



SWAK



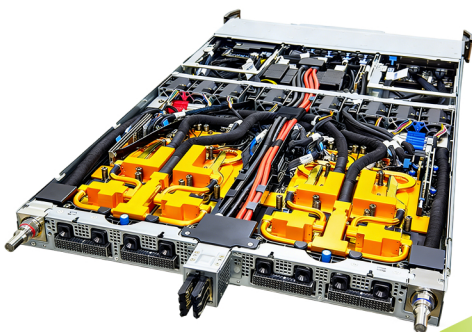
SWAK Products

LIQUID COOLING SOLUTION

UQDB (Universal Quick Disconnect Blind-Mate) Series

SWAK offers four sizes of the UQDB, UQDB02, UQDB04, UQDB06 and UQDB08, specifically designed for liquid cooling applications in HPC and data centers. The UQDB 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 UQDB standard. With SWAK high precision manufacturing and long experience in high-quality quick disconnect couplings for a wide range of applications, our range of UQDB quick couplings is guaranteed to meet and exceed the standard specifications.



UQDB

(Universal Quick Disconnect Blind-Mate)

Designed for high flow rates and to prevent dripping when disconnected. UQDB couplings are ideal for in-rack applications requiring displacement assembly.



Key Features

- ✓ Designed per OCP UQD specification
- ✓ Blind-Mate 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
- ✓ Exceeds OCP flow ratings at least by 25% resulting in reduction in overall energy consumption
- ✓ Compact socket versions for sizes -02,-04,-06, -08 to better fit in data center applications
- ✓ X, Y displacement ± 1 mm

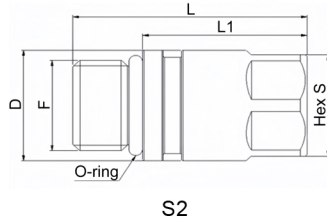
Applications for Liquid Cooling Systems

- ✓ **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

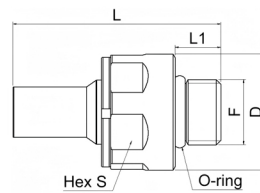
Spec Sheet

UQDB 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



Icon	Part Number	Connection F	A	D	L1	L	S
S1	UQDB02S-1SMU062N	9/16-18UNF Male Thread	N/A	Φ17.5	23.62	33.62	16
S1	UQDB04S-1SMU082N	3/4-16 UNF Male Thread	N/A	Φ22.3	28.5	28.5	20
S1	UQDB06S-1SMU102N	7/8-14 UNF Male Thread	N/A	Φ27.5	31.75	44.45	25
S1	UQDB08S-1SMU122N	1 1/16-12UNF Male Thread	N/A	Φ33	35.56	50.66	27

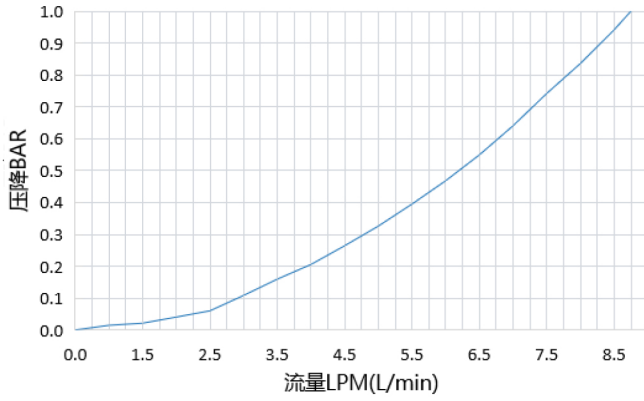


Icon	Part Number	Connection F	A	D	L1	L	S
P1	UQDB02P-1SMU042N	7/16-20UNF Male Thread	N/A	Φ21	9.1	36.1	20
P1	UQDB04P-1SMU062N	9/16-18UNF Male Thread	N/A	Φ25.4	10	45.5	24
P1	UQDB06P-1SMU082N	3/4-16UNF Male Thread	N/A	Φ27.5	11.1	50	27
P1	UQDB08P-1SMU102N	7/8-14UNF Male Thread	N/A	Φ33	12.7	55.6	30

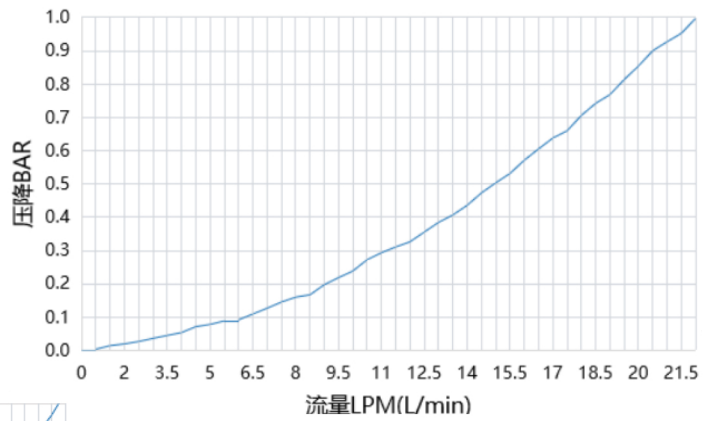


Physical characteristics

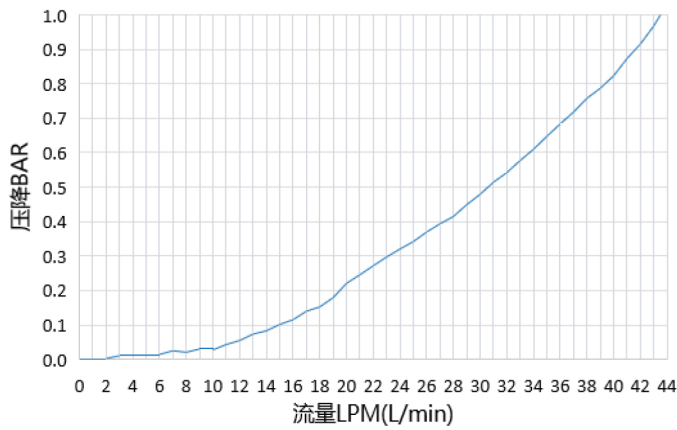
UQDB02



UQDB04



UQDB06



UQDB08

