



SWAK

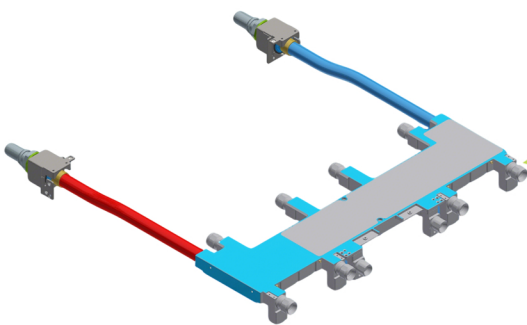


SWAK Products

LIQUID COOLING SOLUTION

MQDB (Multi-Quick Disconnect Blind-Mate) Series

SWAK offers three sizes of the MQDB, MQDB02, MQDB03 and MQDB04, specifically designed for liquid cooling applications in HPC and data centers. The MQDB is specifically designed for single-phase (such as water or ethyleneglycol) liquid cooling systems for electronic equipment, and complies with NVIDIA's standards.



MQDB (Multi-Quick Disconnect Blind-Mate)

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



Key Features

- ✓ Meet NVIDIA's standards
- ✓ 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: Stainless steel provides broad fluid compatibility
- ✓ X, Y displacement ± 1 mm

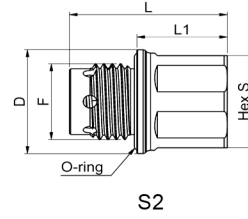
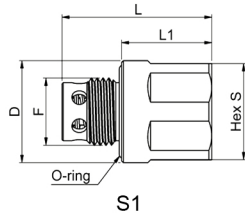
Applications for Liquid Cooling Systems

- ✓ **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

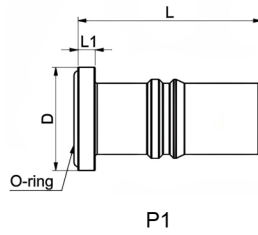
Spec Sheet

MQDB Size	02	03	04
Nominal Diameter DN	DN03	DN04	DN05
Rated Flow	2.08 L/min	4.54 L/min	6.81 L/min
Maximum Fluid Loss per Cycle	0.02 ml	0.023 ml	0.025 ml
Minimum Cv	0.3	0.6	1
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 +75°C		
Temperature Range - Operating	17°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



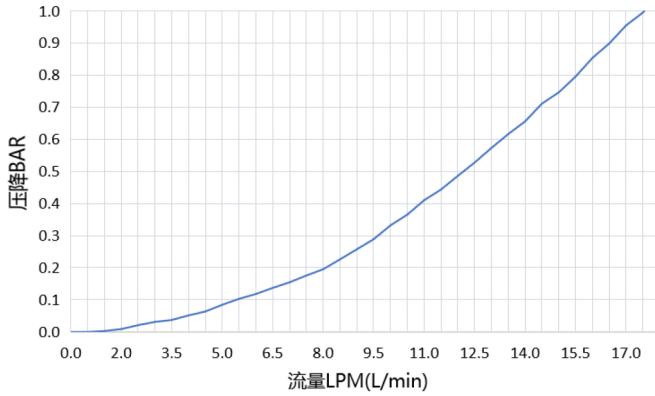
Icon	Part Number	Connection F	A	D	L1	L	S
S1	MQDB02S-1SMU042N	7/16-20UNF Male Thread	N/A	Φ13.9	1.8	23.4	N/A
S2	MQDB03S-1SMG022N	G1/4" Male Thread	N/A	Φ18	14.45	25.25	16
S2	MQDB04S-1SMG042N	G3/8" Male Thread	N/A	21.6	21.5	31.3	19



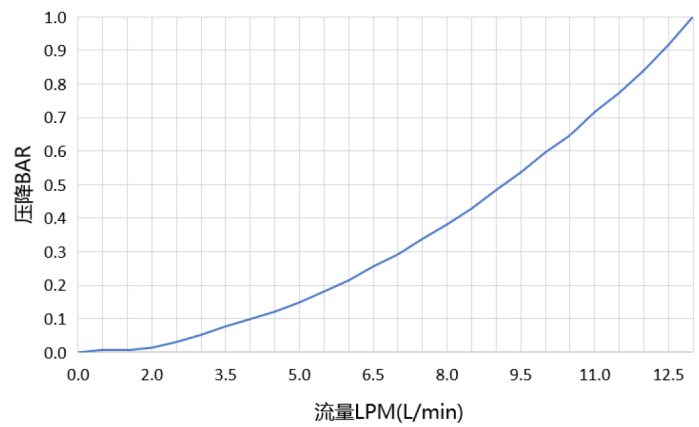
Icon	Part Number	Connection F	A	D	L1	L	S
P1	MQDB02P-1SM0002N	N/A	N/A	Φ13.9	1.8	23.4	N/A
P1	MQDB03P-1SM0002N	N/A	N/A	Φ14.1	1.8	23.4	N/A
P1	MQDB04P-1SM0002N	N/A	N/A	Φ16.1	2.7	28.6	N/A
P1	MQDB04P-MINI2N	N/A	N/A	Φ16.1	2.7	27.1	N/A

Physical characteristics

MQDB02



MQDB03



MQDB04

