

For Air

Small Cupla

Lightweight and compact for use on air lines and scientific equipment

Working pressure



0.7 MPa
(7 kgf/cm²)

Valve structure



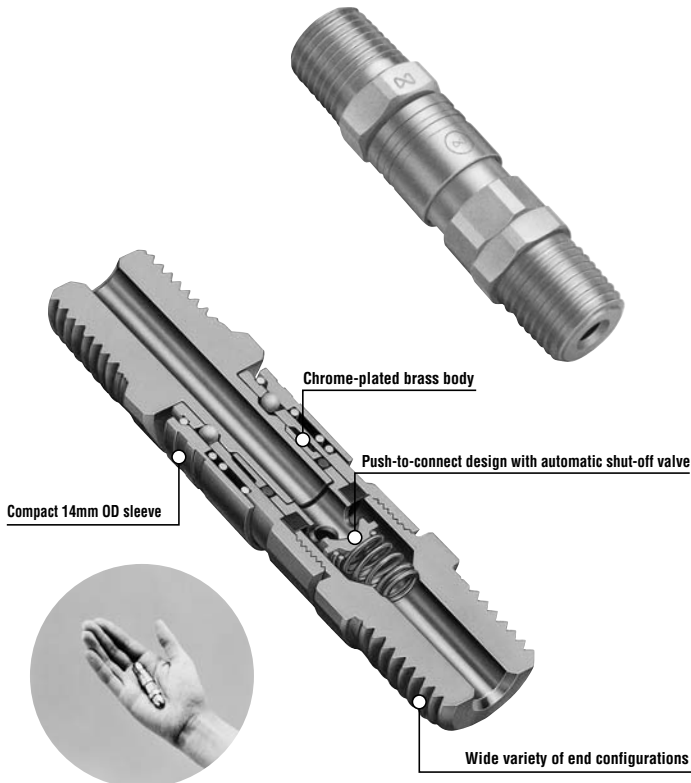
One-way shut-off

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 14mm 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.
- Chrome-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 barbs, manifolds) enables suitability with a wide range of piping applications such as pneumatic, scientific and medical equipment.
- Also available with Tube Fitter quick connect/disconnect 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 Type: Brass (Nickel-plated)			
Size	1/8" • 1/4"			
Tube size (for Tube Fitter end configurations)	Polyurethane : $\phi 6 \pm 0.1$ • $\phi 8 \pm 0.15$ Nylon : $\phi 6 \pm 0.05$ • $\phi 8 \pm 0.05$ Teflon : $\phi 6 \pm 0.07$ • $\phi 8 \pm 0.07$			
Working pressure MPa (kgf/cm ²)	0.7 {7}			
Pressure resistance MPa (kgf/cm ²)	1.1 {11}			
Seal material	Seal material	Mark	Working temperature range	Remarks
Working temperature range	Nitrile rubber	NBR (SG)	-5°C~+60°C	Standard material

• Above specifications apply only to Cuplas. Working pressure, pressure resistance and working temperature range may vary depending on tube materials you use with and temperature conditions you use under. Micro Cupla with Tube Fitter has NBR packing material only.

Max. Tightening Torque

N·m (kgf·cm)

Size	1/8"	1/4"	Nut type
Torque	7 {71}	9 {92}	5 {51}

Flow Direction

Air flows in either direction from plug or socket side when coupled.



Interchangeability

Sockets and plugs can be connected regardless of end configurations.

Min. Cross-Sectional Area

(mm²)

Model	MS-10SP	MS-20SP	MS-40SPN	MS-45SPN	Tube Fitter Type for 6mm OD tube	Tube Fitter Type for 8mm OD tube
Min. Cross-Sectional Area	12.5	12.5	4.9	7	12.5	12.5

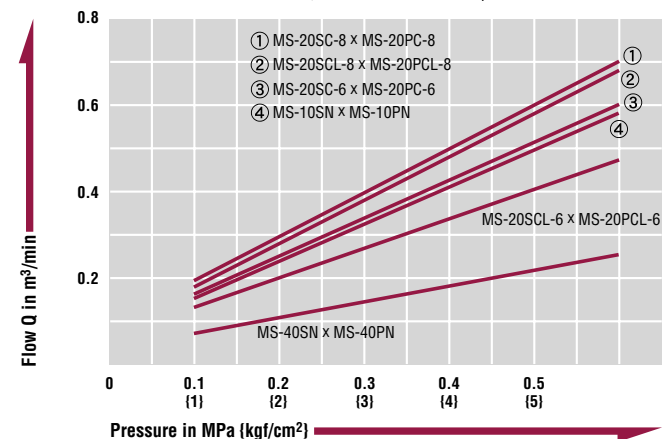
Suitability for Vacuum

53.0kPa (400mmHg)

Socket only	Plug only	When connected
—	—	Operational

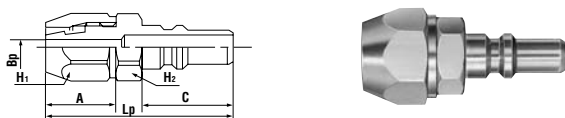
Pressure - Flow Characteristics

[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 (Hose barb)



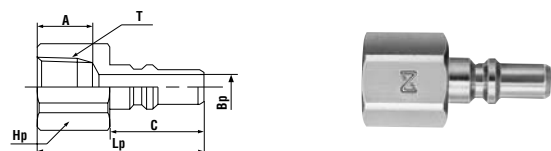
Model	Application (Hose)	Mass (g)	Dimensions (mm)					
			Lp	C	A	H1(WAF)	H2(WAF)	øBp
MS-40PN	ø4mm x ø6mm Nylon hose	10.5	31	15.2	11.5	Hex.10	Hex.10	2.5
MS-45PN	ø4.5mm x ø6mm Nylon hose ø4mm x ø6mm Polyurethane hose	11	31	15.2	11.5	Hex.10	Hex.10	3

Plug PM type (Male thread)



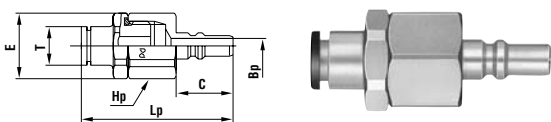
Model	Application	Mass (g)	Dimensions (mm)					
			Lp	C	A	Hp(WAF)	T	øBp
MS-10PM	Rc 1/8	9	28.5	15.2	9	Hex.11	R 1/8	4
MS-20PM	Rc 1/4	19.5	32.5	15.2	13	Hex.14	R 1/4	4

Plug PF type (Female thread)



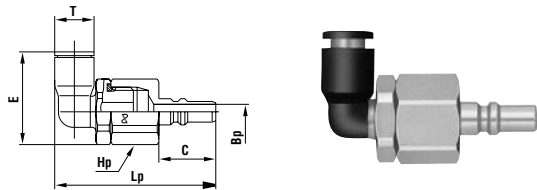
Model	Application	Mass (g)	Dimensions (mm)					
			Lp	C	A	Hp(WAF)	T	øBp
MS-10PF	R 1/8	11	27	15.2	9	Hex.13	Rc 1/8	4

Plug PC type (Straight type with Tube Fitter)



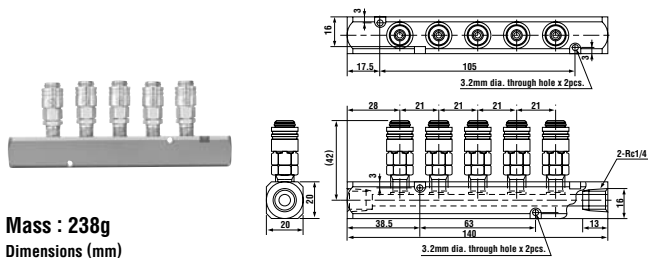
Model	Application (Tube)	Mass (g)	Dimensions (mm)					
			Lp	C	E	Hp(WAF)	øT	øBp
MS-20PC-6	6mm OD	26.5	(40.5)	15.2	17.5	Hex.16	10.3	4
MS-20PC-8	8mm OD	31	(47.2)	15.2	17.5	Hex.16	13.5	4

Plug PCL type (Straight type with Tube Fitter)

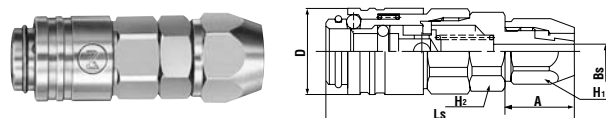


Model	Application (Tube)	Mass (g)	Dimensions (mm)					
			Lp	C	E	Hp(WAF)	øT	øBp
MS-20PCL-6	6mm OD	27.5	(43)	15.2	(24.8)	Hex.16	10.3	4
MS-20PCL-8	8mm OD	32	(46.3)	15.2	(31.8)	Hex.16	13.5	4

Socket MS-5 type (Small Cupal with 5 branch ports)

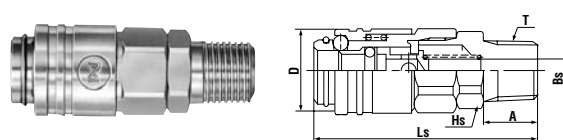


Socket SN type (Hose barb)



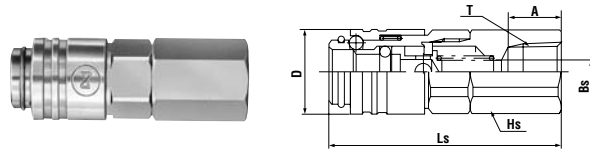
Model	Application (Hose)	Mass (g)	Dimensions (mm)					
			Ls	A	H1(WAF)	H2(WAF)	øD	øBs
MS-40SN	ø4mm x ø6mm Nylon hose	26.5	40.8	11.5	Hex.10	Hex.12	14	2.5
MS-45SN	ø4.5mm x ø6mm Nylon hose ø4mm x ø6mm Polyurethane hose	27.0	40.8	11.5	Hex.10	Hex.12	14	3

Socket SM type (Male thread)



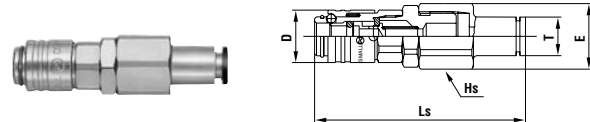
Model	Application	Mass (g)	Dimensions (mm)					
			Ls	A	HS(WAF)	T	øD	øBs
MS-10SM	Rc 1/8	24	36.8	9	Hex.12	R 1/8	14	4
MS-20SM	Rc 1/4	34	40.8	13	Hex.14	R 1/4	14	4

Socket SF type (Female thread)



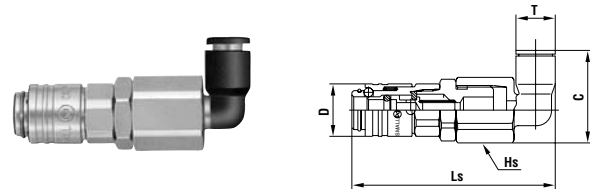
Model	Application	Mass (g)	Dimensions (mm)					
			Ls	A	HS(WAF)	T	øD	øBs
MS-10SF	R 1/8	29.5	38.8	9	Hex.13	Rc 1/8	14	4

Socket SC type (Straight type with Tube Fitter)



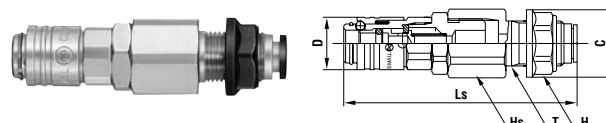
Model	Application (Tube)	Mass (g)	Dimensions (mm)				
			Ls	øD	E	HS(WAF)	øT
MS-20SC-6	6mm OD	46	(56.3)	14	17.5	Hex.16	10.3
MS-20SC-8	8mm OD	50.5	(60.8)	14	17.5	Hex.16	13.5

Socket SCL type (Straight type with Tube Fitter)



Model	Application (Tube)	Mass (g)	Dimensions (mm)				
			Ls	øD	C	HS(WAF)	øT
MS-20SCL-6	6mm OD	47.5	(55)	14	(24.7)	Hex.16	10.3
MS-20SCL-8	8mm OD	49.5	(58.5)	14	(31.4)	Hex.16	13.5

Socket SCB type (Straight type with Tube Fitter)



Model	Application (Tube)	Mass (g)	Dimensions (mm)					
			Ls	øD	øC	HS(WAF)	H(WAF)	øT
MS-20SCB-6	6mm OD	57.5	(62.3)	14	18	Hex.17	Hex.15	M12x1
MS-20SCB-8	8mm OD	58.5	(62.8)	14	21	Hex.17	Hex.18	M15x1