

Fact sheet

Danfoss Hansen® FD83 Series Coupling Thermal Management



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.

NEW! The FD83 coupling is now available in size 2"

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, additional material available on request
- Standard body material: 303 stainless steel
- Full flow coupling
- Identical coupling halves
- Maintenance and service friendly
- 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)*

Applications & Markets

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

* For reference only, based on Danfoss recommended temperatures.

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Physical Characteristics

Coupling Size	Max. Operating Pressure						Min. Burst Pressure						Rated Flow	Fluid Loss	CV value	
	Connected		Socket/Female Half		Socket/Female Half		Connected		Socket/Female Half		Socket/Female Half					
(in)	(bar)	(psi)	(bar)	(psi)	(bar)	(psi)	(bar)	(psi)	(bar)	(psi)	(bar)	(psi)	(lpm)	(gpm)	cc. max	
1	10	150	10	150	10	150	20	300	20	300	20	300	189	50	5.0	30
2 New!	10	150	10	150	10	150	20	300	20	300	20	300	800	211	12	127

Flow Data

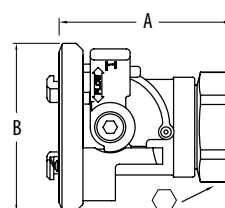
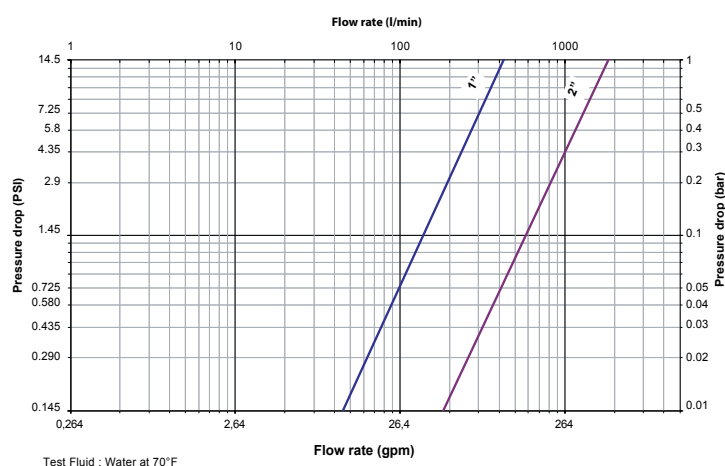


Figure 1

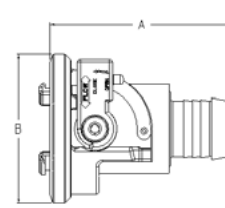


Figure 2

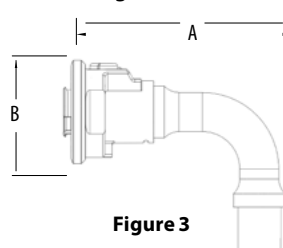


Figure 3

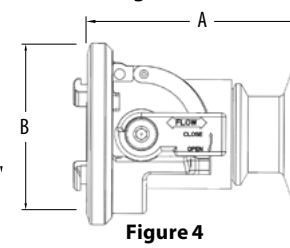


Figure 4

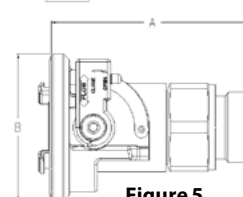


Figure 5

Dimensions

Part Number	Order Number	Body Size	Port Size	Thread	Type	Fig.	Dimensions		B	Hex	①
							A				
							mm	(in)	mm	mm	(in)
FD83-2052-16-16	FD83-2052-16-16	1	1	1-11- 1/2	Female NPTF	1	95.5	(3.76)	71.6	41	(1.63)
FD83-2052-12-16	FD83-2052-12-16	1	3/4	3/4-14	Female NPTF	1	70.1	(2.76)	71.6	41	(1.63)
FD83-2046-16-16	FD83-2046-16-16	1	1	NA	1" Hose Barb	2	84.2	(3.31)	71.6	-	-
FD83-2092-16-16	FD83-2092-16-16	1	1	NA	1" Hose Barb 90°	3	125	(4.92)	71.6	-	-
FD83-2096-16-16	FD83-2096-16-16	1	1	1 5/16-12	Male ORB	5	95.5	(3.76)	71.6	41	(1.63)
FD83-2140-16-16	FD83-2140-16-16	1	1	G1-11	Male BSPP	5	95.5	(3.76)	71.6	41	(1.63)
FD83-2126-16-16	FD83-2126-16-16	1	1	G1-11	Female BSPP	1	84.3	(3.32)	71.6	41	(1.63)
FD83-2128-16-16	FD83-2128-16-16	1	1	NA	Sanitary Flange 1"	4	79.6	(3.13)	71.6	-	-
FD83-2126-32-32	FD83-2126-32-32	2	2	G2-11	Female BSPP	1	122.4	(4.82)	105.3	70	(2.76)
FD83-2046-32-32	11349026	2	2	NA	2" Hose barb	2	156.8	(6.17)	105.3	-	-
FD83-2046-24-32	11349477	2	1 1/2	NA	1 1/2" Hose barb	2	149.8	(5.90)	105.3	-	-
FD83-2046-20-32	11349492	2	1 1/4	NA	1 1/4" Hose barb	2	141.6	(5.57)	105.3	-	-
FD83-2128-32-32	FD83-2128-32-32	2	2	NA	Sanitary Flange 2'	4	102.4	(4.03)	105.3	-	-
FD83-2052-32-32	FD83-2052-32-32	2	2	2-11- 1/2	Female NPT	1	122.4	(4.82)	105.3	70	(2.76)

Other end connections available upon request.

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