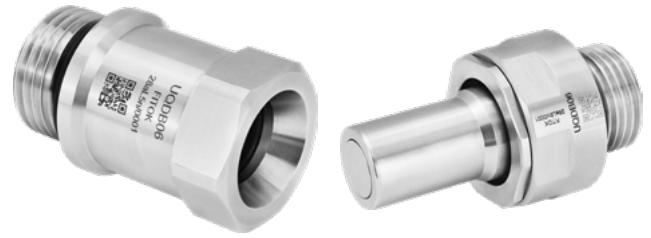


Liquid Cooling Universal Quick Disconnect Blind-Mate UQDB Series

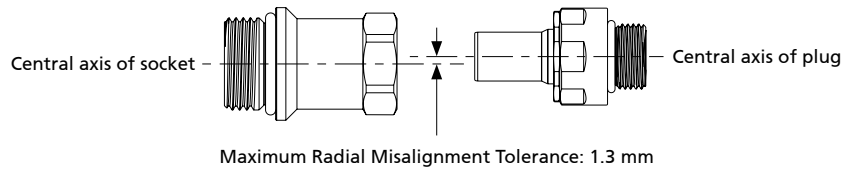
Introduction

UQDB Series Liquid Cooling Universal Quick Disconnect Blind-Mate features a blind-mating design, making it ideal for use in locations with limited space, restricted visibility, or hard-to-reach areas, such as inside cabinets in data center thermal management systems. Designed in accordance with the OCP UQDB specification, the UQDB Series delivers performance exceeding specification requirements, providing reliable support for data center thermal management systems in terms of reliability, durability, compatibility, and ease of operation.



Features

- ⦿ Self-alignment functionality with a maximum radial misalignment tolerance of 1.3 mm.
- ⦿ Flat-face sealing design ensures fluid loss during decoupling is lower than OCP specification requirements.
- ⦿ Optimized flow path design provides low flow resistance and high flow capacity, ensuring efficient heat transfer.
- ⦿ Allows for connection and disconnection while under pressure.
- ⦿ Available in four orifice sizes to meet different flow requirements, with custom end connections available upon request.
- ⦿ QR code identification enables convenient product identification and traceability.
- ⦿ Every FITOK UQDB leak tested with helium prior to shipment.



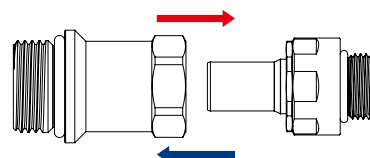
Technical Data

Standard Materials	Body	304 SS (Optional: 316 SS, 316L SS, or other materials upon request)
	Seal	EPDM
Media		Ethylene glycol coolant, propylene glycol coolant, deionized water, etc.
Working Temperature		-4 ~ 302 °F (-20 ~ 150 °C)
Mating Cycles		> 5000 cycles

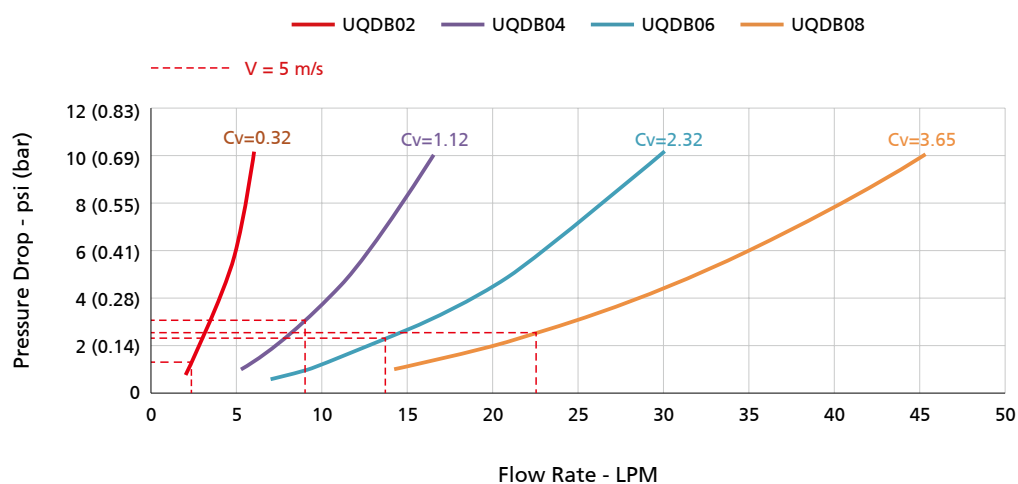
Series and Orifice Designator	Equivalent Orifice in. (mm)	Shutoff Valve	Max. Fluid Loss per Couple/Decouple Cycle ml	Max. Working Pressure psi (bar)	Min. Burst Pressure psi (bar)	Coupling Force (0 psi) N
UQDB02	0.12 (3)	Bi-directional	0.01	232 (16)	696 (48)	35±2
UQDB04	0.20 (5)		0.02			46±2
UQDB06	0.28 (7)		0.03			63±5
UQDB08	0.39 (10)		0.05			77±10

Flow Coefficient (Cv)

Series and Orifice Designator	Socket  Plug	Plug  Socket
UQDB02	0.32	0.33
UQDB04	1.12	1.15
UQDB06	2.32	2.37
UQDB08	3.65	3.70



Flow Rate / Pressure Drop Chart



Flow for a Speed of 5 m/s

Series and Orifice Designator	Flow Rate, LPM
UQDB02	2.14
UQDB04	9.03
UQDB06	13.77
UQDB08	22.51

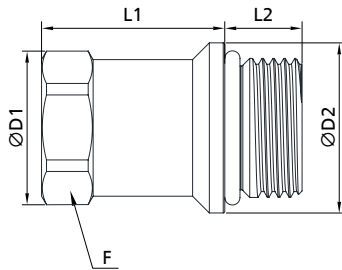
Test Conditions

- Fluid: water (density: 998 kg/m³; viscosity: 1.08 cSt)
- Flow Direction: socket  plug

Dimensions and Ordering Information

Sockets

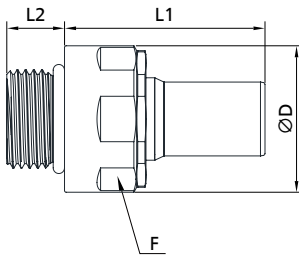
SAE/MS Straight Thread



Connection Size	Basic Ordering Number	Dimension, in. (mm)				
		L1	L2	F/Flats	D1	D2
9/16-18 UNF-2A	-UQDB02-ST9-B	0.93 (23.6)	0.39 (9.9)	0.63 (16.0)	0.69 (17.5)	0.69 (17.5)
3/4-16 UNF-2A	-UQDB04-ST12-B	1.12 (28.5)	0.44 (11.2)	0.79 (20.0)	0.88 (22.3)	0.88 (22.3)
7/8-14 UNF-2A	-UQDB06-ST14-B	1.25 (31.8)	0.50 (12.7)	0.98 (25.0)	1.08 (27.5)	1.08 (27.5)
1 1/16-12 UNF-2A	-UQDB08-ST17-B	1.44 (36.6)	0.59 (15.0)	1.06 (27.0)	1.17 (29.8)	1.30 (33.0)

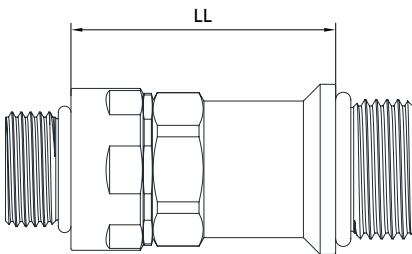
Plugs

SAE/MS Straight Thread



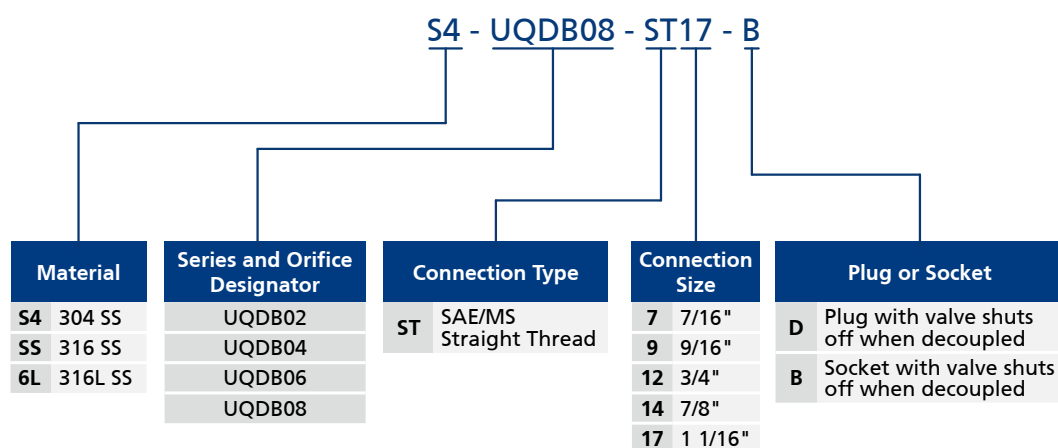
Connection Size	Basic Ordering Number	Dimension, in. (mm)			
		L1	L2	F/Flats	D
7/16-20 UNF-2A	-UQDB02-ST7-D	1.06 (27.0)	0.36 (9.1)	0.75 (19.0)	0.84 (21.4)
9/16-18 UNF-2A	-UQDB04-ST9-D	1.39 (35.4)	0.39 (9.9)	0.94 (24.0)	1.00 (25.4)
3/4-16 UNF-2A	-UQDB06-ST12-D	1.53 (38.9)	0.44 (11.2)	1.06 (27.0)	1.12 (28.4)
7/8-14 UNF-2A	-UQDB08-ST14-D	1.69 (42.9)	0.50 (12.7)	1.18 (30.0)	1.24 (31.4)

Coupled Length



Series and Orifice Designator	Dimension, in. (mm)
	LL
UQDB02	1.42 (36.1)
UQDB04	1.74 (44.3)
UQDB06	1.87 (47.6)
UQDB08	2.02 (51.4)

Ordering Number Description



Notes:

1. "Ordering Number Description" is a reference to understand the combination rules of FITOK product part number. Not all combinations are available. Should you have any questions, please contact FITOK Group or our authorized distributors.
2. Dimensions are for reference only and are subject to change.