



SWAK



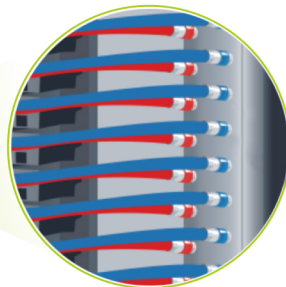
SWAK Products

LIQUID COOLING SOLUTION

UQD (Universal Quick Disconnect) Series

SWAK offers four sizes of the UQD, UQD02, UQD04, UQD06 and UQD08, specifically designed for liquid cooling applications in HPC and data centers. The UQD is a standard initiated by Intel and developed as an open standard within OCP (Open Compute Project).

As an open standard, any manufacturer's products are connectable by following the specifications of the UQD standard. With SWAK high precision manufacturing and long experience in high-quality quick disconnect couplings for a wide range of applications, our range of UQD quick couplings is guaranteed to meet and exceed the standard specifications.



UQD

(Universal Quick Disconnect)

Designed for high flow rates and non-drip performance, making them the ideal choice for connecting hoses with various UQD sizes within a rack.



Key Features

- ✓ Designed per OCP UQD specification
- ✓ Push-to-connect design
- ✓ High flow and no spillage
- ✓ Double shut off - flat face valves
- ✓ Best in class force to connect
- ✓ Standard seal material: EPDM-P (Peroxide cured)
- ✓ Standard material: 316L stainless steel provides broad fluid compatibility
- ✓ Customizable Color Anodized Aluminum Tubing
- ✓ Exceeds OCP flow ratings at least by 25% resulting in reduction in overall energy consumption
- ✓ Color coded (red/blue) sleeves on socket and O-rings on plug
- ✓ Compact socket versions for sizes -02,-04,-06, -08 to better fit in data center applications
- ✓ Multiple connection options for plug and socket ends; tails feature various thread specifications and compatible Push-lok sizes for different hose diameters.

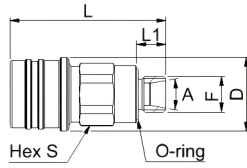
Applications for Liquid Cooling Systems

- ✓ **AI Data Centers** - Efficient thermal management in high-density rack infrastructure
- ✓ **Server Manifolds** - Simplified installation in modular liquid-cooled server environments
- ✓ **High-Performance Computing (HPC)**- Leak-free operation for compute-intensive environments
- ✓ **Energy Storage Systems (ESS)**- Safe coolant handling in battery packs and inverters
- ✓ **EV Charging Infrastructure** - Secure fluid pathways for power electronics and cooling loops
- ✓ **Military & Aerospace Electronics** - Field-proven durability under mission-critical conditions

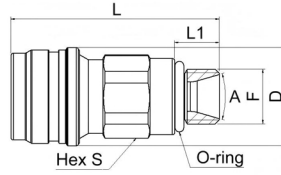
Spec Sheet

UQD Size	02	04	06	08
Nominal Diameter DN	DN03	DN05	DN07	DN10
Rated Flow	2.27 L/min	6.44 L/min	11.36 L/min	17.79 L/min
Maximum Fluid Loss per Cycle	0.02 ml	0.03 ml	0.04 ml	0.07 ml
Minimum Cv	0.3	1.1	2.2	3.6
Pressure - Maximum Operating	6.89 BAR(g)/100 PSI(g)			
Pressure - Minimum Burst	20.68 BAR(g)/300 PSI(g)			
Temperature Range - Shipping	-40°C to +70°C			
Temperature Range - Operating	5°C to 65 °C			
Coupling Cycles - Minimum	5,000 mating cycles			
Main Components Material	Stainless Steel			
Seals Material	EPDM			
Applicable Cooling Fluid	Ethylene glycol coolant, propylene glycol coolant, deionized water, etc.			

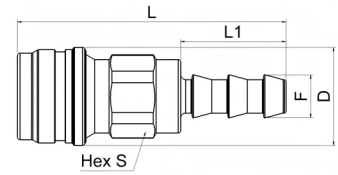
Physical characteristics



S1

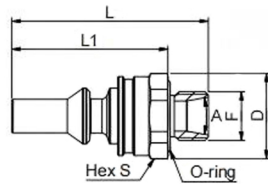


S2

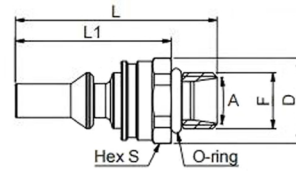


S3

Icon	Part Number	Connection F	A	D	L1	L	S
S1	UQD02S-1SMG012N	G1/8" Male Thread	20°	Φ20	8	42.3	16
S2	UQD02S-1SMU042N	7/16-20UNF Male Thread	32°	Φ20	9,1	42,4	16
S3	UQD02S-1SWP042N	1/4 Hose Barb Push-Lok	N/A	Φ20	21,5	54,8	16
S1	UQD04S-1SMG022N	G1/4" Male Thread	60°	Φ25,2	10	55,6	19
S2	UQD04S-1SMU062N	9/16-18UNF Male Thread	17°	Φ25,2	10	56	19
S3	UQD04S-1SWP062N	3/8 Hose Barb Push-Lok	N/A	Φ25,2	24,5	70,1	19
S1	UQD06S-1SMG042N	G3/8" Male Thread	N/A	Φ28	11	62,2	24
S2	UQD06S-1SMU082N	3/4-16UNF Male Thread	30°	Φ28	11	62,2	24
S3	UQD06S-1SWP082N	1/2 Hose Barb Push-Lok	N/A	Φ28	27	79,1	24
S1	UQD08S-1SMG052N	G1/2" Male Thread	60°	Φ32	12	74,6	27
S2	UQD08S-1SMU102N	7/8-14UNF Male Thread	40°	Φ32	12,7	72,8	27
S3	UQD08S-1SWP102N	5/8 Hose Barb Push-Lok	N/A	Φ32	27	87,1	27



P1



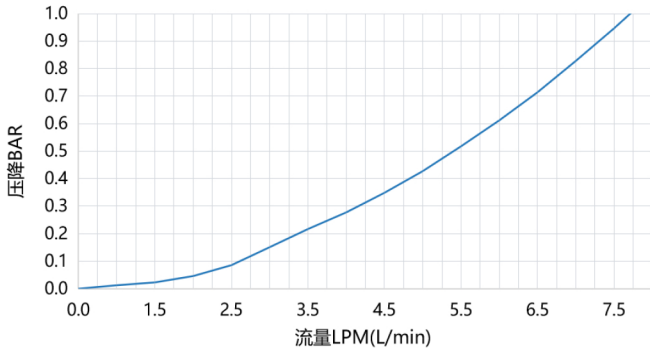
P2

Icon	Part Number	Connection F	A	D	L1	L	S
P1	UQD02P-1SMG012N	G1/8" Male Thread	20°	Φ17	31	39	16
P2	UQD02P-1SMU042N	7/16-20UNF Male Thread	16°	Φ17	31	40,1	16
P1	UQD04P-1SMG022N	G1/4" Male Thread	10°	Φ19	35,4	45	17
P2	UQD04P-1SMU062N	9/16-18UNF Male Thread	10°	Φ18	35,4	45	16
P1	UQD06P-1SMG042N	G3/8" Male Thread	20°	Φ24	41	52,1	22
P2	UQD06P-1SMU082N	3/4-16UNF Male Thread	20°	Φ24	38,9	50	22
P1	UQD08P-1SMG052N	G1/2" Male Thread	20°	Φ29,5	47,9	59,9	27
P2	UQD08P-1SMU102N	7/8-14UNF Male Thread	20°	Φ29,5	42,9	55,6	27

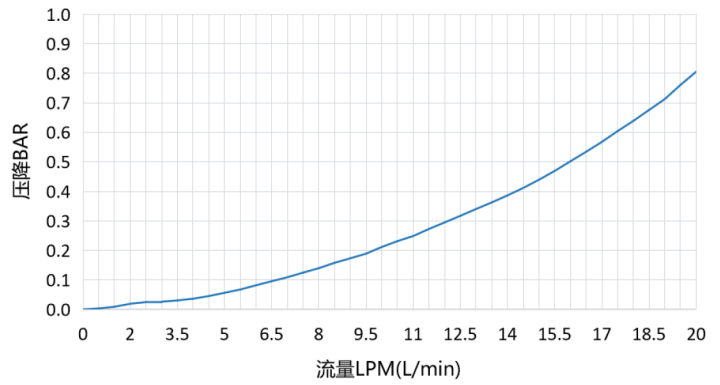


Physical characteristics

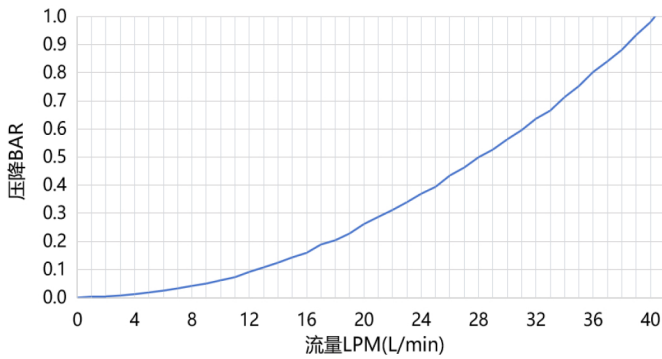
UQD02



UQD04



UQD06



UQD08

