



Danfoss Hansen® Universal Quick Disconnect (UQD)

One partner, every solution

Danfoss Hansen® Universal Quick Disconnect (UQD)

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.



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 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

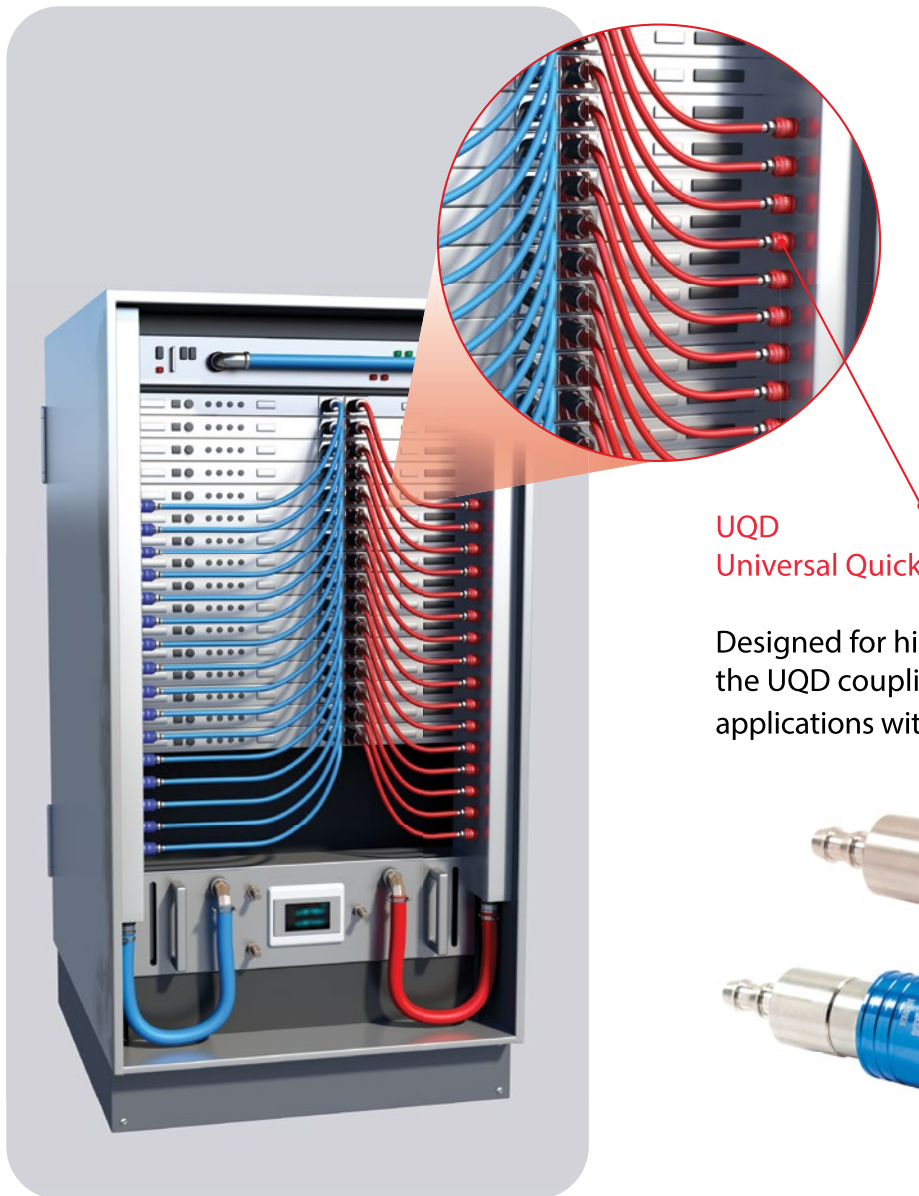


Solutions to your liquid cooling challenges

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

Designed for high flow rate and no spillage, the UQD coupling is perfect for in-rack applications with smaller hose lines.



Physical characteristics

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.
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	6.9	100	6.9	100	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)

Applications & Markets

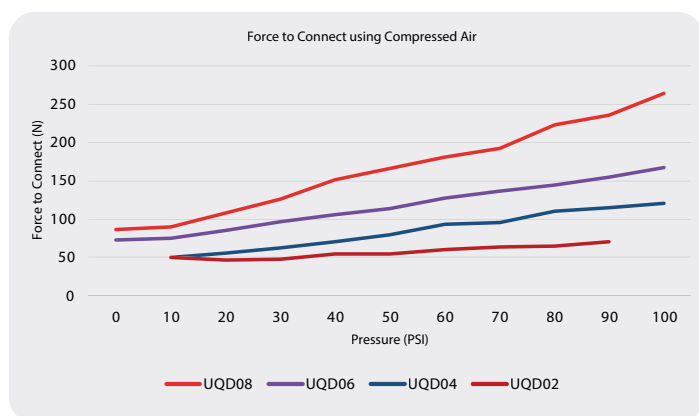
- Liquid cooling application
- Data center application

Seal Elastomer Data

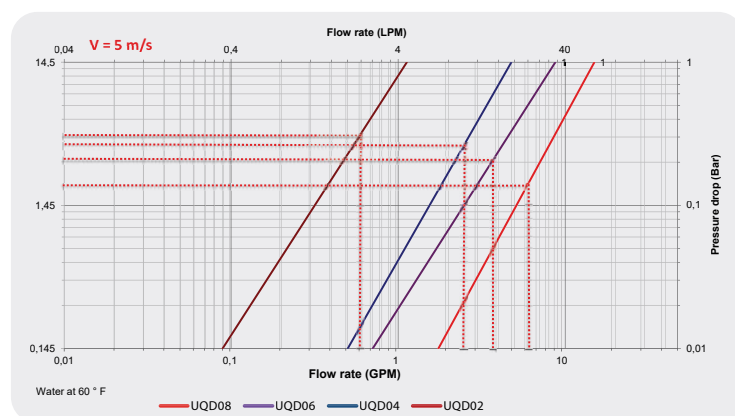
Seal Elastomer	Operation Temperature Range	
	C°	F°
EPDM-P	-40°C +150°C	-40°F +302°F

Size	Force to Connect		Performance Parameters			
	N	lb	Recommended Torque			
			ORB size	N-m	BSP Size	N-m
UQD02	48	10.79	7/16-20	11-12	1/8"	8-9
UQD04	50	11.24	9/16-18	18-20	3/8"	18-20
UQD06	73	16.41	3/4-16	52-57	3/8"	18-20
UQD08	87	19.56	7/8-14	58-64	1/2"	34-37

Force to Connect vs Pressure



Flow Data



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.

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

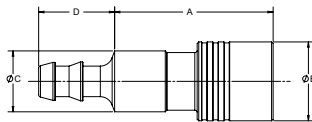


Figure 1
Push on socketless fitting

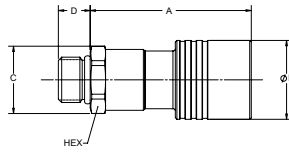


Figure 2
Male ORB

Socket (Female) part

OCP UQD size	Part number	Order number	Material	Details			Dimensions									
				Thread / end size		Fig.	A		B		C		D		Hex	
				Hose Tail	ORB		(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(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														
	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														
	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	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														
	8UQS62HARDS11	11368547	SS303	5/8	-	1	62.05	2.44	31.5	1.24	28	1.1	39	1.54	-	-
	8UQS62HABLS11	11368540	SS303													
	ML8UQS62HARDS11	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

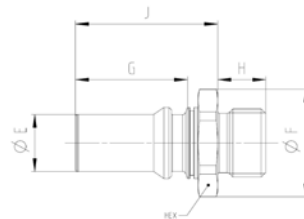


Figure 3
Male ORB ISO 11926-3

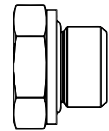


Figure 4
ISO 1179-3

Plug (Male) part

OCP UQD size	Part number	Order number	Material	Details			Dimensions									
				Thread / end size		Fig.	E		F		G		H		J	
				BSP	ORB		(mm)	(in)	(mm)	(in)	(in)	(in)	(in)	(in)	(in)	(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
	2UQP43ORMRD	2UQP43ORMRD														
	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
	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
	4UQP56ORMRD	4UQP56ORMRD														
	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
	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
	6UQP75ORMRD	6UQP75ORMRD														
	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
	6UQP37MBSRD	6UQP37MBSRD														
UQD08 V2	LL8UQP870RMRD11	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
	LL8UQP870RMBLS11	12029057	SS303													
	ML8UQP870RMRD11	11368458	SS304													
	ML8UQP870RMBLS11	11368440	SS304													
	LL8UQP50MBSRD11	11368541	SS303													
	LL8UQP50MBSBL11	11368548	SS303													
	ML8UQP50MBSRD11	11358746	SS304													
	ML8UQP50MBSBL11	11358734	SS304													

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



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