



UNIVERSAL QUICK DISCONNECTS (UQD)

FAST, LEAK-FREE CONNECTIONS FOR DATA CENTERS

Built for the future of liquid cooling, Foster Manufacturing's color-coded Universal Quick Disconnect (UQD) simplifies service and protects uptime. This flat face, no-spill coupling features color rings on each half for easy identification, an automatic locking sleeve for secure operation, and a compact design for reliable performance in demanding environments.



Key Features

- OCP-compliant and interchangeable with standard products
- Color-coded design (blue for supply, red for return) ensures quick visual identification
- Built from UNS S31603/AISI 316L stainless steel for strength and corrosion resistance
- Available in sizes 1/8", 1/4", 3/8", and 1/2"
- Modular design supports scalable system growth

Performance & Safety

- Two-way shut-off valve prevents spills when disconnected
- Leak-free sealing protects sensitive electronics
- Easily connect by pushing plug into socket and disconnect by pulling socket sleeve

Applications: thermal management, liquid cooling, data center, AI server cooling application



UQD Information

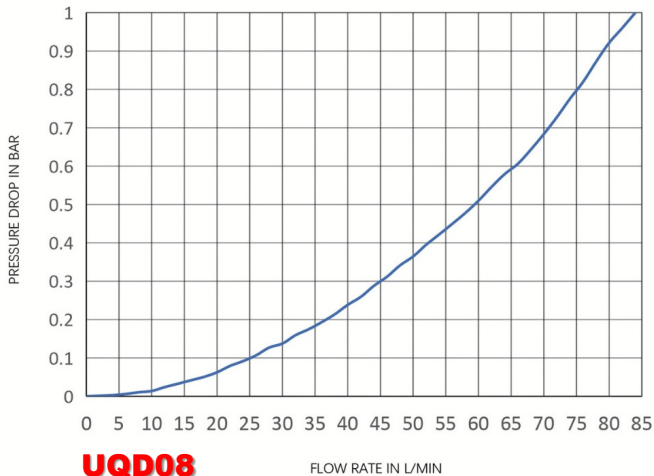
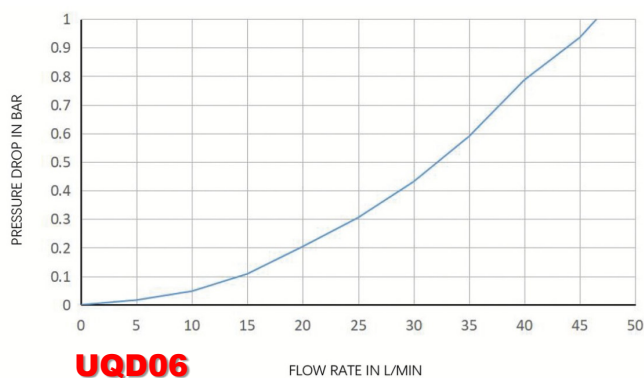
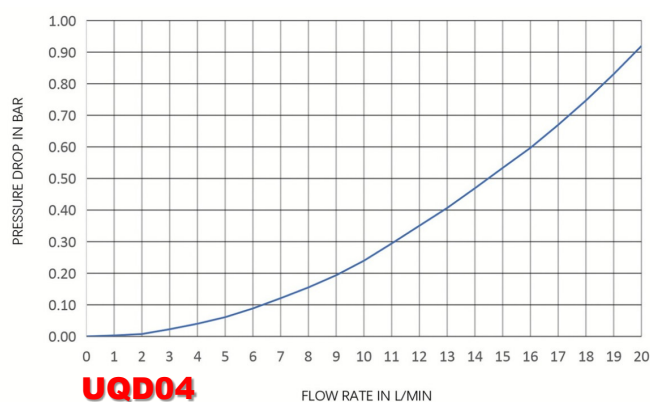
Size		Nominal Flow Diameter	Force to Connect (at no pressure)		Install Torque		Rated Flow		CV Value	Fluid Loss
OCP Designation	(in)	(mm)	(N)	(lb)	(N·m)	(in-lb)	(lpm)	(gpm)		(ml)
UQD02	1/8"	3.2	38	8.5	15	133	8.6	2.3	0.25	<0.025
UQD04	1/4"	6.4	44	9.9	25	221	20	5.3	2.01	<0.025
UQD06	3/8"	9.5	54	12.1	25	221	46.5	12.3	2.98	<0.025
UQD08	1/2"	12.7	70	15.7	35	310	84	22.2	5.15	<0.025

Max. Operating Pressure	20 bar (290 PSI)
Min. Burst Pressure	80 bar (1160 PSI)
Seal Material	EDPM (HNBR / FVMQ may be specified)
Operating Temperature Range	-40°C to 120°C (-40°F to 248°F)
Fluid	Deionized water / purified water / glycol water propanediol water / fluorinated liquid

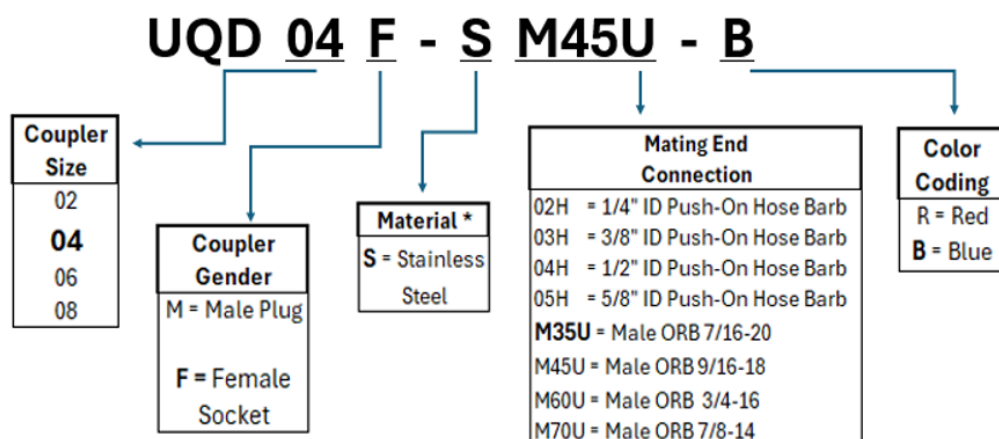
Flow Chart

Condition: From Plug to Socket

Media: Water

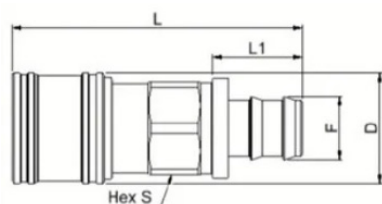


UQD Product Number Key



* Seal Material is EPDM

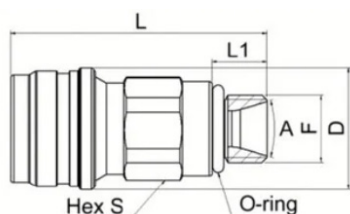
Dimensions



UQD Socket - Hose Barb

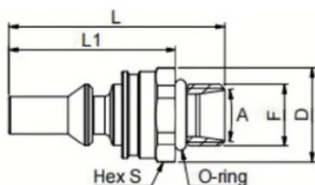
Part Number	Size	Connection (F)	D		L1		L		S (Hex)	
			(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
UQD02F-S02H-B (BLUE RING)	1/8"	1/4" Hose Barb	0.79	20	0.85	21.5	2.16	54.8	0.63	16
UQD02F-S02H-R (RED RING)										
UQD04F-S02H-B	1/4"	1/4" Hose Barb	0.99	25.2	0.96	24.5	2.76	70.1	0.75	19
UQD04F-S02H-R										
UQD04F-S03H-B	1/4"	3/8" Hose Barb	0.99	25.2	0.96	24.5	2.76	70.1	0.75	19
UQD04F-S03H-R										
UQD06F-S04H-B	3/8"	1/2" Hose Barb	1.10	28	1.06	27	3.11	79.1	0.94	24
UQD06F-S04H-R										
UQD04F-S05H-B	1/4"	5/8" Hose Barb	1.26	32	1.06	27	3.43	87.1	1.06	27
UQD04F-S05H-R										

Dimensions (Continued)



UQD Socket - Male Thread / ORB

Part Number	Size	Connection (F)	A	D		L1		L		S (Hex)	
				(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
UQD02F-SM35U-B (BLUE RING)	1/8"	ORB 7/16-20	32°	0.79	20	0.36	9.1	1.67	42.4	0.63	16
UQD02F-SM35U-R (RED RING)											
UQD04F-SM45U-B	1/4"	ORB 9/16-18	17°	0.99	25.2	0.39	10	2.20	56	0.75	19
UQD04F-SM45U-R											
UQD06F-SM60U-B	3/8"	ORB 3/4-16	30°	0.81	20.5	0.43	11	2.45	62.2	0.94	24
UQD06F-SM60U-R											
UQD08F-SM70U-B	1/2"	ORB 7/8-14	40°	0.99	25.2	0.50	12.7	2.87	72.8	1.06	27
UQD08F-SM70U-R											



UQD Plug - Male Thread / ORB

Part Number	Size	Connection (F)	A	D		L1		L		S (Hex)	
				(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
UQD02M-SM35U-B (BLUE RING)	1/8"	ORB 7/16-20	16°	0.67	17	1.22	31	1.58	40.1	0.63	16
UQD02M-SM35U-R (RED RING)											
UQD04M-SM45U-B	1/4"	ORB 9/16-18	10°	0.71	18	1.39	35.4	1.77	45	0.63	16
UQD04M-SM45U-R											
UQD06M-SM60U-B	3/8"	ORB 3/4-16	20°	0.94	24	1.53	38.9	1.97	50	0.87	22
UQD06M-SM60U-R											
UQD08M-SM70U-B	1/2"	ORB 7/8-14	20°	1.16	29.5	1.69	42.9	2.19	55.6	1.06	27
UQD08M-SM70U-R											