

Fact sheet

Danfoss Hansen® Universal Quick Disconnect (UQD) Compact Design

One partner, every solution



Danfoss Hansen's compact version of the UQD is designed for thermal management applications and complies with OCP UQD specifications. Danfoss has developed a shortened version of the socket to offer a compact, lightweight UQD with the same flow and pressure drop characteristics.

The compact version of the UQD still offers color-coded identification and QR code marking to help visualize hot and cold parts of the cooling system and track parts.

Product Features

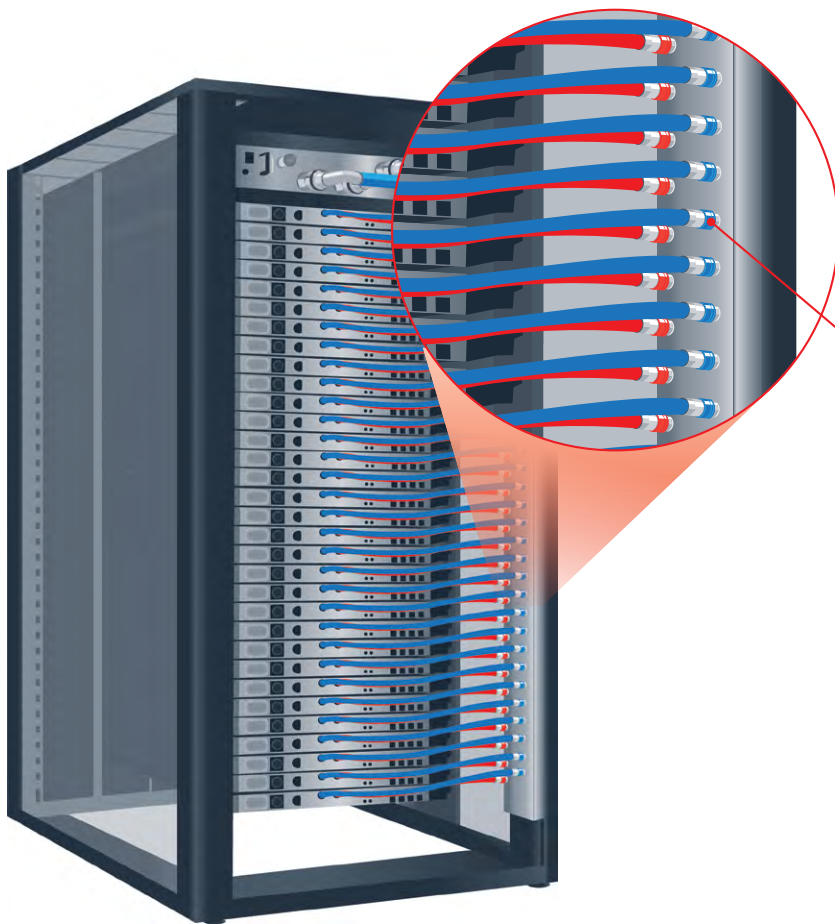
- Designed per OCP (Open Compute Project) UQD specification
- Push-to-connect design
- High flow and no spillage
- Double shut off - flat face valves
- Exceeds OCP flow ratings at least by 25% resulting in reduction in overall energy consumption
- Best in class force to connect
- Standard material: 303 stainless steel provides broad fluid compatibility
- Standard seal material: EPDM
- Color anodized aluminum sleeves
- Color coded (red/blue) sleeves on socket and O-rings on plug
- Wide range of terminal end options: ORB, BSPP on plug and push on hose on socket. Additional configurations available upon request
- Operating temperature -40°C to +150°C
- Typical working pressure: 6.9 bar, up to 20 bar for smaller sizes

Solutions to your **liquid cooling challenges**

Inner Rack Solutions

Danfoss' direct-to-chip cooling solutions extend into the racks through efficient routing of flexible, kink-free hoses, and leak free, helium-tested couplings.

Danfoss has a **comprehensive portfolio of premium fluid conveyance products** to meet your thermal management system needs.



UQD
Universal quick disconnect coupling
compact design

Specially designed to meet the space constraints of racks, the compact UQD socket offers the same performance while saving considerable space in the cooling system.



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Size	Body Size	Nominal Flow Dia-meter	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)	(lpm)	(gpm)	-	cc. max.	cc. max.
UQD04	1/4	5.5	16	232	16	232	16	232	48	696	48	696	48	696	6.4	1.7	1.37	0.024	0.01

Size	Performance Parameters					
	Force to Connect		Recommended Torque			
	N	lb	ORB size	N-m	BSP Size	N-m
UQD04	50	11.24	9/16-18	18-20	3/8"	18-20

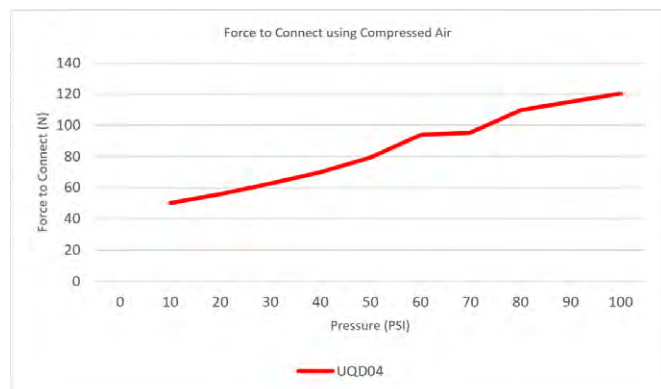
Applications & Markets

- Liquid cooling application
- Data center application

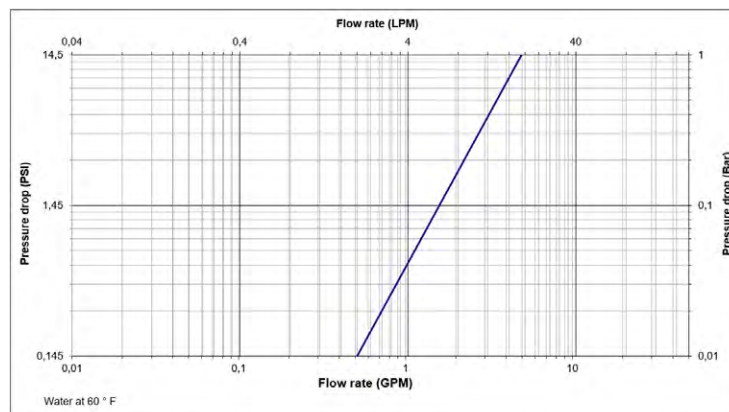
Seal Elastomer Data

Seal Elastomer	P/N Code	Operation Temperature Range	
		C°	F°
EPDM	-	-40°C +150°C	-40°F +302°F

Force to Connect Vs Pressure



Flow Data



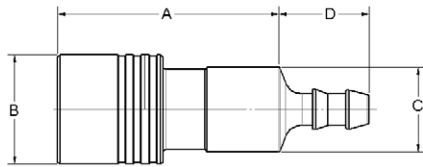


Figure 1
Push on socketless fitting

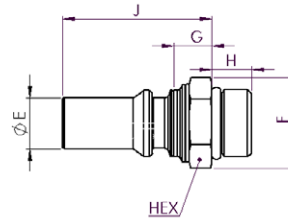


Figure 2
Male ORB ISO 11926-3

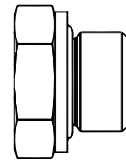


Figure 3
ISO 1179-3

UQD	Part number	Details		Dimensions							
		Thread / end size	Fig.	A		B		C		D	
		Hose Tail	n°	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
UQD04	4UQS25HABLS11	1/4	1	51.2	2.01	24.6	0.97	11.9	0.47	22	0.87
	4UQS25HARDS11	1/4	1	51.2	2.01	24.6	0.97	11.9	0.47	22	0.87
	4UQS37HABLS11	3/8	1	49.5	1.95	24.6	0.97	9	0.36	23.7	0.93
	4UQS37HARDS11	3/8	1	49.5	1.95	24.6	0.97	9	0.36	23.7	0.93

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

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

UQD	Part number	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)	(in)
UQD04	4UQP56ORMBL	-	9/16-18	2	11.07	0.44	19.63	0.77	9.8	0.39	9.9	0.39	37.9	1.49	17	0.67
	4UQP56ORMRD	-	9/16-18	2	11.07	0.44	19.63	0.77	9.8	0.39	9.9	0.39	37.9	1.49	17	0.67
	4UQP37ORMBL	3/8	-	3	11.07	0.44	25.40	1.00	9.8	0.39	11.2	0.44	37.9	1.49	22	0.87
	4UQP37ORMRD	3/8	-	3	11.07	0.44	25.40	1.00	9.8	0.39	11.2	0.44	37.9	1.49	22	0.87

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

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

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