

## Data sheet

# Sight glass (High pressure)

Type SGP X, SGP I, SGP N, SGP RX, SGP RI and SGP RN



SGP are sight glasses for high pressure applications (Max. Working Pressure 52 bar / 754 psig).

SGP is available with flare, solder and socket connections, and with and without moisture indicators.

SGP I / SGP N and SGP RI / SGP RN are equipped with sensitive indicators that reflect a color, which depends on the moisture content in the refrigerant.

SGP X and SGP RX, without moisture indicator, are mainly used to indicate the condition of the refrigerant in the liquid line or the flow in the oil return line from the oil separator.

## Features

Solder versions are compliant with ATEX hazard zone 2

Type SGP X / SGP RX (without indicator)

- Indicates lack of subcooling
- Indicates refrigerant deficiency
- Indicates liquid level in receiver
- Indicates oil level in compressor
- Flare/flare, solder/solder connection or socket type

Type SGP I / SGP RI (with I type indicator)

- For R22, R290, R600, R600a, R1234yf refrigerants
- Indicates too high moisture content in the refrigeration system
- Indicates lack of subcooling
- Indicates refrigerant deficiency
- Flare/flare, solder/solder connection or socket type

Type SGP N / SGP RN (with N type indicator)

- For R22, R32, R134a, R404A, R407C, R507, R410A, R1270, R407A, R407F, R448A, R449A, R450A, R452A, R452B, R454B, R513A, R1234ze, R744 (CO<sub>2</sub>) refrigerants
- Indicates too high moisture content in the refrigeration system
- Indicates lack of subcooling
- Indicates refrigerant deficiency
- Flare/flare, solder/solder connection or socket type

## Data sheet

## High pressure sight glass, SGP X, SGP I, SGP N, SGP RX, SGP RI and SGP RN

### Technical data

Media temperature: -50 – 80 °C / -58 – 175 °F  
 Max. working pressure (PS / MWP): 52 bar / 754 psi  
 Refrigerant oil: All mineral oils and ester oils

### Approvals



### Available types

|                                   |                                     |                                   |
|-----------------------------------|-------------------------------------|-----------------------------------|
|                                   |                                     |                                   |
| <b>Solder version ODF x ODF</b>   | <b>Flare External x External</b>    | <b>Flare Internal x External</b>  |
| SGP X<br>without indicator        | SGP X<br>without indicator          | SGP I and SGP N<br>with indicator |
|                                   |                                     |                                   |
| <b>Solder version ODF x ODM</b>   | <b>Solder version ODF x ODF</b>     | <b>Flare External x External</b>  |
| SGP I and SGP N<br>with indicator | SGP I and SGP N<br>with indicator   | SGP I and SGP N<br>with indicator |
|                                   |                                     |                                   |
| <b>Socket</b>                     | <b>Socket</b>                       | <b>Saddle</b>                     |
| SGP RX<br>without indicator       | SGP RI and SGP RN<br>with indicator | SGS                               |

### Choice of sight glass moisture indication

Before choosing a sight glass with moisture indicator, the following should be considered:

- type of refrigerant
- water solubility of refrigerant
- the level on which a danger signal is required

Be aware that polyester oil for refrigerants like, e.g. R134a, R404A, R407C react with water in a hydrolysis generating acid and alcohol.

The recommended levels of moisture content are usually between 30 and 75 ppm, where hermetic compressors only tolerate very low moisture content, while semi-hermetic and other compressors normally tolerate higher moisture contents in the refrigerant.

**Note:** When storing, transporting or installing the Sight Glass, avoid the chemical indicator to get in contact with non-refrigerant medium or fluid (like water, oil, ect.)

The colour on the sight glass indicator depends on the moisture content of the refrigerant.

The values under “green / dry” are to be considered as perfect condition meaning full protection against harmful effects from moisture. In other words, the filter drier is working perfectly.

If the green color starts to fade, the color change has begun and the indicator should therefore be watched more carefully. If the color changes to yellow it is a clear signal, that the capacity of the filter drier is exceeded and must be replaced immediately.

### REACH requirements

All Danfoss products fulfill the requirements in REACH.

One of the obligations in REACH is to inform customers about presence of Candidate list substances if any, we hereby inform you about one substance on the candidate list:

A moisture indicator in a sight glass contains a paper which is impregnated with Cobalt Dichloride (CAS no: 7646-79-9) in a concentration above 0.1% w/w. If the valve has been damaged or dismantled:

- Avoid skin contact with the paper
- Do not inhale the dust from the paper
- The paper must be disposed as hazardous waste

## SGP I for R22, R290, R600, R600a and R1234yf

|         | Moisture content ppm = parts per million |                 |              |                                  |                 |              |
|---------|------------------------------------------|-----------------|--------------|----------------------------------|-----------------|--------------|
|         | SGP I / SGP RI                           |                 |              |                                  |                 |              |
|         | Media temperature 25 °C / 77 °F          |                 |              | Media temperature 43 °C / 109 °F |                 |              |
|         | Green / dry                              | Intermed. color | Yellow / wet | Green / dry                      | Intermed. color | Yellow / wet |
| R22     | < 150                                    | 150 – 300       | > 300        | < 250                            | 250 – 500       | > 500        |
| R290    | < 25                                     | 25 – 50         | > 50         | < 50                             | 50 – 100        | > 100        |
| R600    | < 10                                     | 10 – 20         | > 20         | < 28                             | 28 – 55         | > 55         |
| R600a   | < 11                                     | 11 – 22         | > 22         | < 30                             | 30 – 60         | > 60         |
| R1234yf | < 93                                     | 93 – 130        | > 130        | < 130                            | 130 – 247       | > 247        |

SGP N for R22, R32, R134a, R404A, R407C, R507, R410A, R1270, R407A, R407F, R448A, R449A, R450A, R452A, R452B, R454B, R513A, R1234ze, R744 (CO<sub>2</sub>)

|         | Moisture content ppm = parts per million |                 |              |                                  |                 |              |
|---------|------------------------------------------|-----------------|--------------|----------------------------------|-----------------|--------------|
|         | SGP N / SGP RN                           |                 |              |                                  |                 |              |
|         | Media temperature 25 °C / 77 °F          |                 |              | Media temperature 43 °C / 109 °F |                 |              |
|         | Green / dry                              | Intermed. color | Yellow / wet | Green / dry                      | Intermed. color | Yellow / wet |
| R22     | < 30                                     | 30 – 120        | > 120        | < 50                             | 50 – 200        | > 200        |
| R32     | < 64                                     | 64 – 289        | > 289        | < 116                            | 116 – 459       | > 459        |
| R134a   | < 30                                     | 30 – 100        | > 100        | < 45                             | 45 – 170        | > 170        |
| R404A   | < 20                                     | 20 – 70         | > 70         | < 25                             | 25 – 100        | > 100        |
| R407C   | < 30                                     | 30 – 140        | > 140        | < 60                             | 60 – 225        | > 225        |
| R507    | < 15                                     | 15 – 60         | > 60         | < 30                             | 30 – 110        | > 110        |
| R410A   | < 66                                     | 66 – 266        | > 266        | < 135                            | 135 – 540       | > 540        |
| R1270   | < 16                                     | 16 – 62         | > 62         | < 29                             | 29 – 115        | > 115        |
| R407A   | < 29                                     | 29 – 115        | > 115        | < 48                             | 48 – 192        | > 192        |
| R407F   | < 30                                     | 30 – 168        | > 168        | < 60                             | 60 – 240        | > 240        |
| R448A   | < 28                                     | 28 – 110        | > 110        | < 70                             | 70 – 227        | > 227        |
| R449A   | < 29                                     | 29 – 105        | > 105        | < 53                             | 53 – 200        | > 200        |
| R450A   | < 23                                     | 23 – 148        | > 148        | < 46                             | 46 – 245        | > 245        |
| R452A   | < 20                                     | 20 – 79         | > 79         | < 30                             | 30 – 143        | > 143        |
| R452B   | < 70                                     | 70 – 260        | > 260        | < 144                            | 144 – 260       | > 260        |
| R454B   | < 29                                     | 29 – 161        | > 161        | < 58                             | 58 – 250        | > 250        |
| R513A   | < 22                                     | 22 – 75         | > 75         | < 22                             | 22 – 123        | > 123        |
| R1234ze | < 26                                     | 26 – 132        | > 132        | < 28                             | 28 – 165        | > 165        |


**Notes:**

- For a fully updated list of approved refrigerants, visit [www.products.danfoss.com](http://www.products.danfoss.com) and search for individual code numbers, where refrigerants are listed as part of product specifications.
- Only solder versions are allowed for flammable refrigerant.  
This product is approved for R290, R600, R600a and R1270 by ignition source assessment in accordance to standard EN13463-1.  
For colours reflecting moisture values of other refrigerants, please contact Danfoss.

**For the application use with R744 as part of a secondary loop or cascade:**

- The design pressure of the refrigerant containing component is not less than the design pressure of the associated components.
- The component is not provided with any pressure relief or pressure regulating relief valve and that a sufficient number of valves having capacity deemed adequate shall be field-installed on the refrigeration system.
- When the refrigeration system is de-energized, venting of R744 may occur through the pressure regulating relief valves, and may need to be recharged, but the valve should not be defeated or bypassed.
- A sufficient number of pressure relief and pressure regulating valves may need to be provided based upon system capacity and located such that no stop valve is provided between the relief valve and the parts or section of the system being protected.

## Ordering

### SGP X without indicator

|                                                                                   | Type      | Connection type   | Connection                       | Connection | Code no. |
|-----------------------------------------------------------------------------------|-----------|-------------------|----------------------------------|------------|----------|
|                                                                                   |           |                   | [inch]                           | [mm]       |          |
|  | SGP 10 X  | Flare ext. x ext. | $\frac{3}{8} \times \frac{3}{8}$ | 10 x 10    | 014L0080 |
|  | SGP 12s X | Solder ODF x ODF  | $\frac{1}{2} \times \frac{1}{2}$ | –          | 014L0086 |
|                                                                                   | SGP 16s X | Solder ODF x ODF  | $\frac{5}{8} \times \frac{5}{8}$ | 16 x 16    | 014L0087 |
|                                                                                   | SGP 22s X | Solder ODF x ODF  | $\frac{7}{8} \times \frac{7}{8}$ | 22 x 22    | 014L1207 |

### SGP I with I type indicator

|                                                                                     | Type      | Connection type                 | Connection                       | Connection | Code no. |
|-------------------------------------------------------------------------------------|-----------|---------------------------------|----------------------------------|------------|----------|
|                                                                                     |           |                                 | [inch]                           | [mm]       |          |
|    | SGP 6 I   | Flare ext. x ext.               | $\frac{1}{4} \times \frac{1}{4}$ | 6 x 6      | 014L0007 |
|                                                                                     | SGP 10 I  | Flare ext. x ext.               | $\frac{3}{8} \times \frac{3}{8}$ | 10 x 10    | 014L0008 |
|                                                                                     | SGP 12 I  | Flare ext. x ext.               | $\frac{1}{2} \times \frac{1}{2}$ | 12 x 12    | 014L0009 |
|                                                                                     | SGP 16 I  | Flare ext. x ext.               | $\frac{5}{8} \times \frac{5}{8}$ | 16 x 16    | 014L0024 |
|                                                                                     | SGP 19 I  | Flare ext. x ext.               | $\frac{3}{4} \times \frac{3}{4}$ | 19 x 19    | 014L0028 |
|    | SGP 6 I   | Flare int. x ext. <sup>1)</sup> | $\frac{1}{4} \times \frac{1}{4}$ | 6 x 6      | 014L0021 |
|                                                                                     | SGP 10 I  | Flare int. x ext. <sup>1)</sup> | $\frac{3}{8} \times \frac{3}{8}$ | 10 x 10    | 014L0022 |
|                                                                                     | SGP 12 I  | Flare int. x ext. <sup>1)</sup> | $\frac{1}{2} \times \frac{1}{2}$ | 12 x 12    | 014L0025 |
|                                                                                     | SGP 16 I  | Flare int. x ext. <sup>1)</sup> | $\frac{5}{8} \times \frac{5}{8}$ | 16 x 16    | 014L0026 |
|                                                                                     | SGP 19 I  | Flare int. x ext. <sup>1)</sup> | $\frac{3}{4} \times \frac{3}{4}$ | 19 x 19    | 014L0043 |
|  | SGP 6s I  | ODF x ODF solder                | $\frac{1}{4} \times \frac{1}{4}$ | –          | 014L0034 |
|                                                                                     |           | ODF x ODF solder                | –                                | 6 x 6      | 014L0040 |
|                                                                                     | SGP 10s I | ODF x ODF solder                | $\frac{3}{8} \times \frac{3}{8}$ | –          | 014L0035 |
|                                                                                     |           | ODF x ODF solder                | –                                | 10 x 10    | 014L0041 |
|                                                                                     | SGP 12s I | ODF x ODF solder                | $\frac{1}{2} \times \frac{1}{2}$ | –          | 014L0036 |
|                                                                                     |           | ODF x ODF solder                | –                                | 12 x 12    | 014L0042 |
|                                                                                     | SGP 16s I | ODF x ODF solder                | $\frac{5}{8} \times \frac{5}{8}$ | 16 x 16    | 014L0044 |
|                                                                                     | SGP 18s I | ODF x ODF solder                | –                                | 18 x 18    | 014L0045 |
|  | SGP 19s I | ODF x ODF solder                | $\frac{3}{4} \times \frac{3}{4}$ | 19 x 19    | 014L0047 |
|                                                                                     | SGP 22s I | ODF x ODF solder                | $\frac{7}{8} \times \frac{7}{8}$ | 22 x 22    | 014L0039 |
|                                                                                     | SGP 6s I  | ODF x ODM solder                | $\frac{1}{4} \times \frac{1}{4}$ | –          | 014L0125 |
|                                                                                     | SGP 10s I | ODF x ODM solder                | $\frac{3}{8} \times \frac{3}{8}$ | –          | 014L0126 |
|                                                                                     | SGP 12s I | ODF x ODM solder                | $\frac{1}{2} \times \frac{1}{2}$ | –          | 014L0127 |
|                                                                                     | SGP 16s I | ODF x ODM solder                | $\frac{5}{8} \times \frac{5}{8}$ | 16 x 16    | 014L0128 |
|                                                                                     | SGP 22s I | ODF x ODM solder                | $\frac{7}{8} \times \frac{7}{8}$ | 22 x 22    | 014L0130 |

<sup>1)</sup> Can be screwed directly into the filter drier



#### Notes:

- Only solder versions are allowed for flammable refrigerants.  
This product is approved for R290, R600, R600a and R1270 by ignition source assessment in accordance to standard EN13463-1.

## Ordering

## SGP N with N type indicator

|  | Type                    | Connection type                 | Connection                         | Connection | Code no. |
|--|-------------------------|---------------------------------|------------------------------------|------------|----------|
|  |                         |                                 | [inch]                             | [mm]       |          |
|  | SGP 6 N                 | Flare ext. x ext.               | $\frac{1}{4} \times \frac{1}{4}$   | 6 x 6      | 014L0161 |
|  | SGP 10 N                | Flare ext. x ext.               | $\frac{3}{8} \times \frac{3}{8}$   | 10 x 10    | 014L0162 |
|  | SGP 12 N                | Flare ext. x ext.               | $\frac{1}{2} \times \frac{1}{2}$   | 12 x 12    | 014L0163 |
|  | SGP 16 N                | Flare ext. x ext.               | $\frac{5}{8} \times \frac{5}{8}$   | 16 x 16    | 014L0165 |
|  | SGP 19 N                | Flare ext. x ext.               | $\frac{3}{4} \times \frac{3}{4}$   | 19 x 19    | 014L0166 |
|  | SGP 6 N                 | Flare int. x ext. <sup>1)</sup> | $\frac{1}{4} \times \frac{1}{4}$   | 6 x 6      | 014L0171 |
|  | SGP 10 N                | Flare int. x ext. <sup>1)</sup> | $\frac{3}{8} \times \frac{3}{8}$   | 10 x 10    | 014L0172 |
|  | SGP 12 N                | Flare int. x ext. <sup>1)</sup> | $\frac{1}{2} \times \frac{1}{2}$   | 12 x 12    | 014L0173 |
|  | SGP 16 N                | Flare int. x ext. <sup>1)</sup> | $\frac{5}{8} \times \frac{5}{8}$   | 16 x 16    | 014L0174 |
|  | SGP 19 N                | Flare int. x ext. <sup>1)</sup> | $\frac{3}{4} \times \frac{3}{4}$   | 19 x 19    | 014L0175 |
|  | SGP 6s N                | ODF x ODF solder                | $\frac{1}{4} \times \frac{1}{4}$   | –          | 014L0181 |
|  |                         | ODF x ODF solder                | –                                  | 6 x 6      | 014L0191 |
|  | SGP 10s N               | ODF x ODF solder                | $\frac{3}{8} \times \frac{3}{8}$   | –          | 014L0182 |
|  |                         | ODF x ODF solder                | –                                  | 10 x 10    | 014L0192 |
|  | SGP 12s N               | ODF x ODF solder                | $\frac{1}{2} \times \frac{1}{2}$   | –          | 014L0183 |
|  |                         | ODF x ODF solder                | –                                  | 12 x 12    | 014L0193 |
|  | SGP 16s N               | ODF x ODF solder                | $\frac{5}{8} \times \frac{5}{8}$   | 16 x 16    | 014L0184 |
|  | SGP 18s N               | ODF x ODF solder                | –                                  | 18 x 18    | 014L0195 |
|  | SGP 19s N               | ODF x ODF solder                | $\frac{3}{4} \times \frac{3}{4}$   | 19 x 19    | 014L0185 |
|  | SGP 22s N               | ODF x ODF solder                | $\frac{7}{8} \times \frac{7}{8}$   | 22 x 22    | 014L0186 |
|  | SGP 22s N <sup>2)</sup> | ODF x ODF solder                | $1\frac{1}{8} \times 1\frac{1}{8}$ | –          | 014L0187 |
|  | SGP 6s N                | ODF x ODM solder                | $\frac{1}{4} \times \frac{1}{4}$   | –          | 014L0201 |
|  | SGP 10s N               | ODF x ODM solder                | $\frac{3}{8} \times \frac{3}{8}$   | –          | 014L0202 |
|  | SGP 12s N               | ODF x ODM solder                | $\frac{1}{2} \times \frac{1}{2}$   | –          | 014L0203 |
|  | SGP 16s N               | ODF x ODM solder                | $\frac{5}{8} \times \frac{5}{8}$   | 16 x 16    | 014L0204 |
|  | SGP 22s N               | ODF x ODM solder                | $\frac{7}{8} \times \frac{7}{8}$   | 22 x 22    | 014L0206 |

<sup>1)</sup> Can be screwed directly into the filter drier

<sup>2)</sup> Oversize connections

**Notes:**

- Only solder versions are allowed for flammable refrigerants.  
This product is approved for R290, R600, R600a and R1270 by ignition source assessment in accordance to standard EN13463-1.

## Ordering

### No indicator

|  | Valve type | Indicator | Connection type | Connection                 | Floating ball [pc] | O-ring | Code no.        |
|--|------------|-----------|-----------------|----------------------------|--------------------|--------|-----------------|
|  | SGP 3/4 RX | No        | G thread        | G 3/4 A <sup>1)</sup>      | 1                  | No     | <b>014L0004</b> |
|  |            | No        | NPT             | 3/4 – 14 NPT <sup>2)</sup> | 1                  | No     | <b>014L0005</b> |
|  | SGP 1/2 RX | No        | NPT             | 1/2 – 14 NPT <sup>2)</sup> | 3                  | No     | <b>014L0002</b> |

### Indicator

|  |            |        |          |                            |   |     |                 |
|--|------------|--------|----------|----------------------------|---|-----|-----------------|
|  | SGP 1/2 RI | I type | NPT      | 1/2 – 14 NPT <sup>2)</sup> | 3 | No  | <b>014L0131</b> |
|  | SGP 24 RI  | I type | M thread | M24 × 1                    | – | Yes | <b>014L1154</b> |
|  | SGP 1/2 RN | N type | NPT      | 1/2 – 14 NPT <sup>2)</sup> | 3 | No  | <b>014L0006</b> |
|  | SGP 24 RN  | N type | M thread | M24 × 1                    | – | Yes | <b>014L1155</b> |
|  | SGP 20 RN  | N type | M thread | M20 × 1.5                  | – | No  | <b>014L1601</b> |

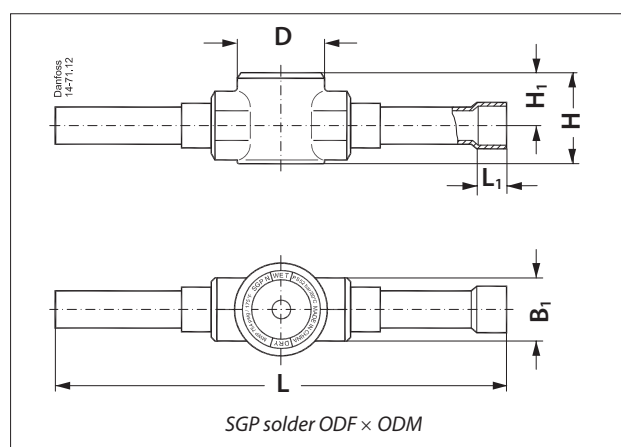
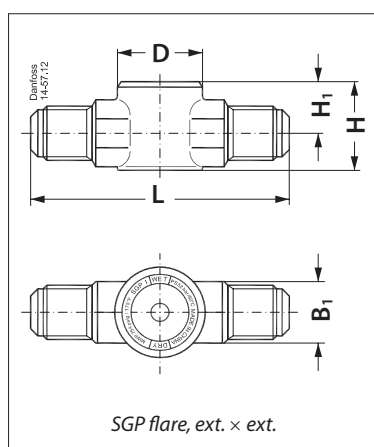
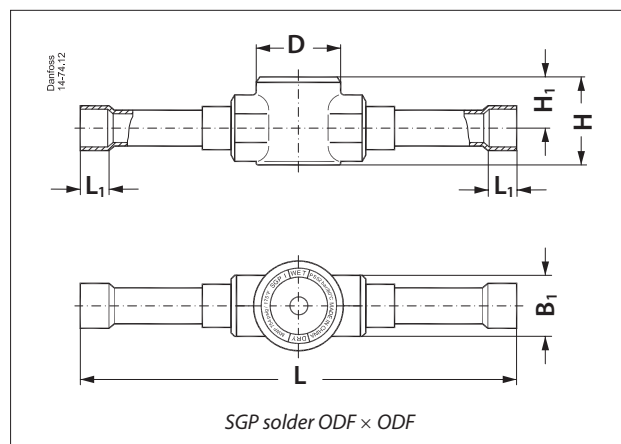
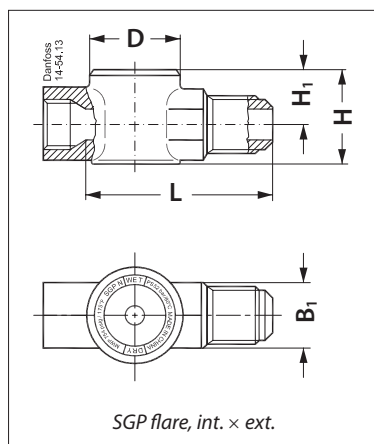
### Saddle

|  | Valve type | Connection type | Connection | Tube connection [in] | Industrial pack [pcs] | Code no.        |
|--|------------|-----------------|------------|----------------------|-----------------------|-----------------|
|  | SGS        | Tube fitting    | M20 × 1.5  | 1 1/8                | 80                    | <b>014-1071</b> |
|  |            | Tube fitting    | M20 × 1.5  | 1 3/8                | 80                    | <b>014-1074</b> |
|  |            | Tube fitting    | M24 × 1    | 7/8                  | 80                    | <b>014-1059</b> |
|  |            | Tube fitting    | M24 × 1    | 1 1/8                | 80                    | <b>014-1056</b> |
|  |            | Tube fitting    | M24 × 1    | 1 3/8                | 80                    | <b>014-1057</b> |
|  |            | Tube fitting    | M24 × 1    | 1 5/8                | 80                    | <b>014-1058</b> |
|  |            | Tube fitting    | M24 × 1    | 2 1/8                | 80                    | <b>014-1067</b> |

<sup>1)</sup> ISO 228-1

<sup>2)</sup> ANSI/ASME B1.20.1

**Dimensions and weights**  
SI units

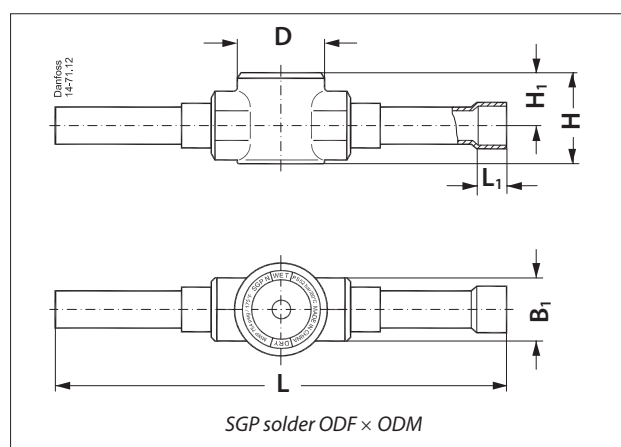
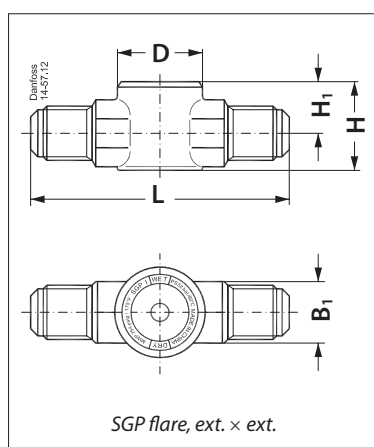
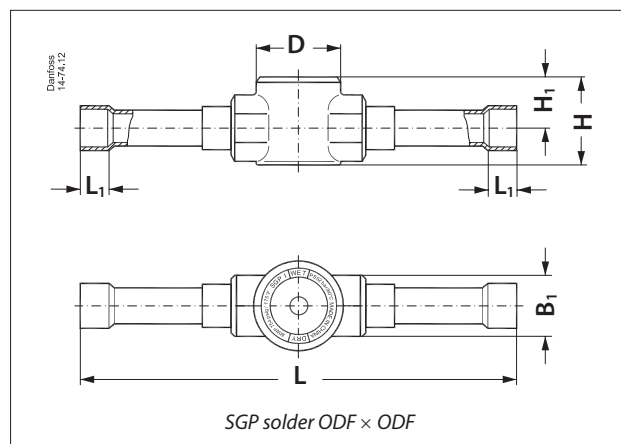
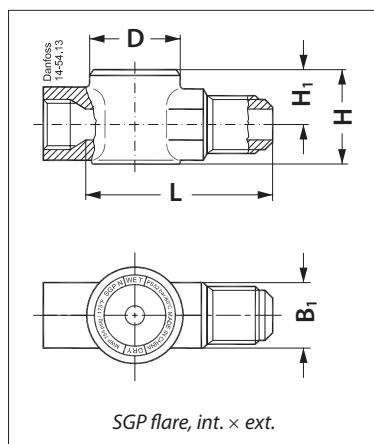


**SI Units**

| Type                               | Connection type   | L    | L <sub>1</sub> | H    | H <sub>1</sub> | B <sub>1</sub> | øD   | Net weight |
|------------------------------------|-------------------|------|----------------|------|----------------|----------------|------|------------|
|                                    |                   | [mm] | [mm]           | [mm] | [mm]           | [mm]           | [mm] | [Kg]       |
| SGP 6 N, SGP 6 I                   | Flare ext. x ext. | 67   | –              | 25   | 15             | 14             | 27   | 0.1        |
| SGP 10 N, SGP 10 I                 |                   | 82   | –              | 29   | 17             | 19             | 32   | 0.2        |
| SGP 12 N, SGP 12 I                 |                   | 88   | –              | 31   | 19             | 22             | 32   | 0.3        |
| SGP 16 N, SGP 16 I                 |                   | 104  | –              | 38   | 22             | 27             | 32   | 0.4        |
| SGP 19 N, SGP 19 I                 |                   | 110  | –              | 42   | 23             | 32             | 37   | 0.6        |
| SGP 6 N, SGP 6 I                   | Flare int. x ext. | 46   | –              | 25   | 15             | 16             | 27   | 0.1        |
| SGP 10 N, SGP 10 I                 |                   | 57   | –              | 29   | 17             | 22             | 32   | 0.2        |
| SGP 12 N, SGP 12 I                 |                   | 59   | –              | 31   | 19             | 24             | 32   | 0.2        |
| SGP 16 N, SGP 16 I                 |                   | 71   | –              | 38   | 22             | 27             | 32   | 0.4        |
| SGP 19 N, SGP 19 I                 |                   | 75   | –              | 42   | 23             | 32             | 37   | 0.5        |
| SGP 6s N, SGP 6s I                 | Solder ODF x ODF  | 101  | 7              | 24   | 15             | 14             | 27   | 0.1        |
| SGP 10s N, SGP 10s I               |                   | 119  | 9              | 24   | 15             | 14             | 27   | 0.1        |
| SGP 12s N, SGP 12s I               |                   | 146  | 10             | 29   | 17             | 19             | 32   | 0.2        |
| SGP 16s N, SGP 16s I               |                   | 146  | 12             | 31   | 19             | 22             | 32   | 0.2        |
| SGP 18s N, SGP 18s I               |                   | 173  | 14             | 38   | 22             | 27             | 32   | 0.3        |
| SGP 19s N, SGP 19s I               |                   | 173  | 14             | 38   | 22             | 27             | 32   | 0.3        |
| SGP 22s N, SGP 22s I               |                   | 173  | 17             | 39   | 23             | 27             | 32   | 0.3        |
| SGP 22s N, SGP 22s I <sup>1)</sup> |                   | 173  | 22             | 39   | 23             | 27             | 32   | 0.3        |
| SGP 6s N, SGP 6s I                 | Solder ODF x ODM  | 101  | 7              | 24   | 15             | 14             | 27   | 0.1        |
| SGP 10s N, SGP 10s I               |                   | 119  | 9              | 24   | 15             | 14             | 27   | 0.1        |
| SGP 12s N, SGP 12s I               |                   | 146  | 10             | 29   | 17             | 19             | 32   | 0.2        |
| SGP 16s N, SGP 16s I               |                   | 146  | 12             | 31   | 19             | 22             | 32   | 0.2        |
| SGP 22s N, SGP 22s I               |                   | 173  | 17             | 38   | 22             | 27             | 32   | 0.3        |

<sup>1)</sup> Oversize connections

Dimensions and weights  
US units



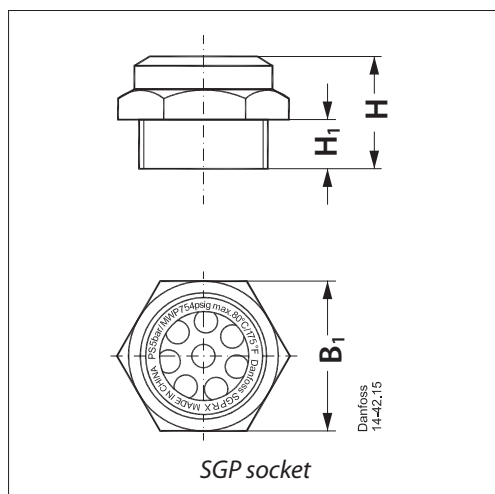
US Units

| Type                               | Connection type   | L    | L <sub>1</sub> | H    | H <sub>1</sub> | B <sub>1</sub> | øD   | Net weight |
|------------------------------------|-------------------|------|----------------|------|----------------|----------------|------|------------|
|                                    |                   | [in] | [in]           | [in] | [in]           | [in]           | [in] | [lbs]      |
| SGP 6 N, SGP 6 I                   | Flare ext. x ext. | 2.64 | –              | 0.98 | 0.59           | 0.55           | 1.06 | 0.22       |
| SGP 10 N, SGP 10 I                 |                   | 3.23 | –              | 1.14 | 0.67           | 0.75           | 1.26 | 0.44       |
| SGP 12 N, SGP 12 I                 |                   | 3.46 | –              | 1.22 | 0.75           | 0.87           | 1.26 | 0.66       |
| SGP 16 N, SGP 16 I                 |                   | 4.09 | –              | 1.50 | 0.87           | 1.06           | 1.26 | 0.88       |
| SGP 19 N, SGP 19 I                 |                   | 4.33 | –              | 1.65 | 0.91           | 1.26           | 1.46 | 1.32       |
| SGP 6 N, SGP 6 I                   | Flare int. x ext. | 1.81 | –              | 0.98 | 0.59           | 0.63           | 1.06 | 0.22       |
| SGP 10 N, SGP 10 I                 |                   | 2.24 | –              | 1.14 | 0.67           | 0.87           | 1.26 | 0.44       |
| SGP 12 N, SGP 12 I                 |                   | 2.32 | –              | 1.22 | 0.75           | 0.94           | 1.26 | 0.44       |
| SGP 16 N, SGP 16 I                 |                   | 2.80 | –              | 1.50 | 0.87           | 1.06           | 1.26 | 0.88       |
| SGP 19 N, SGP 19 I                 |                   | 2.95 | –              | 1.65 | 0.91           | 1.26           | 1.46 | 1.10       |
| SGP 6s N, SGP 6s I                 | Solder ODF x ODF  | 3.98 | 0.28           | 0.94 | 0.59           | 0.55           | 1.06 | 0.22       |
| SGP 10s N, SGP 10s I               |                   | 4.69 | 0.35           | 0.94 | 0.59           | 0.55           | 1.06 | 0.22       |
| SGP 12s N, SGP 12s I               |                   | 5.75 | 0.39           | 1.14 | 0.67           | 0.75           | 1.26 | 0.44       |
| SGP 16s N, SGP 16s I               |                   | 5.75 | 0.47           | 1.22 | 0.75           | 0.87           | 1.26 | 0.44       |
| SGP 18s N, SGP 18s I               |                   | 6.81 | 0.55           | 1.50 | 0.87           | 1.06           | 1.26 | 0.66       |
| SGP 19s N, SGP 19s I               |                   | 6.81 | 0.55           | 1.50 | 0.87           | 1.06           | 1.26 | 0.66       |
| SGP 22s N, SGP 22s I               |                   | 6.81 | 0.67           | 1.54 | 0.91           | 1.06           | 1.26 | 0.66       |
| SGP 22s N, SGP 22s I <sup>1)</sup> |                   | 6.81 | 0.87           | 1.54 | 0.91           | 1.06           | 1.26 | 0.66       |
| SGP 6s N, SGP 6s I                 | Solder ODF x ODM  | 3.98 | 0.28           | 0.94 | 0.59           | 0.55           | 1.06 | 0.22       |
| SGP 10s N, SGP 10s I               |                   | 4.69 | 0.35           | 0.94 | 0.59           | 0.55           | 1.06 | 0.22       |
| SGP 12s N, SGP 12s I               |                   | 5.75 | 0.39           | 1.14 | 0.67           | 0.75           | 1.26 | 0.44       |
| SGP 16s N, SGP 16s I               |                   | 5.75 | 0.47           | 1.22 | 0.75           | 0.87           | 1.26 | 0.44       |
| SGP 22s N, SGP 22s I               |                   | 6.81 | 0.67           | 1.50 | 0.87           | 1.06           | 1.26 | 0.66       |

<sup>1)</sup> Oversize connections



## Dimensions and weights



| Type                    | Connection type | Connection                 | H    | H1   | B1   | Net. weight |
|-------------------------|-----------------|----------------------------|------|------|------|-------------|
|                         |                 |                            | [mm] | [mm] | [mm] | [kg]        |
| SGP 3/4 RX              | G thread        | G 3/4 A <sup>1)</sup>      | 24   | 10   | 32   | 0.1         |
| SGP 1/2 RX              | NPT             | 1/2 – 14 NPT <sup>2)</sup> | 31   | 18   | 27   | 0.1         |
| SGP 3/4 RX              | NPT             | 3/4 – 14 NPT <sup>2)</sup> | 32   | 18   | 32   | 0.1         |
| SGP 1/2 RN / SGP 1/2 RI | NPT             | 1/2 – 14 NPT <sup>2)</sup> | 31   | 18   | 27   | 0.1         |
| SGP 24 RN / SGP 24 RI   | M thread        | M24 x 1                    | 29   | 15   | 32   | 0.1         |
| SGP 20 RN               | M thread        | M20 x 1.5                  | 26   | 13   | 27   | 0.1         |

| Type                    | Connection type | Connection                 | H    | H1   | B1   | Net. weight |
|-------------------------|-----------------|----------------------------|------|------|------|-------------|
|                         |                 |                            | [in] | [in] | [in] | [lbs]       |
| SGP 3/4 RX              | G thread        | G 3/4 A <sup>1)</sup>      | 0.94 | 0.39 | 1.26 | 0.22        |
| SGP 1/2 RX              | NPT             | 1/2 – 14 NPT <sup>2)</sup> | 1.22 | 0.71 | 1.06 | 0.22        |
| SGP 3/4 RX              | NPT             | 3/4 – 14 NPT <sup>2)</sup> | 1.26 | 0.71 | 1.26 | 0.22        |
| SGP 1/2 RN / SGP 1/2 RI | NPT             | 1/2 – 14 NPT <sup>2)</sup> | 1.22 | 0.71 | 1.06 | 0.22        |
| SGP 24 RN / SGP 24 RI   | M thread        | M24 x 1                    | 1.14 | 0.59 | 1.26 | 0.22        |
| SGP 20 RN               | M thread        | M20 x 1.5                  | 1.02 | 0.51 | 1.06 | 0.22        |