




For Low Pressure

# COMPACT CUPLA

Small multipurpose type for low pressure lines

<p>Working pressure</p>  <p>1.0 MPa {10 kgf/cm<sup>2</sup>}</p>	<p>Valve structure</p>  <p>Two-way shut-off</p>	<p>Applicable fluids</p>  <p>Air Water</p>
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Compact 17.5 mm outer diameter, yet socket and plug have built-in automatic shut-off valves.

- Both socket and plug have built-in automatic shut-off valves.
- Compact size with maximum outer diameter 17.5 mm.
- For small bore piping from temperature control piping to scientific equipment.
- Body materials in stainless steel (SUS304) or brass, excellent in corrosion resistance.
- Four types of end configuration enable suitability with a wide range of piping applications.




Specifications				
Body material	Brass, Stainless steel (SUS 304)			
Size	Thread	1/8"		
	Tube barb	Polyamide tube : $\phi 4 \times \phi 6$ , $\phi 6 \times \phi 8$ Polyolefin tube : $\phi 4 \times \phi 6$ , $\phi 6 \times \phi 8$ Fluorine contained resin tube : $\phi 4 \times \phi 6$ , $\phi 6 \times \phi 8$		
Pressure unit	MPa	kgf/cm <sup>2</sup>	bar	PSI
Working pressure	1.0	10	10	145
Seal material	Seal material	Mark	Working temperature range	Remarks
	Working temperature range	Fluoro rubber Ethylene-propylene rubber	FKM EPDM	-20°C to +180°C -40°C to +150°C Standard material Available on request

Note: Maximum working pressure and working temperature range of nut type depend on the tube material and its dimensional tolerance.

Maximum Tightening Torque		Nm {kgf·cm}	
Size (Thread)	1/8"	Tube barb	
Torque	Brass	5 {51}	5 {51}
	Stainless steel	9 {92}	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 <sup>2</sup> )			
Model	CO-1SM x CO-1PM	CO-1SF x CO-1PF	CO-40SN x CO-40PN	CO-60SN x CO-60PN
Minimum cross-sectional area	8.8	8.8	4.9	8.8

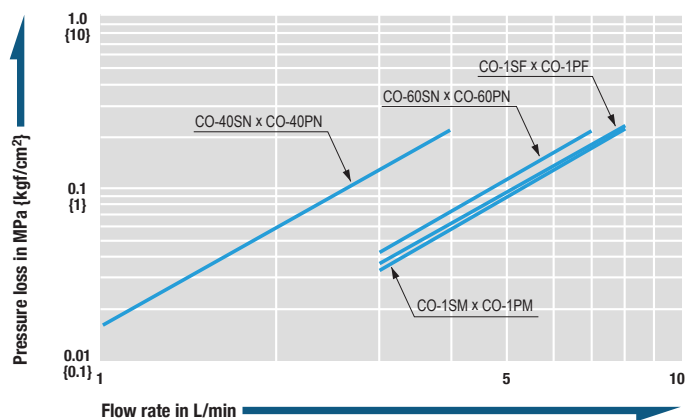
Suitability for Vacuum	1.3 x 10 <sup>-1</sup> Pa {1 x 10 <sup>-3</sup> mmHg}	
Socket only	Plug only	When connected
—	—	Operational

Admixture of Air on Connection	May vary depending upon the usage conditions. (mL)	
Volume of air admixture	0.34	

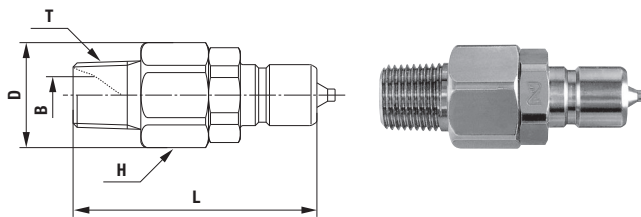
Volume of Spillage per Disconnection	May vary depending upon the usage conditions. (mL)	
Volume of spillage	0.23	

**Flow Rate – Pressure Loss Characteristics**

[Test conditions] • Fluid : Water • Temperature : 20°C±5°C

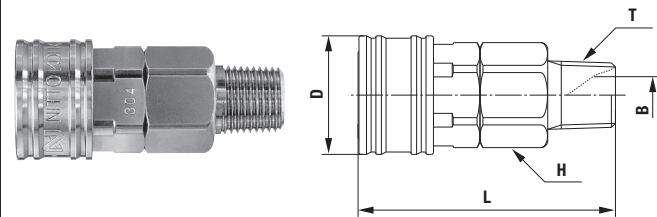


**Plug PM type (Male thread)**



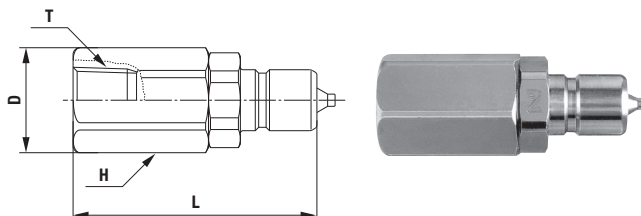
Model	Application (Thread)	Body material, Mass (g)		Dimensions (mm)				
		Brass	Stainless steel	L	øD	H (WAF)	T	øB
CO-1PM	Rc 1/8	20	19	(36)	15.5	Hex.14	R 1/8	5.5

**Socket SM type (Male thread)**



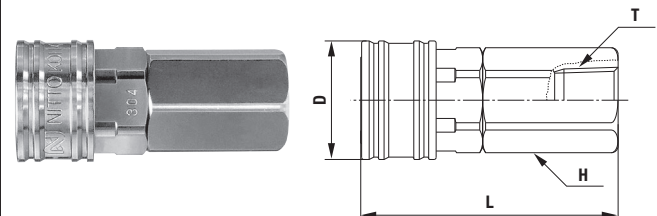
Model	Application (Thread)	Body material, Mass (g)		Dimensions (mm)				
		Brass	Stainless steel	L	øD	H (WAF)	T	øB
CO-1SM	Rc 1/8	34	32	(38)	17.5	Hex.14	R 1/8	5.5

**Plug PF type (Female thread)**



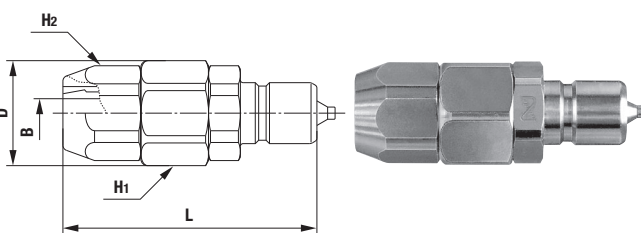
Model	Application (Thread)	Body material, Mass (g)		Dimensions (mm)			
		Brass	Stainless steel	L	øD	H (WAF)	T
CO-1PF	R 1/8	25	23	(36)	15.5	Hex.14	Rc 1/8

**Socket SF type (Female thread)**



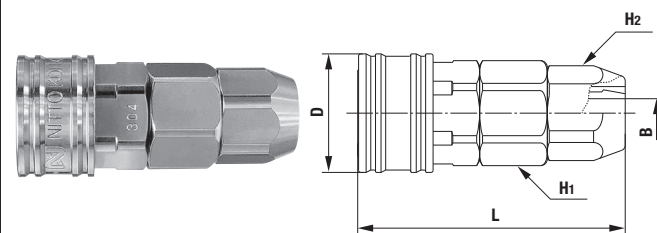
Model	Application (Thread)	Body material, Mass (g)		Dimensions (mm)			
		Brass	Stainless steel	L	øD	H (WAF)	T
CO-1SF	R 1/8	39	36	(38)	17.5	Hex.14	Rc 1/8

**Plug PN type (For connection to tube)**



Model	Application (Tube)	Body material, Mass (g)		Dimensions (mm)				
		Brass	Stainless steel	L	øD	H1 (WAF)	H2 (WAF)	øB
CO-40PN	ø4 x ø6	23	22	(38.5)	15.5	Hex.14	Hex.10	2.5
CO-60PN	ø6 x ø8	25	24	(37.5)	15.5	Hex.14	Hex.13	4.2

**Socket SN type (For connection to tube)**



Model	Application (Tube)	Body material, Mass (g)		Dimensions (mm)				
		Brass	Stainless steel	L	øD	H1 (WAF)	H2 (WAF)	øB
CO-40SN	ø4 x ø6	38	35	(40.5)	17.5	Hex.14	Hex.10	2.5
CO-60SN	ø6 x ø8	40	37	(39.5)	17.5	Hex.14	Hex.13	4.2

No difference in dimensions of brass and stainless steel CUPLA

**Application Example**

