

For Low Pressure

Small Cupla

Lightweight and compact for use on air lines and scientific equipment

Working pressure



Valve structure



Applicable fluids



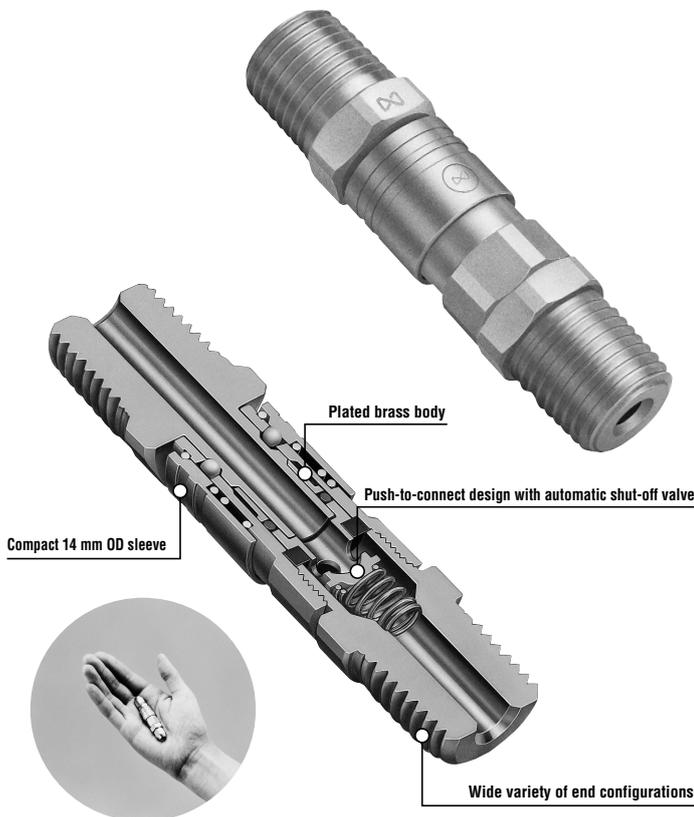
Air

Water (Tube Fitter type is unsuitable for water.)

Lightweight and compact push-to-connect operation. Responding to requirements of modular combinations.

- Compact socket with built-in valve and 14 mm OD sleeve.
- Suits applications calling for compact and modular components.
- Just push in the plug to the socket for connection by easy one hand operation.
- Plated brass for corrosion resistance adopted for the body.
- Stable performance for long life.
- A wide line-up of end configurations (female and male threads, hose barsbs, manifolds) enables suitability with a wide range of piping applications such as pneumatic, scientific and medical equipment.
- Also available with quick connect/disconnect Tube Fitter type.

Note: Fluid will flow out from the plug side when disconnected.
Take necessary precaution if the fluid is water.



Specifications

Body material		Cupla : Brass (Chrome plated) Tube Fitter Part : Brass (Nickel plated)		
Size	Thread	1/8", 1/4"		
	Hose barb	Polyamide hose: $\phi 4 \times \phi 6, \phi 4.5 \times \phi 6$ Urethane hose: $\phi 4 \times \phi 6$		
	Tube barb (Tube fitter)	Polyurethane tube: Outside Dia. $\phi 6 \pm 0.1, \phi 8 \pm 0.15$ Polyamide tube: Outside Dia. $\phi 6 \pm 0.05, \phi 8 \pm 0.1$ Fluorine contained resin tube: Outside Dia. $\phi 6 \pm 0.07, \phi 8 \pm 0.07$		
Pressure unit	MPa	kgf/cm ²	bar	PSI
Working pressure	1.0	10	10	145
Seal material	Seal material	Mark	Working temperature range	Remarks
Working temperature range	Nitrile rubber	NBR (SG)	-20°C to +80°C	Standard material

• Above specifications apply only to Cuplas. Max working pressure and working temperature range may vary depending on tube materials you use with and the working temperature.

Max. Tightening Torque

Size (Thread)	1/8"	1/4"	PN • SN Type
Torque	5 (51)	9 (92)	5 (51)

Flow Direction

Fluid flow can be bi-directional when socket and plug are connected.



Interchangeability

Sockets and plugs can be connected regardless of end configurations.

Min. Cross-Sectional Area

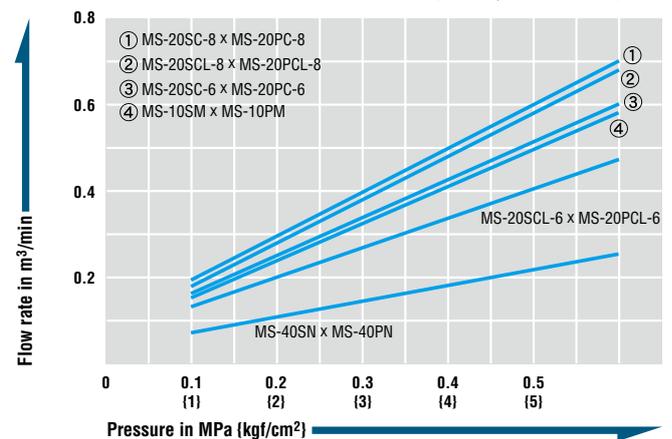
Model	MS-10SM X MS-10PM	MS-20SM X MS-20PM	MS-40SN X MS-40PN	MS-45SN X MS-45PN	Tube Fitter Type for 6 mm OD tube	Tube Fitter Type for 8 mm OD tube
Min. cross-sectional area	12.5	12.5	4.9	7	12.5	12.5

Suitability for Vacuum

Socket only	Plug only	When connected
—	—	Operational

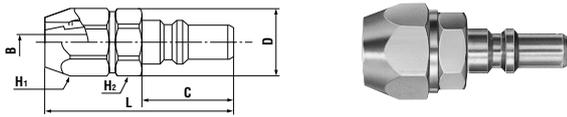
Pressure - Flow Characteristics

[Test conditions] • Fluid : Air • Temperature : Room temperature
• Tube size : $\phi 6 \text{ mm} \times \phi 4 \text{ mm}, \phi 8 \text{ mm} \times \phi 6 \text{ mm}$ (Small Cupla with Tube Fitter)



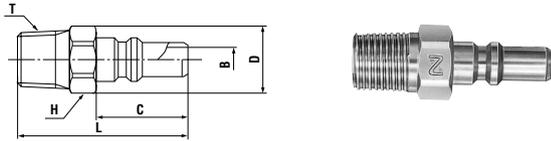
Models and Dimensions

Plug PN type (For connection to hose)



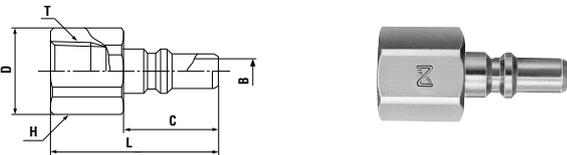
Model	Application (Hose)	Mass (g)	Dimensions (mm)					
			L	C	øD	H1(WAF)	H2(WAF)	øB
MS-40PN	ø4 mm x ø6 mm Polyamide	10.5	(31)	15.2	11	Hex.10	Hex.10	2.5
MS-45PN	ø4.5 mm x ø6 mm Polyamide ø4 mm x ø6 mm Polyurethane	11	(31)	15.2	11	Hex.10	Hex.10	3

Plug PM type (Male thread)



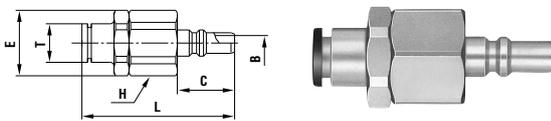
Model	Application	Mass (g)	Dimensions (mm)					
			L	øD	C	H(WAF)	T	øB
MS-10PM	Rc 1/8	9	28.5	12	15.2	Hex.11	R 1/8	4
MS-20PM	Rc 1/4	19.5	32.5	15.2	15.2	Hex.14	R 1/4	4

Plug PF type (Female thread)



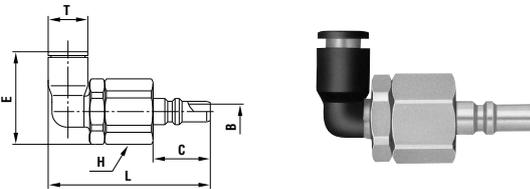
Model	Application	Mass (g)	Dimensions (mm)					
			L	øD	C	H(WAF)	T	øB
MS-10PF	R 1/8	11	27	14	15.2	Hex.13	Rc 1/8	4

Plug PC type (Tube Fitter)



Model	Application (Tube)	Mass (g)	Dimensions (mm)					
			L	C	øE	H(WAF)	øT	øB
MS-20PC-6	6 mm OD	26.5	(40.5)	15.2	17.5	Hex.16	10.3	4
MS-20PC-8	8 mm OD	31	(47.5)	15.2	17.5	Hex.16	13.5	4

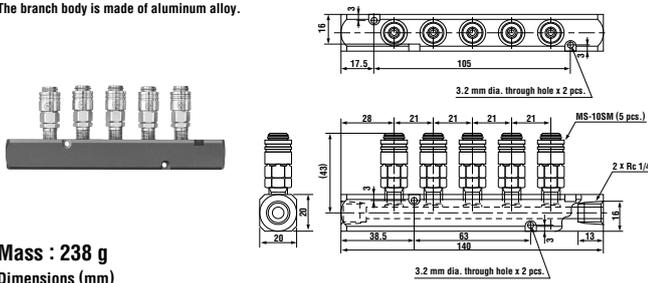
Plug PCL type (L-shaped Tube Fitter)



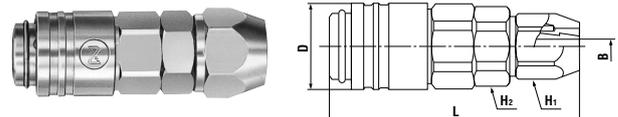
Model	Application (Tube)	Mass (g)	Dimensions (mm)					
			L	C	E	H(WAF)	øT	øB
MS-20PCL-6	6 mm OD	27.5	(43)	15.2	(24.8)	Hex.16	10.5	4
MS-20PCL-8	8 mm OD	32	(46.5)	15.2	(31.8)	Hex.16	13.5	4

Socket MS-5 type (Small Line Cupla with 5 branch ports)

• The branch body is made of aluminum alloy.

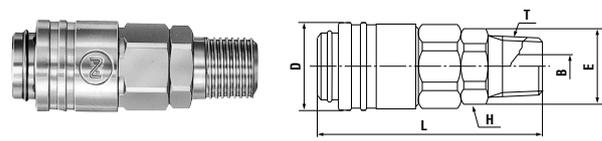


Socket SN type (For connection to hose)



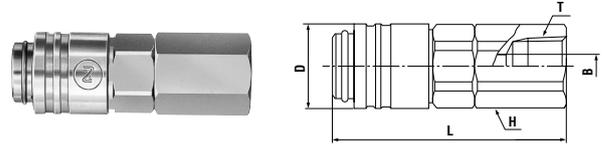
Model	Application (Hose)	Mass (g)	Dimensions (mm)				
			L	H1(WAF)	H2(WAF)	øD	øB
MS-40SN	ø4 mm x ø6 mm Polyamide	26.5	(40.8)	Hex.10	Hex.12	14	2.5
MS-45SN	ø4.5 mm x ø6 mm Polyamide ø4 mm x ø6 mm Polyurethane	27.0	(40.8)	Hex.10	Hex.12	14	3

Socket SM type (Male thread)



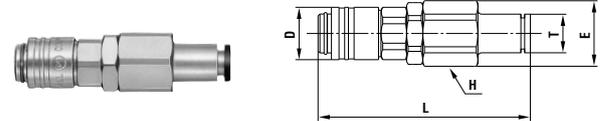
Model	Application	Mass (g)	Dimensions (mm)					
			L	H(WAF)	T	øD	øE	øB
MS-10SM	Rc 1/8	24	(36.8)	Hex.12	R 1/8	14	13.2	4
MS-20SM	Rc 1/4	34	(40.8)	Hex.14	R 1/4	14	15.2	4

Socket SF type (Female thread)



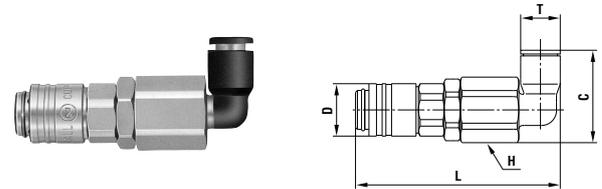
Model	Application	Mass (g)	Dimensions (mm)				
			L	H(WAF)	T	øD	øB
MS-10SF	R 1/8	29.5	(38.8)	Hex.13	Rc 1/8	14	4

Socket SC type (Tube Fitter)



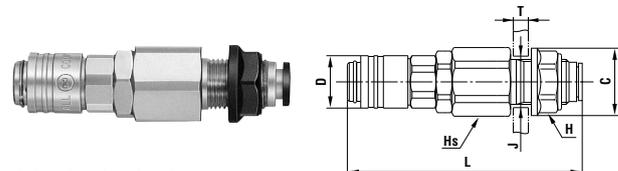
Model	Application (Tube)	Mass (g)	Dimensions (mm)				
			L	øD	øE	H(WAF)	øT
MS-20SC-6	6 mm OD	46	(56.3)	14	17.5	Hex.16	10.3
MS-20SC-8	8 mm OD	50.5	(60.8)	14	17.5	Hex.16	13.5

Socket SCL type (L-shaped Tube Fitter)



Model	Application (Tube)	Mass (g)	Dimensions (mm)				
			L	øD	C	H(WAF)	øT
MS-20SCL-6	6 mm OD	47.5	(56.8)	14	(24.8)	Hex.16	10.5
MS-20SCL-8	8 mm OD	49.5	(59.8)	14	(31.8)	Hex.16	13.5

Socket SCB type (Tube Fitter for panel mounting)



• T and øJ are dimensions of panel.

Model	Application (Tube)	Mass (g)	Dimensions (mm)						
			L	øD	Hs(WAF)	H(WAF)	T	øJ	
MS-20SCB-6	6 mm OD	57.5	(61.3)	14	18	Hex.17	Hex.15	7 or less	12.5 ^{+0.3} ₀
MS-20SCB-8	8 mm OD	58.5	(62.8)	14	21	Hex.17	Hex.18	8 or less	15.5 ^{+0.3} ₀