


For Low Pressure

MICRO CUPLA


For piping in pneumatic control devices

Working pressure




1.0 MPa
(10 kgf/cm²)

Valve structure



One-way shut-off

Applicable fluids

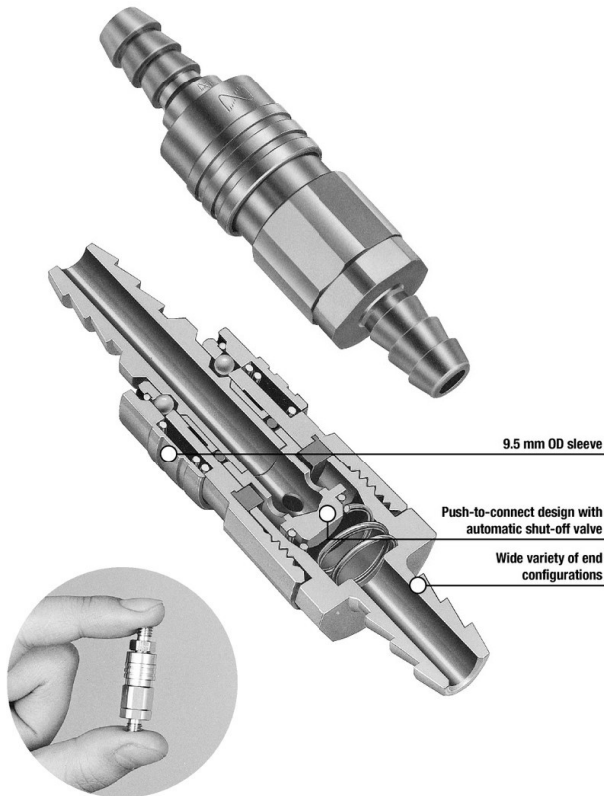


Air
Water (Tube Fitter type is unsuitable for water.)

Compact, lightweight CUPLA with only 9.5 mm outer diameter. Push-to-connect operation. Tube Fitter type for even easier tube insertion.

- Even though the valve is built in the socket, the sleeve outer diameter is confined to 9.5 mm.
- Push-to-connect design.
- Compact design for piping in narrow spaces.
- Plated brass and stainless steel bodies are available for excellent corrosion resistance.
- Available in various end configurations to satisfy a wide range of pneumatic applications.

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



Specifications				
Body material	CUPLA : Brass (Plated), Stainless steel (SUS 304) Tube Fitter Part : Brass (Plated) , Plastic			
	Thread	1/8" , M5 x 0.8		
Size	Tube barb (Tube fitter)	Tube ID ø3, ø4		
		Polyurethane tube: Outside Dia. ø4 ± 0.1, ø6 ± 0.1		
		Polyamide tube: Outside Dia. ø4 ^{+0.05} _{-0.08} , ø6 ^{+0.05} _{-0.08}		
		Fluorine contained resin tube: Outside Dia. ø4 ± 0.05, ø6 ± 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
	Nitrile rubber	NBR (SG)	-20°C to +80°C	Standard material
Working temperature range	Fluoro rubber	FKM (X-100)	-20°C to +180°C	Made-to-order item(s)

* Above specifications apply only to CUPLA. Maximum working pressure and working temperature range may vary depending on tube materials you use with and the working temperature. CUPLA with Tube Fitter has NBR packing material only.

Maximum Tightening Torque		Nm {kgf·cm}	
Size (Thread)	M5x0.8	R 1/8	
Torque	Brass	5 {51}	
	Stainless steel	7 {71}	

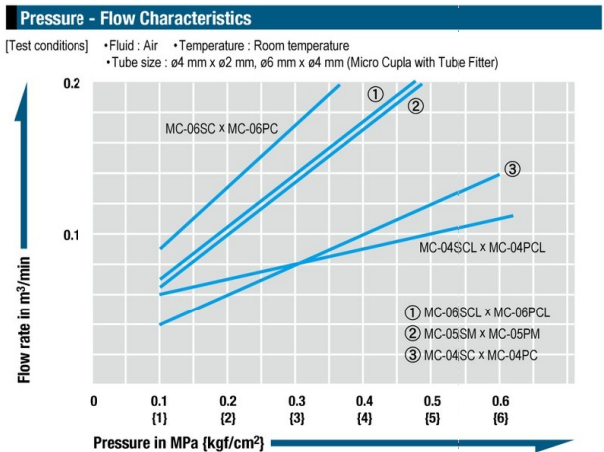
Flow Direction

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

Interchangeability
Sockets and plugs can be connected regardless of end configurations.

Minimum Cross-Sectional Area					(mm ²)	
Model	MC-03SP	MC-04SP	MC-05SP	MC-10SP	Tube Fitter Type for 4 mm OD tube	Tube Fitter Type for 6 mm OD tube
Min. cross-sectional area	1.1	4.9	4.9	4.9	4.9	4.9

Suitability for Vacuum			53.0 kPa {400 mmHg}
Socket only	Plug only	When connected	
—	—	Operational	



Models and Dimensions

Plug PH type (Tube barb)

Model	Application (Tube)	Body material·Mass (g) Brass	Dimensions (mm)					
			L	C	A	øH	øT	øB
MC-03PH	3 mm ID	1.2	19	9.2	8	5.5	3.5	1.2
MC-04PH	4 mm ID	1.4	19	9.2	8	5.5	4.8	2.5

Socket SH type (Tube barb)

Model	Application (Tube)	Body material·Mass (g) Brass	Dimensions (mm)				
			L	øD	A	øT	øB
MC-03SH	3 mm ID	7	(27.5)	9.5	8	3.5	1.2
MC-04SH	4 mm ID	7.3	(27.5)	9.5	8	4.8	2.5

Plug PM type (Male thread)

Model	Application (Thread)	Body material·Mass (g) Brass	Dimensions (mm)					
			L	C	A	H(WAF)	T	øB
MC-05PM	M5 x 0.8	1.9	17	9.2	4.5	Hex.7	M5x0.8	2.5

Socket SM type (Male thread)

Model	Application (Thread)	Body material·Mass (g) Brass	Dimensions (mm)					
			L	øD	A	T	H(WAF)	øB
MC-05SM	M5 x 0.8	7.4	(24.5)	9.5	4.5	M5x0.8	Hex.9	2.5

Plug PM type (Male thread)

Model	Application (Thread)	Body material·Mass (g) Brass	Dimensions (mm)					
			L	C	A	H(WAF)	T	øB
MC-10PM	Rc 1/8	9	26	9.2	Hex.11	R 1/8	2.5	

Socket SM type (Male thread)

Model	Application (Thread)	Body material·Mass (g) Brass	Dimensions (mm)				
			L	øD	T	H(WAF)	øB
MC-10SM	Rc 1/8	13.1	(30)	9.5	R 1/8	Hex.11	3

Plug PHL type (Tube barb)

Model	Application (Tube)	Body material·Mass (g) Brass	Dimensions (mm)						
			L	C	A	B	E	øT	øBp
MC-04PHL	4 mm ID	9.4	(23.3)	9.2	8	(18.3)	18	4.8	2.5

Socket SHL type (Tube barb)

Model	Application (Tube)	Body material·Mass (g) Brass	Dimensions (mm)						
			L	C	E	A	øD	øT	øB
MC-04SHL	4 mm ID	14.8	(30.8)	(25.8)	18	8	9.5	4.8	2.5

Application Example

Air cylinders
Always fix tubes with hose clamps when using hose barb types.

Solenoid valves
Always fix tubes with hose clamps when using hose barb types.

Socket SHB type (For panel mounting)

* F and øJ are dimensions of panel.

Model	Application (Tube)	Body material·Mass (g) Brass	Dimensions (mm)								
			L	A	øD	øT	øB	HS(WAF)	øJ	H(WAF)	F
MC-04SHB	4 mm ID	11.5	(36)	8	9.5	4.8	2.5	Hex.11	7.1 ^{+0.3} ₀	Hex.9	12 b 3.5

Before use, please be sure to read "Safety Guide" described at the end of this book and "Instruction Sheet" that comes with the products.

MICRO CUPLA (Brass)

Models and Dimensions (MICRO CUPLA with Tube Fitter) WAF: WAF stands for width across flats.

Plug PC type (With Tube Fitter)

Model	Application (Tube)	Mass (g)	Dimensions (mm)			
			L	C	øT	øB
MC-04PC	4 mm OD	3	(21.7)	9.2	8	2.5
MC-06PC	6 mm OD	5	(25)	9.2	9.8	2.5

Socket SC type (With Tube Fitter)

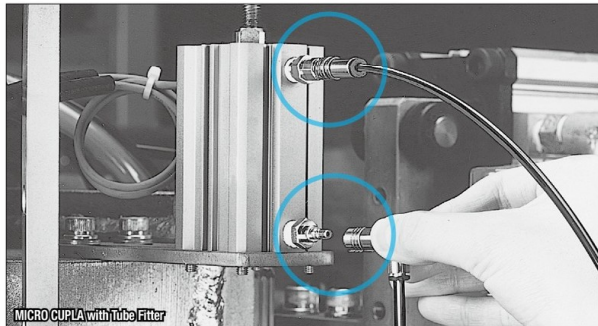
Model	Application (Tube)	Mass (g)	Dimensions (mm)			
			L	øD	C	øT
MC-04SC	4 mm OD	9	(31.5)	9.5	(11.8)	8
MC-06SC	6 mm OD	11.5	(33.5)	9.5	(12.5)	9.8

Plug PCL type (With L-shaped Tube Fitter)

Model	Application (Tube)	Mass (g)	Dimensions (mm)				
			L	C	E	øT	øB
MC-04PCL	4 mm OD	10	(23.3)	9.2	(18.3)	8	2.5
MC-06PCL	6 mm OD	13.5	(24.3)	9.2	(18.8)	9.8	2.5

Socket SCL type (With L-shaped Tube Fitter)

Model	Application (Tube)	Mass (g)	Dimensions (mm)				
			L	E	øD	C	øT
MC-04SCL	4 mm OD	16	(30.8)	(25.8)	9.5	(10)	8
MC-06SCL	6 mm OD	19	(31.8)	(26.3)	9.5	(12.5)	9.8



Socket SCB type (With Tube Fitter for panel mounting)

* T and øJ are dimensions of panel.

Model	Application (Tube)	Mass (g)	Dimensions (mm)						
			L	øD	øE	HS(WAF)	H(WAF)	T	øJ
MC-04SCB	4 mm OD	15	(34)	9.5	16	Hex.13	Hex.13	3.5 or less	10.5 ^{+0.3} ₀
MC-06SCB	6 mm OD	18.5	(36)	9.5	18	Hex.15	Hex.15	3.5 or less	12.5 ^{+0.3} ₀

Models and Dimensions (MICRO LINE CUPLA) WAF: WAF stands for width across flats.

Socket MC-03 type (MICRO LINE CUPLA with three branch ports)

Mass: 65 g
• The branch body is made of aluminum alloy.

MC-05SM (3 pcs.)

Dimensions (mm)

Socket MC-05 type (MICRO LINE CUPLA with 5 branch ports)

Mass: 101 g
• The branch body is made of aluminum alloy.

MC-05SM (5 pcs.)

Dimensions (mm)

Socket MC-10 type (MICRO LINE CUPLA with 10 branch ports)

Mass: 187 g
• The branch body is made of aluminum alloy.

MC-05SM (10 pcs.)

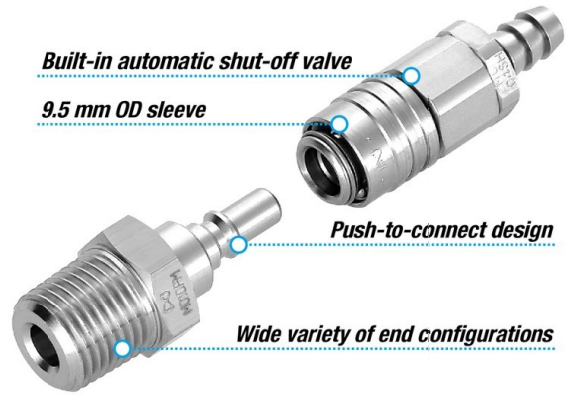
Dimensions (mm)

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MICRO CUPLA

Stainless Steel Models

Highly Corrosion-resistant
Stainless Steel MICRO CUPLA



Models and Dimensions (Stainless Steel) WAF: WAF stands for width across flats.

Plug PH type (Hose barb)

Model	Application (Tube)	Body material*Mass (g)	Dimensions (mm)					
			L	C	A	øH	øT	øB
MC-04PH	4 mm ID	1.3	19	9.2	8	5.5	4.8	2.5

Socket SH type (Hose barb)

Model	Application (Tube)	Body material*Mass (g)	Dimensions (mm)				
			L	øD	A	øT	øB
MC-04SH	4 mm ID	6.7	(27.5)	9.5	8	4.8	2.5

Plug PM type (Male thread)

Model	Application (Thread)	Body material*Mass (g)	Dimensions (mm)					
			L	C	A	H(WAF)	T	øB
MC-05PM	M5 x 0.8	2.2	17	9.2	4.5	Hex.8	M5x0.8	2.5

Socket SM type (Male thread)

Model	Application (Thread)	Body material*Mass (g)	Dimensions (mm)					
			L	øD	A	T	H(WAF)	øB
MC-05SM	M5 x 0.8	6.8	(24.5)	9.5	4.5	M5x0.8	Hex.9	2.5

Plug PM type (Male thread)

Model	Application (Thread)	Body material*Mass (g)	Dimensions (mm)					
			L	C	H(WAF)	T	øB	
MC-10PM	Rc 1/8	8.1	26	9.2	Hex.11	R 1/8	2.5	

Socket SM type (Male thread)

Model	Application (Thread)	Body material*Mass (g)	Dimensions (mm)					
			L	øD	T	H(WAF)	øB	
MC-10SM	Rc 1/8	12.1	(30)	9.5	R 1/8	Hex.11	3	

Plug PHL type (Hose barb)

Model	Application (Tube)	Body material*Mass (g)	Dimensions (mm)							
			L	C	A	B	E	øT	øBp	
MC-04PHL	4 mm ID	9	(23.3)	9.2	8	(18.3)	18	4.8	2.5	

Socket SHL type (Hose barb)

Model	Application (Tube)	Body material*Mass (g)	Dimensions (mm)						
			L	C	E	A	øD	øT	øB
MC-04SHL	4 mm ID	13.6	(30.8)	(25.8)	18	8	9.5	4.8	2.5

Socket SHB type (For panel mounting)

* F and øJ are dimensions of panel.

Model	Application (Tube)	Body material*Mass (g)	Dimensions (mm)								
			L	A	øD	øT	øB	Hs(WAF)	øJ	H(WAF)	F
MC-04SHB	4 mm ID	10.6	(36)	8	9.5	4.8	2.5	Hex.11	7.1 ^{+0.3} ₀	Hex.9	1.2 to 3.5

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