

SEMICON CUPLA SCAL TYPE

Optional keyway lock to prevent incorrect connection. 10 keyway patterns available.

Quick connect coupling for various high purity chemicals used in the semiconductor manufacturing processes.

Size available from 1/4" to 1".

Excellent chemical resistance

- Polytetrafluoroethylene (PTFE) body material.
- No metal dissolution from parts in contact with liquid.

Eco-friendly

- Unique seal design ensures minimal liquid spill among Nitto Semicon Cuplas.

Easy operation

- Push-to-connect design.
- Flanged socket body makes it easy to push down sleeve even when wearing gloves.



NEW



Specifications

Body material		Polytetrafluoroethylene (PTFE)
Working pressure *1		0.2 MPa (2 kgf/cm ²)
		2 bar
		29 PSI
Seal material	Socket O-ring	Perfluoroelastomer (Nitto symbol : P)
	Valve	Fluoropolymer resin
Working temperature range *2		+5°C ~ +50°C

Volume of Spillage per Disconnection *3 (mL)

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

How to Mount Cupla *4

After wrapping sealing tape around male threads of the counterpart, mount the Cupla and screw in firmly with your hand. Then, further tighten it with a spanner on the parallel flats of the Cupla by $1\frac{3}{4}$ to 2 turns.

Flow Direction

Fluid may flow in either direction from plug or from socket side when coupled.



Interchangeability

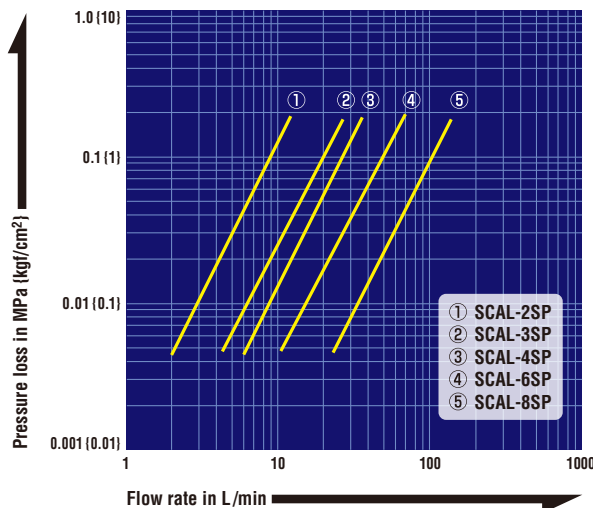
Socket and plug of the same size can be connected regardless of their end configurations.

Min. Cross-Sectional Area (mm²)

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

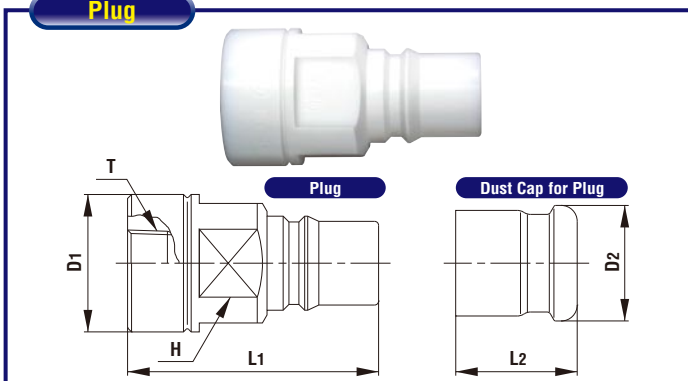
Flow Rate – Pressure Loss Characteristics

[Test conditions] • Fluid : Water • Temperature : 25°C ± 5°C



Models and Dimensions • Plug comes with a dust cap made of high-density polyethylene. • The appearance of NPT threads slightly differs from that of the below. WAF : WAF stands for width across flat.

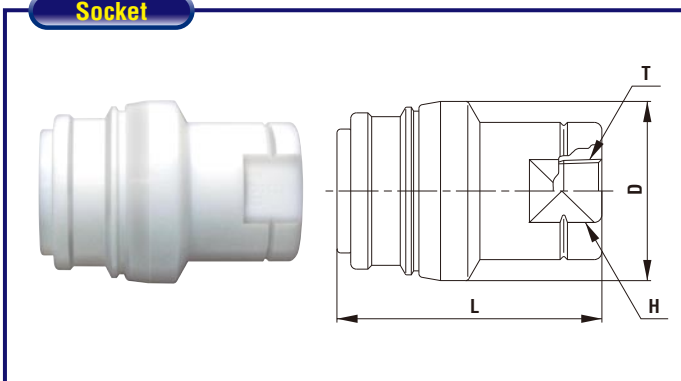
Plug



Model (Plug)	Mass (g)	Dimensions (mm)			
		L1	φD1	H (WAF)	T
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

Model (Dust Cap for Plug)	Mass (g)	Dimensions (mm)	
		L2	φD2
Cap for SCAL-2P / SCAL-2P-NPT	3.1	26.5	24.5
Cap for SCAL-3P / SCAL-3P-NPT	4.6	30.5	29
Cap for SCAL-4P / SCAL-4P-NPT	5.0	33	30
Cap for SCAL-6P / SCAL-6P-NPT	8.7	38.5	38
Cap for SCAL-8P / SCAL-8P-NPT	16.6	50	49.5

Socket



Model (Socket)	Mass (g)	Dimensions (mm)			
		L	φD	H (WAF)	T
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

*1 : This shows the normal allowable fluid pressure under continuous use.

*2 : Acceptable working temperature range depends on operating conditions.

*3 : Volume of spillage is calculated value and differs depending upon usage conditions.

*4 : Overtightening may damage the threads, and result in leakage.

Note: The bellows in the socket are made of polytetrafluoroethylene to allow minimal gas transmission.

For the details of Safety Guide for Cupla, visit our URL: www.nitto-kohki.co.jp/e and check Cupla eCatalog.

★ Specifications and designs are subject to change at any time without notice.



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