Number | Fig. | L          | A    | Hex  | Weight | Pressure |  |
|              |               |                   |      | (mm)       | (mm) | (mm) | (g)    | (bar)    |  |
| G ⅜          | -             | MA0026918         | 2    | 20         | -    | 14   | 17     | 250      |  |
| G ¼          | -             | MA0026914         | 2    | 25         | -    | 19   | 35     | 250      |  |
| G ⅜          | -             | MA0026938         | 2    | 27         | -    | 22   | 45     | 250      |  |
| G ½          | -             | MA0026912         | 2    | 35         | -    | 27   | 76     | 250      |  |
| G ¾          | -             | MA0026934         | 2    | 40         | -    | 32   | 113    | 175      |  |
| G 1          | -             | MA0026910         | 2    | 45         | -    | 41   | 217    | 150      |  |

| Male-Threaded Cap |               |                   |      | Dimensions |      |      |        |          |  |
|-------------------|---------------|-------------------|------|------------|------|------|--------|----------|--|
| Connection F      | Connection F1 | Part/Order Number | Fig. | L          | A    | Hex  | Weight | Pressure |  |
|                   |               |                   |      | (mm)       | (mm) | (mm) | (g)    | (bar)    |  |
| R ⅜               | -             | MA0026618         | 3    | 16         | 10   | 12   | 10     | 250      |  |
| R ¼               | -             | MA0026614         | 3    | 21         | 14   | 14   | 22     | 250      |  |
| R ⅜               | -             | MA0026638         | 3    | 22         | 15   | 17   | 31     | 250      |  |
| R ½               | -             | MA0026612         | 3    | 27         | 19   | 22   | 55     | 250      |  |
| R ¾               | -             | MA0026634         | 3    | 29         | 20   | 27   | 89     | 175      |  |
| R 1               | -             | MA0026610         | 3    | 34         | 24   | 36   | 164    | 150      |  |

# Adapters



## 700 Series

| Male-Threaded Hose Tail |           |                   |      | Dimensions |      |      |        |
|-------------------------|-----------|-------------------|------|------------|------|------|--------|
| Connection F            | Hose I.D. | Part/Order Number | Fig. | L          | A    | Hex  | Weight |
|                         |           |                   |      | (mm)       | (mm) | (mm) | (g)    |
| R 1/8                   | 6         | EL0070267         | 1    | 32         | 7.5  | 12   | 10     |
| R 1/8                   | 7         | EA0070278         | 1    | 41         | 9    | 14   | 15     |
| R 1/8                   | 8         | EA0070289         | 1    | 41         | 9    | 14   | 16     |
| R 1/8                   | 9         | EA0070290         | 1    | 41         | 9    | 14   | 18     |
| R 1/4                   | 6         | EA0070467         | 1    | 45         | 13   | 14   | 18     |
| R 1/4                   | 7         | EA0070478         | 1    | 45         | 13   | 14   | 19     |
| R 1/4                   | 8         | EA0070489         | 1    | 45         | 13   | 14   | 20     |
| R 1/4                   | 9         | EA0070490         | 1    | 45         | 13   | 14   | 20     |
| R 1/4                   | 10        | EA0070401         | 1    | 45         | 13   | 14   | 21     |
| R 1/4                   | 11        | EA0070411         | 1    | 50         | 13   | 14   | 24     |
| R 1/4                   | 12        | EA0070412         | 1    | 50         | 13   | 17   | 31     |
| R 1/4                   | 13        | EA0070413         | 1    | 50         | 13   | 17   | 36     |
| R 3/8                   | 7         | EA0070678         | 1    | 48         | 14   | 17   | 31     |
| R 3/8                   | 8         | EA0070689         | 1    | 48         | 14   | 17   | 32     |
| R 3/8                   | 9         | EA0070690         | 1    | 48         | 14   | 17   | 33     |
| R 3/8                   | 10        | EA0070601         | 1    | 48         | 14   | 17   | 33     |
| R 3/8                   | 11        | EA0070611         | 1    | 49         | 14   | 17   | 33     |
| R 3/8                   | 12        | EA0070612         | 1    | 53         | 14   | 17   | 36     |
| R 3/8                   | 13        | EA0070613         | 1    | 53         | 14   | 19   | 43     |
| R 3/8                   | 16        | EA0070616         | 1    | 60         | 14   | 19   | 50     |
| R 1/2                   | 8         | EA0070889         | 1    | 52         | 17   | 22   | 50     |
| R 1/2                   | 11        | EA0070811         | 1    | 57         | 17   | 22   | 55     |
| R 1/2                   | 12        | EA0070812         | 1    | 57         | 17   | 22   | 55     |
| R 1/2                   | 13        | EA0070813         | 1    | 57         | 17   | 22   | 58     |
| R 1/2                   | 16        | EA0070816         | 1    | 63         | 17   | 22   | 61     |
| R 1/2                   | 19        | EA0070819         | 1    | 69         | 17   | 22   | 73     |
| R 3/4                   | 16        | EA0071016         | 1    | 65         | 19   | 27   | 85     |
| R 3/4                   | 19        | EA0071019         | 1    | 71         | 19   | 27   | 100    |
| R 3/4                   | 25        | EA0071025         | 1    | 77         | 19   | 27   | 130    |
| R 1                     | 19        | EA0072019         | 1    | 76         | 22   | 35   | 165    |
| R 1                     | 25        | EA0072025         | 1    | 82         | 22   | 35   | 203    |
| R 1                     | 30        | EA0072030         | 1    | 94         | 22   | 35   | 270    |

# Adapters

EMEA region

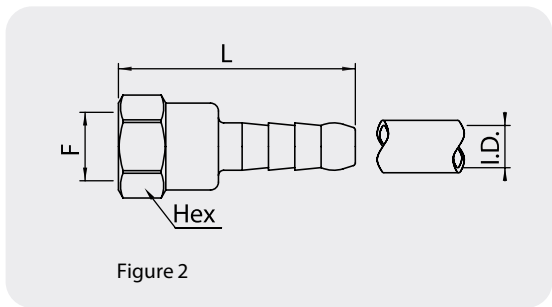


Figure 2

## 700 Series (cont.)

| Female-Threaded Hose Tail |           |                   |      | Dimensions |      |      |        |
|---------------------------|-----------|-------------------|------|------------|------|------|--------|
| Connection F              | Hose I.D. | Part/Order Number | Fig. | L          | A    | Hex  | Weight |
|                           |           |                   |      | (mm)       | (mm) | (mm) | (g)    |
| G ¼                       | 6         | EA0078167         | 2    | 45         | -    | 17   | 23     |
| G ¼                       | 7         | EA0078178         | 2    | 45         | -    | 17   | 23     |
| G ¼                       | 8         | EA0078189         | 2    | 45         | -    | 17   | 25     |
| G ¼                       | 9         | EA0078190         | 2    | 45         | -    | 17   | 26     |

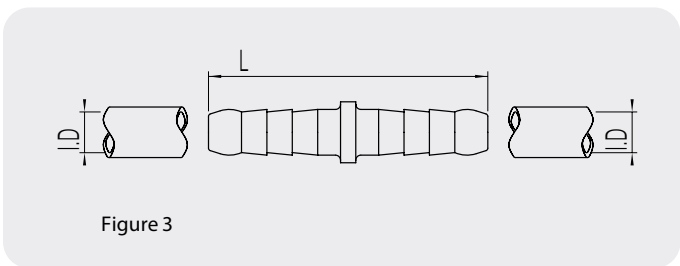


Figure 3

| Hose Splicer |           |                   |      | Dimensions |      |      |        |
|--------------|-----------|-------------------|------|------------|------|------|--------|
| Connection F | Hose I.D. | Part/Order Number | Fig. | L          | A    | Hex  | Weight |
|              |           |                   |      | (mm)       | (mm) | (mm) | (g)    |
| -            | 6         | EA0079767         | 3    | 55         | -    | -    | 10     |
| -            | 7         | EA0079778         | 3    | 55         | -    | -    | 13     |
| -            | 8         | EA0079789         | 3    | 55         | -    | -    | 14     |
| -            | 9         | EA0079790         | 3    | 55         | -    | -    | 16     |
| -            | 10        | EA0079701         | 3    | 55         | -    | -    | 19     |
| -            | 12        | EA0079712         | 3    | 55         | -    | -    | 24     |
| -            | 16        | EA0079716         | 3    | 78         | -    | -    | 50     |
| -            | 19        | EA0079719         | 3    | 88         | -    | -    | 81     |

# FLOCS

(Fast Lube Oil Change System)



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# FD14 Series Oil Drain Coupling

FLOCS application



Danfoss' FD14 Drain Coupling is designed to serve as a drain port for use with Danfoss' FLOCS (Fast Lube Oil Change System) as well as providing a purging port for use during pre-fill operations. The FD14 provides a leak free push to connect operation for improving speed and efficiency for oil evacuation systems.

AMER region

## Product Features

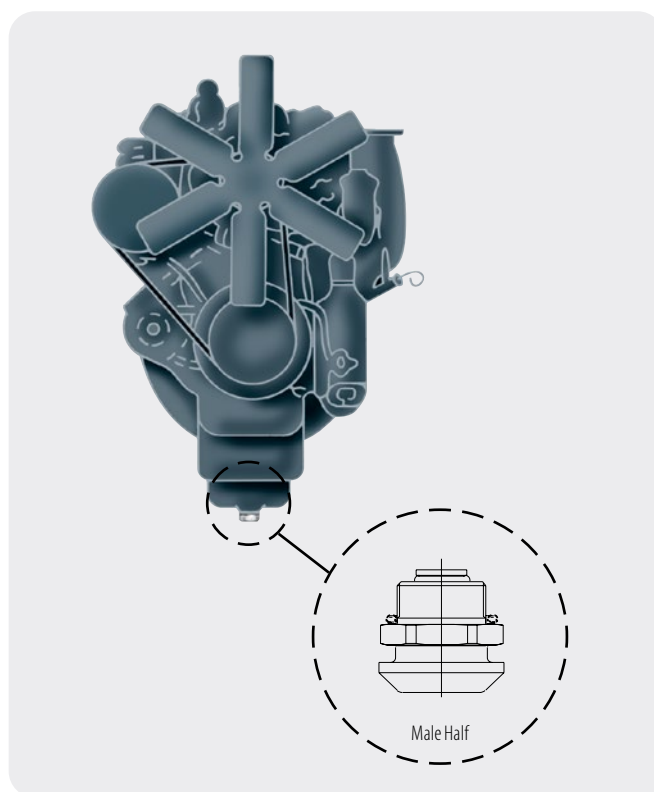
- Low-Profile design with multiple sealing mechanisms
- Push-To-Connect socket/female half for easy onehand operation
- Broad range of standard thread styles for plug/male half
- Utilizes a Copper-Crush gasket to seat against the port face
- Standard plug/male half seal material: FKM
- Standard socket/female half seal material: Buna-N
- Standard body material: High resistance carbon steel with zinc trivalent plating with zinc die-cast valve

## Physical characteristics

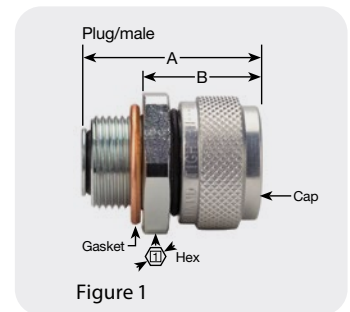
| Body Size | Max. Operating Pressure Connected |       | Min. Burst Pressure Connected Only |       | Vacuum Flow | Rated Flow |       |       |
|-----------|-----------------------------------|-------|------------------------------------|-------|-------------|------------|-------|-------|
|           | (in)                              | (bar) | (psi)                              | (bar) | (psi)       | (in./Hg)   | (lpm) | (gpm) |
| 3/8       |                                   | 3.5   | 50                                 | 7.0   | 200         | 28         | 12    | 3     |

## Applications & Markets


- Automated oil evacuation systems
- Gravity drain oil evacuation systems



# FD14 Series Oil Drain Coupling




## Dimensions (English Thread)

| Body Size | Thread Size         | Fig. | Dimensions |        |        |        | Hex  Torque |        | Min. Assy. (Gasket & Cap) |          | Part/Order Number                |                |              |
|-----------|---------------------|------|------------|--------|--------|--------|--|--------|---------------------------|----------|----------------------------------|----------------|--------------|
|           |                     |      | A (mm)     | A (in) | B (mm) | B (in) | (mm)   | (in)   | N-m                       | (lbs-ft) | Assembly (includes Copper-Crush) | Gasket (Brass) | Cap          |
| 3/8"      | 1 1/8-12 UN-2A      | 1    | 39.1       | 1.54   | 24.4   | 0.96   | 38.1   | 1 1/2  | 41-81                     | (30-60)* | FD14-4002-20-06                  | FD14-1206-08   | FD14-1210-06 |
| 3/8"      | 1 1/4-18 UNEF-2A    | 1    | 39.1       | 1.54   | 24.4   | 0.96   | 38.1   | 1 1/2  | 41-81                     | (30-60)* | FD14-4002-05-06                  | FD14-1206-11   | FD14-1210-06 |
| 3/8"      | 1 1/8-12 UNF-2A     | 1    | 39.1       | 1.54   | 24.4   | 0.96   | 38.1   | 1 1/2  | 41-81                     | (30-60)* | FD14-4002-14-06                  | FD14-1206-09   | FD14-1210-06 |
| 3/8"      | 1/2-14 DRYSEAL NPTF | 1    | 40.6       | 1.60   | 24.4   | 0.96   | 27.0   | 1 1/16 | -                         | -        | FD14-4002-27-06*                 | None Needed    | FD14-1210-06 |
| 3/8"      | 1/2-14 UNS-2A       | 1    | 38.6       | 1.52   | 24.4   | 0.96   | 27.0   | 1 1/16 | 27-33                     | (20-24)* | FD14-4002-22-06*                 | FD14-1206-01   | FD14-1210-06 |
| 3/8"      | 1/2-20 UNF-2A       | 1    | 38.6       | 1.52   | 24.4   | 0.96   | 27.0   | 1 1/16 | 27-33                     | (20-24)* | FD14-4002-01-06*                 | FD14-1206-01   | FD14-1210-06 |
| 3/8"      | 1-18 UNS-2A         | 1    | 39.1       | 1.54   | 24.4   | 0.96   | 31.8   | 1 1/4  | 41-81                     | (30-60)* | FD14-4002-06-06                  | FD14-1206-07   | FD14-1210-06 |
| 3/8"      | 3/4-14 DRYSEAL NPTF | 1    | 43.8       | 1.72   | 24.4   | 0.96   | 31.8   | 1 1/4  | -                         | -        | FD14-4002-26-06                  | None Needed    | FD14-1210-06 |
| 3/8"      | 3/4-16 UNF-2A       | 1    | 39.1       | 1.54   | 24.4   | 0.96   | 31.8   | 1 1/4  | 41-68                     | (30-50)* | FD14-4002-09-06                  | FD14-1206-04   | FD14-1210-06 |
| 3/8"      | 3/8-18 UNF-2A       | 1    | 38.6       | 1.52   | 24.4   | 0.96   | 27.0   | 1 1/16 | 27-54                     | (20-40)* | FD14-4002-08-06*                 | FD14-1206-03   | FD14-1210-06 |
| 3/8"      | 7/8-14 UNF-2A       | 1    | 39.1       | 1.54   | 24.4   | 0.96   | 31.8   | 1 1/4  | 41-81                     | (30-60)* | FD14-4002-10-06                  | FD14-1206-06   | FD14-1210-06 |
| 3/8"      | 7/8-18 UNS-2A       | 1    | 39.1       | 1.54   | 24.4   | 0.96   | 31.8   | 1 1/4  | 41-81                     | (30-60)* | FD14-4002-07-06                  | FD14-1206-06   | FD14-1210-06 |
| 3/8"      | 9/8-18 UNF-2A       | 1    | 38.6       | 1.52   | 24.4   | 0.96   | 27.0   | 1 1/16 | 27-54                     | (20-40)* | FD14-4002-12-06*                 | FD14-1206-02   | FD14-1210-06 |


\* ⚠CAUTION: Failure to meet minimum assembly torque could result in fluid leakage.

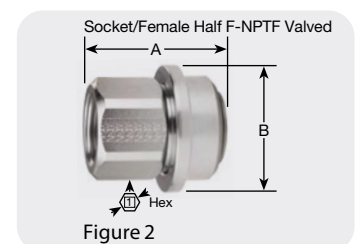
## Dimensions (English Thread)

| Body Size | Thread Size   | Fig. | Dimensions |        |        |        | Hex  Torque |        | Min. Assy. (Gasket & Cap) |          | Part/Order Number                |                |              |
|-----------|---------------|------|------------|--------|--------|--------|--|--------|---------------------------|----------|----------------------------------|----------------|--------------|
|           |               |      | A (mm)     | A (in) | B (mm) | B (in) | (mm)   | (in)   | N-m                       | (lbs-ft) | Assembly (includes Copper-Crush) | Gasket (Brass) | Cap          |
| 3/8"      | M12 X 1.5 6g  | 1    | 38.6       | 1.52   | 24.4   | 0.96   | 27.0   | 1 1/16 | 27-33                     | (20-24)* | FD14-4002-23-06*                 | FD14-1206-01   | FD14-1210-06 |
| 3/8"      | M12 X 1.75 6g | 1    | 38.6       | 1.52   | 24.4   | 0.96   | 27.0   | 1 1/16 | 27-33                     | (20-24)* | FD14-4002-25-06*                 | FD14-1206-01   | FD14-1210-06 |
| 3/8"      | M14 X 1.25 6g | 1    | 38.6       | 1.52   | 24.4   | 0.96   | 27.0   | 1 1/16 | 27-33                     | (20-24)* | FD14-4002-03-06*                 | FD14-1206-02   | FD14-1210-06 |
| 3/8"      | M14 X 1.5 6g  | 1    | 38.6       | 1.52   | 24.4   | 0.96   | 27.0   | 1 1/16 | 27-33                     | (20-24)* | FD14-4002-24-06*                 | FD14-1206-02   | FD14-1210-06 |
| 3/8"      | M18 X 1.5 6g  | 1    | 38.6       | 1.52   | 24.4   | 0.96   | 31.8   | 1 1/4  | 27-33                     | (20-24)* | FD14-4002-02-06*                 | FD14-1206-04   | FD14-1210-06 |
| 3/8"      | M20 X 1.5 6g  | 1    | 39.1       | 1.54   | 24.4   | 0.96   | 31.8   | 1 1/4  | 41-81                     | (30-60)* | FD14-4002-16-06                  | FD14-1206-05   | FD14-1210-06 |
| 3/8"      | M22 X 1.5 6g  | 1    | 39.1       | 1.54   | 24.4   | 0.96   | 31.8   | 1 1/4  | 41-81                     | (30-60)* | FD14-4002-18-06                  | FD14-1206-06   | FD14-1210-06 |
| 3/8"      | M24 X 1.5 6g  | 1    | 39.1       | 1.54   | 24.4   | 0.96   | 31.8   | 1 1/4  | 41-81                     | (30-60)* | FD14-4002-19-06                  | FD14-1206-07   | FD14-1210-06 |
| 3/8"      | M24 X 2 6g    | 1    | 39.1       | 1.54   | 24.4   | 0.96   | 31.8   | 1 1/4  | 41-81                     | (30-60)* | FD14-4002-11-06                  | FD14-1206-07   | FD14-1210-06 |
| 3/8"      | M25 X 1.5 6g  | 1    | 39.1       | 1.54   | 24.4   | 0.96   | 31.8   | 1 1/4  | 41-81                     | (30-60)* | FD14-4002-17-06                  | FD14-1206-07   | FD14-1210-06 |
| 3/8"      | M27 X 2 6g    | 1    | 36.3       | 1.43   | 24.4   | 0.96   | 38.1   | 1 1/2  | 41-81                     | (30-60)* | FD14-4002-29-06                  | FD14-1206-06   | FD14-1210-06 |
| 3/8"      | M30 X 1.5 6g  | 1    | 39.1       | 1.54   | 24.4   | 0.96   | 38.1   | 1 1/2  | 41-81                     | (30-60)* | FD14-4002-21-06                  | FD14-1206-10   | FD14-1210-06 |

\* ⚠CAUTION: Failure to meet minimum assembly torque could result in fluid leakage.

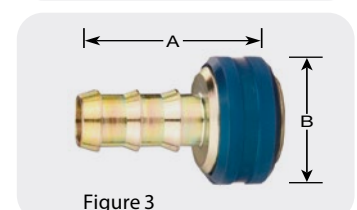
## Dimensions (Socket/Female Half NPTF, Valved)

| Body Size | Thread Size         | Fig. | Dimensions |        |        |        | Hex  | Part/Order Number |                 |  |
|-----------|---------------------|------|------------|--------|--------|--------|---|-------------------|-----------------|--|
|           |                     |      | A (mm)     | A (in) | B (mm) | B (in) |   | Assembly          |                 |  |
| 3/8"      | 3/4-14 Dryseal NPTF | 2    | 46.5       | 1.83   | 45.7   | 1.80   | 33.0  | 1 1/16            | FD14-1001-12-06 |  |



## Dimensions (Socket/Female Half Assembly, Non-Valved)

| Body Size | Thread Size     | Fig. | Dimensions |        |        |        | Part/Order Number |  |
|-----------|-----------------|------|------------|--------|--------|--------|-------------------|--|
|           |                 |      | A (mm)     | A (in) | B (mm) | B (in) | Assembly          |  |
| 3/8"      | 3/8 SOCKETLESS™ | 3    | 59.4       | 2.34   | 38.1   | 1.50   | FD14-4003-10-06   |  |



# FD14 Series Oil Drain Coupling

AMER region

## Dimensions (Cap Molded Rubber)

| Body Size | Fig. | Dimensions |       |      |      | Part/Order Number<br>Cap (Buna-N) |
|-----------|------|------------|-------|------|------|-----------------------------------|
|           |      | A          |       | B    |      |                                   |
|           |      | (mm)       | (in)  | (mm) | (in) |                                   |
| 3/8       | 4    | 13.2       | 0.519 | 35.6 | 1.40 | FD14-1204-06                      |

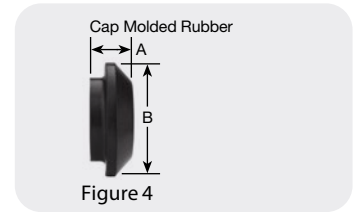


Figure 4

## Dimensions (Cap)

| Body Size | Fig. | Dimensions |       |      |      | Part/Order Number<br>Cap (Buna-N) |
|-----------|------|------------|-------|------|------|-----------------------------------|
|           |      | A          |       | B    |      |                                   |
|           |      | (mm)       | (in)  | (mm) | (in) |                                   |
| 3/8       | 5    | 18.4       | 0.726 | 31.8 | 1.25 | FD14-1210-06                      |

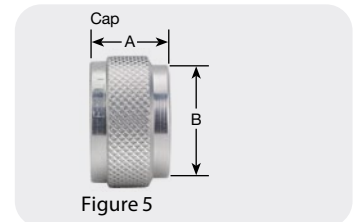


Figure 5

## Swivel Joint

| Body Size | Fig. | Thread Size | Cap          | Part/Order Number |
|-----------|------|-------------|--------------|-------------------|
|           |      |             |              | (Buna-N)          |
| 3/8       | 6    | 3/4-14      | Dryseal NPTF | FD14-1004-12-12   |

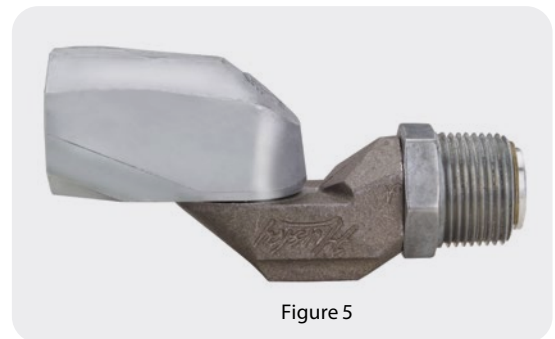
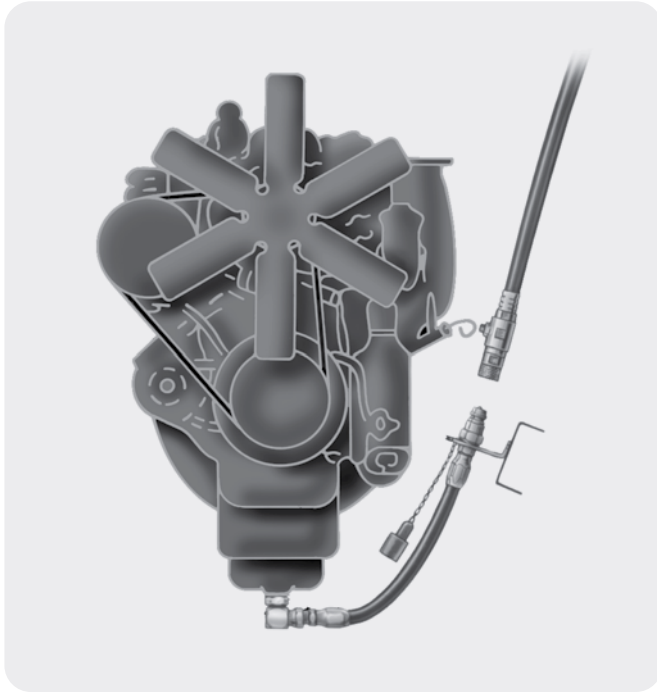


Figure 5

## Access Methods

### Remote Access

The FLOCS Remote Access Conversion Kit replaces the old drain plug with a 90 degree pan adapter, hose assembly and quick-disconnect coupling.



#### Installation:

1. Remove old drain plug.
2. Replace with the proper size FF1187 pan adapter.
3. Install mounting bracket (and optional 90° adapter).
4. Attach hose assembly to FF1187 pan adapter and mounting bracket.
5. Attach coupling and dust cap.

Your installation is now complete.

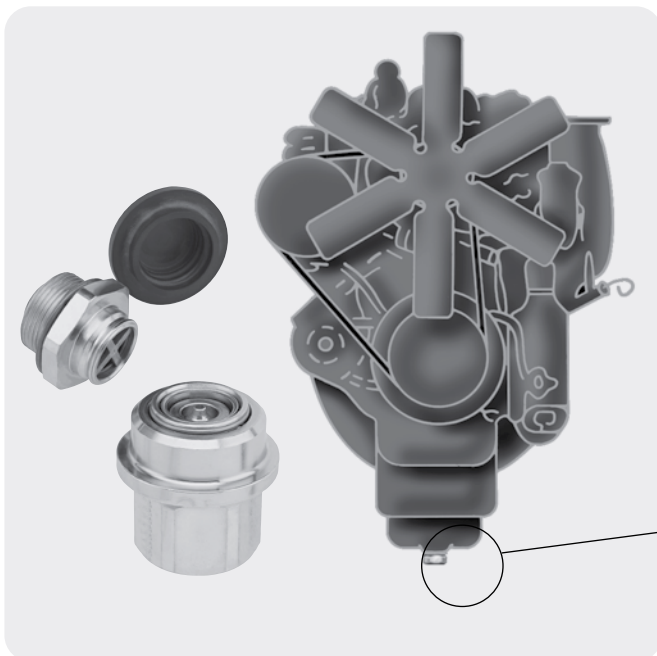
#### Evacuation:

When it is time to change the oil:

1. Remove the dust cap.
2. Connect the evacuation hose to the quickdisconnect coupling.
3. Activate the pump, and the used oil is quickly evacuated to storage tanks.
4. Disconnect the evacuation hose and replace the dust cap.

### Direct Access

The FLOCS Direct Access Conversion Kit uses the Danfoss-developed FD14 Drain Coupling as an alternative to the standard remote hose kit. This coupling design permits easy, one-hand connection and disconnection of the evacuation unit's hose.



#### Installation:

1. Remove old drain plug.
2. Replace with the proper size FD14 Drain Coupling.
3. Install protective cap..

Your installation is now complete.

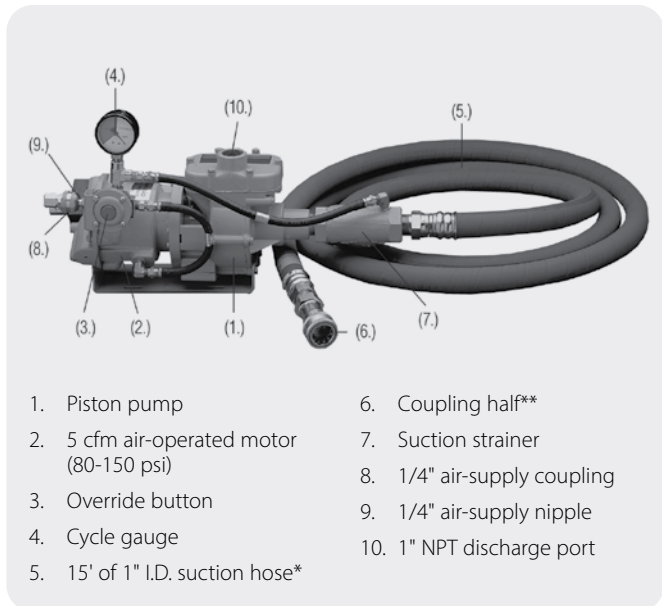
#### Evacuation:

When it is time to change the oil:

1. Remove the protective cap.
2. Connect the evacuation hose to the FD14 Drain Coupling.
3. Activate the pump, and the used oil is quickly evacuated to storage tanks.
4. Disconnect the evacuation hose and replace the protective cap.

# Evacuation Systems

## FLOCS 30A – Air-powered Unit



- |  |                             |
|--|-----------------------------|
| 1. Piston pump                           | 6. Coupling half**          |
| 2. 5 cfm air-operated motor (80-150 psi) | 7. Suction strainer         |
| 3. Override button                       | 8. 1/4" air-supply coupling |
| 4. Cycle gauge                           | 9. 1/4" air-supply nipple   |
| 5. 15' of 1" I.D. suction hose*          | 10. 1" NPT discharge port   |

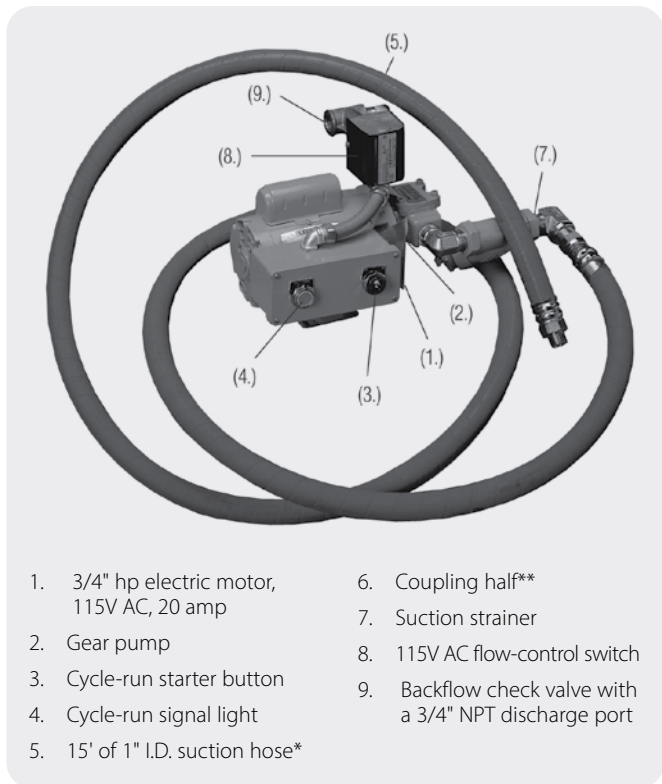
**(Part No. FF9330A-01) Remote Access**  
**(Part No. FF9330A-19) Direct Access**

The FLOCS 30A Oil-evacuation Unit is a versatile, air-powered unit designed to be used where an air-power source is available, and electrical units may present a fire hazard. The unit can be adapted for use either on a lube truck or in a maintenance bay.

A FLOCS 30A unit can be used with equal effectiveness on vehicles with small oil-pan capacities (taxicabs, delivery trucks, school buses, etc.), medium capacities (highway equipment, tree-harvesting equipment, etc.) or large capacities (mining or construction equipment, etc.). Speed, ease of operation and versatility make the FLOCS 30A the best rapid oil-evacuation unit for many applications.

- \* FLOCS 30A Oil-evacuation Unit with 25' hose assembly is ordered by part number FF9330A-100 (Remote Access), FF9330A-20 (Direct Access).
- \*\* Differs with access method.

## FLOCS 15 – Electric-powered Unit



- |  |  |
|--|--|
| 1. 3/4" hp electric motor, 115V AC, 20 amp | 6. Coupling half**                                     |
| 2. Gear pump                               | 7. Suction strainer                                    |
| 3. Cycle-run starter button                | 8. 115V AC flow-control switch                         |
| 4. Cycle-run signal light                  | 9. Backflow check valve with a 3/4" NPT discharge port |
| 5. 15' of 1" I.D. suction hose*            |  |

**(Part NO. FF9315-01) Remote Access**  
**(Part No. FF9315-28) Direct Access**

The FLOCS 15 Oil-evacuation Unit is electric powered and is designed for use in fleet maintenance service bays. Used in conjunction with overhead oil-dispensing reels, the FLOCS 15 speeds oil changes in large fleets. In some multilane maintenance shops, the FLOCS 15 concept has been used to implement a "fast-lane" operation, with one lane set aside for high-frequency, routine maintenance functions, leaving the other lanes free for more complex and time-consuming operations.

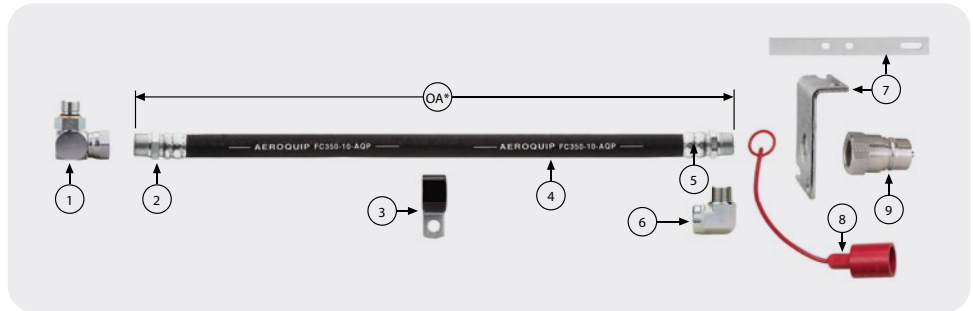
The FLOCS 15 is compatible with existing oil service equipment and can be installed quickly, without interrupting normal maintenance operations. It discharges old oil into existing storage tanks and shuts off automatically when the old oil has been evacuated. A signal light goes off when the evacuation is complete.

- \* FLOCS 15 Oil-evacuation Unit with 30' hose assembly is ordered by part number FF9516-01 (Remote Access), FF9516-02 (Direct Access).
- \*\* Differs with access method.

# Remote Access (Aeroquip) Conversion Kits

## Standard Vehicles

All kits are designed to accommodate manual drain when necessary.



These components are common to each kit regardless of the part number.

| Item #   | Part/Order # | Description                   |
|----------|--------------|-------------------------------|
| Item # 2 | 4412-8-10S   | Hose Fitting (Reusable)       |
| Item # 2 | FJ3152-0810S | Hose Fitting (Crimp)          |
| Item # 3 | 900729-6     | Hose Clamp                    |
| Item # 4 | FC350-10     | Hose                          |
| Item # 5 | 4412-12-10S  | Hose Fitting                  |
| Item # 5 | FJ3152-1210S | Crimp                         |
| Item # 6 | 2089-12-12S  | Connection At Mounting Flange |
| Item # 7 | FF9363-01S   | Bracket                       |
| Item # 8 | 5657-12      | Dust Cap                      |
| Item # 9 | 5602-12-12S  | Coupling Half                 |

Kit Numbers are selected by matching the drain port thread size with the oil pan adapter of the same thread.

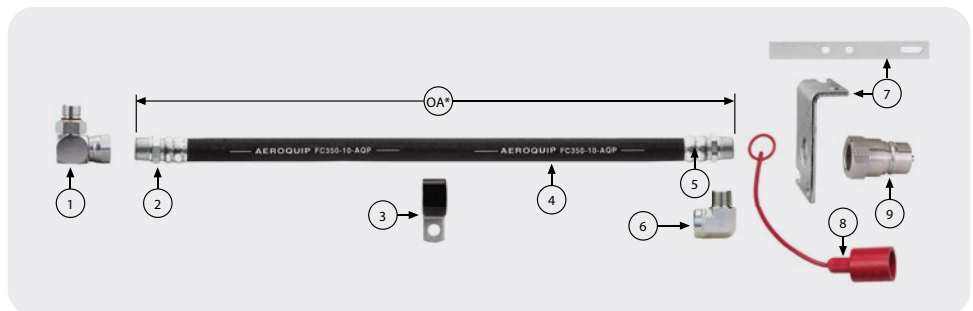
| Thread Size         | #1 Oil Pan Adapter & Gasket | Hardware Kit (Includes Items 1, 3, 6, 7, 8, & 9) | Assembled Kit* (Includes Items 1 through 9) |
|---------------------|-----------------------------|--|---|
| 1/2 - 20            | FF1187-0801S                | FF428  | FF400-OA                                    |
| m 18 x 1.5          | FF1187-0802S                | FF429  | FF401-OA                                    |
| m 14 x 1.25         | FF1187-0803S                | FF430  | FF402-OA                                    |
| m 10 x 1            | FF1187-0804S                | FF431  | FF403-OA                                    |
| 1 1/4 - 18          | FF1187-0805S                | FF432  | FF404-OA                                    |
| 1 - 18              | FF1187-0806S                | FF433  | FF405-OA                                    |
| 7/8 - 18            | FF1187-0807S                | FF434  | FF406-OA                                    |
| 3/8 - 18            | FF1187-0808S                | FF435  | FF407-OA                                    |
| 3/4 - 16            | FF1187-0809S                | FF436  | FF408-OA                                    |
| 7/8 - 14            | FF1187-08010S               | FF437  | FF409-OA                                    |
| 9/16 - 18UNF - 2A   | FF1187-08012S               | FF11042  | FF11041-OA                                  |
| 1 1/8 - 12UNF - 2A  | FF1187-08014S               | FF11301  | FF10452-OA                                  |
| 1 1/8 - 12UNF - 2A  | **FF1187-08015S             | FF11303  | FF11302-OA                                  |
| m 20 x 1.5          | FF1187-0816S                | FF11499  | FF11498-OA                                  |
| m 25 x 1.5          | FF1187-0817S                | FF11826  | FF11825-OA                                  |
| 3/8 - 18 NPT (Pipe) | 2047-8-6S                   | FF439  | FF411-OA                                    |
| 1/2 - 14 NPT (Pipe) | 2047-8-8S                   | FF440  | FF412-OA                                    |
| 3/4 - 14 NPT (Pipe) | 2047-8-12S                  | FF441  | FF413-OA                                    |

\* OA indicates overall length of hose assembly in inches. (Available to Aeroquip only.)

\*\* Long Drop Version for oil pans covered by sound attenuation shields.

## Large-capacity Vehicle Kit

All kits are designed to accommodate manual drain when necessary.



These components are common to each kit regardless of the part number.

| Item #   | Part/Order #               | Description                        |
|----------|----------------------------|------------------------------------|
| Item # 2 | 4412-8-12S<br>FJ3152-0812S | (Reusable)<br>Hose Fitting (Crimp) |
| Item # 3 | 900729-8                   | Hose Clamp                         |
| Item # 4 | FC350-10                   | Hose                               |
| Item # 5 | 4412-12-12S                | Hose Fitting                       |
| Item # 5 | FJ3152-1212S               | (Crimp)                            |
| Item # 6 | 2089-12-12S                | Connection At Mounting Flange      |
| Item # 7 | FF9363-01S/<br>FF9270-01S  | Bracket                            |
| Item # 8 | 5657-12                    | Dust Cap                           |
| Item # 9 | 5602-12-12S                | Coupling Half                      |

Kit Part Numbers are selected by choosing the appropriate drain port thread size.

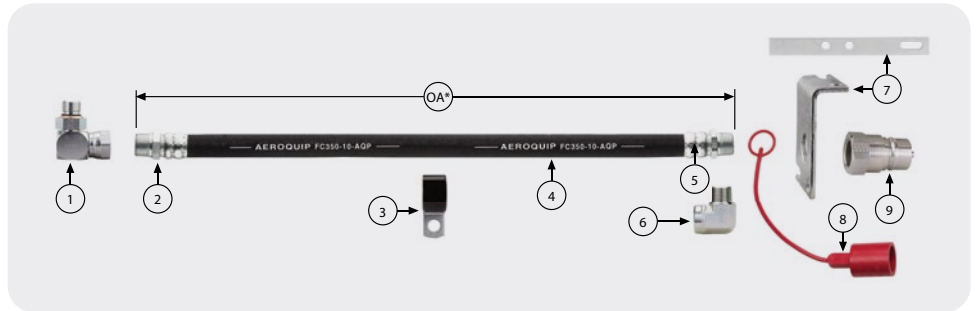
| Items Thread Size     | #1 Oil Pan Adapter & Gasket | #2 Hose Fitting | Hardware Kit (Includes Items 1, 3, 6, 7, 8, & 9) | Assembled Kit* (Includes Items 1 through 9) |
|-----------------------|-----------------------------|-----------------|--|---|
| 3/4 - 14 NPT (Pipe)   | 2047-8-12S                  | 4412-8-12S      | FF943  | FF293-OA                                    |
| 3/8 - 18 NPT (Pipe)   | 2047-8-6S                   | 44112-8-12S     | FF945  | FF322-OA                                    |
| 7/8 - 18              | FF1187-0807S                | 4412-8-12S      | FF944  | FF317-OA                                    |
| 7/8 - 14              | FF1187-0810S                | 4412-8-12S      | FF946  | FF380-OA                                    |
| 1 - 18                | FF1187-0806S                | 4412-8-12S      | FF947  | FF395-OA                                    |
| 1 - 11 1/2 NPT (Pipe) | 2024-16-12S                 | 4411-8-12S      | FF948  | FF833-OA                                    |
| 1/2 - 14 NPT (Pipe)   | 2024-8-12S                  | 4411-8-12S      | FF949  | FF834-OA                                    |

\* OA indicates overall length of hose assembly in inches. (Available to Aeroquip only.)

# Remote Access (Weatherhead) Conversion Kits

## Standard Vehicles

All kits are designed to accommodate manual drain when necessary.



These components are common to each kit regardless of the part number.

| Item #   | Part/Order # | Description                   |
|----------|--------------|-------------------------------|
| Item # 2 | 0A10E-108    | Hose Fitting                  |
| Item # 3 | 900729-6     | Hose Clamp                    |
| Item # 4 | H56910       | Hose                          |
| Item # 5 | 069          | Hose Fitting Adapter for 90   |
| Item # 6 | 2089-12-12S  | Connection At Mounting Flange |
| Item # 7 | FF9363-01S   | Bracket                       |
| Item # 8 | 5657-12      | Dust Cap                      |
| Item # 9 | 5602-12-12S  | Coupling Half                 |

Kit Numbers are selected by matching the drain port thread size with the oil pan adapter of the same thread.

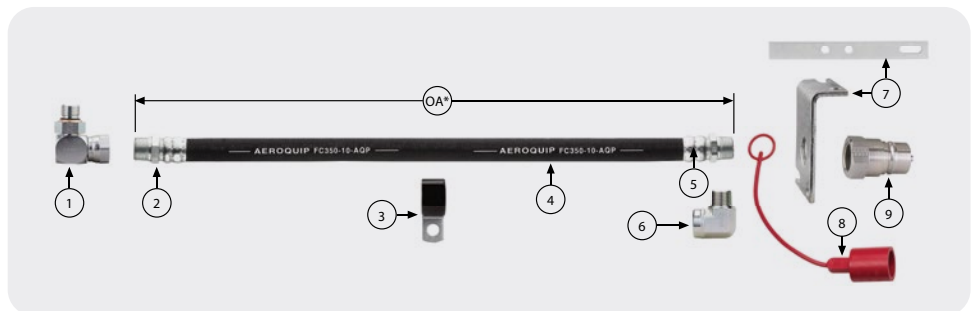
| Thread Size         | #1 Oil Pan Adapter & Gasket | Hardware Kit (Includes Items 1, 3, 6, 7, 8, & 9) |
|---------------------|-----------------------------|--|
| 1/2 - 20            | FF1187-0801S                | FF428  |
| m 18 x 1.5          | FF1187-0802S                | FF429  |
| m 14 x 1.25         | FF1187-0803S                | FF430  |
| m 10 x 1            | FF1187-0804S                | FF431  |
| 1 1/4 - 18          | FF1187-0805S                | FF432  |
| 1 - 18              | FF1187-0806S                | FF433  |
| 7/8 - 18            | FF1187-0807S                | FF434  |
| 3/8 - 18            | FF1187-0808S                | FF435  |
| 3/4 - 16            | FF1187-0809S                | FF436  |
| 7/8 - 14            | FF1187-0810S                | FF437  |
| 9/16 - 18UNF - 2A   | FF1187-08012S               | FF11042  |
| 1 1/8 - 12UNF - 2A  | FF1187-08014S               | FF11301  |
| 1 1/8 - 12UNF - 2A  | **FF1187-08015S             | FF11303  |
| m 20 x 1.5          | FF1187-0816S                | FF11499  |
| m 25 x 1.5          | FF1187-0817S                | FF11826  |
| 3/8 - 18 NPT (Pipe) | 2047-8-6S                   | FF439  |
| 1/2 - 14 NPT (Pipe) | 2047-8-8S                   | FF440  |
| 3/4 - 14 NPT (Pipe) | 2047-8-12S                  | FF441  |

\* OA indicates overall length of hose assembly in inches. (Available to Aeroquip only.)

\*\* Long Drop Version for oil pans covered by sound attenuation shields.

## Large-capacity Vehicle Kit

All kits are designed to accommodate manual drain when necessary.



These components are common to each kit regardless of the part number.

| Item #   | Part/Order #              | Description                   |
|----------|---------------------------|-------------------------------|
| Item # 2 | 069                       | Hose Clamp                    |
| Item # 3 | 900729-8                  | Hose                          |
| Item # 4 | H56912                    | Hose                          |
| Item # 5 | 069                       | Hose Fitting                  |
| Item # 6 | 2089-12-12S               | Connection At Mounting Flange |
| Item # 7 | FF9363-01S/<br>FF9270-01S | Bracket                       |
| Item # 8 | 5657-12                   | Dust Cap                      |
| Item # 9 | 5602-12-12S               | Coupling Half                 |

Kit Part Numbers are selected by choosing the appropriate drain port thread size.

| Thread Size           | #1 Oil Pan Adapter & Gasket | Assembled Kit* (Includes Items 1 through 9) |
|-----------------------|-----------------------------|---|
| 3/4 - 14 NPT (Pipe)   | 2047-8-12S                  | FF943                                       |
| 3/8 - 18 NPT (Pipe)   | 2047-8-6S                   | FF945                                       |
| 7/8 - 18              | FF1187-0807S                | FF944                                       |
| 7/8 - 14              | FF1187-0810S                | FF946                                       |
| 1 - 18                | FF1187-0806S                | FF947                                       |
| 1 - 11 1/2 NPT (Pipe) | 2047-8-16S                  | FF948                                       |
| 1/2 - 14 NPT (Pipe)   | 2047-8-8S                   | FF949                                       |

# Oil Thief System



## Providing easy access to oil samples for spectrographic analysis

With the spectrographic analysis of engine oil being increasingly required, the problem of obtaining oil samples quickly, economically and efficiently has demanded more attention.

With the push of a button, an oil sample can be taken during the evacuation cycle of any FLOCS unit and collected in a standard sampling bottle for analysis. It takes less than 15 seconds to collect an oil sample with the Oil Thief.

Because oil-analysis facilities provide differing oil sample bottles, the FLOCS Oil Thief is available with a sample bottle port thread to match your needs. (Refer to the sample bottle thread sizes and corresponding Oil Thief part numbers listed in this chart.)

### Features:

- Push-button operation
- Light weight
- Repairable seals
- Accepts a wide variety of sample bottle threads

### Benefits:

- No-mess oil sample
- Economical – one Oil Thief per maintenance bay evacuation pump
- Allows oil sampling while oil is still hot, without employee hazard

### Physical Characteristics:

Buna-N Seals for -40 to +225 Degrees Fahrenheit Service.  
Vacuum Capable to 28" Hg..

In a typical FLOCS system, a Male NPTF-to-Male NPTF adapter (2083-12-12s) is used on one end of the Oil Thief to connect to the female quick-disconnect coupling.

### Operating Instructions:

The Oil Thief is compatible with any FLOCS evacuation unit. Simply install an Oil Thief between the evacuation hose line and the coupling half; then attach a sample bottle. Wait a few seconds after starting the evacuation cycle (to flush away any oil from the last evacuation); then depress the sample collection button for approximately ten seconds. Release the button and remove the sample bottle. Clean the Oil Thief sample bottle port, attach another bottle and you are ready for the next sample.

Note: When not in use, the Oil Thief should have a spare sample bottle attached to maintain valve cleanliness.

| Oil Thief Part/Order Number | Sample Bottle Thread Size (In Inches) |
|-----------------------------|---------------------------------------|
| FF9300-75-0001              | 1.480-6 (or 38mm)                     |
| FF9300-75-0002              | 2.070-6                               |
| FF9300-75-0003*             | 1.580-6                               |
| FF9300-75-0004*             | 1.750-6 (or 45mm)                     |

\*Available by special order.

# Remote Access Conversion Kit Installation

## 1. Selecting the Conversion Kit

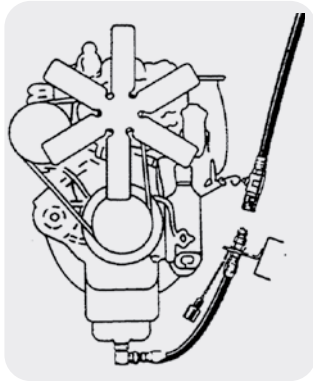
Remove the oil pan drain plug and drain engine oil. Measure the thread on the pan plus with a thread gauge. The thread size will determine the specific conversion kit to be used. Kits are available in two styles: 1) assembly kits (contain mounting hardware and hose assembly), and 2) oil pan drain fitting and coupling with mounting bracket (installer must finish hose assembly). Hose length in inches ("L") is added to the basic part number when ordering assembled kits.

## 2. Installation

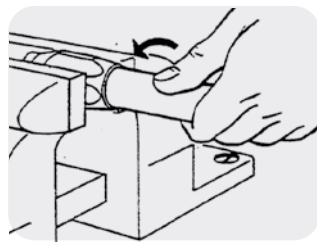
Determine the length of hose required for your vehicle. If the hose length is not known, mount the quick disconnect coupling and bracket and route the hose from the coupling bracket to the oil pan drain. Refer to step 5 for proper routing, mark and cut the hose to length. Following step 3 install the hose fittings to complete the hose assembly. Install the oil pan drain fitting (per step 6) and the hose assembly.

| Thread Size         | #1 Oil Pan Adapter & Gasket | Hardware Kit (Includes Items 1, 3, 6, 7, 8, & 9) |
|---------------------|-----------------------------|--|
| 1/2 - 20            | FF1187-0801S                | FF428  |
| m 18 x 1.5          | FF1187-0802S                | FF429  |
| m 14 x 1.25         | FF1187-0803S                | FF430  |
| m 10 x 1            | FF1187-0804S                | FF431  |
| 1 1/4 - 18          | FF1187-0805S                | FF432  |
| 1 - 18              | FF1187-0806S                | FF433  |
| 3/8 - 18            | FF1187-0807S                | FF434  |
| 5/8 - 18            | FF1187-0808S                | FF435  |
| 3/4 - 16            | FF1187-0809S                | FF436  |
| 7/8 - 14            | FF1187-08010S               | FF437  |
| 9/16 - 18UNF - 2A   | FF1187-08012S               | FF11042  |
| 1 1/8 - 12UNF - 2A  | FF1187-08014S               | FF11301  |
| 1 1/8 - 12UNF - 2A  | **FF1187-08015S             | FF11303  |
| m 20 x 1.5          | FF1187-0816S                | FF11499  |
| m 25 x 1.5          | FF1187-0817S                | FF11826  |
| 3/8 - 18 NPT (Pipe) | 2047-8-6S                   | FF439  |
| 1/2 - 14 NPT (Pipe) | 2047-8-8S                   | FF440  |
| 3/4 - 14 NPT (Pipe) | 2047-8-12S                  | FF441  |

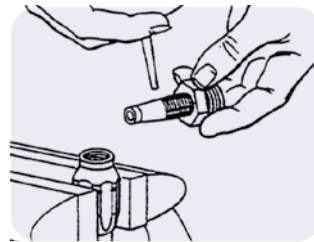
## 3. Assembling the Hose Line



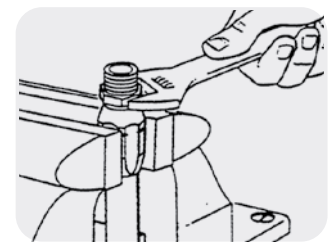
A. Put the socket in vise and screw hose into socket counterclockwise until it bottoms. Back off 1/4 turn.



B. Oil nipple threads and inside of hose liberally. Use heavy lube oil.



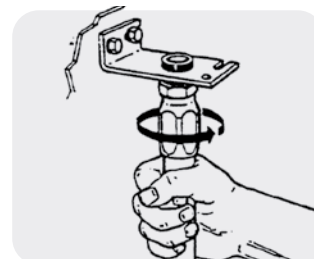
C. Screw nipple clockwise into socket and hose. Keep hose from turning while assembling nipple. Leave 1/32" to 1/16" clearance between nipple hex and socket.



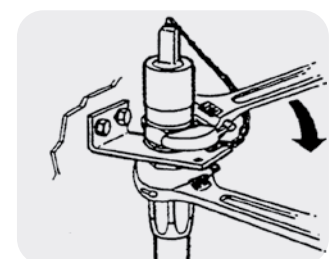
## 4. Mounting the Coupling

Note: The coupling bracket should be mounted so that the coupling valve is located above the oil level in the crank case. Make sure that the coupling is mounted firmly and located so that it will not be damaged during normal operation of the vehicle.

A. Attach mounting bracket to desired location on vehicle, preferably near the dipstick. Screw assembled fitting into bracket until enough thread is exposed on opposite side to assemble and tighten the quick disconnect coupling.



B. Assemble dust cap and coupling to mounted hose fitting. Use pipe thread sealant. Check for any leakage after kit is installed.

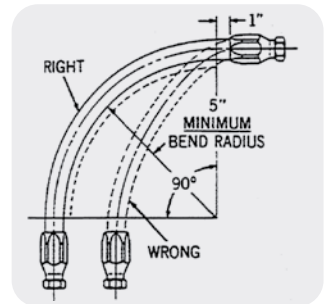
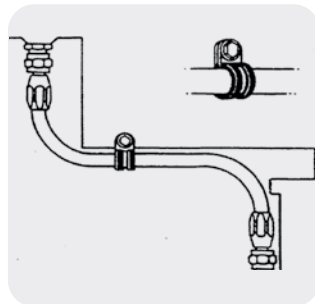
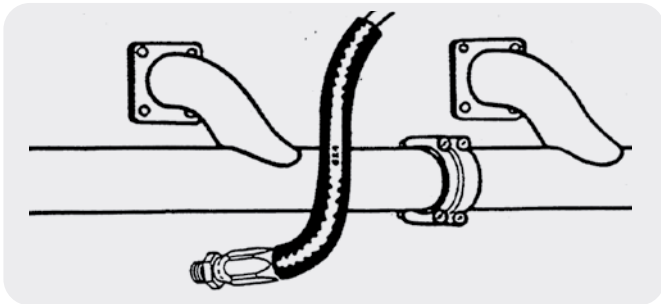


### 5. Routing the Hose

A. Avoid heat. If the hose must be routed past the manifold or exhaust pipe, use Firesleeve for heat protection.

B. Avoid sharp or abrasive edges. Use Danfoss protective coil/sleeve if hose might be cut or chafed or use support clamp provided to avoid abrasion.

C. Avoid kinking. Tight bends may kink hose. Observe bend radius limitations.

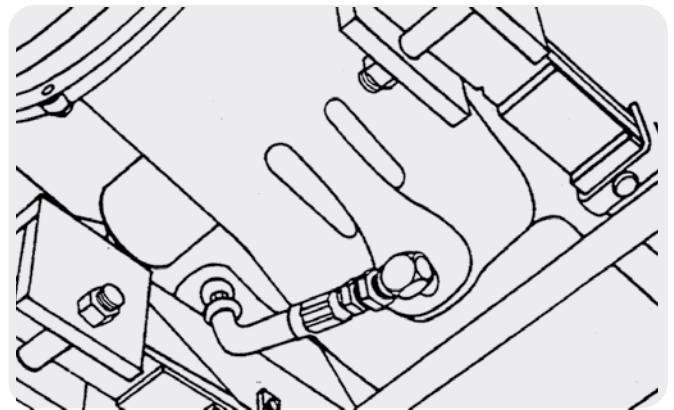
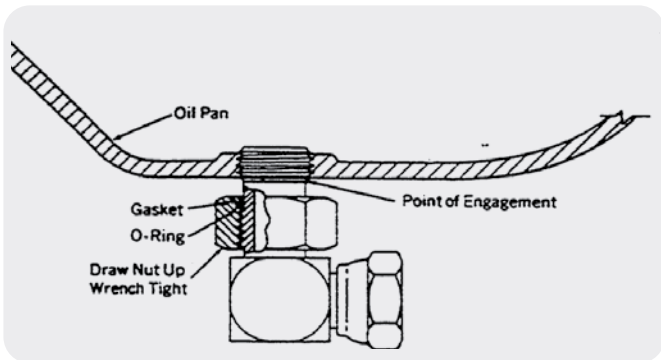


### 6. Installing the Oil Pan Drain Fitting

Lubricate the O-ring seal on the Oil Pan Drain Fitting. Screw the fitting into the oil pan until the last thread on the upper set of threads is engaged.

Position the elbow and tighten the jam nut (two wrenches needed). Screw the hose fitting into the elbow and tighten all connections.

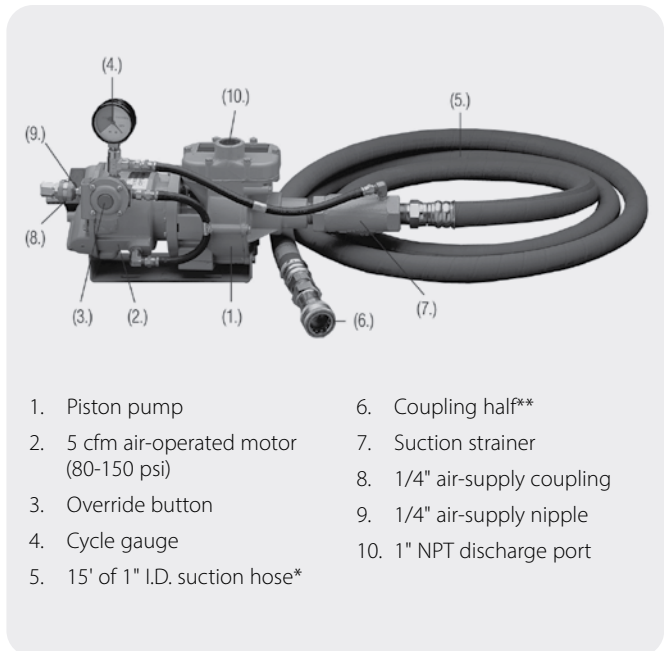
Oil may be manually drained by disconnecting the hose fitting from the oil pan adapter.



# Air Units

Operation and Service Info

## FLOCS 30A – Air-powered Unit



- |  |                             |
|--|-----------------------------|
| 1. Piston pump                           | 6. Coupling half**          |
| 2. 5 cfm air-operated motor (80-150 psi) | 7. Suction strainer         |
| 3. Override button                       | 8. 1/4" air-supply coupling |
| 4. Cycle gauge                           | 9. 1/4" air-supply nipple   |
| 5. 15' of 1" I.D. suction hose*          | 10. 1" NPT discharge port   |

### Specifications:

- Maximum discharge pressure: 1/5 of the input air pressure (power source).
- Recommended operating temperature of fluid: +60°F. to 180°F.
- Strainer screen size: size 35 mesh.
- Flow rate: see flow chart.

- Pump power source: 80 to 150 psi air at 5 CFM minimum.
- Fluid handling compatibility: all petroleum base fluids below 6000 SSU
- Minimum discharge line: size 1" I.D. (-16).
- Mounting requirements: see Fig. 3. page 3.

### Operation

The FLOCS 30A unit is a simple self-controlled automatic oil evacuator. Once it has been started it will operate until all the oil has been evacuated from the oil pan. The unit will stop automatically when air enters the suction hose.

This unit is controlled by a normally closed, air supply shut-off valve, which requires the pump vacuum to hold it open. At the end of the evacuation cycle air in the suction line destroys the vacuum causing the control valve to shut off the air pressure supply and stop the pump. The unit also incorporates a strainer to

prevent large particles from damaging the pump.

### To operate:

1. Attach the FLOCS 30A unit quick disconnect coupling to the mating conversion kit coupling half on the equipment.
2. Press the red override button to start the unit; hold for approximately 5 seconds. Cycle gauge will indicate run condition.
3. The unit will shut off automatically when all oil is evacuated. The cycle gauge will indicate when the unit is off. Disconnect the evacuation line.

### Installation Instructions

Mount the unit for easy accessibility to the vehicles to be serviced. It may be mounted in either a horizontal or vertical position. A mounting bracket is provided for rigid mounting of the pump (reference Figure 3 for detail dimensions). The pump motor operates on 80-150 psi air at 5 CFM minimum. The unit is to be mounted so that the cycle gauge is in full view of the operator and the override button and strainer cleanout are readily accessible.

1. Connect the used oil discharge line to the 1" pipe port at the top of the unit. The discharge line must be no higher than 10 feet above FLOCS unit. It is important to keep the discharge line large to maintain maximum efficiency.

Use a 1" I.D. pipe for lines 15' to 30' long and a 1 1/4" I.D. pipe for lines 30' to 100' long. Make sure the discharge line does not develop more head pressure than 1/5 of the air pressure source. (Example: air power source of 150 psi, discharge head pressure of 30 psi maximum.)

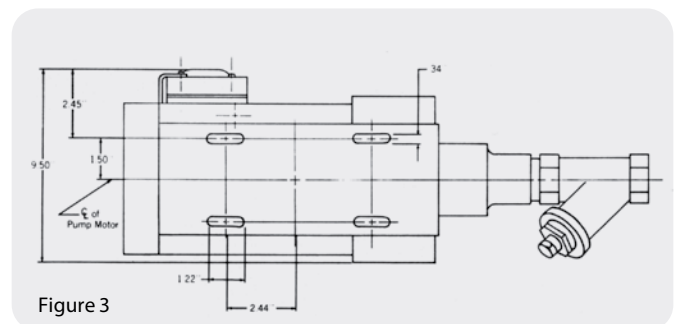
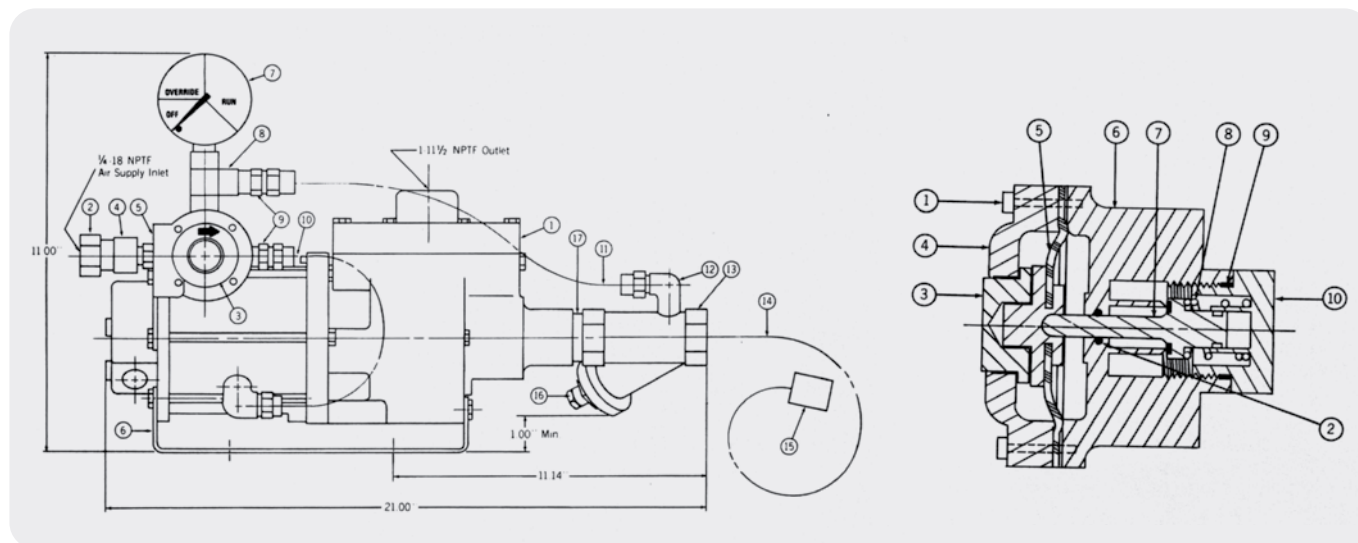


Figure 3

2. Connect the air supply line into the 1/4" NPTF port of the quick disconnect coupling supplied with the unit. The air supply line should be equipped with an air line water filter to prevent water from contaminating the pump control and/or causing freezing-up. A lubricator is also recommended for the air supply line (use non-detergent oil in the lubricator).

# FLOCS 30A

## Parts List and Assembly Drawing



| Item No. | Quality Required | Description    | Part/Order No.  | Basic Material |
|----------|------------------|----------------|-----------------|----------------|
| 1        | 1                | Pump           | FF9330A-02      | Cast Aluminum  |
| 2        | 1                | Coupling Half  | FD40-1000-04-04 | Steel          |
| 3        | 1                | Shut-off Valve | FF9330A-03      | Aluminum       |
| 4        | 1                | Coupling Body  | FD40-1014-04-04 | Steel          |
| 5        | 1                | Bracket        | FF9330A-14      | Steel          |
| 6        | 1                | Bracket        | FF9330A-13      | Steel          |
| 7        | 1                | Cycle Gauge    | FF9330A-11      | Steel          |
| 8        | 1                | Service Tee    | 2092-4-4S       | Steel          |
| 9        | 1                | Adapter        | 2021-4-4B       | Brass          |
| 10       | 2                | Hose Assembly  | 255603-4B-8     | Brass Fittings |
| 11       | 1                | Hose Assembly  | 255603-4B-13    | Brass Fittings |
| 12       | 2                | Adapter        | 2024-4-4B       | Brass          |
| 13       | 1                | Strainer       | FF9330A-12      | Steel          |
| 14       | 1                | Hose Assembly  | FA1552KMM1800   | Steel Fittings |
| 15       | 1                | Coupling Half  | 5501-12-12S     | Steel          |
| 16       | 1                | Pipe Plug      | 2082-12S        | Steel          |
| 17       | 1                | Adapter        | 2084-16S-11/2   | Steel          |

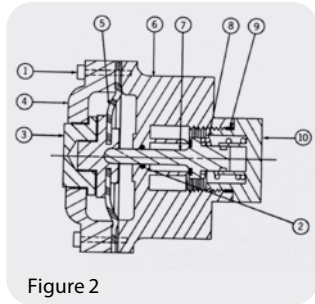
| Shut-Off Valve Parts List |                  |             |                |                  |
|---------------------------|------------------|-------------|----------------|------------------|
| Item No.                  | Quality Required | Description | Part/Order No. | Basic Material   |
| 1                         | 4                | Screw       | FF9144-0110-12 | Steel            |
| 2                         | 1                | O-ring      | 22550-008      | Buna-N           |
| 3                         | 1                | Button      | FF9330A-09     | Aluminum         |
| 4                         | 1                | Cover       | FF9330A-10     | Aluminum         |
| 5                         | 1                | Diaphragm   | FF9330A-08     | Steel and Rubber |
| 6                         | 1                | Valve Body  | FF9330A-04     | Cast Aluminum    |
| 7                         | 1                | Valve       | FF9330A-05     | Brass & Rubber   |
| 8                         | 1                | Spring      | FF9330A-06     | Spring Steel     |
| 9                         | 1                | O-ring      | 22550-018      | Buna-N           |
| 10                        | 1                | Cap         | FF9330A-07     | Plastic          |

# FLOCS 30A

## Parts List and Assembly Drawing

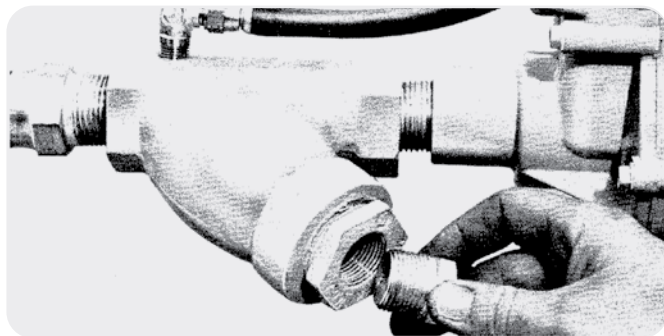
### Servicing Components

Instructions for Rebuilding Shut-Off valve (P/N FF9330A-03)



1. Remove the four cover screws, item #1; remove button, item #3; remove and replace diaphragm if necessary, item #5. For assembling, torque cover screws 25-30 in.-lbs.
  2. Remove plastic cap, item #10; spring, item #8, and valve, item #7. Replace the O-ring seal, item #9, on the cap. Check the bonded seal on the valve, item #7; inspect for foreign particles or burrs and replace if necessary.
  3. Replace O-ring seal, item #2, with a 22559-00B O-ring. Care must be taken not to scar the seal area upon removal of the O-ring.
  4. Lubricate all seals with petroleum jelly prior to installation. Make sure all metal parts are clean and not damaged.
  5. Assemble in reverse order.
- Note: A complete shut-off valve is available as an assembly for replacement.  
Order by Part Number FF9330A-03.

### Servicing the Strainer



- The strainer should be serviced daily under normal fleet operation conditions. If the strainer becomes clogged or partially blocked with residue, the evacuation operation will slow down due to lack of oil flow to the pump.
1. Remove the strainer clean-out plug and screen.
  2. Wash the plug and screen with clean fuel oil.
  3. Replace the plug and screen. Tighten wrench-tight.
  4. Be careful not to crack the castings or pipe bushings when reassembling the plug. Cracked and/or leaking castings will result in insufficient pumping.

### Troubleshooting Components

#### Problem

Unit will not run when override button is pushed.

#### Correction

- (A) Check the air supply line to see if it is connected and the air is turned on.

#### Problem

Unit will not continue running after the button is released.

#### Correction

- (A) Button was not in override long enough; hold override button until cycle gauge indicates run.

- (B) Check for vacuum leakage at strainer suction line, vehicle kit and/or hose fittings on control regulator.

- (C) Check air pressure and CFM to make sure that the minimum 80 psi and 5 CFM are available to pump.

- (D) Check the strainer for contamination.

- (E) Check regulator for damaged seals or diaphragm. Reference Figure 5, page 6 for servicing.

- (F) Check oil dipstick; oil pan may be empty.

#### Problem

Cycle gauge will not indicate the mode the pump is in.

#### Correction

- (A) Check gauge to see if indicator hand is loose.
- (B) Check for any leaks in thread and hose fitting connections.

#### Problem

Unit shuts off before all oil is evacuated.

#### Correction

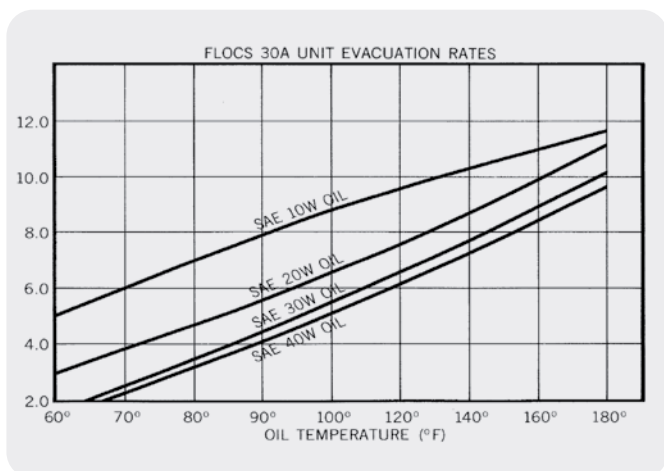
- (A) Check all threaded connections in suction line for vacuum leakage. Mount vacuum gauge in mating coupling half. Plug into end of suction line. Run pump to get a vacuum. Watch gauge. A sudden loss of vacuum indicates a suction leak.

#### Problem

Unit will not shut off after all the oil has been evacuated.

#### Correction

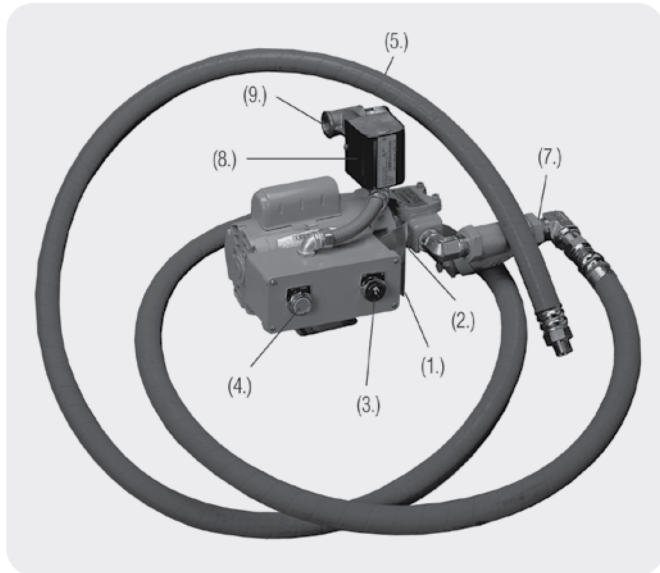
- (A) Check for plugged coupling at vehicle kit.
- (B) Check regulator for damaged seals or diaphragm. Reference Figure 5, page 6 for servicing.



# Electric Units

Operation and Service Info

## FLOCS 15 – Electric-powered Unit



1. 3/4 hp electric motor, 115V AC, 20 amp
2. Gear pump
3. Cycle-run starter button
4. Cycle-run signal light
5. 15' of 1" I.D. suction hose\*
6. Coupling half\*\*
7. Suction strainer
8. 115V AC flow-control switch
9. Backflow check valve with a 3/4" NPT discharge port

The FLOCS 15 is a simple, almost totally automatic machine.

### To operate:

1. Attach the suction line coupling half to the FLOCS coupling half on the vehicle. To connect the coupling, retract the knurled sleeve, push the coupling halves together and release the sleeve.
2. Press the cycle start button to start the unit. The cycle run light will come on.
3. The unit will shut off automatically when all oil is evacuated. The signal light will shut off. Disconnect the evacuation line.

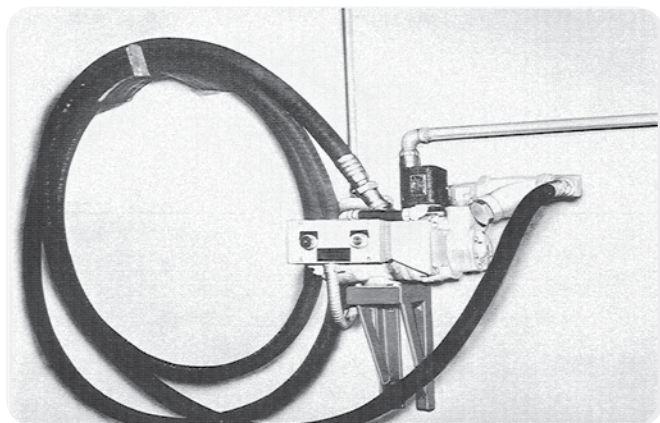
### Specifications:

- Maximum discharge pressure-50 psi
- Maximum fluid lift-10ft
- Operating temperature (of fluid) +20°F. to +180°F.
- Strainer screen size-35 mesh
- Flow rate-see flow chart on back cover
- Motor electrical rating-115V, 60CY., 20 APM AC
- Fluid handling compatibility-all petroleum base fluids below 6000 SSU
- Minimum discharge line 3/4" I.D.
- Mounting requirements-per NEMA 56 C Frame

### Installation Instructions

Mount the unit for easy accessibility to vehicles to be serviced. The pump motor operates on 115V AC 20 AMP. To install unit:

1. Remove cover plate from the control panel.
2. Drill an access hole on the side or the bottom of the control box (3/4" hole recommended for conduit). Run service wiring through access hole.
3. Connect a service grounding wire to one of the two bracket bolts on the side of the control box.
4. Connect the live wire to the 6" black lead.
5. Connect the neutral wire to the 6" white lead.
6. Tighten conduit or cord connector in 3/4" access hole.
7. Replace control panel and tighten in place.
8. Connect the old oil discharge line to the 3/4" NPT port on the check valve. NOTE: the check valve can be swung up or down for more direct routing.
9. Install the 15' evacuation line by screwing the swivel hose fitting into the female NPT thread on the strainer adapter (a 90° adapter is available to suit installation). Caution: Do not over tighten pipe threads into strainer. The use of pipe sealant is recommended.
10. The timing relay (in the control box) is factory set for 25 seconds. The purpose of the timing relay is to keep the pump engaged until the initial flow of oil reaches the pump from the vehicle. For instructions on adjustment of the timing relay, see page 6.

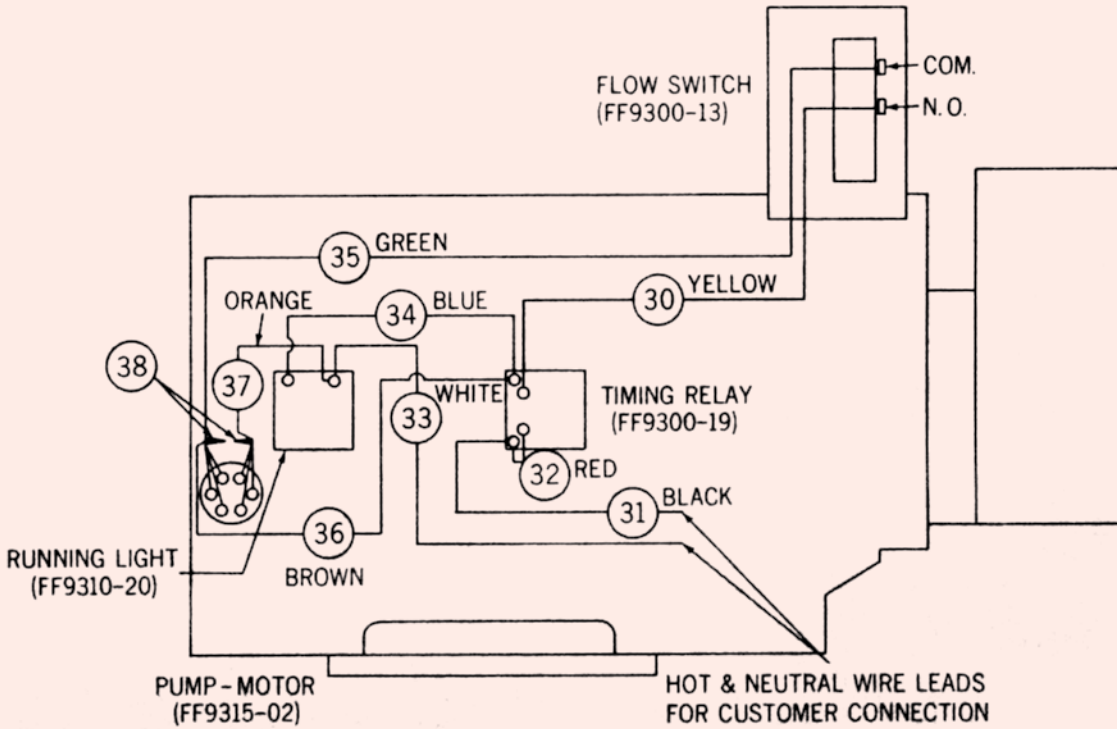
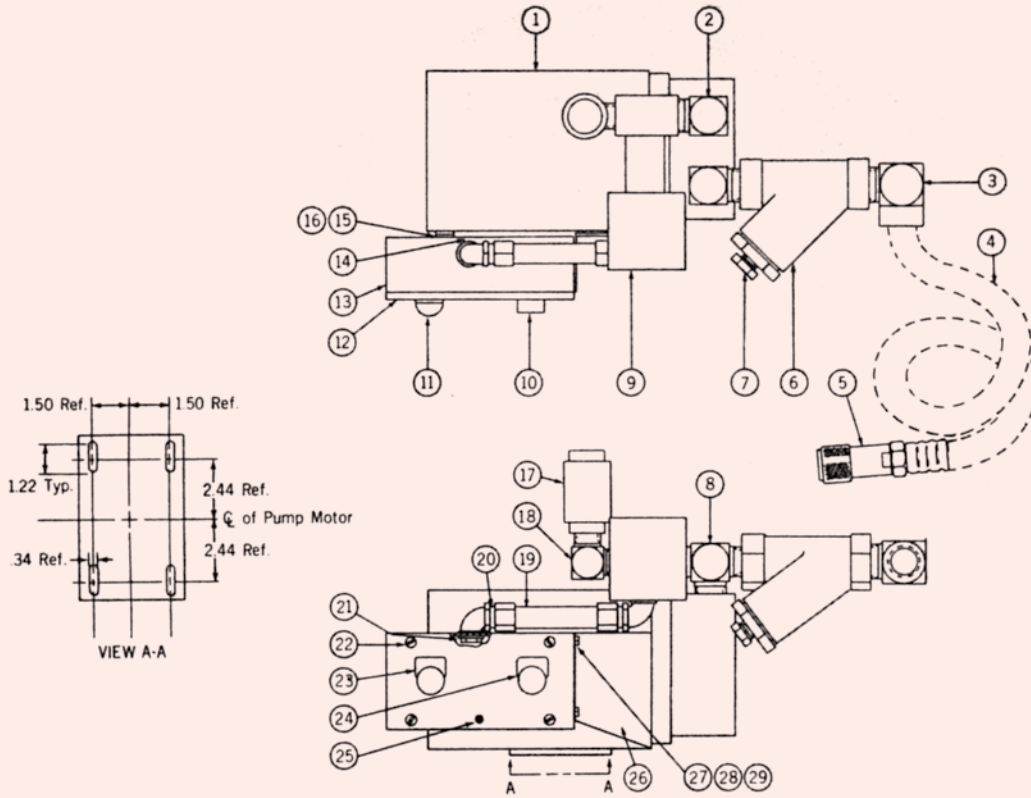


Note: The unit should not be mounted more than 10 ft. above floor level to allow no more than 10 ft. of evacuation height. The discharge line should be plumbed so as not to cause more than 50 psi head pressure.

# FLOCS 15

## Parts List and Assembly Drawing

AMER region



WIRING DIAGRAM

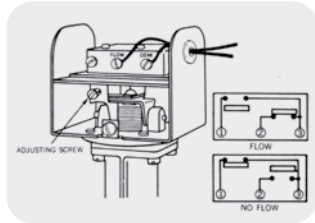
# FLOCS 30A

## Parts List and Assembly Drawing

| Item Number | Quantity Required | Description         | Part/Order Number | Basic Material  |
|-------------|-------------------|---------------------|-------------------|-----------------|
| 1           | 1                 | Pump Motor          | FF9315-02         | Steel           |
| 2           | 1                 | Adapter             | 2085-16-12S       | Steel           |
| 3           | 1                 | Adapter             | 2089-16-16S       | Steel           |
| 4           | 1                 | Hose Assembly       | FA1552KMM1800     | Steel           |
| 5           | 1                 | Coupling Half       | 5601-12-12S       | Steel           |
| 6           | 1                 | Strainer            | FF9315-03         | Steel           |
| 7           | 1                 | Pipe Plug           | 2082-12S          | Steel           |
| 8           | 1                 | Adapter             | 2085-16-16S       | Steel           |
| 9           | 1                 | Flow Switch         | FF9300-13         | Steel           |
| 10          | 1                 | Timing Relay        | FF9300-19         | Steel           |
| 11          | 1                 | Running Light       | FF9310-20         | Steel           |
| 12          | 1                 | Cover               | FF9315-20         | Steel           |
| 13          | 1                 | Control Box         | FF9315-05         | Steel           |
| 14          | 1                 | Decal               | FF9315-10         | -               |
| 15          | 1                 | Conduit Nipple      | FF9315-18         | Steel           |
| 16          | 2                 | Lock Nut            | FF9315-19         | Steel           |
| 17          | 1                 | Check Valve         | FF9315-24         | Brass           |
| 18          | 1                 | Adapter             | 2085-12-12S       | Steel           |
| 19          | 1                 | Conduit             | FF9315-23         | Steel & PVC     |
| 20          | 2                 | 90° Angle Connector | FF9315-22         | Steel           |
| 21          | 3                 | Reducing Washer     | FF9315-21         | Steel           |
| 22          | 4                 | Screw               | 210002-1-8-7S     | Steel           |
| 23          | 1                 | Legend Plate        | FF9315-07         | Steel           |
| 24          | 1                 | Legend Plate        | FF9315-06         | Steel           |
| 25          | 1                 | Decal               | FF9315-09         | -               |
| 26          | 1                 | Bracket             | FF9315-08         | Steel           |
| 27          | 2                 | Bolt                | FF9309-0110-04S   | Steel           |
| 28          | 2                 | Lock Washer         | 210104-1-10S      | Steel           |
| 29          | 2                 | Nut                 | FF9236-0110S      | Steel           |
| 30          | 1                 | Wire Assembly       | FF9315-11         | Copper & Vinyl  |
| 31          | 1                 | Wire Assembly       | FF9315-17         | Copper & Vinyl  |
| 32          | 1                 | Wire Assembly       | FF9300-30         | Copper & Vinyl  |
| 33          | 1                 | Wire Assembly       | FF9315-16         | Copper & Vinyl  |
| 34          | 1                 | Wire Assembly       | FF9315-13         | Copper & Vinyl  |
| 35          | 1                 | Wire Assembly       | FF9315-12         | Copper & Vinyl  |
| 36          | 1                 | Wire Assembly       | FF9315-25         | Copper & Vinyl  |
| 37          | 1                 | Wire Assembly       | FF9315-15         | Copper & Vinyl  |
| 38          | 2                 | Wire Connector      | FF9310-38         | Steel & Plastic |

# Servicing Components

## Servicing Components



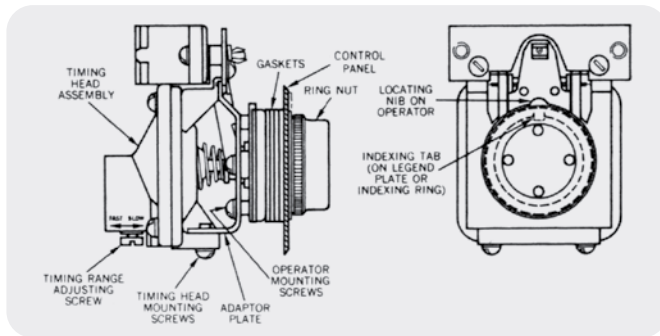
### Instructions on adjustments of the flow switch:

1. Remove the black switch cover by loosening the two screws on the side and pull off the cover.

2. If a small amount of oil remains in the crankcase after the pump shuts off, the adjusting screw should be turned counterclockwise to decrease the sensitivity of the switch. **DO NOT** remove the screw completely or back it out so far as to cause interference with the replacement of the cover.

3. If the pump stays on when no oil is flowing, the adjusting screw should be turned clockwise until the pump shuts off.

### Instructions on adjustment of the time delay-relay switch:

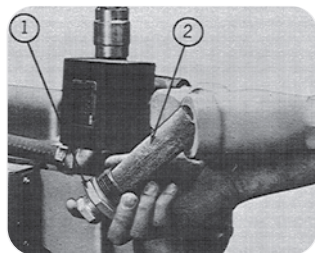


1. The timing relay is factory pre-set for a normal time delay on most applications (approximately 25 seconds).

2. To increase the time setting, turn the adjusting screw clockwise.

3. To decrease the time setting, turn the adjusting screw counterclockwise. A fraction of a turn will add or subtract 10-15 seconds of time.

## Servicing Components Servicing the Strainer:



The strainer should be serviced daily under normal operating conditions. If the strainer becomes clogged or partially blocked with engine residue, the evacuation operation will slow down due to lack of oil flow to the pump.

1. Remove the strainer clean out plug (Figure 7-1), and pull the screen (Figure 7-2) out.

2. Wash the plug and screen in clean fuel oil.

3. Place screen in plug counter bore and replace assembly in strainer housing. Tightening plug wrench tight. Use of pipe thread sealant is recommended.

Figure 2

# Troubleshooting

## Problem:

Unit operates approximately 25 seconds, then shuts off before all of the oil is out of the vehicle engine.

## Correction:

- Oil may have too heavy viscosity due to a heavy weight oil or cold oil. The engine of the vehicle should be started and run to heat the oil to above 70°F. or set the time delay switch to hold the pump engaged longer than the standard 25 seconds factory setting. See time delay switch adjustment (Figure 6).
- Strainer screen may be plugged with foreign material. Clean strainer screen in diesel fuel (Figure 7).
- The FLOCS unit may be trying to lift oil from too low a level. 10 feet lift is maximum. Move the FLOCS unit closer to the vehicle oil pan level.
- Hose connections may not be right at the vehicle pan plug. Check and tighten hose to plug union connection.

## Problem:

Unit doesn't go into the evacuation cycle when "cycle run" button is pushed.

## Correction:

- Check wiring to be sure there are no broken or disconnected wires.
- Check fuse on the power line to be sure power is being supplied to the unit.

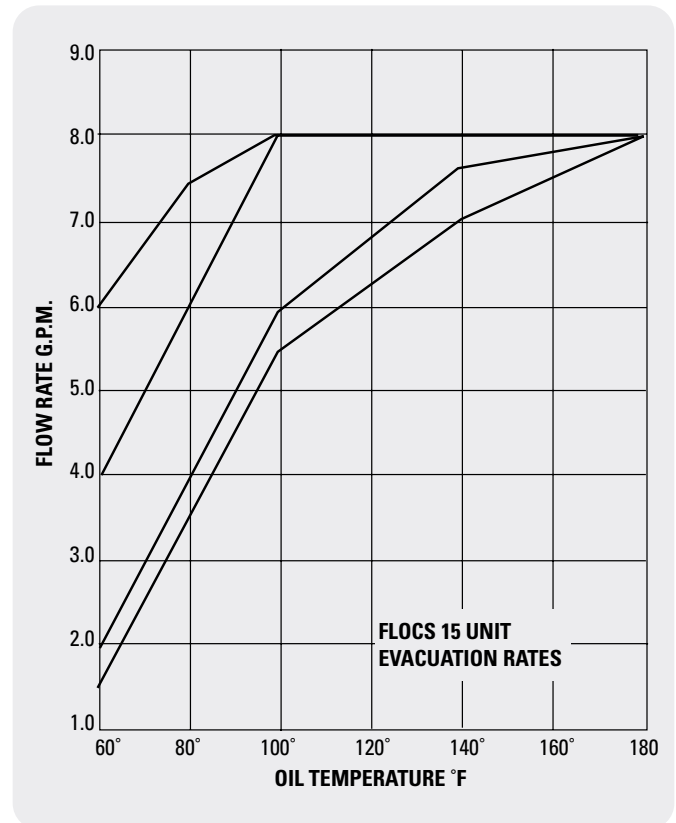
## Problem:

Evacuation is not fully completed when unit shuts off.

## Correction:

- Flow switch may be set too high and be too sensitive to the lower stream of oil near the completion of evacuation. Adjust flow switch (Figure 5)
- Broad flat oil pans with drain connection coming out the side instead of the bottom can cause air to enter into the drain line causing premature shut off. Run a second cycle by resetting the cycle start button.
- Cold oil in the oil pan can cause slow drain down of the oil pan and allow the FLOCS unit to shut off prematurely. Start vehicle engine and warm oil above 70°F. before evacuating.

## Flow Rate Chart



# Quick Seal



# Table of Contents

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| TC/MTC/RTC/OTC Series | 274 |
| H and K Series        | 277 |

## Basic Sealing Methods



### End Seal — Seals on End of Tube

- General purpose leak testing
- For air, water, refrigerant



### Inside Diameter (I.D.) Seal

- Works well with all test media including helium, air, and most refrigerants and gases
- I.D. sealing usually done with inexpensive, easy to replace O-rings

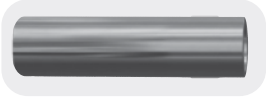





### Outside Diameter (O.D.) Seal

- Full flow, minimal restrictions
- Seals on smooth surface
- Seals have minimal exposure to test medium, last longer in hazardous duty
- Seals are larger and longer for better sealing

# QUICK SEAL® Reference Guide

AMER region

| Tube Connector Part  | PR              | TC              | RTC             | OTC            | MTC             |
|--|-----------------|-----------------|-----------------|----------------|-----------------|
| Standard Tube Sizes (inches)   | ¼ thru ¾        | ¼ thru 2-¼      | ¼ thru 1        | 0.060 thru ¾   | N/A             |
| Metric Tube Sizes (mm)   | 7 mm thru 22 mm | 3 mm thru 57 mm | 7 mm thru 25 mm | 2 mm thru 9 mm | 4 mm thru 54 mm |
| Maximum Pressure PSI (BAR)   | 650 (44)        | 650 (44)        | 650 (44)        | 650 (44)       | 650 (44)        |
| Vaccum (MICRONS)   | 10              | **              | **              | **             | **              |
| *Sealing Method  | O.D.            | E               | E               | O.D.           | E               |
| <b>Tube Type</b>   |                 |                 |                 |                |                 |
| Straight   |                 |                 |                 |                |                 |
|   | •               | •               | •               | •              | •               |
| Expanded   |                 |                 |                 |                |                 |
|  |                 |                 |                 | •              |                 |

| Test Plug/Filling Connector Part  | H                | K                |
|---|------------------|------------------|
| Standard Bore Sizes (inches)  | 0.343 thru 4.250 | 0.343 thru 4.250 |
| Metric Bore Sizes (mm)  | 9 mm thru 108 mm | 9 mm thru 108 mm |
| <b>Maximum Pressure</b>   |                  |                  |
| Smooth Bore - PSI (BAR)   | 50 (3.4)         | 50 (3.4)         |
| Treaded Bore - PSI (BAR)  | 100 (6.8)        | 100 (6.8)        |
| *Sealing Method   | I.D.             | I.D.             |
| <b>Tube Type</b>  |                  |                  |
| Smooth Bore   |                  |                  |
|  | •                | •                |
| Threaded Bore   |                  |                  |
|  | •                | •                |

\* Sealing Method: E = End Seal I.D. = Seal on Inside Diameter O.D. = Seal on Outside Diameter.

\*\* Not recommended for vacuum applications.

For special applications, consult factory.

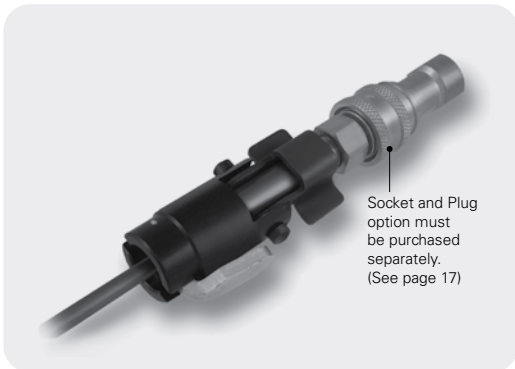
# QUICK SEAL® Tube Connectors – Straight Tube

For pressure testing, vacuum dehydrating and other applications requiring a quick, leak-free connection.

PR

¼" to ⅞" O.D. (7 mm to 22 mm)

Pressures to 650 PSI (44 BAR)



### Automatic Self-Locking Retention

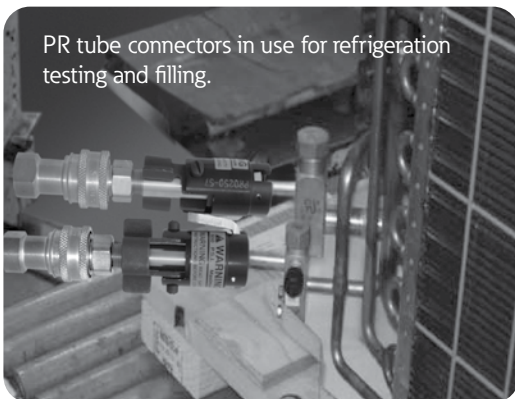
No adjustments other than routine maintenance by the operator are ever necessary.

### Single ¼" Long Seal

Lasts longer and provides a greater sealing surface which enables it to withstand the sensitivity of helium leak testing.

### Independent Locking and Sealing Actuation

Allows the operator to safely release pressure before removing the connector from the tube.



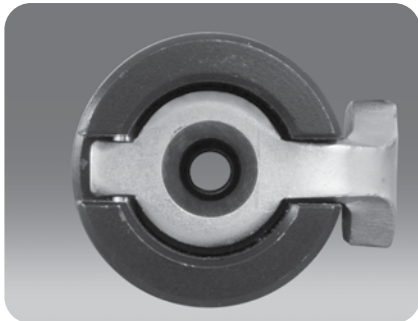
PR tube connectors in use for refrigeration testing and filling.

### Designed to provide the sealing necessary for the greater sensitivity of today's demanding leak detection techniques.

- Specially designed for nitrogen, water, helium\* and most refrigerants (R12, R22, R134A, R407, R409A, R410, AZ220, AZ250).
- Capable of sealing a 10 micron vacuum, pressures to 650 PSI (44 BAR).
- Exclusive design eliminates need for lubrication, allows easy seal replacement.
- Withstands temperatures from -20° to 250° F (-29° to 121° C).

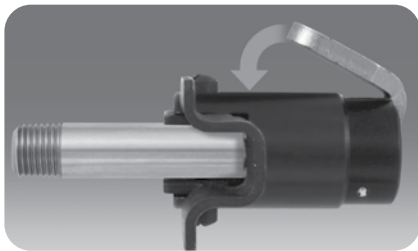
\*Helium leak rate less than 1x10<sup>-7</sup> cc/sec @ 150 PSI (10 BAR).

# QUICK SEAL® Tube Connectors – Straight Tube



Design allows full flow for quick evacuation and charging. No restrictive small seal or plunger.

## Two locking positions for highest possible secured seal:



Lock Lever



Locking Cam Lever – compresses seal around O.D. of tube.

## Series HK Socket and Plug Option



### PR Connectors

The PR Tube Connectors feature the Danfoss automatic self-locking device, which instantly connects seal pressure and vacuum lines to straight end tubing creating a leak-free seal. These units work on the push-on, pull-off principle – the higher the pressure, the tighter the hold.

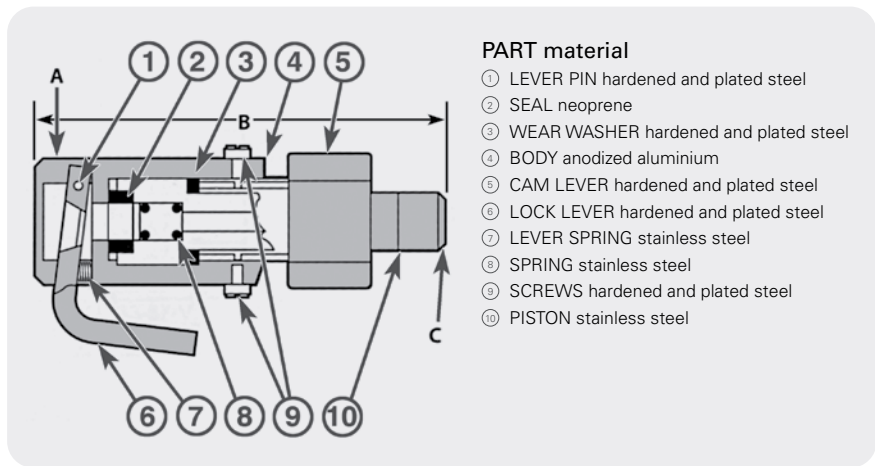
Connection to tube is instantaneous. Just connect unit to service line, depress the lock lever, push on over tubing, pressing firmly to stop position and actuate cam lever. This automatically locks the tube in place for a leak-free seal, ready for pressure testing, vacuum dehydrating or charging with refrigerant. To disconnect from tubing, relieve test pressure, actuate cam lever 90°, depress lock lever and pull off. It's that simple

Simplified design eliminates lubrication requirements and allows easy seal

replacement, which can be done in seconds. The seal is compressed around the O.D. of tube and actuated by the cam lever independent of the locking mechanism. Since it's not an end type seal, the surface condition of the tube's cutoff end does not affect the seal. It lasts longer and has a greater sealing area to withstand the sensitivity of helium and freon testing.

A quick disconnect can be assembled directly to the male pipe thread inlet port without the need of a short nipple or adapter.

Recommended for a range of services including helium, air, water, vacuum and most refrigerants. The PR is constructed with a heat treated and plated steel lock lever with a neoprene seal suitable for temperatures from -20° to 250° F (-29° to 121° C).



| Part/Order Numbers* | Tube Size | Minimum Tube Length | Connector Dimensions |            |           |
|---------------------|-----------|---------------------|----------------------|------------|-----------|
|                     |           |                     | O.D. (A)             | Length (B) | Inlet (C) |
| <b>PR Series</b>    |           |                     |                      |            |           |
| PR0250-57           | 1/4"      | 1.00"               | 1.13" rd.            | 3.50"      | 1/4" NPT  |
| PR0312-57           | 3/16"     |                     |                      |            |           |
| PR0375-57           | 3/8"      |                     |                      |            |           |
| PR0437-57           | 7/16"     | 1.13"               | 1.38" rd.            | 3.63"      | 1/4" NPT  |
| PR0500-57           | 1/2"      |                     |                      |            |           |
| PR0625-57           | 5/8"      |                     |                      |            |           |
| PR0750-57           | 3/4"      | 1.38"               | 2.00" hex            | 5.25"      | 3/4" NPT  |
| PR0875-57           | 7/8"      |                     |                      |            |           |

\* When ordering, please specify part number, tube O.D., minimum available tube length, test pressure, media and media temperature. Tube O.D. tolerance must be +.003/-0.005 maximum.

# QUICK SEAL® Tube Connectors – Straight Tube Single Motion/High Speed Leak Test Tool

TC/MTC/RTC/OTC  
 Pressure to 650 PSI (44 BAR))



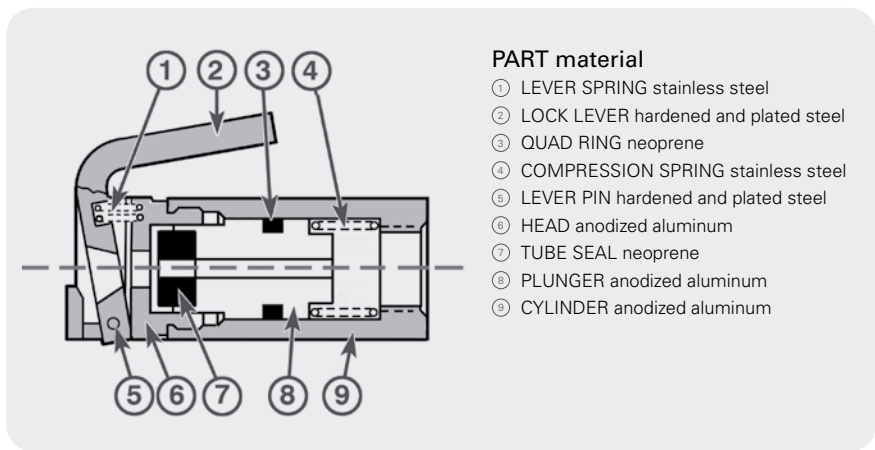
This self-sealing, automatic locking device works on a push-on, pull-off principle. Instantly connects and seals pressure lines.

### TC Tube Connectors 1/8" to 2-1/4" O.D. (3 to 57 mm)

The TC Tube Connectors were originally developed for production line use on refrigeration coils, but have also earned overwhelming acceptance for use on compressor units, heat exchangers and any other assemblies which require a quick, easy and efficient way to attach pressure lines to straight end tubing.

### RTC Tube Connectors For short length tubes 1/4" to 1" O.D. (7 to 25 mm)

The RTC Tube Connectors have been specially designed for use in applications where only a short length of tube is available for engagement. Just attach the connector to the service line, depress the lock lever and push on over the tubing, until the spring loaded seat and plunger assembly is depressed a minimum of 1/8 inch.



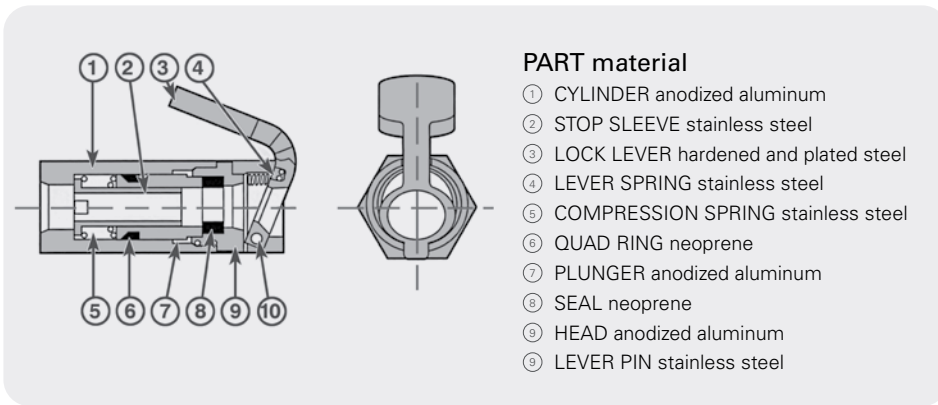
# QUICK SEAL® Tube Connectors – Straight Tube Single Motion/High Speed Leak Test Tool

## OTC with Outside Diameter Type Seal

0.060" to 3/8" O.D. (2 mm to 9 mm)

The OTC Tube Connectors have been designed specifically for use in those applications where there are advantages to making the tube connector's seal on the outside diameter of the tube – for example, where connection has to be made to smooth tubes which do not have square cut ends. They feature a "Full Flow" design with an internal tube stop.

A seal is compressed around the tube by the plunger as it is actuated by the test pressure. In 1500 Series OTC connectors for capillary tubes, a leak-free seal is created by an O-ring which is compressed around the tube by the plunger as it is actuated by the test pressure. A lock lever grips the tube for positive hold.



### TC, RTC & OTC Connectors

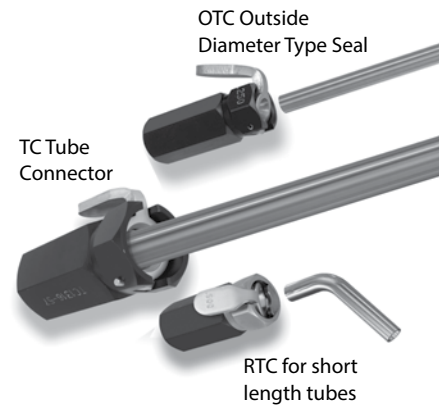
Standard TC, RTC and OTC Connectors are of aluminum construction with a heat treated and plated steel lock lever. Neoprene seals and packing are suitable for temperatures from -20° to 250° F (-29° to 121° C) and are standard; other seal and quad ring materials are available.

Also available are STC connectors with stainless steel construction (except the lock lever).

Danfoss TC, RTC and OTC Connectors are recommended for a wide variety of services with air, water and most refrigerants.

Connection to tubing is instantaneous. Just attach the connector to the service line, depress the lock lever and push on over tubing, pressing firmly to the stop position. This automatically locks the tube into place for a leak-free seal, ready for pressure testing or charging with refrigerant.

To disconnect the tubing, relieve the test pressure and then press the lock lever and pull off. It's that simple.



# QUICK SEAL® Tube Connectors – Straight Tube Single Motion/High Speed Leak Test Tool

| Part/Order Numbers* | Tube Size | Minimum Tube Length | Connector Dimensions |        | Inlet    |
|---------------------|-----------|---------------------|----------------------|--------|----------|
|                     |           |                     | Across Flats         | Length |          |
| <b>TC Series</b>    |           |                     |                      |        |          |
| TC1300-57*          | 1/8"      | 1.25"               | 0.88"                | 2.38"  | 1/4" NPT |
| TC1301-57*          | 3/16"     |                     |                      |        |          |
| TC1302-57           | 1/4"      | 1.00"               | 0.88"                | 2.38"  | 1/4" NPT |
| TC1303-57           | 5/16"     |                     |                      |        |          |
| TC1304-57           | 3/8"      |                     |                      |        |          |
| TC1305-57           | 1/8" pipe | 1.25"               | 1.25"                | 3.00"  | 1/4" NPT |
| TC1306-57           | 7/16"     |                     |                      |        |          |
| TC1307-57           | 1/2"      |                     |                      |        |          |
| TC1308-57           | 1/4" pipe |                     |                      |        |          |
| TC1309-57           | 9/16"     |                     |                      |        |          |
| TC1310-57           | 5/8"      |                     |                      |        |          |
| TC1311-57           | 3/8" pipe | 1.50"               | 1.75"                | 3.88"  | 3/8" NPT |
| TC1312-57           | 11/16"    |                     |                      |        |          |
| TC1313-57           | 3/4"      |                     |                      |        |          |
| TC1314-57           | 13/16"    |                     |                      |        |          |
| TC1314-57           | 13/16"    |                     |                      |        |          |
| TC1316-57**         | 7/8"      |                     |                      |        |          |
| TC1317-57**         | 15/16"    |                     |                      |        |          |
| TC1000-57           | 1"        | 1.88"               | 2.25"                | 5.06"  | 1/2" NPT |
| TC1319-57           | 3/4" pipe |                     |                      |        |          |
| TC1321-57           | 1-1/16"   |                     |                      |        |          |
| TC1322-57           | 1-3/16"   |                     |                      |        |          |
| TC1323-57           | 1-1/4"    |                     |                      |        |          |
| TC1324-57           | 1-5/16"   |                     |                      |        |          |
| TC1326-57**         | 1-3/8"    |                     |                      |        |          |
| TC1327-57**         | 1-1/2"    |                     |                      |        |          |
| <b>MTC Series</b>   |           |                     |                      |        |          |
| MTC5060-57          | 6 mm      | 25 mm               | 0.88"                | 2.38"  | 1/4" NPT |
| MTC5070-57          | 7 mm      |                     |                      |        |          |
| MTC5090-57          | 9 mm      |                     |                      |        |          |
| MTC5100-57          | 10 mm     |                     |                      |        |          |
| MTC5120-57          | 12 mm     | 32 mm               | 1.25"                | 3.00"  | 1/4" NPT |
| MTC5150-57          | 15 mm     |                     |                      |        |          |
| MTC5160-57          | 16 mm     |                     |                      |        |          |
| MTC5180-57          | 18 mm     | 38 mm               | 1.75"                | 3.88"  | 3/8" NPT |
| MTC5200-57          | 20 mm     |                     |                      |        |          |
| MTC5220-57          | 22 mm     |                     |                      |        |          |
| MTC5280-57          | 28 mm     | 48 mm               | 2.25"                | 5.06"  | 1/2" NPT |
| MTC540-57***        | 54 mm     | 57 mm               | 3.00"                | 6.13"  | 3/4" NPT |

| Part/Order Numbers* | Tube Size    | Minimum Tube Length | Connector Dimensions |        | Inlet    |
|---------------------|--------------|---------------------|----------------------|--------|----------|
|                     |              |                     | Across Flats         | Length |          |
| <b>RTC Series</b>   |              |                     |                      |        |          |
| RTC1602-57          | 1/4"         | 0.69"               | 0.88"                | 2.38"  | 1/4" NPT |
| RTC1603-57          | 5/16"        |                     |                      |        |          |
| RTC1604-57          | 3/8"         |                     |                      |        |          |
| RTC1605-57          | 1/8" pipe    | 0.88"               | 1.25"                | 3.00"  | 1/4" NPT |
| RTC1606-57          | 7/16"        |                     |                      |        |          |
| RTC1607-57          | 1/2"         |                     |                      |        |          |
| RTC1609-57          | 9/16"        |                     |                      |        |          |
| RTC1610-57          | 5/8"         |                     |                      |        |          |
| RTC1616-57          | 7/8"         | -                   | -                    | -      | -        |
| <b>•OTC Series</b>  |              |                     |                      |        |          |
| OTC2502-57          | 1/4"         | 1.00"               | 0.88"                | 2.38"  | 1/4" NPT |
| OTC2503-57          | 5/16"        |                     |                      |        |          |
| OTC2504-57          | 3/8"         |                     |                      |        |          |
| OTC1500-57          | .060 – .063" | 1.00"               | 0.88"                | 2.38"  | 1/4" NPT |
| OTC1501-57          | .072 – .078" |                     |                      |        |          |
| OTC1502-57          | .081 – .087" |                     |                      |        |          |
| OTC1503-57          | .093 – .099" |                     |                      |        |          |
| OTC1504-57          | .106 – .112" |                     |                      |        |          |

\* Seal on O.D. of tube

\*\* Pressures to 500 PSI only

\*\*\* Pressures to 300 PSI only

◆ When ordering, please specify part number, tube O.D., minimum available length, test pressure, media and media temperature. Tolerance of tube O.D. must be +.003/- .005 maximum.

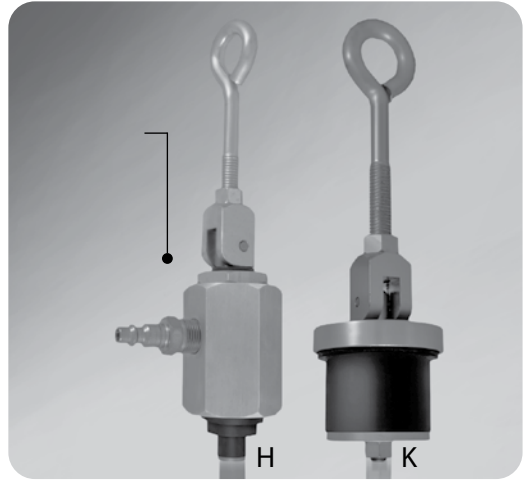
• For OTC: Tolerance of tube O.D. must be +.002/- .002 maximum.

# QUICK SEAL® Connecto-Valves For Gas Leak Detection

0.343" to 4.25" (9 mm to 108 mm) Bores  
 Threaded Holes – Pressures to 100 PSI (6.8 BAR)  
 Smooth Bore Holes – Pressures to 50 PSI (3.4 BAR)

**H**  
 Expanding Seal Filling Connectors

**K**  
 Expanding Seal Filling Connectors



H expanding seal filling connector shown servicing an automotive radiator.



The H, K, and Connecto-Valve seal expansion is adjustable.

## H Expanding Seal Filling Connectors

H Expanding Seal Filling Connectors are widely used for adapting and connecting pressure lines to tanks, drums, castings, etc., during leak testing. These tools effectively seal flanges, couplings, blind holes, deep openings or holes with restricted clearance. Actuation of the hand cam lever expands the seal firmly inside an opening, creating a dependable To remove the connector, relieve test pressure and lift cam lever. leak-free connection. Inlet openings are pipe tapped for connecting pressure lines.

Construction materials are aluminum, stainless steel, and plated carbon steel. Neoprene seals are standard.

The connectors are suitable for operation from -20° to 250° F (-29° to 121° C).

## K Expanding Seal Test Plugs

K Test Plugs use the same sealing principle, materials of construction and action as the type H filling connector, but do not have an inlet port. They are frequently used in pressure testing rough castings. Seals are made of tough long-wearing neoprene and are easily replaced.

All expanding seal plugs and connectors are ruggedly built to assure long, trouble-free service.

| Part/Order Numbers* | Piped Tapped | Opening To Be Sealed |            |          |
|---------------------|--------------|----------------------|------------|----------|
|                     |              | Bore                 | Min. Depth | Inlet    |
| H2075-57            | 1/8" NPT     | 0.339"               | 0.59"      | 1/4" NPT |
| H2076-57            | 1/4" NPT     | 0.438"               | 0.72"      | 1/4" NPT |
| H2077-57            | 3/8" NPT     | 0.578"               | 0.72"      | 1/4" NPT |
| H2078-57            | 1/2" NPT     | 0.719"               | 0.88"      | 3/8" NPT |
| H2079-57            | 3/4" NPT     | 0.922"               | 1.13"      | 3/8" NPT |
| H2080-57            | 1" NPT       | 1.156"               | 1.38"      | 1/2" NPT |
| H2081-57            | 1-1/4" NPT   | 1.500"               | 1.38"      | 1/2" NPT |
| H2082-57            | 1-1/2" NPT   | 1.734"               | 1.69"      | 1/2" NPT |
| H2083-57            | 2" NPT       | 2.219"               | 1.69"      | 1/2" NPT |

\* To order, specify thread size, depth of hole, test pressure and test media.

| Part/Order Numbers* | Piped Tapped | Opening To Be Sealed |            |          |
|---------------------|--------------|----------------------|------------|----------|
|                     |              | Bore                 | Min. Depth | Inlet    |
| K2063-57            | 1/8" NPT     | 0.339"               | 0.59"      | 1/4" NPT |
| K2064-57            | 1/4" NPT     | 0.438"               | 0.72"      | 1/4" NPT |
| K2065-57            | 3/8" NPT     | 0.578"               | 0.72"      | 1/4" NPT |
| K2066-57            | 1/2" NPT     | 0.719"               | 0.88"      | 3/8" NPT |
| K2067-57            | 3/4" NPT     | 0.922"               | 1.13"      | 3/8" NPT |
| K2068-57            | 1" NPT       | 1.156"               | 1.38"      | 1/2" NPT |
| K2069-57            | 1-1/4" NPT   | 1.500"               | 1.38"      | 1/2" NPT |
| K2070-57            | 1-1/2" NPT   | 1.734"               | 1.69"      | 1/2" NPT |
| K2071-57            | 2" NPT       | 2.219"               | 1.69"      | 1/2" NPT |
| K9072-57            | 2-1/2" NPT   | 2.625"               | 1.56"      | 1/2" NPT |
| K9073-57            | 3" NPT       | 3.250"               | 1.56"      | 1/2" NPT |

\* To order, specify thread size, depth of hole, test pressure and test media.

# Accessories HK Series



## HK Series ISO 7241-1B

HK Series Couplings are designed for general purpose hydraulic service. Some are suitable for use with various liquids, chemicals, steam, gases and vacuum. HK Series couplings conform to the dimensional requirements of the ISO 7241-1 Series B standard.

Body sizes in the chart below range from 1/8" to 1". See our QDC section for the complete product line

### Features

- End connections are female NPTF (BSPP also available)

### Standard Materials

- Zinc-plated steel construction (also available in brass and stainless steel)
- Stainless steel springs, balls and retaining rings
- Buna-N (Nitrile) seals
- PTFE back-up rings in 1-HK through 8-HK steel sockets

### Options

- Bleeder-style plug
- Sleeve lock
- Seals: Ask about availability

### Series HK Accessories

- Dust caps and dust plugs



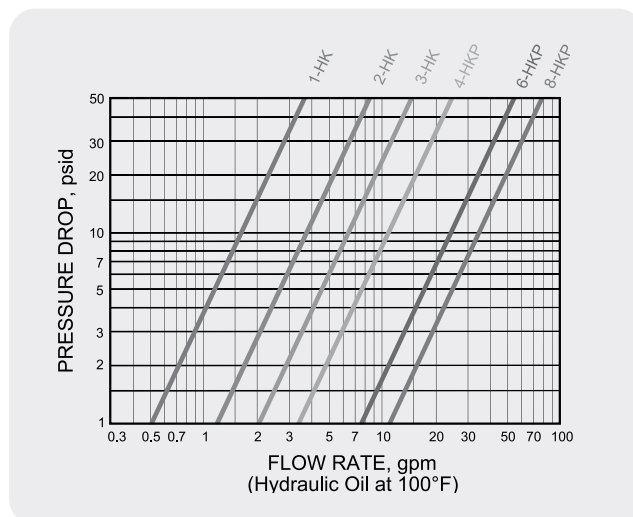
- Release clamp with chain



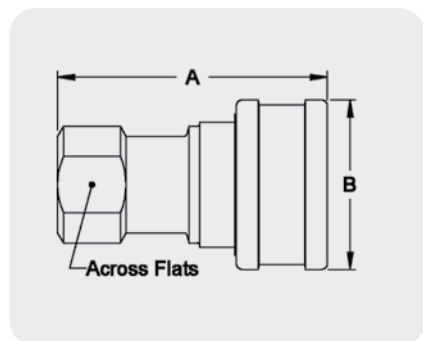
## Rated Pressure and Flow Capacity

| Series | Body Size | O.D. (A) | Length (B) |
|--------|-----------|----------|------------|
| 1HK    | 1/8"      | 4,000    | 275        |
| 2HK    | 1/4"      | 5,000    | 345        |
| 3HK    | 3/8"      | 4,000    | 275        |
| 4HKP   | 1/2"      | 5,000    | 345        |
| 6HKP   | 3/4"      | 4,000    | 275        |
| 8HKP   | 1"        | 4,000    | 275"       |

Other sizes available.



# Accessories HK Series

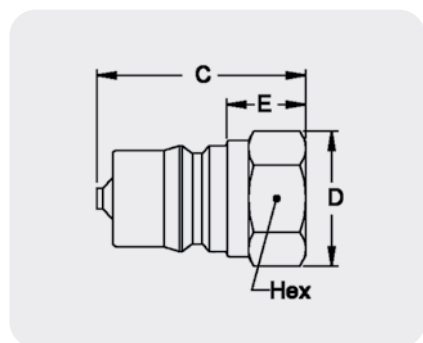


| Body Size | Part/Order Number | Thread Size Female NPTF | Dimensions |      |              |
|-----------|-------------------|-------------------------|------------|------|--------------|
|           |                   |                         | A          | B    | Across Flats |
| (in)      |                   |                         | (in)       | (in) | (in)         |
| 1/8       | 1H11              | 1/8-27                  | 1.91       | 0.98 | 0.56         |
| 1/4       | 2H16              | 1/4-18                  | 2.26       | 1.17 | 0.75         |
| 3/8       | 3H21              | 3/8-18                  | 2.56       | 1.42 | 0.88         |
| 1/2       | 4HP26             | 1/2-14                  | 2.96       | 1.86 | 1.13         |
| 3/4       | 6HP31             | 3/4-14                  | 3.48       | 2.22 | 1.31         |
| 1         | 8HP36             | 1-11 1/2                | 4.13       | 2.61 | 1.75         |

A = Overall length B = Maximum diameter

## SOCKET

Steel Construction  
(also available in brass and stainless steel)



| Body Size | Part/Order Number | Thread Size Female NPTF | Dimensions |      |      |      |
|-----------|-------------------|-------------------------|------------|------|------|------|
|           |                   |                         | C          | D    | E    | Hex  |
| (in)      |                   |                         | (in)       | (in) | (in) | (in) |
| 1/8       | 1K11              | 1/8-27                  | 1.26       | 0.65 | 0.44 | 0.56 |
| 1/4       | 2K16              | 1/4-18                  | 1.52       | 0.87 | 0.56 | 0.75 |
| 3/8       | 3K21              | 3/8-18                  | 1.76       | 1.01 | 0.61 | 0.88 |
| 1/2       | 4KP26             | 1/2-14                  | 2.03       | 1.30 | 0.76 | 1.13 |
| 3/4       | 6KP31             | 3/4-14                  | 2.36       | 1.52 | 0.71 | 1.31 |
| 1         | 8KP36             | 1-11 1/2                | 2.85       | 1.88 | 0.97 | 1.63 |

C = Overall length D = Maximum diameter E = Exposed length when connected  
More plug and socket configurations are available - see our coupling catalog for the complete product line.

## PLUG

Steel Construction  
(also available in brass and stainless steel)

# Accessories 3000/4000/5000/6000 Series

## 3000/4000/5000/6000 Series

Industrial Interchange Pin Lock Couplings are designed for compressed air, gases and liquids. Body sizes are 1/4", 3/8", 1/2" and 3/4".

### Features

- Easy, automatic, push-to-connect design provides instantaneous connection and disconnection of lines, plus automatic shut-off of socket end of line
- 1/4" and 1/2" sockets accept ISO 6150 Series B and A-59439 plugs/males
- Optional sleeve lock prevents accidental disconnection
- Optional seal and valve materials available

## Standard Materials

### Socket

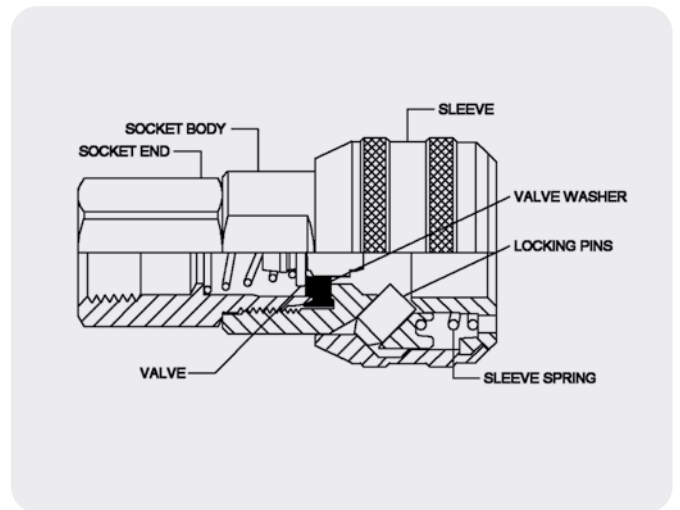
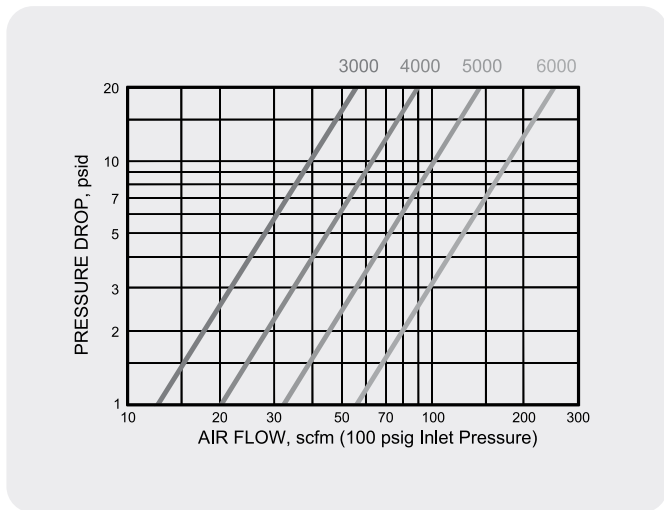
- Brass Body
- Zinc Plated Steel Valve
- Buna-N (Nitrile) Seal
- Stainless Steel Springs
- Stainless Steel Locking Pins

### Plug

- Zinc Plated Case
- Hardened Steel (All Sizes)
- Brass (All Sizes)
- Stainless Steel (Series 3000)

## Accessories

- Dust caps and dust plugs



## Rated Pressure

| Series | Body Size | PSI   | BAR |
|--------|-----------|-------|-----|
| 3000   | 1/4"      | 2,000 | 138 |
| 4000   | 3/8"      | 1,000 | 69  |
| 5000   | 1/2"      | 500   | 35  |
| 6000   | 3/4"      | 220   | 15  |

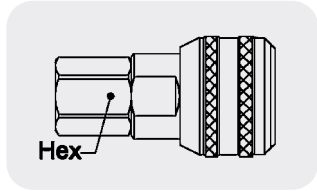
## Flow Capacity

| Series | *Scfm |
|--------|-------|
| 3000   | 24    |
| 4000   | 45    |
| 5000   | 72    |
| 6000   | 125   |

\* Air flow (scfm) with 5 PSI pressure drop and 100 PSIG inlet pressure.

# Accessories 3000/4000/5000/6000 Series

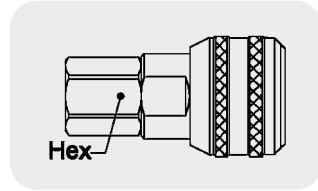
## Series 3000 1/4" Nominal



SOCKET - male end connections

| Model | Thread Size | Finish |
|-------|-------------|--------|
| 2900  | 1/8-27 NPTF | Brass  |
| 3100E | 1/4-18 NPTF | Brass  |
| 3300E | 3/8-18 NPTF | Brass  |

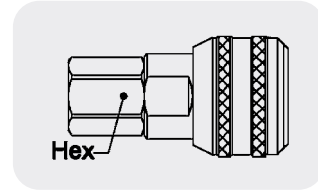
## Series 4000 3/8" Nominal



SOCKET - male end connections

| Model | Thread Size | Finish |
|-------|-------------|--------|
| 4100A | 1/8-27 NPTF | Brass  |
| 4100  | 1/4-18 NPTF | Brass  |
| 4300  | 3/8-18 NPTF | Brass  |
| 4500E | 1/2-14 NPTF | Brass  |

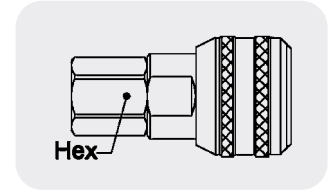
## Series 5000 1/2" Nominal



SOCKET - male end connections

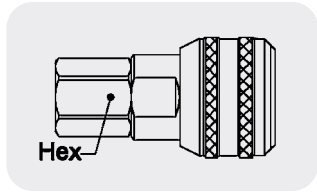
| Model | Thread Size | Finish |
|-------|-------------|--------|
| 50100 | 1/4-18 NPTF | Brass  |
| 5100E | 3/8-18 NPTF | Brass  |
| 5300E | 1/2-14 NPTF | Brass  |
| 5500  | 3/4-14 NPTF | Brass  |

## Series 6000 3/4" Nominal



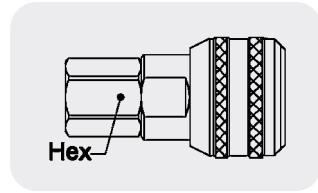
SOCKET - male end connections

| Model | Thread Size  | Finish |
|-------|--------------|--------|
| 6300  | 1/2-14 NPTF  | Brass  |
| 6500  | 3/4-14 NPTF  | Brass  |
| 6700E | 1-1 1/2 NPTF | Brass  |



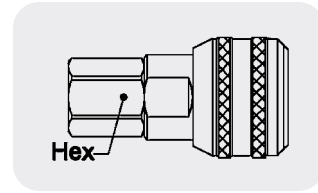
SOCKET - female end connections

| Model | Thread Size | Finish |
|-------|-------------|--------|
| 2800  | 1/8-27 NPTF | Brass  |
| 3000  | 1/4-18 NPTF | Brass  |
| 3200  | 3/8-18 NPTF | Brass  |



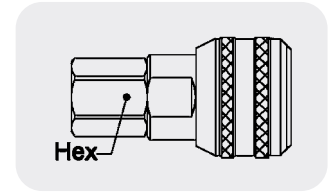
SOCKET - female end connections

| Model | Thread Size | Finish |
|-------|-------------|--------|
| 4000A | 1/8-27 NPTF | Brass  |
| 4000  | 1/4-18 NPTF | Brass  |
| 4200  | 3/8-18 NPTF | Brass  |
| 4400  | 1/2-14 NPTF | Brass  |



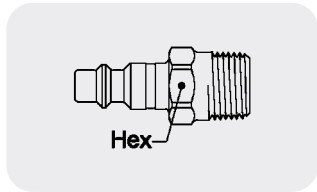
SOCKET - female end connections

| Model | Thread Size | Finish |
|-------|-------------|--------|
| 5000A | 1/4-18 NPTF | Brass  |
| 5000  | 3/8-18 NPTF | Brass  |
| 5200  | 1/2-14 NPTF | Brass  |
| 5400E | 3/4-14 NPTF | Brass  |



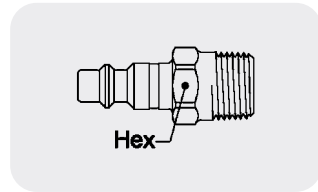
SOCKET - female end connections

| Model | Thread Size  | Finish |
|-------|--------------|--------|
| 6200E | 1/2-14 NPTF  | Brass  |
| 6400E | 3/4-14 NPTF  | Brass  |
| 6600E | 1-1 1/2 NPTF | Brass  |



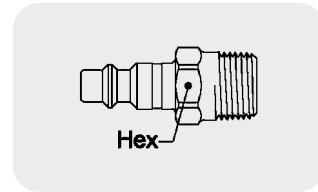
PLUG - male end connections

| Model | Thread Size | Finish    |
|-------|-------------|-----------|
| 10    | 1/4-18 NPTF | Steel     |
| 14    | 3/8-18 NPTF | Steel     |
| B10   | 1/4-18 NPTF | Brass     |
| LL10  | 1/4-18 NPTF | Stainless |



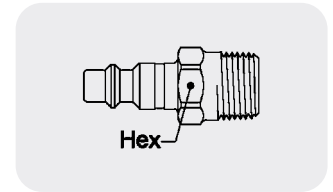
PLUG - male end connections

| Model | Thread Size | Finish |
|-------|-------------|--------|
| 38    | 1/8-27 NPTF | Steel  |
| 40    | 1/4-18 NPTF | Steel  |
| 42    | 3/8-18 NPTF | Steel  |
| 44    | 1/2-14 NPTF | Steel  |
| B40   | 1/4-18 NPTF | Brass  |
| B42   | 3/8-18 NPTF | Brass  |



PLUG - male end connections

| Model | Thread Size | Finish |
|-------|-------------|--------|
| 50E   | 1/4-18 NPTF | Steel  |
| 52    | 3/8-18 NPTF | Steel  |
| 54E   | 1/2-14 NPTF | Steel  |
| 56    | 3/4-14 NPTF | Steel  |
| B52   | 3/8-18 NPTF | Brass  |
| B54   | 1/2-14 NPTF | Brass  |



PLUG - male end connections

| Model | Thread Size  | Finish |
|-------|--------------|--------|
| 64A   | 1/2-14 NPTF  | Steel  |
| 66A E | 3/4-14 NPTF  | Steel  |
| 68A   | 1-1 1/2 NPTF | Steel  |
| B64A  | 1/2-14 NPTF  | Steel  |
| B66A  | 3/4-14 NPTF  | Brass  |

More plug and socket configuration are available – see our coupling catalog for the complete product line.

# Overall catalog summary

| Series                     | Section                  | Looking mechanism                     | Material                        | Region | Page number |
|----------------------------|--------------------------|---------------------------------------|---------------------------------|--------|-------------|
| 5100                       | Fluid transfer&Hydraulic | Screw to connect                      | Brass                           | Global | 95          |
| 5600                       | Fluid transfer&Hydraulic | Ball latch poppet                     | Carbon steel                    | AMER   | 16          |
| 5600                       | Fluid transfer&Hydraulic | Ball latch poppet                     | Stainless steel                 | Global | 21          |
| 2HKIG/2HKIL                | Fluid transfer&Hydraulic | Ball latch poppet                     | Stainless steel                 | Global | 44          |
| FD48                       | Fluid transfer&Hydraulic | Ball latch poppet                     | Carbon steel                    | AMER   | 47          |
| FD49                       | Fluid transfer&Hydraulic | Flat face                             | Steel                           | AMER   | 73          |
| FD72/76                    | Fluid transfer&Hydraulic | Ball latch poppet                     | Carbon steel                    | AMER   | 32          |
| FD85                       | Fluid transfer&Hydraulic | Screw to connect                      | Steel                           | Global | 99          |
| FD85                       | Fluid transfer&Hydraulic | Screw to connect                      | Stainless steel                 | Global | 99          |
| FD86                       | Fluid transfer&Hydraulic | Screw to connect                      | Steel                           | Global | 101         |
| FD96                       | Fluid transfer&Hydraulic | Flat Face                             | Steel                           | Global | 75          |
| FF                         | Fluid transfer&Hydraulic | Flat Face                             | Steel                           | Global | 61          |
| FFCUP                      | Fluid transfer&Hydraulic | Flat Face                             | Steel                           | Global | 66          |
| Safe Breakaway             | Fluid transfer&Hydraulic | Flat Face                             | Stainless steel                 | EMEA   | 81          |
| GA90090                    | Fluid transfer&Hydraulic | Screw to connect                      | Steel                           | EMEA   | 86          |
| H15000                     | Fluid transfer&Hydraulic | Ball latch poppet                     | Steel                           | EMEA   | 11          |
| H5000                      | Fluid transfer&Hydraulic | Ball latch poppet                     | Steel                           | Global | 23          |
| H5000                      | Fluid transfer&Hydraulic | Ball latch poppet                     | Brass                           | Global | 26          |
| H5000                      | Fluid transfer&Hydraulic | Ball latch poppet                     | Stainless steel                 | Global | 29          |
| HK                         | Fluid transfer&Hydraulic | Ball latch poppet                     | Steel                           | Global | 33          |
| HK                         | Fluid transfer&Hydraulic | Ball latch poppet                     | Brass                           | Global | 36          |
| HK                         | Fluid transfer&Hydraulic | Ball latch poppet                     | Stainless steel                 | Global | 39          |
| HKFR                       | Fluid transfer&Hydraulic | Ball latch poppet                     | Carbon steel                    | Global | 43          |
| JA                         | Fluid transfer&Hydraulic | Ball latch poppet                     | Steel                           | EMEA   | 13          |
| IP                         | Fluid transfer&Hydraulic | Screw to connect                      | Stainless steel                 | EMEA   | 88          |
| K8000                      | Fluid transfer&Hydraulic | Flat Face                             | Steel                           | EMEA   | 77          |
| L7000                      | Fluid transfer&Hydraulic | Ball latch straight through           | Steel                           | EMEA   | 52          |
| L7000                      | Fluid transfer&Hydraulic | Ball latch straight through           | Brass                           | EMEA   | 55          |
| L7000                      | Fluid transfer&Hydraulic | Ball latch straight through           | Stainless steel                 | EMEA   | 58          |
| LL2MS                      | Fluid transfer&Hydraulic | Push to connect                       | Stainless steel                 | EMEA   | 42          |
| MLDB                       | Fluid transfer&Hydraulic | Flat Face                             | Stainless steel                 | Global | 79          |
| MLFF                       | Fluid transfer&Hydraulic | Flat Face                             | Stainless steel                 | Global | 68          |
| Multi-FF                   | Fluid transfer&Hydraulic | Multiplate Flat face                  | Steel                           | Global | 70          |
| Q9000                      | Fluid transfer&Hydraulic | Flat Face                             | Steel                           | EMEA   | 78          |
| ST                         | Fluid transfer&Hydraulic | Ball latch straight through           | Steel                           | Global | 48          |
| ST                         | Fluid transfer&Hydraulic | Ball latch straight through           | Brass                           | Global | 48          |
| ST                         | Fluid transfer&Hydraulic | Ball latch straight through           | Stainless steel                 | Global | 48          |
| W36000                     | Fluid transfer&Hydraulic | Screw to connect                      | Steel                           | EMEA   | 82          |
| W46000                     | Fluid transfer&Hydraulic | Screw to connect                      | Steel                           | EMEA   | 103         |
| W6000                      | Fluid transfer&Hydraulic | Screw to connect                      | Steel                           | Global | 89          |
| W6000                      | Fluid transfer&Hydraulic | Screw to connect                      | Stainless steel                 | Global | 92          |
| FD35                       | High pressure            | Ball latch                            | Steel                           | Global | 108         |
| HP3                        | High pressure            | Screw to connect                      | Steel                           | Global | 106         |
| UH                         | High pressure            | Ball latch                            | Steel                           | Global | 110         |
| W56000                     | High pressure            | Screw to connect                      | Steel                           | Global | 107         |
| FD69                       | Water blast              | Ball latch                            | Steel                           | Global | 113         |
| FD69                       | Water blast              | Ball latch                            | Stainless steel                 | Global | 113         |
| R4000                      | Check valves             | -                                     | Steel                           | Global | 117         |
| R4000                      | Check valves             | -                                     | Brass                           | Global | 119         |
| R4000                      | Check valves             | -                                     | Stainless steel                 | Global | 121         |
| FD15                       | Diagnostic               | Screw to connect                      | Brass                           | Global | 125         |
| FD90                       | Diagnostic               | Screw to connect                      | Steel                           | Global | 127         |
| FF14802 pressure gauge kit | Diagnostic               | -                                     | Steel                           | AMER   | 129         |
| FS flow sensor             | Diagnostic               | -                                     | Brass                           | AMER   | 131         |
| 2500                       | Breathing air            | Ball latch                            | Stainless steel/Brass and steel | Global | 137         |
| FD17                       | Breathing air            | Screw to connect                      | Stainless steel                 | Global | 134         |
| FD17                       | Breathing air            | Screw to connect                      | Aluminium                       | Global | 134         |
| Safe Breathe               | Breathing air            | Push to connect                       | Stainless steel                 | Global | 135         |
| ADB                        | Thermal management       | Flat Face                             | Aluminium                       | Global | 140         |
| FD83                       | Thermal management       | Bajonette                             | Steel                           | Global | 143         |
| Flo-Temp                   | Thermal management       | Thread to connect                     | Brass                           | AMER   | 154         |
| UQD                        | Thermal management       | Push to connect                       | Stainless steel                 | Global | 145         |
| UQDB                       | Thermal management       | Push to connect                       | Stainless steel                 | Global | 148         |
| OCP ORV3 BMQC              | Thermal management       | Push to connect                       | Stainless steel                 | Global | 152         |
| 5400                       | Refrigerant              | Thread to connect                     | Steel                           | Global | 159         |
| LF                         | Industrial gas           | Thread to connect                     | Aluminium+Brass                 | Global | 166         |
| 600/700                    | Industrial gas           | Thread to connect                     | Brass                           | AMER   | 168         |
| 2HKGL                      | Food and beverage        | Push to connect                       | Stainless steel                 | EMEA   | 175         |
| 100                        | Pneumatic                | Push to connect                       | Brass                           | AMER   | 227         |
| 1000/400/500               | Pneumatic                | Ball latch                            | Brass/Steel                     | Global | 193         |
| 180/280                    | Pneumatic                | Push to connect                       | Brass                           | AMER   | 229         |
| 210/310                    | Pneumatic                | Push to connect                       | Zinc plated carbon steel        | AMER   | 224         |
| 2RL/3RL                    | Pneumatic                | Push to connect with ring lock sleeve | Zinc plated steel               | AMER   | 235         |
| 3000/4000/5000/6000        | Pneumatic                | Push to connect                       | Brass                           | Global | 210         |
| Adapters                   | Pneumatic                | Accessory                             | -                               | EMEA   | 243         |
| AutoFlo23/24               | Pneumatic                | Push to connect                       | Brass                           | Global | 220         |
| Blow guns                  | Pneumatic                | Accessory                             | -                               | EMEA   | 242         |
| Flex-air                   | Pneumatic                | Accessory                             | -                               | AMER   | 240         |
| Full Bore                  | Pneumatic                | Push to connect                       | Zinc plated carbon steel        | AMER   | 231         |
| G600/900/T1100/T1300       | Pneumatic                | Ball latch                            | Brass                           | EMEA   | 201         |
| Gas-mate                   | Pneumatic                | Push to connect                       | Brass                           | AMER   | 233         |
| Safeline GD/ID10500        | Pneumatic                | Push button                           | Aluminium/Brass                 | Global | 182         |
| Safeline GD18500           | Pneumatic                | Push button                           | Aluminium/Brass                 | Global | 187         |
| Safeline ID10900           | Pneumatic                | Push button                           | Aluminium/Brass                 | Global | 185         |
| Safeline ID18900           | Pneumatic                | Push button                           | Aluminium/Brass                 | Global | 189         |
| Safeline TD18300           | Pneumatic                | Push button                           | Aluminium/Brass                 | Global | 191         |
| FD14                       | FLOCs section            | Push to connect                       | Carbon steel                    | AMER   | 250         |
| FLOCS                      | FLOCs section            | -                                     | -                               | AMER   | 253         |
| H and K                    | Quick seal section       | -                                     | -                               | AMER   | 277         |
| PR                         | Quick seal section       | -                                     | -                               | AMER   | 272         |
| TC/MTC/RTC/OTC             | Quick seal section       | -                                     | -                               | AMER   | 274         |

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