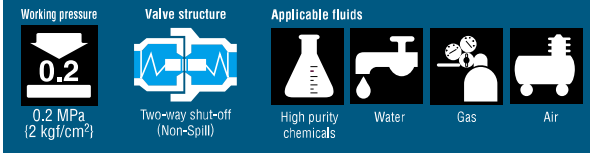
For High Purity Chemicals

Semicon Cupla

SCAL Type

For semiconductor manufacturing equipment



Body is polytetrafluoroethylene (PTFE).

- Polytetrafluoroethylene (PTFE) body gives excellent resistance to chemicals.
- Unique seal design ensures minimal liquid spill.
- Both socket and plug have built-in automatic shut-off valves that prevent fluid from outflowing when disconnected.
- No dissolution of metal ions from part in contact with liquid ensures excellent reliability.
- Push-to-connect design.
- Flanged socket body makes it easy to push down sleeve even when wearing gloves.
- All components are cleaned, assembled, inspected and then packed in a clean room.
- Concaved surface of the plug end prevents liquid loss and protects the plug seal surface from damage if dropped or hit.
- To prevent incorrect connection, a keyed type sleeve is available on a made-to-order basis.
- Ten key angle positions are available. The appearance of the keyed type body slightly differs from that of the standard type.

Specifications

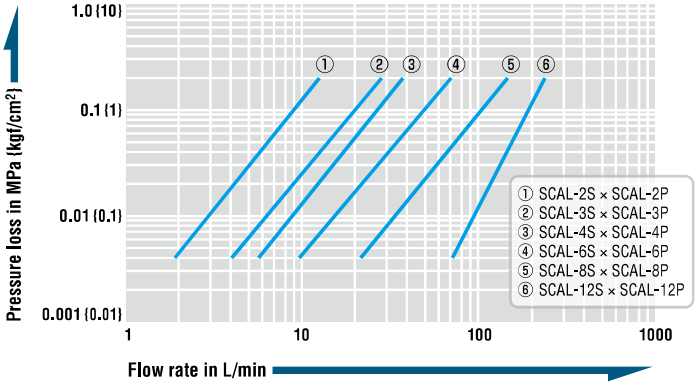
Body material		Polytetrafluoroethylene (PTFE)			
Size (Thread)		1/4", 3/8", 1/2", 3/4", 1" 1/4-18NPT, 3/8-18NPT, 1/2-14NPT, 3/4-14NPT, 1-11.5NPT			
Working pressure	MPa	0.2			
	kgf/cm²	2			
	bar	2			
	PSI	29			
Seal material Working temperature range	Socket O-ring	Seal material	Mark	Working temperature range	Remarks
		Perfluoroelastomer	P	+5°C to +50°C	Standard material
	Valve	Fluoropolymer resin (PFA)			

Min. Cross-Sectional Area (mm²)

Model (SCAL-□)	2S (-NPT) × 2P (-NPT)	3S (-NPT) × 3P (-NPT)	4S (-NPT) × 4P (-NPT)	6S (-NPT) × 6P (-NPT)	8S (-NPT) × 8P (-NPT)	12S (-NPT/-FL-P) × 12P (-NPT/-FL-P)
Min. Cross-Sectional Area	24	41	59	108	234	611

Flow Rate – Pressure Loss Characteristics

[Test conditions] •Fluid : Water •Temperature : 20°C ± 5°C



Volume of Spillage per Disconnection Volume of spillage may vary depending upon the usage conditions. (mL)

Model (SCAL-□)	2S (-NPT) × 2P (-NPT)	3S (-NPT) × 3P (-NPT)	4S (-NPT) × 4P (-NPT)	6S (-NPT) × 6P (-NPT)	8S (-NPT) × 8P (-NPT)	12S (-NPT/-FL-P) × 12P (-NPT/-FL-P)
Volume of spillage	0.07	0.09	0.13	0.20	0.59	1.26

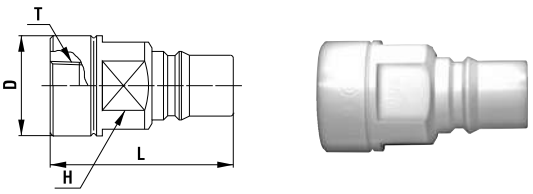
Interchangeability

Different sizes are not interchangeable.

Models and Dimensions

WAF : WAF stands for width across flats.

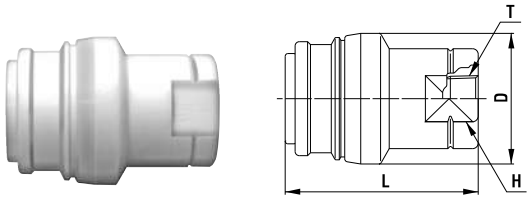
Plug Female thread



Model	Mass (g)	Dimensions (mm)			
		L	øD	H(WAF)	T(Female thread)
SCAL-2P	37	50	27.5	24	Rc 1/4
SCAL-2P-NPT					1/4-18NPT
SCAL-3P	73	63	34.5	30	Rc 3/8
SCAL-3P-NPT					3/8-18NPT
SCAL-4P	107	72	39.5	36	Rc 1/2
SCAL-4P-NPT					1/2-14NPT
SCAL-6P	153	77	48	41	Rc 3/4
SCAL-6P-NPT					3/4-14NPT
SCAL-8P	348	109	59	50	Rc 1
SCAL-8P-NPT					1-11.5NPT
*SCAL-12P-NPT	740	126	80	75	1 1/2-11.5NPT

*Made-to-order item

Socket Female thread



Model	Mass (g)	Dimensions (mm)			
		L	øD	H(WAF)	T(Female thread)
SCAL-2S	97	(60.5)	40.5	27	Rc 1/4
SCAL-2S-NPT					1/4-18NPT
SCAL-3S	135	(69.5)	47	32	Rc 3/8
SCAL-3S-NPT					3/8-18NPT
SCAL-4S	177	(76)	52	36	Rc 1/2
SCAL-4S-NPT					1/2-14NPT
SCAL-6S	339	(90)	65	46	Rc 3/4
SCAL-6S-NPT					3/4-14NPT
SCAL-8S	656	(109)	80	60	Rc 1
SCAL-8S-NPT					1-11.5NPT
*SCAL-12S-NPT	1580	(144.5)	108	80	1 1/2-11.5NPT

*Made-to-order item

- Plug comes with a cap made of high density polyethylene (HDPE).
- Outer appearance of NPT thread type differs slightly from that of the above.
- Please contact us about end configurations other than female thread such as flange and male thread.
- Excessive tightening will damage the threaded part and result in leakage.
- Note: A very small amount of gas can permeate polytetrafluoroethylene (PTFE) bellows in the socket.