

Fact sheet

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

One partner, every solution



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

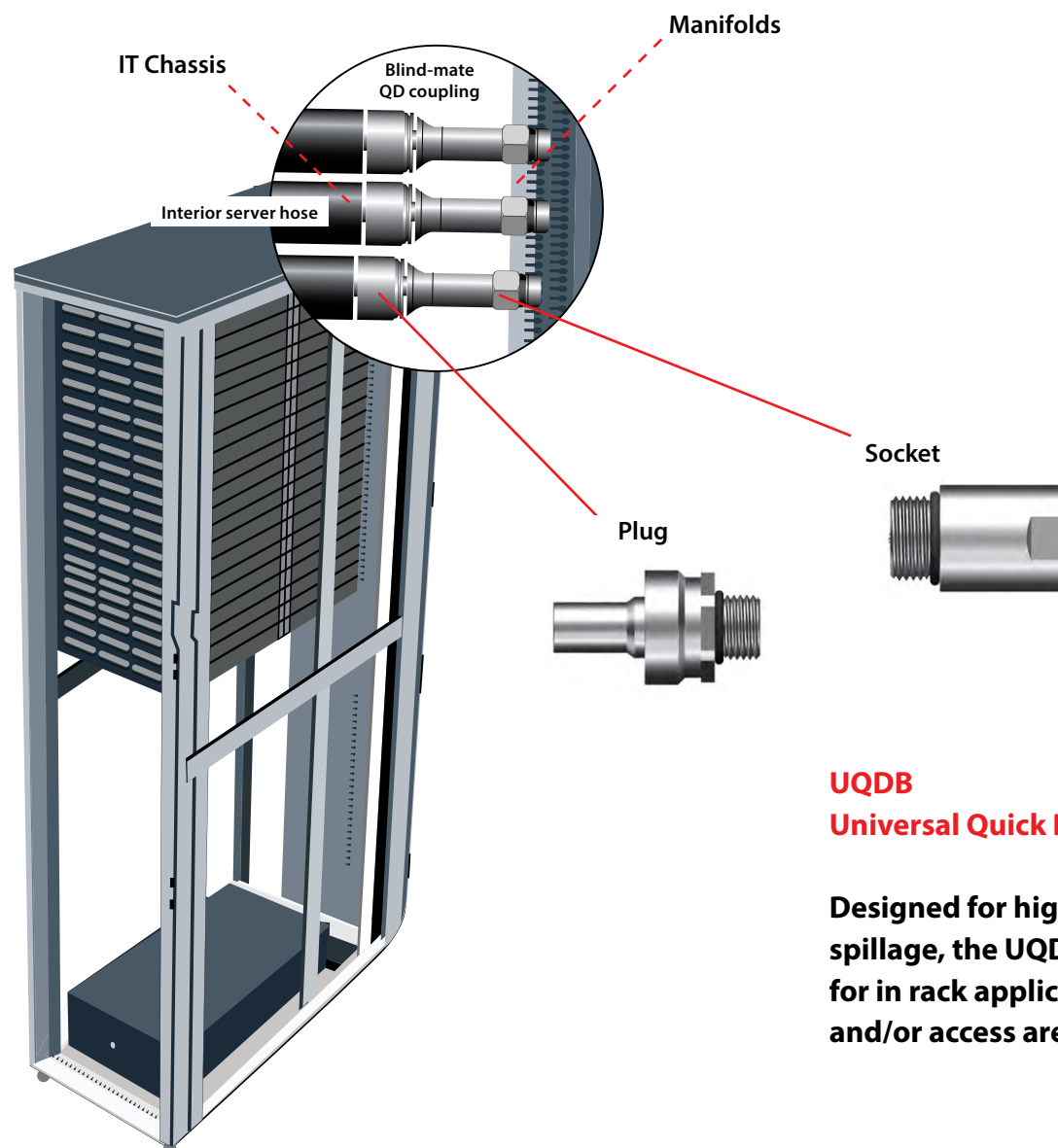
- Designed per OCP UQDB specifications
- “Blind-connection” thanks to self- alignment feature with radial compensation of 1 mm
- Push-to-connect design
- Direct connection between servers and manifolds
- High flow and reduced pressure drop for an improved system efficiency
- Flat-face dry break design 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 for excellent fluid compatibility
- Terminal ends are ORB
- Operating temperature: up to +100°C
- Working pressure: min. 10 bar
- QR code marking to help identify and track production parts

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

Physical characteristics

Size	Body Size	Nominal Flow Diameter	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)	(bar)	(psi)	(lpm)	(gpm)	-	cc. max.	cc. max.
UQDB04	1/4	5.5	16	232	16	232	16	232	48	696	48	696	48	696	6.4	1.7	1.23	0.004	0.025		

Applications & Markets

- Liquid cooling application
- Datacenter application

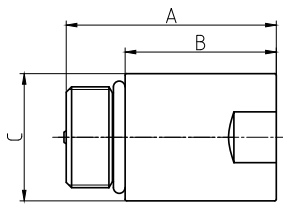


Figure 1
Socket

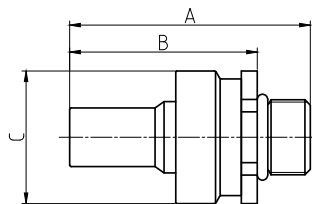


Figure 2
Plug

Seal Elastomer Data

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

Dimensions

UQDB	Part number	Part	Details		Dimensions					
			Thread/size	Fig.	A		B		C	
			ORB	n°	(mm)	(in)	(mm)	(in)	(mm)	(in)
UQDB 04	4UQBS75ORM	Socket	3/4"-16	1	39.6	1.55	28.5	1.12	23.6	0.92
UQDB 04	4UQBP56ORM	Plug	9/16"-18	2	45.32	1.78	35.3	1.39	25	0.98

Note: connected length is 64.92 mm

Performance Requirement	Danfoss UQDB02	Danfoss UQDB04	Danfoss UQDB06
Working temperature	17°C – 100°C	17°C – 100°C	17°C – 100°C
Environmental temperature	-40°C – 75°C	-40°C – 75°C	-40°C – 75°C
Working pressure	20bar	16bar	10bar
Burst pressure (coupled and uncoupled)	60bar	48bar	30bar
Proof pressure	30bar	24bar	15bar
Pressure drop	4.84 psi	4.52 psi	3.75 psi
End connections	ORB04/ORB06	ORB06/ORB08	ORB08/ORB10
Misalignment	1mm radial	1mm radial	1mm radial
Cv	0.31	1.23	2.23
Force to connect	53,4	62,3	66,8
Material	SS303	SS303	SS303
Flow rating	0.55GPM	1.7GPM	3.0GPM
CUP	5bar	5bar	5bar

Danfoss can accept no responsibility for possible errors in catalogs, brochures, and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequent changes being necessary in specifications already agreed. All trademarks in this material are the property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.