

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



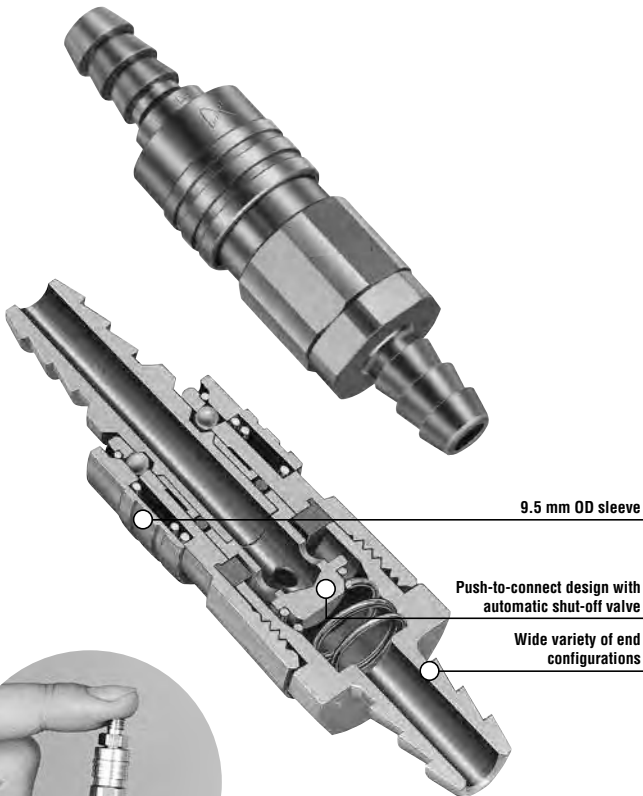
Air

Water (Tube Fitter type is unsuitable for water.)

Compact, lightweight Cuplas 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.



9.5 mm OD sleeve

Push-to-connect design with automatic shut-off valve

Wide variety of end configurations

Specifications

Body material		Cupla : Brass (Plated), Stainless steel (SUS 304) Tube Fitter Part : Brass (Plated)		
Size	Thread	1/8", M5 x 0.8		
	Tube barb (Tube fitter)	Tube ID $\phi 3, \phi 4$ Polyurethane tube: Outside Dia. $\phi 4 \pm 0.1, \phi 6 \pm 0.1$ Polyamide tube: Outside Dia. $\phi 4^{+0.05}_{-0.08}, \phi 6^{+0.05}_{-0.08}$ Fluorine contained resin tube: Outside Dia. $\phi 4 \pm 0.05, \phi 6 \pm 0.07$		
Pressure unit	MPa	kgf/cm ²	bar	PSI
Working pressure	1.0	10	10	145
Seal material Working temperature range	Seal material	Mark	Working temperature range	Remarks
	Nitrile rubber	NBR (SG)	-20°C to +80°C	Standard material
	Fluoro rubber	FKM (X-100)	-20°C to +180°C	Made-to-order item(s)

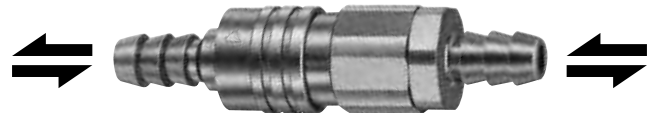
• Above specifications apply only to Cuplas. Max working pressure and working temperature range may vary depending on tube materials you use with and the working temperature.
 Cupla with Tube Fitter has NBR packing material only.

Max. 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.

Min. Cross-Sectional Area (mm²)

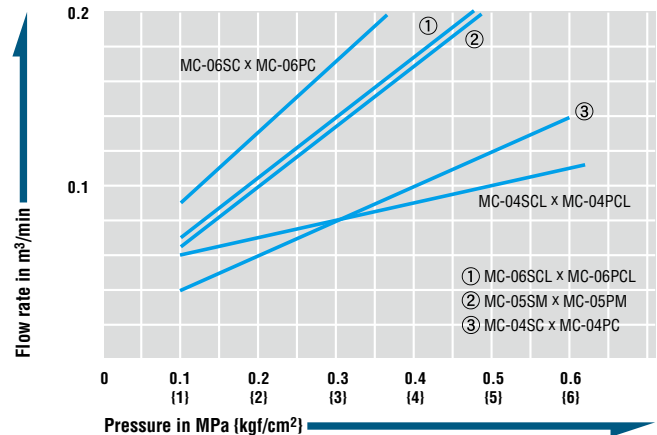
Model	MC-03SP	MC-04SP	MC-05SP	MC-10SP	Tube Fitter Type for 4 mm OD tube	Tube Fitter Type for 6 mm OD tube
Min. cross-sectional area	1.1	4.9	4.9	4.9	4.9	4.9

Suitability for Vacuum 53.0 kPa (400 mmHg)

Socket only	Plug only	When connected
—	—	Operational

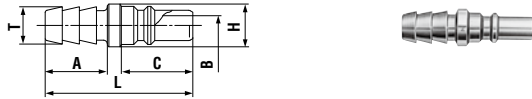
Pressure - Flow Characteristics

[Test conditions] • Fluid : Air • Temperature : Room temperature
 • Tube size : $\phi 4 \text{ mm} \times \phi 2 \text{ mm}, \phi 6 \text{ mm} \times \phi 4 \text{ mm}$ (Micro Cupla with Tube Fitter)



Models and Dimensions

Plug PH type (Tube barb)



Model	Application (Tube)	Body material•Mass (g) Brass	Dimensions (mm)					
			L	C	A	∅H	∅T	∅B
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

Plug PM type (Male thread)



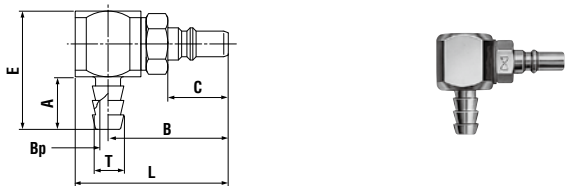
Model	Application	Body material•Mass (g) Brass	Dimensions (mm)					
			L	C	A	H(WAF)	T	∅B
MC-05PM	M5 x 0.8	1.9	17	9.2	4.5	Hex.7	M5x0.8	2.5

Plug PM type (Male thread)



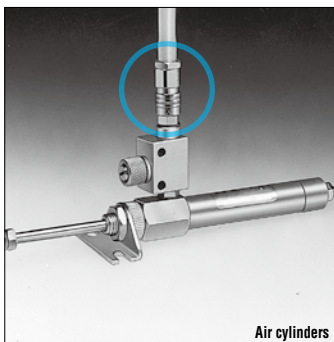
Model	Application	Body material•Mass (g) Brass	Dimensions (mm)					
			L	C	H(WAF)	T	∅B	
MC-10PM	Rc 1/8	9	26	9.2	Hex.11	R 1/8	2.5	

Plug PHL type (Tube barb)

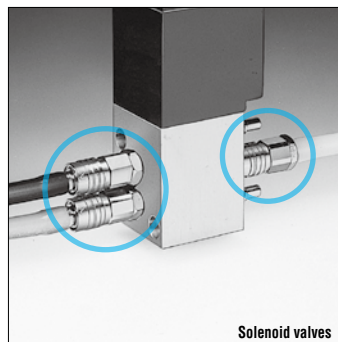


Model	Application (Tube)	Body material•Mass (g) Brass	Dimensions (mm)						
			L	C	A	B	E	∅T	∅Bp
MC-04PHL	4 mm ID	9.4	(23.3)	9.2	8	(18.3)	18	4.8	2.5

Application Example

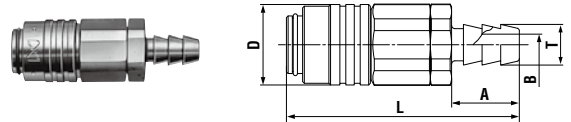


Always fix tubes with hose clamps when using hose barb types.



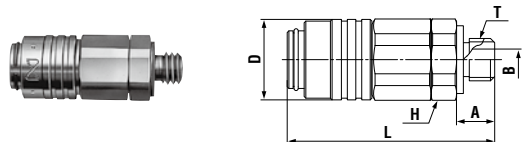
Always fix tubes with hose clamps when using hose barb types.

Socket SH type (Tube barb)



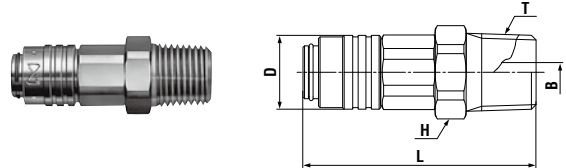
Model	Application (Tube)	Body material•Mass (g) Brass	Dimensions (mm)				
			L	∅D	A	∅T	∅B
MC-03SH	3 mm ID	7	(27.5)	9.5	8	3.5	1.2
MC-04SH	4 mm ID	7.3	(27.5)	9.5	8	4.8	2.5

Socket SM type (Male thread)



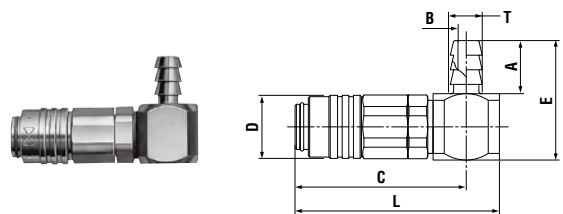
Model	Application	Body material•Mass (g) Brass	Dimensions (mm)					
			L	∅D	A	T	H(WAF)	∅B
MC-05SM	M5 x 0.8	7.4	(24.5)	9.5	4.5	M5x0.8	Hex.9	2.5

Socket SM type (Male thread)



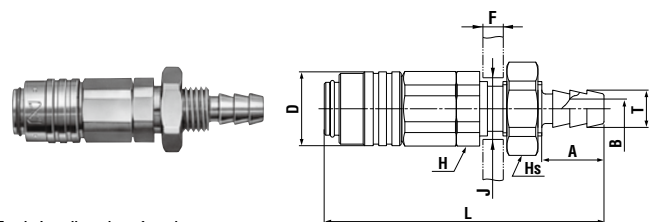
Model	Application	Body material•Mass (g) Brass	Dimensions (mm)				
			L	∅D	T	H(WAF)	∅B
MC-10SM	Rc 1/8	13.1	(30)	9.5	R 1/8	Hex.11	3

Socket SHL type (Tube barb)



Model	Application (Tube)	Body material•Mass (g) Brass	Dimensions (mm)						
			L	C	E	A	∅D	∅T	∅B
MC-04SHL	4 mm ID	14.8	(30.8)	(25.8)	18	8	9.5	4.8	2.5

Socket SHB type (For panel mounting)



* F and ∅J are dimensions of panel.

Model	Application (Tube)	Body material•Mass (g) Brass	Dimensions (mm)								
			L	A	∅D	∅T	∅B	Hs(WAF)	∅J	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	1.2 to 3.5

Models and Dimensions (Micro Cupla with Tube Fitter)

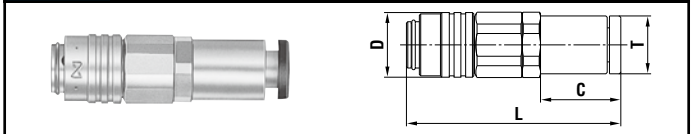
WAF : WAF stands for width across flats.

Plug PC type (With Tube Fitter)



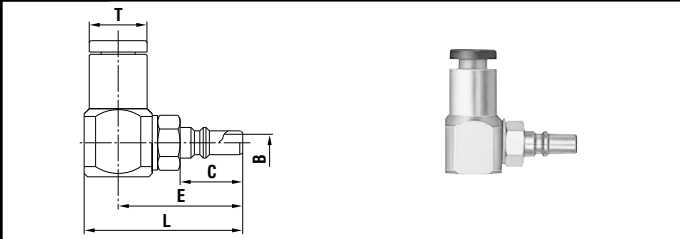
Model	Application (Tube)	Mass (g)	Dimensions (mm)			
			L	C	øT	øB
MC-04PC	4 mm OD	3	(21.7)	9.2	8	2.5
MC-06PC	6 mm OD	5	(25)	9.2	9.8	2.5

Socket SC type (With Tube Fitter)



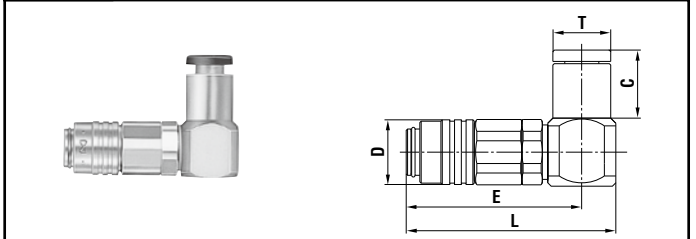
Model	Application (Tube)	Mass (g)	Dimensions (mm)			
			L	øD	C	øT
MC-04SC	4 mm OD	9	(31.5)	9.5	(11.8)	8
MC-06SC	6 mm OD	11.5	(33.5)	9.5	(12.5)	9.8

Plug PCL type (With L-shaped Tube Fitter)

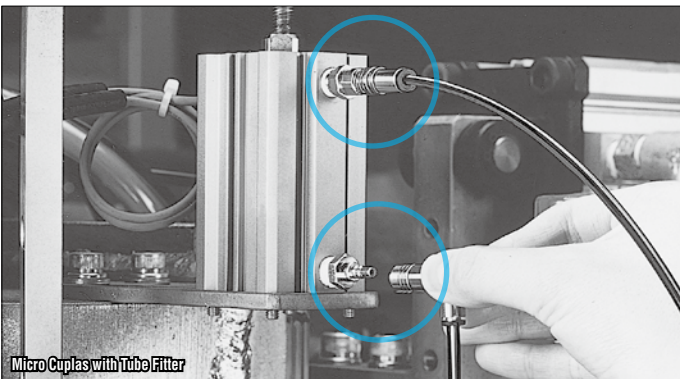


Model	Application (Tube)	Mass (g)	Dimensions (mm)				
			L	C	E	øT	øB
MC-04PCL	4 mm OD	10	(23.3)	9.2	(18.3)	8	2.5
MC-06PCL	6 mm OD	13.5	(24.3)	9.2	(18.8)	9.8	2.5

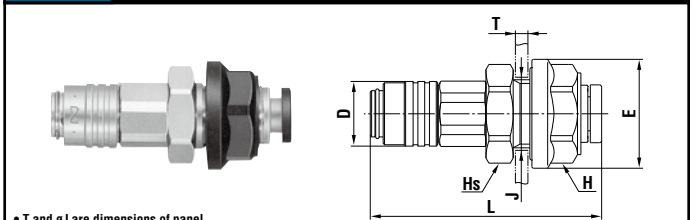
Socket SCL type (With L-shaped Tube Fitter)



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.

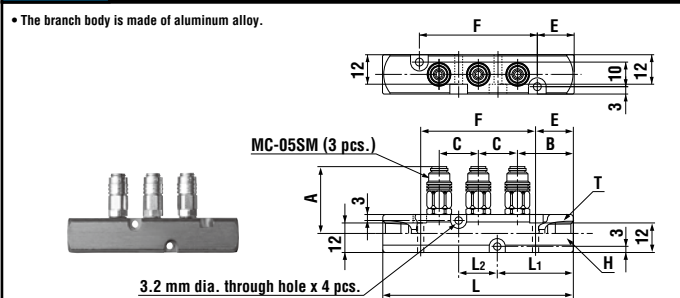
Model	Application (Tube)	Mass (g)	Dimensions (mm)						
			L	øD	øE	Hs(WAF)	H(WAF)	T	øJ
MC-04SCB	4 mm OD	15	(34)	9.5	16	Hex.13	Hex.13	3.5 or less	10.5 ^{+0.3} ₀
MC-06SCB	6 mm OD	18.5	(36)	9.5	18	Hex.15	Hex.15	3.5 or less	12.5 ^{+0.3} ₀

Models and Dimensions (Micro Line Cupla)

WAF : WAF stands for width across flats.

Socket Micro Line Cupla with three branch ports

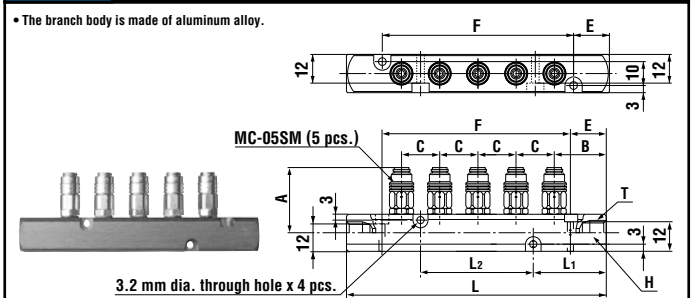
• The branch body is made of aluminum alloy.



Model	Mass (g)	Dimensions (mm)									
		L	L ₁	L ₂	A	B	C	E	F	T	H(WAF)
MC-03	65	78	31	16	(28.8)	23	16	15	48	2xRc 1/8	Box 16

Socket Micro Line Cupla with 5 branch ports

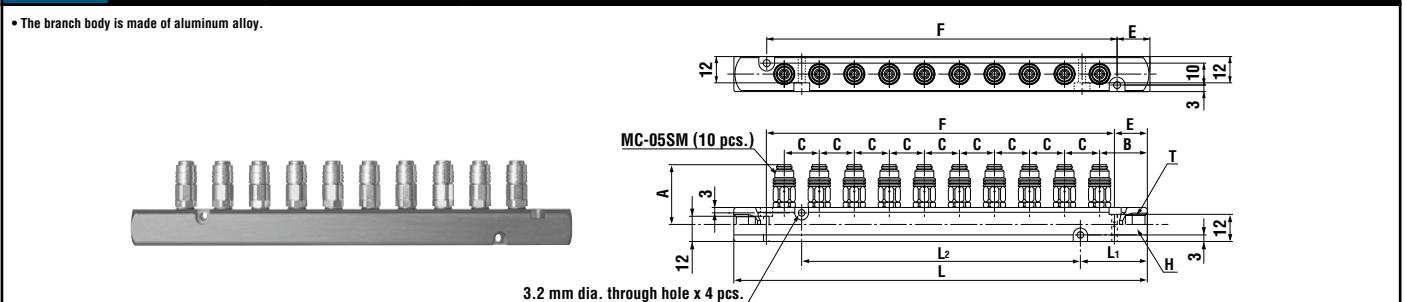
• The branch body is made of aluminum alloy.



Model	Mass (g)	Dimensions (mm)									
		L	L ₁	L ₂	A	B	C	E	F	T	H(WAF)
MC-05	101	110	31	48	(28.8)	23	16	15	80	2xRc 1/8	Box 16

Socket Micro Line Cupla with 10 branch ports

• The branch body is made of aluminum alloy.



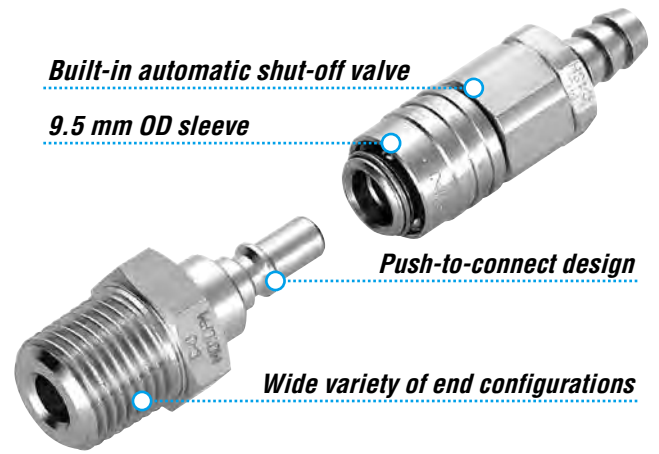
Model	Mass (g)	Dimensions (mm)									
		L	L ₁	L ₂	A	B	C	E	F	T	H(WAF)
MC-10	187	190	31	128	(28.8)	23	16	15	160	2xRc 1/8	Box 16

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Micro Cupla

Stainless Steel Models

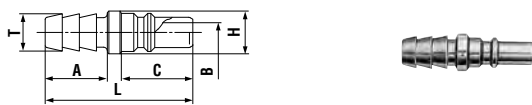
Highly Corrosion-resistant
Stainless Steel Micro Cupla



Models and Dimensions (Stainless Steel)

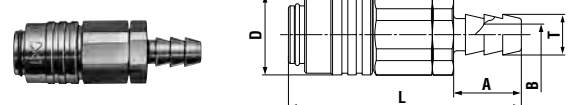
WAF : WAF stands for width across flats.

Plug PH type (Hose barb)



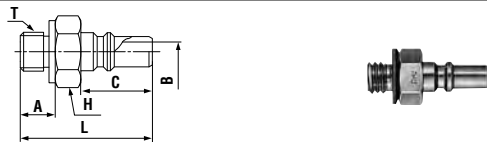
Model	Application (Tube)	Body material*Mass (g)	Dimensions (mm)					
		Stainless steel	L	C	A	øH	øT	øB
MC-04PH	4 mm ID	1.3	19	9.2	8	5.5	4.8	2.5

Socket SH type (Hose barb)



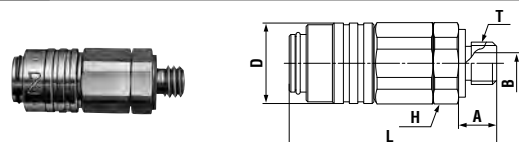
Model	Application (Tube)	Body material*Mass (g)	Dimensions (mm)				
		Stainless steel	L	øD	A	øT	øB
MC-04SH	4 mm ID	6.7	(27.5)	9.5	8	4.8	2.5

Plug PM type (Male thread)



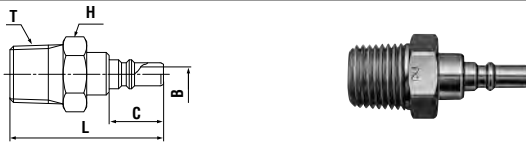
Model	Application	Body material*Mass (g)	Dimensions (mm)					
		Stainless steel	L	C	A	H(WAF)	T	øB
MC-05PM	M5 x 0.8	2.2	17	9.2	4.5	Hex.8	M5x0.8	2.5

Socket SM type (Male thread)



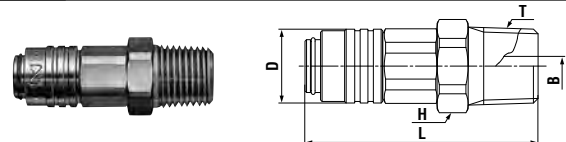
Model	Application	Body material*Mass (g)	Dimensions (mm)					
		Stainless steel	L	øD	A	T	H(WAF)	øB
MC-05SM	M5 x 0.8	6.8	(24.5)	9.5	4.5	M5x0.8	Hex.9	2.5

Plug PM type (Male thread)



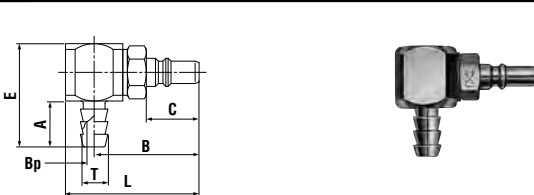
Model	Application	Body material*Mass (g)	Dimensions (mm)				
		Stainless steel	L	C	H(WAF)	T	øB
MC-10PM	Rc 1/8	8.1	26	9.2	Hex.11	R 1/8	2.5

Socket SM type (Male thread)



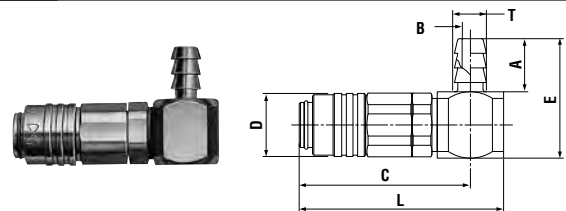
Model	Application	Body material*Mass (g)	Dimensions (mm)				
		Stainless steel	L	øD	T	H(WAF)	øB
MC-10SM	Rc 1/8	12.1	(30)	9.5	R 1/8	Hex.11	3

Plug PHL type (Hose barb)



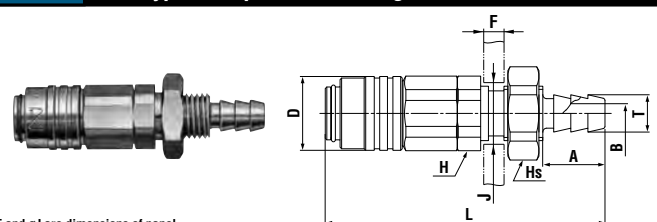
Model	Application (Tube)	Body material*Mass (g)	Dimensions (mm)						
		Stainless steel	L	C	A	B	E	øT	øBp
MC-04PHL	4 mm ID	9	(23.3)	9.2	8	(18.3)	18	4.8	2.5

Socket SHL type (Hose barb)



Model	Application (Tube)	Body material*Mass (g)	Dimensions (mm)						
		Stainless steel	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)								
		Stainless steel	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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