



SWAK

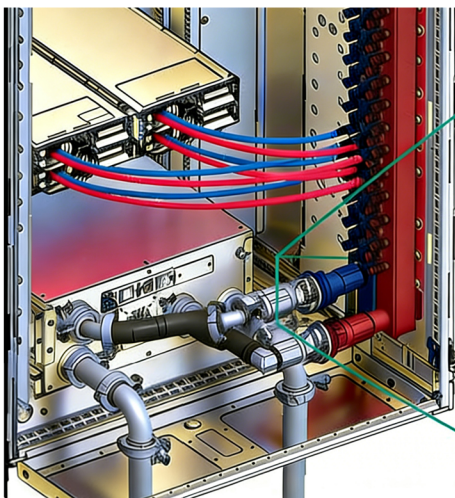


SWAK Products

LIQUID COOLING SOLUTION

SFC (Standard Flow Control Ball Valve) Series

SWAK offers three sizes of the SFC, SFC20, SFC32 and SFC40, specifically designed for liquid cooling applications in HPC and data centers. The SFC is specifically designed for fluid transfer and electronics cooling applications where full flow, fluid compatibility and safety are essential.



SFC

(Standard Flow Control Ball Valve)

Designed for high flow rate and no spillage. The SFC ball valve is ideal for data center liquid cooling mainlines, widely applied to fluid delivery from server cabinets to cooling distribution units (CDUs).



Key Features

- ✓ Dual seal configuration - ensures reliable sealing and non-drip at low pressure
- ✓ Design provides reliable performance and no spillage during maintenance or service
- ✓ Full flow coupling
- ✓ High intermatch consistency, symmetrical design
- ✓ Connections are interlocked so that the valve can be opened only when the connection is complete and the coupling can be disconnected only when the valve is completely closed
- ✓ End connection swivels 360 degrees to prevent hose twisting
- ✓ Standard seal material: EPDM-P (Peroxide cured)
- ✓ Standard material: Stainless steel provides broad fluid compatibility

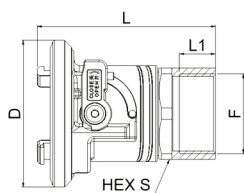
Applications for Liquid Cooling Systems

- ✓ **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

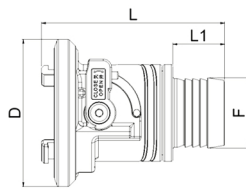
Spec Sheet

SFC Size	20	32	40
Nominal Diameter DN	DN20	DN32	DN40
Pressure - Maximum Operating	16 BAR		
Pressure - Minimum Burst	64 BAR		
Temperature Range - Shipping	-40°C to +120°C		
Temperature Range - Operating	10°C to 80 °C		
Coupling Cycles - Minimum	5,000 mating cycles		
Push Button Switch - Service Life	≥10000 times		
Main Components Material	Stainless Steel		
Seals Material	EPDM		
Applicable Cooling Fluid	Ethylene glycol coolant, propylene glycol coolant, deionized water, etc.		

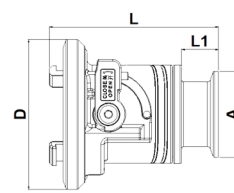
Physical characteristics



S1



S2

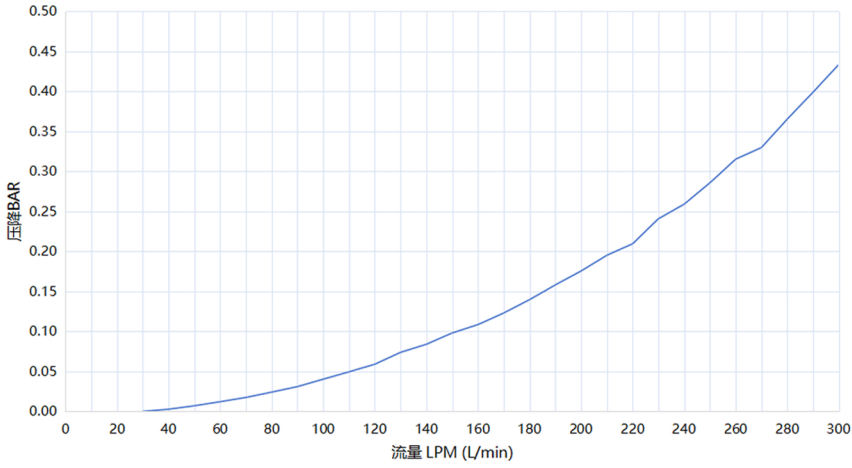


S3

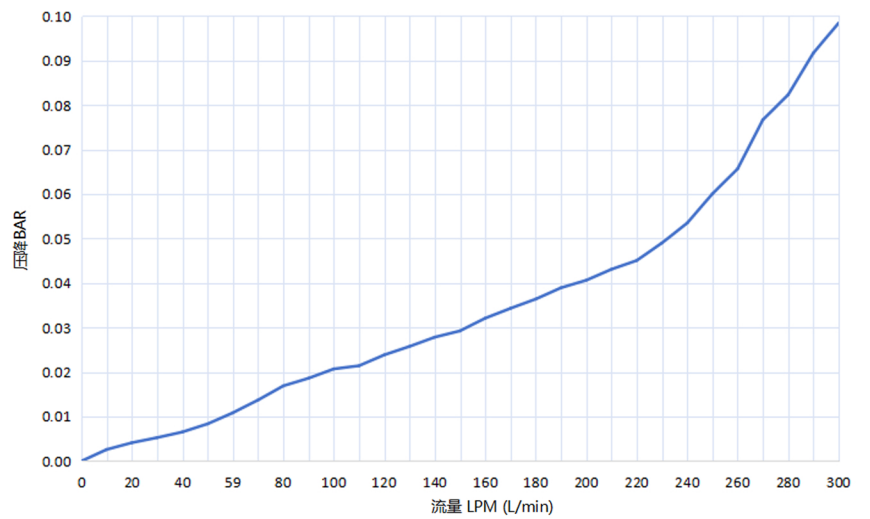
Icon	Part Number	Connection F	A	D	L1	L	S
S1	SFC20-1SFG092N	G1" Female Thread	N/A	Φ69.9	22	85.6	40
S2	SFC20-1SWH252N	Hose Barb 1"	N/A	Φ69.9	29	95.6	N/A
S3	SFC20-1SWK252N	1" Chuck	50.5	Φ69.9	21.5	88.1	N/A
S1	SFC32-1SFG132N	G1-1/2" Female Thread	N/A	Φ88	21.4	106.7	55
S2	SFC32-1SWH402N	Hose Barb 1-1/2"	N/A	Φ88	37.5	115.2	N/A
S3	SFC32-1SWK402N	1-1/2" Chuck	50.5	Φ88	21.5	99	N/A
S1	SFC40-1SFG162N	G2" Female Thread	N/A	Φ103	25.7	119.4	70
S2	SFC40-1SWH502N	Hose Barb 2"	N/A	Φ103	40	129	N/A
S3	SFC40-1SWK502N	2" Chuck	64	Φ103	21.5	109.9	N/A

Physical characteristics

SFC20



SFC32



SFC40

