

Couplings for thermal management application



北京汉深流体技术有限公司 *Catalog ~2026*

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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)	(mm)	(bar)	(psi)	(lpm)	ml-cc.	ml-cc.	N	lbf
A2DB	6.3	¼	5.9	25	360	25	0.002	0.001	77	17
A3DB	10	⅜	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

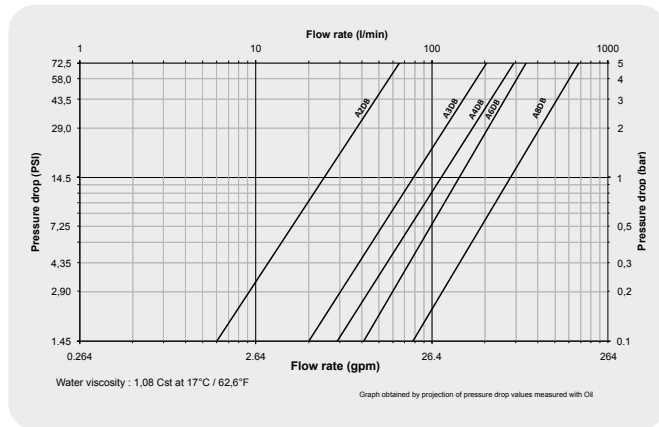
* Indicated values refer to a 1 bar / 14.5 psi pressure drop with water values obtained by projection of pressure drops measured with Oil.

Applications & Markets

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

ADB Series (Aluminium) Flat Face/Dry Break

Flow Data



- 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.

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.

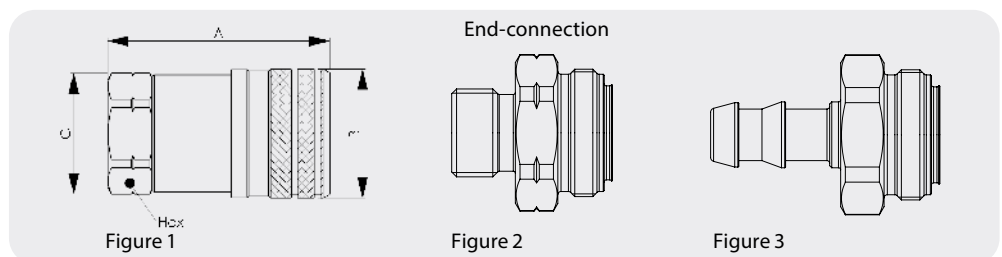
**For reference only, based on Danfoss recommended temperatures.

Contact Danfoss technical support for further information on fluid compatibility.

Plug (Male) Relive Valve Option*

Part/Order Number	ADB Model	Body size	Relive Pressure	Thread Size	
		(in)	(bar)	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.



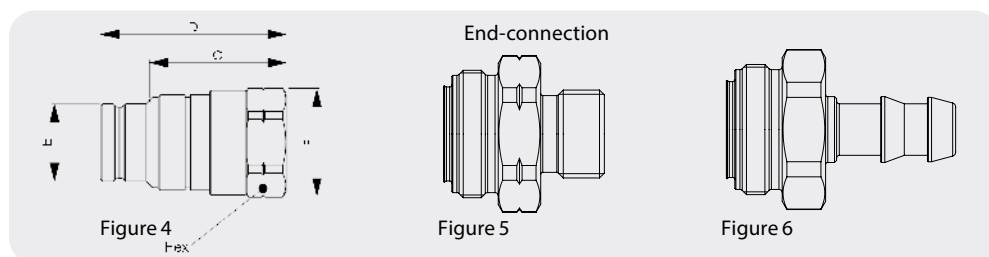
Sockets (Female)

Part/Order Number	Fig.	Body Size (in)	Thread Size		Hosebarb	Dimensions						Weight			
			BSPP female	BSPP male		A	B	C	Hex1					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



Sockets (Female)

Part/Order Number	Fig.	Body Size (in)	Thread Size			Dimensions										Weight	
			BSPP female	BSPP male	Hosebarb	D	E	F	G	Hex1						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.

Global region

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	Cv Value
	Connected		Disconnected Half				Connected		Disconnected 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	10	150	10	150	10	150	20	300	20	300	20	300	800	211	12	127

Applications & Markets

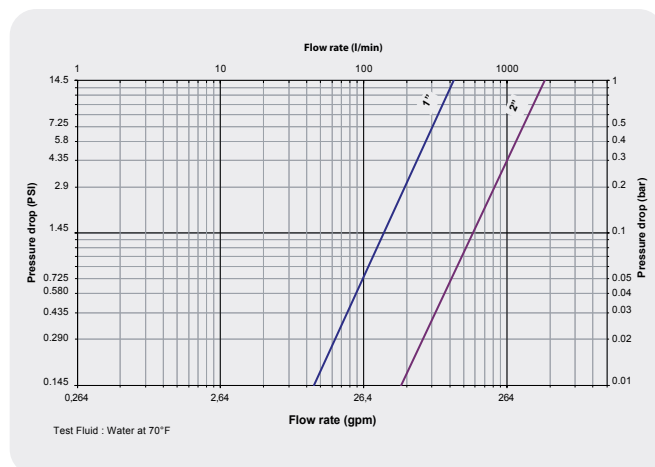
- Data Centers
- Thermal Management Systems
- Industrial Fluid Transfer
- Not intended for two-phase cooling

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

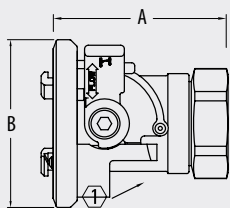


Figure 1

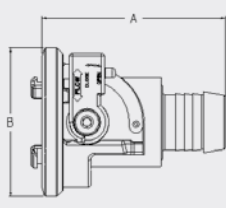


Figure 2

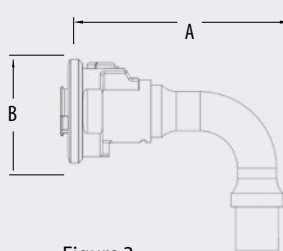


Figure 3

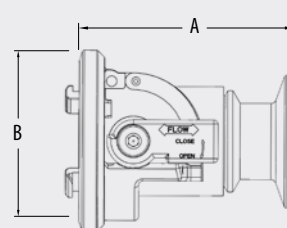


Figure 4

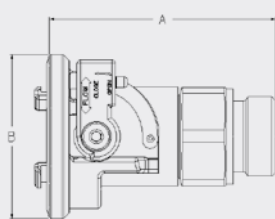


Figure 5

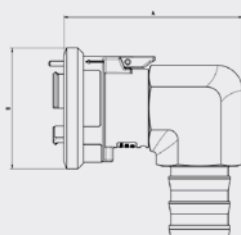


Figure 6

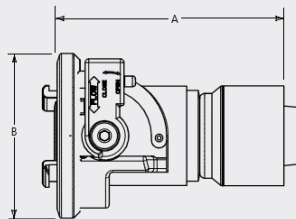


Figure 7

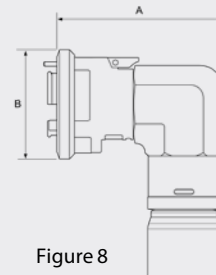


Figure 8

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

Part Number	Order Number	Body Size	Port Size	Thread	Type	Fig.	Dimensions					
							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 ⅝-12	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 In-clusion	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)	(lpm)	-	cc. max.	cc. max.
UQD02	⅛	3.16	20	290	20	290	20	290	60	870	60	870	60	870	2.1	0.6	0.33	0.007
UQD04	¼	6.3	16	232	16	232	16	232	48	696	48	696	48	696	6.4	1.7	1.37	0.01
UQD06	⅜	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	0.022
UQD08	½	10	8.9	129	6.9	100	6.9	100	20.7	300	20.7	300	20.7	300	17.8	4.7	5.32	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).

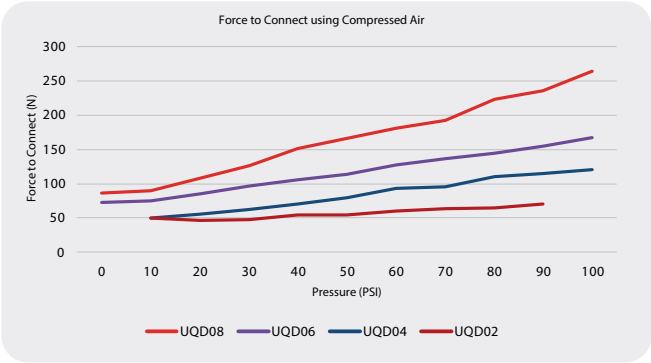
UQD Series

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

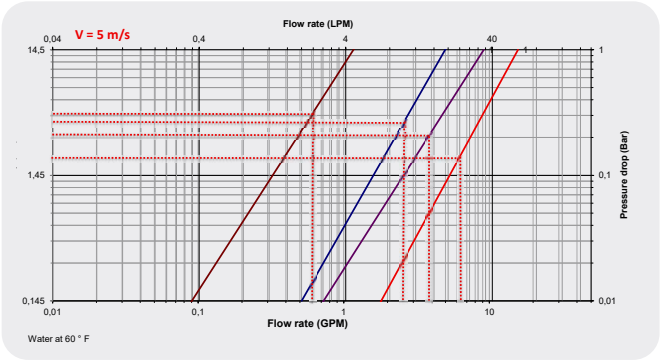


A reference flow rate corresponding to 5 m/s is widely adopted in industry to balance pressure drop and flow stability. While not the maximum allowable flow, it offers an optimal balance between system performance and component sizing.

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 5 m/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

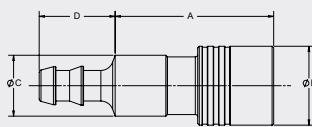


Figure 1
Push on socketless fitting

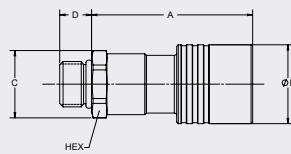


Figure 2
Male ORB

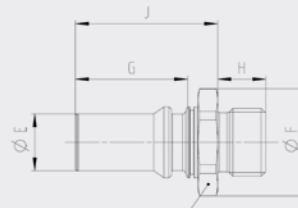


Figure 3
Male ORB ISO 11926-3

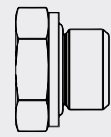


Figure 4
ISO 1179-3

Socket (Female) part

OCP UQD size	Part number	Order number	Material	Details		Fig.	Dimensions									
				Thread /end size	ORB		A		B		C		D		Hex	
				Hose Tail	ORB		(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	SS303	1/4	-	1	38,4	1,51	18,5	0,73	14,0	0,55	19,1	0,75	-	-
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	SS303	3/8	-	1	49,5	1,95	24,6	0,97	19,0	0,75	23,7	0,93	-	-
	4UQS25HABLS11	4UQS25HABLS11	SS303	1/4	-	1	51,2	2,01	24,6	0,97	19,0	0,75	22	0,87	-	-
	4UQS25HARDS11	4UQS25HARDS11	SS303	1/4	-	1	51,2	2,01	24,6	0,97	19,0	0,75	22	0,87	-	-
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	SS303	-	9/16	2	50,3	1,98	24,6	0,97	21	0,83	9,9	0,39	19	0,75
	6UQS50HABLS11	6UQS50HABLS11	SS303	1/2	-	1	52,3	2,06	27,8	1,10	23	0,9	25,8	1,01	-	-
	6UQS50HARDS11	6UQS50HARDS11	SS303	1/2	-	1	52,3	2,06	27,8	1,10	23	0,9	25,8	1,01	-	-
UQD08 V2	6UQS75ORMBLS11	11348377	SS303	-	3/4	2	52,5	2,06	27,9	1,09	22	0,87	11,1	0,44	22	0,86
	6UQS75ORMRDS11	11348376	SS303	-	3/4	2	52,5	2,06	27,9	1,09	22	0,87	11,1	0,44	22	0,86
	8UQS62HARDS11	11368547	SS303	5/8	-	1	62,05	2,44	31,5	1,24	28	1,1	39	1,54	-	-
	8UQS62HABLS11	11368540	SS303	5/8	-	1	62,05	2,44	31,5	1,24	28	1,1	39	1,54	-	-
	ML8UQS62HARDS11	11368473	SS304	5/8	-	1	62,05	2,44	31,5	1,24	28	1,1	39	1,54	-	-
	ML8UQS62HABLS11	11368468	SS304	5/8	-	1	62,05	2,44	31,5	1,24	28	1,1	39	1,54	-	-

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 UQD size	Part number	Order number	Material	Details				Dimensions										
				Thread /end size		Fig.	E		F		G		H		J		Hex	
				BSP	ORB		n°	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
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	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
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
	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
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
	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
UQD08 V2	8UQP87ORMRDS11	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
	8UQP87ORMBLS11	12029057	SS303															
	ML8UQP87ORMRDS11	11368458	SS304															
	ML8UQP87ORMBLS11	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	⅛	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	¼	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	⅜	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	½	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

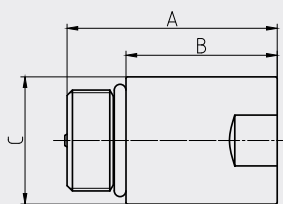


Figure 1
Socket

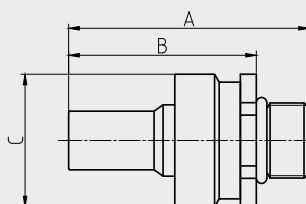


Figure 2
Plug

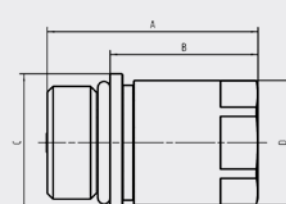


Figure 3
Socket

Dimensions

OCP UQDB size	Part number	Order number	Part	Material	Details	Fig.	Dimensions				E2E length					
					Thread/size		A		B		C		D			
					ORB		(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
UQDB02	2UQBS56ORM	2UQBS56ORM	Socket	SS303	⅝-18	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	⅝-20	2	36.10	1.42	27	1.06	20	0.79				
UQDB04	4UQBS75ORM	4UQBS75ORM	Socket	SS303	¾-16	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	⅝-18	2	45.32	1.78	35.3	1.39	25	0.98				
UQDB06	6UQBS87ORM	6UQBS87ORM	Socket	SS303	⅞-14	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	¾ -16	2	49.90	1.96	38.9	1.53	28.4	1.11				
UQDB08 v2	8UQBS106ORMV2	11367197	Socket	SS303	1 ⅝-12	3	50.66	2.00	35.56	1.40	33	1.30	29.8	1.17	50.9-51.9	2.00-2.04
UQDB08 v2	8UQBS106ORMV2	11368123	Socket	SS304	1 ⅝-12	3	50.66	2.00	35.56	1.40	33	1.30	29.8	1.17	50.9-51.9	2.00-2.04
UQDB08	8UQBP87ORM	8UQBP87ORM	Plug	SS303	⅞-14	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		Recommended Torque	
	N	lb	Plug ORB size	N.m	Socket ORB size	N.m
UQDB02	53	12	7/16-20 UNF-2A	9-10	7/16-18 UNF-2A	15-17
UQDB04	62	14	7/16-18 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

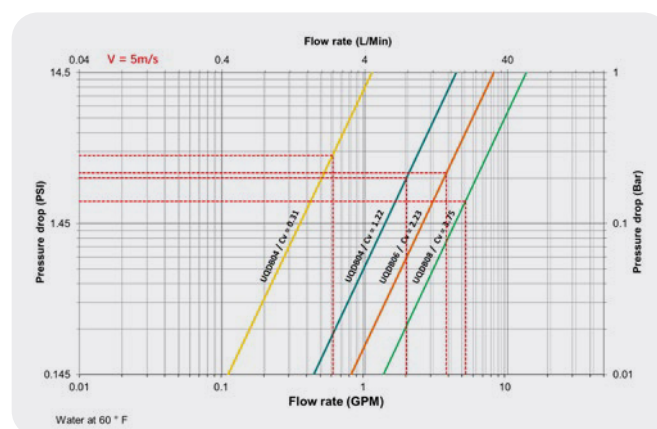
Seal Elastomer Data

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	Flow at 5 m/s
	(lpm)	(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.

Global region

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)

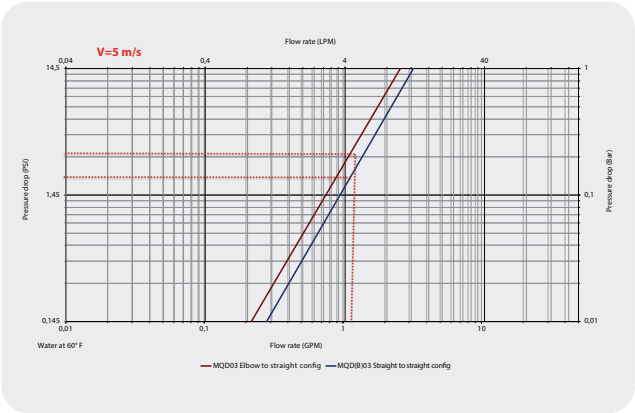
Physical characteristics

Body Size	Nominal flow diameter	Max. Operating Pressure		Min. Burst Pressure		Rated Flow		Force to connect	Fluid Loss
(in)	(mm)	(bar)	(psi)	(bar)	(psi)	(lpm)	(gpm)	N max.	cc. max.
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

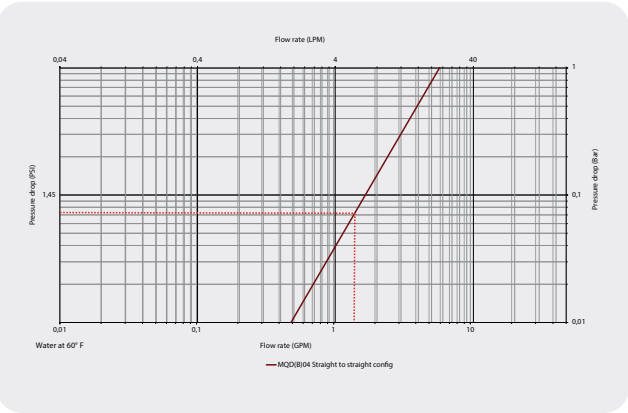
Applications & Markets

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

Flow Data MQ03



Flow Data MQ04



MQD/MQDB Series

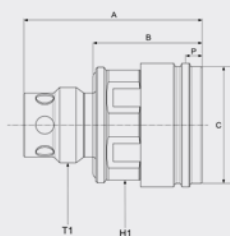


Figure 1

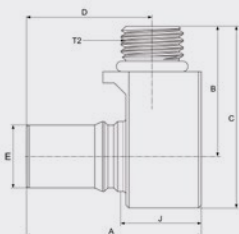


Figure 2

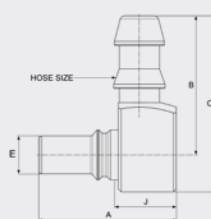


Figure 3

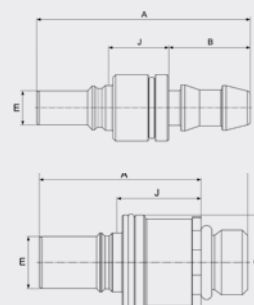


Figure 4 (a, b)

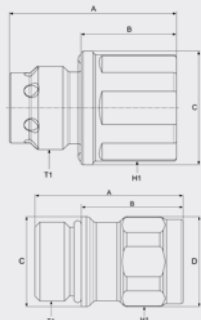


Figure 5 (a, b)

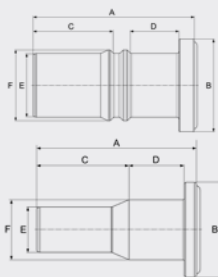


Figure 6 (a, b)

Series Description	Order Number	Part Number	Color	Nom Flow dia	End Type	Dimensions										Fig
						A	B	C	D	E	F	J	H1	H2	H3	
				(mm)	T1/T2/T3/HOSE SIZE	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(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 (in)	Working Pressure		Min. Burst Pressure		Misalignment mm	Angular misalignment degree	Rated Flow		Cv Value*	Torque 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) 25 +/-5 (plug)

*Using PG25, at 40°C.

OCP ORV3 BMQC Series

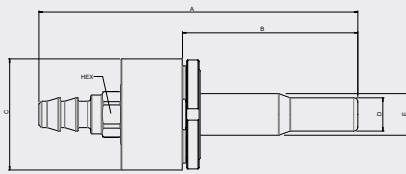


Figure 1
Plug

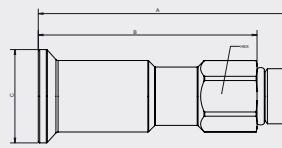


Figure 2
Socket

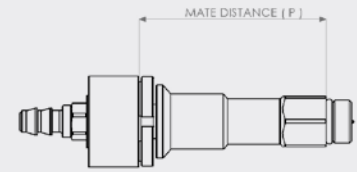


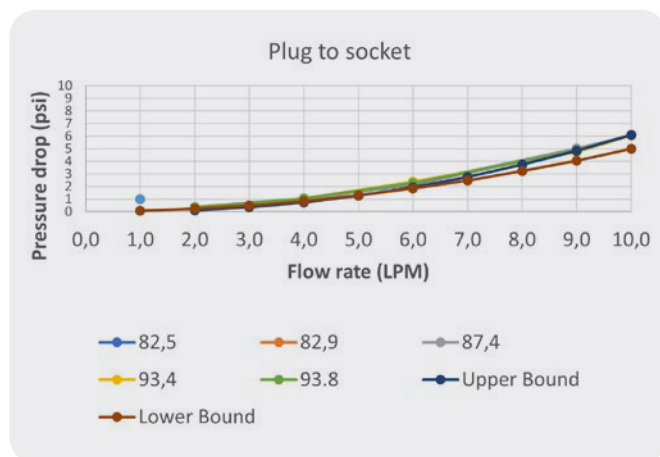
Figure 3
Connected

P = min 82.9 mm / max. 93.4 mm

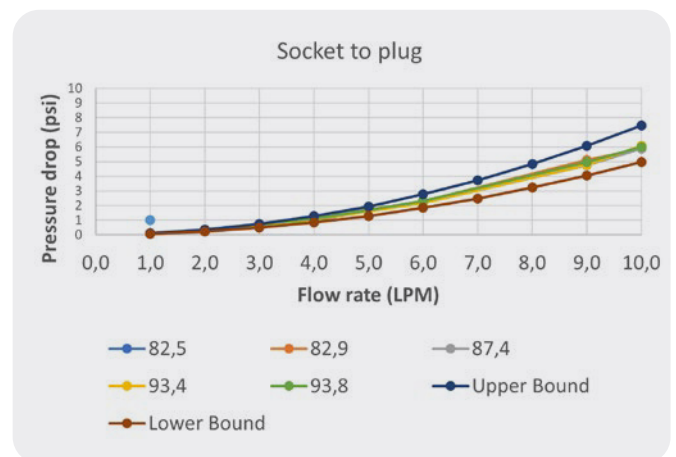
Dimensions

Part/Order Number	End connection			Fig.	Dimensions										
	Part	End type	Thread size		A	B	C	D	E	Hex					
					(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(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

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