Fact sheet

Danfoss Hansen® Universal Quick Disconnect Blind-Mate (UQDB)

One partner, every solution

Danfoss Hansen® Universal Quick Disconnect Blind-Mate (UQDB)

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.

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 stainless steel for excellent corrosion resistance
- Standard seal material: EPDM-P (Peroxide cured) for excellent fluid compatibility
- Terminal ends are ORB
- Operating temperature: 10°C - 65°C (50°F - 149°F)
- Working pressure: min. 10 bar
- QR code marking to help identify and track production parts
- All wetted o-rings/seals are qualified/ certified as per IEC/UL 6268-1 G.15.2.3

OCP INSPIRED™

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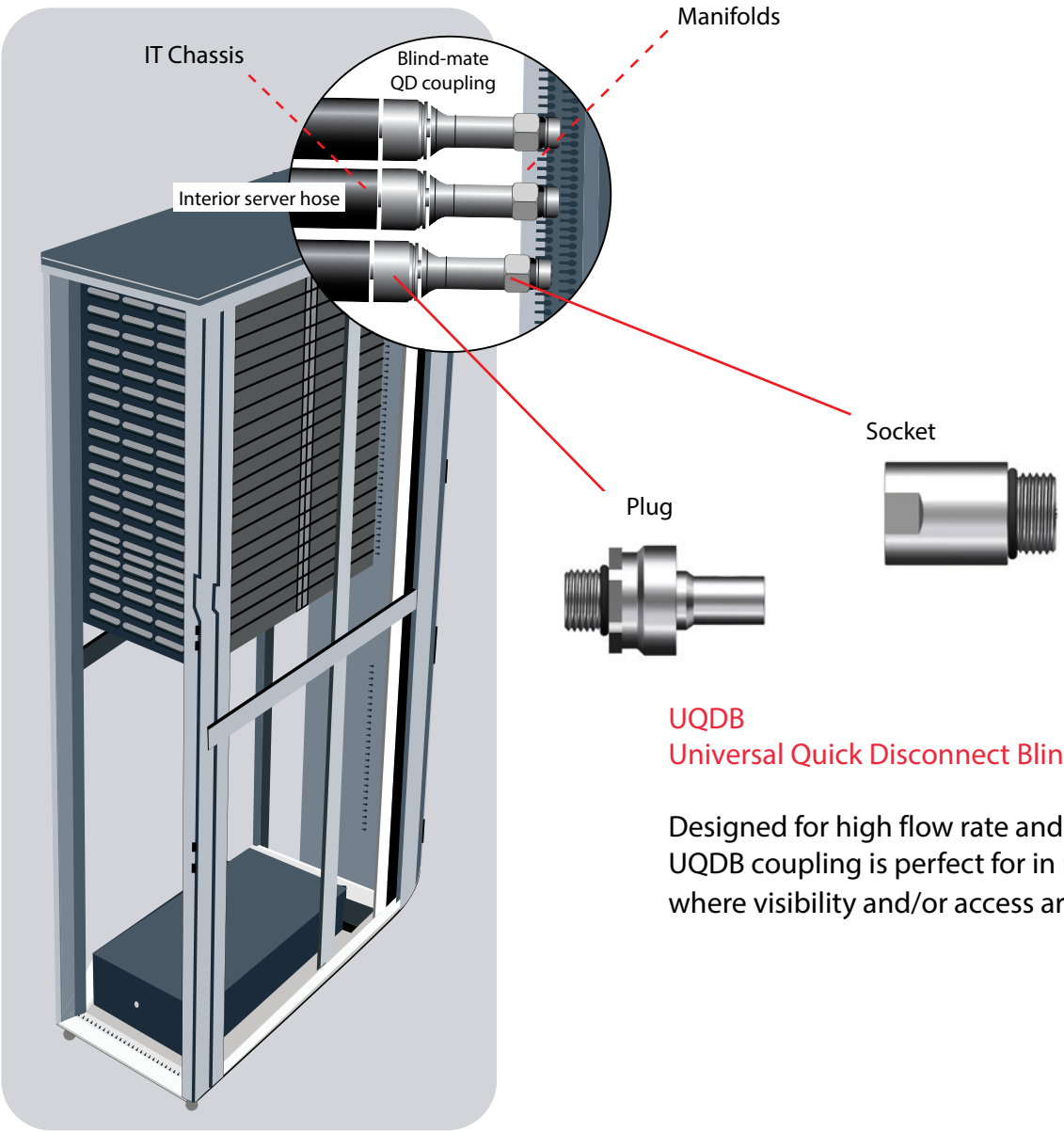
Solutions to your liquid cooling challenges

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.



UQDB
Universal Quick Disconnect Blind-Mate

Designed for high flow rate and no spillage, the UQDB coupling is perfect for in rack applications where visibility and/or access are limited

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Physical characteristics

Size	Body Size	Nominal Flow Diameter	Max operating pressure						Min burst pressure						Rated Flow		Cv Value	Air Inclusion	Fluid Loss	Misalignment (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	1/8	2.8	20	290	20	290	20	290	60	870	60	870	60	870	2.1	0.55	0.31	0.04	0.02	1
UQDB04	1/4	5.5	16	232	16	232	16	232	48	696	48	696	48	696	6.4	1.7	1.22	0.04	0.025	1
UQDB06	3/8	6.3	10	145	10	145	10	145	30	435	30	435	30	435	11.36	3.0	2.23	0.093	0.035	1
UQDB08	1/2	7.9	10	145	10	145	10	145	30	435	30	435	30	435	17.8	4.7	3.76	0.096	0.044	1

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

Size	Performance Parameters			
	Plug Recommended	Torque	Socket	Torque
	ORB Size	N.m	Recommended ORB Size	N.m
UQDB02	7/16-20 UNF-2A	9-10	9/16-18 UNF-2A	15-17
UQDB04	9/16-18 UNF-2A	15-17	3/4-16 UNF-2A	25-28
UQDB06	3/4-16 UNF-2A	25-28	7/8-14 UNF-2A	30-33
UQDB08	7/8-14 UNF-2A	30-33	1 1/16-12 UNF-2A	48-53

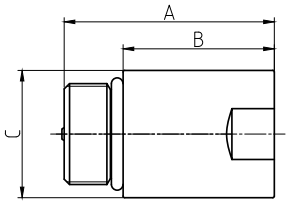


Figure 1
Socket

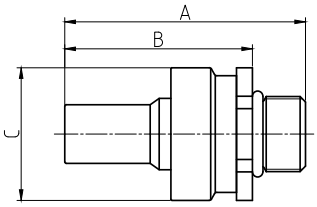
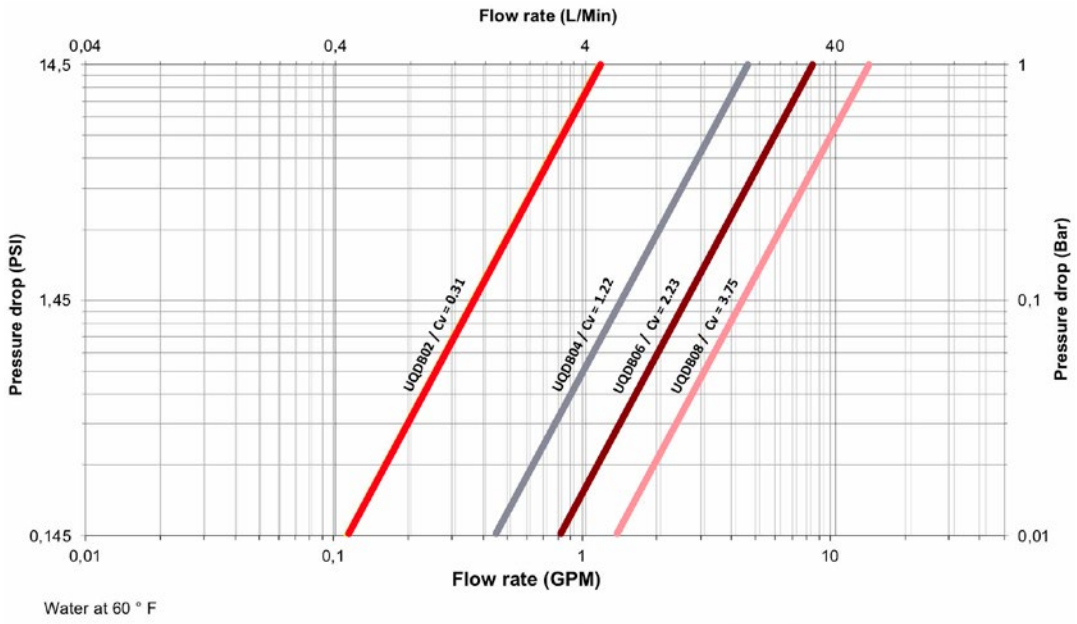


Figure 2
Plug

Dimensions

OCP UQDB size	Part number	Part	Details		Dimensions						E2E length	
			Thread/size	Fig.	A		B		C			
			ORB	n°	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
UQDB02	2UQBS56ORM	Socket	9/16"-18	1	33.6	1.32	23.6	0.93	20	0.79	35.8 - 37.2	1.41 - 1.47
UQDB02	2UQBP44ORM	Plug	7/16"-20	2	36.1	1.42	27	1.06	20	0.79		
UQDB04	4UQBS75ORM	Socket	3/4"-16	1	39.6	1.55	28.5	1.12	23.6	0.92	44.0 - 45.4	1.73 - 1.79
UQDB04	4UQBP56ORM	Plug	9/16"-18	2	45.32	1.78	35.3	1.39	25	0.98		
UQDB06	6UQBS87ORM	Socket	7/8"-14	1	44.4	1.74	31.7	1.24	28.4	1.11	47.5 - 48.9	1.87 - 1.93
UQDB06	6UQBP75ORM	Plug	3/4" -16	2	49.9	1.96	38.9	1.53	28.4	1.11		
UQDB08	8UQBS106ORM	Socket	1 1/16"-12	1	50.7	2.00	35.6	1.40	31.3	1.23	51.8 – 53.2	2.04 - 2.09
UQDB08	8UQBP87ORM	Plug	7/8"-14	2	55.6	2.19	42.9	1.69	31.3	1.23		



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