

For Low Pressure

Compact Cupla

Small multipurpose type for low pressure lines

Working pressure



Valve structure



Applicable fluids



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 max. outer dia. 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 ²	bar	PSI
Working pressure	1.0	10	10	145
Seal material	Seal material	Mark	Working temperature range	Remarks
	Fluoro rubber	FKM	-20°C to +180°C	Standard material
Working temperature range	Ethylene-propylene rubber	EPDM	-40°C to +150°C	Available on request

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

Max. Tightening Torque

N m (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

Socket and plug of Compact Cupla can be connected regardless of end configurations.

Min. Cross-Sectional Area

(mm²)

Model	CO-1SM x CO-1PM	CO-1SF x CO-1PF	CO-40SN x CO-40PN	CO-60SN x CO-60PN
Min. cross-sectional area	8.8	8.8	4.9	8.8

Suitability for Vacuum

1.3 x 10⁻¹ Pa (1 x 10⁻³ 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
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Volume of Spillage per Disconnection

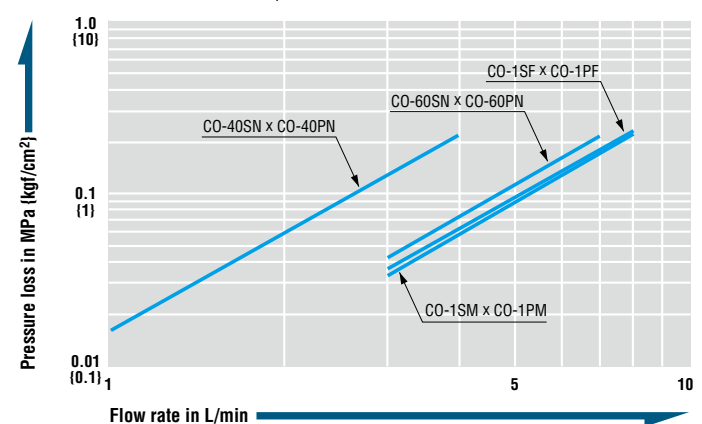
May vary depending upon the usage conditions.

(mL)

Volume of spillage	0.23
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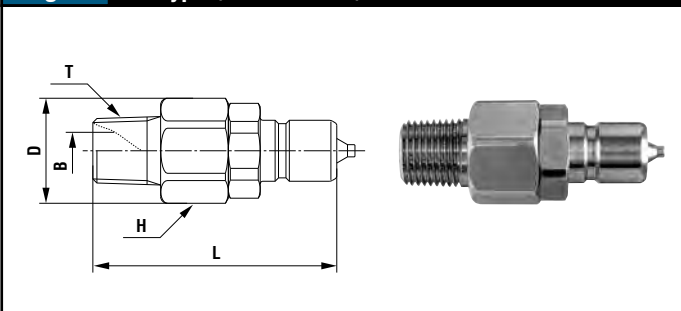
Flow Rate – Pressure Loss Characteristics

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



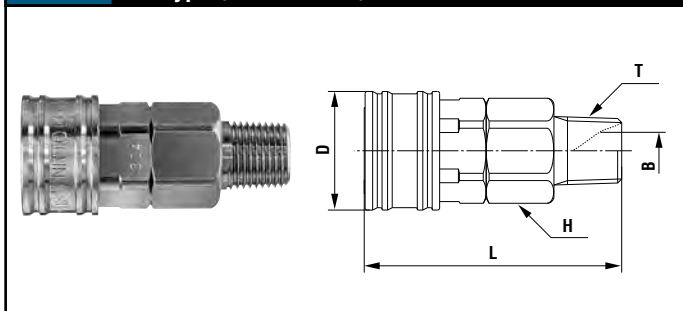
Models and Dimensions

Plug PM type (Male thread)



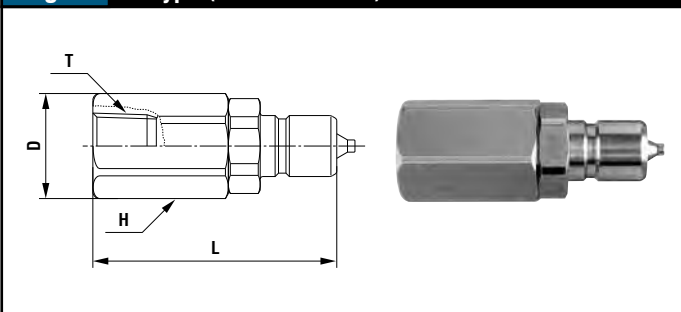
Model	Application	Body material, Mass (g)		Dimensions (mm)				
		Brass	Stainless steel	L	øD	H (WAF)	T	øB
CO-1PM	Rc 1/8	20	19	(36)	15.5	Hex.14	R 1/8	5.5

Socket SM type (Male thread)



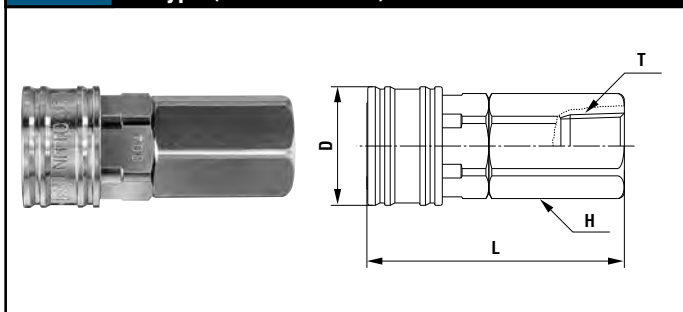
Model	Application	Body material, Mass (g)		Dimensions (mm)				
		Brass	Stainless steel	L	øD	H (WAF)	T	øB
CO-1SM	Rc 1/8	34	32	(38)	17.5	Hex.14	R 1/8	5.5

Plug PF type (Female thread)



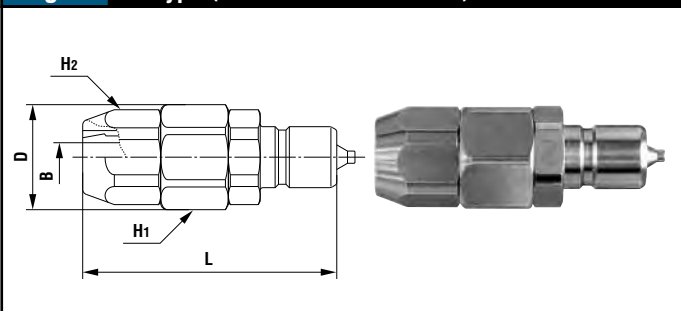
Model	Application	Body material, Mass (g)		Dimensions (mm)			
		Brass	Stainless steel	L	øD	H (WAF)	T
CO-1PF	R 1/8	25	23	(36)	15.5	Hex.14	Rc 1/8

Socket SF type (Female thread)



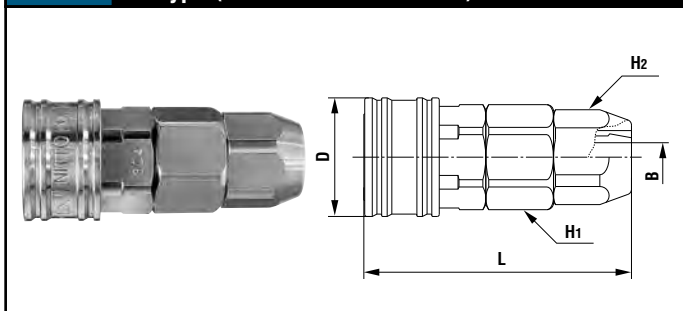
Model	Application	Body material, Mass (g)		Dimensions (mm)			
		Brass	Stainless steel	L	øD	H (WAF)	T
CO-1SF	R 1/8	39	36	(38)	17.5	Hex.14	Rc 1/8

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

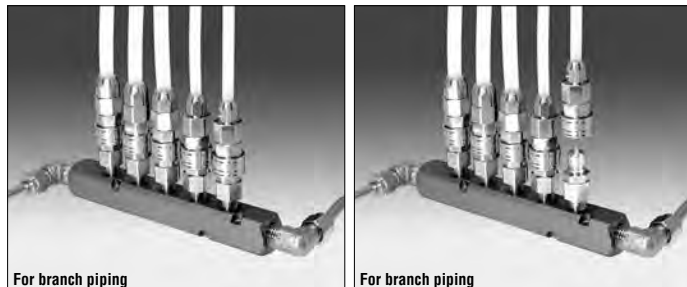
Socket SN type (For connection to tube)



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

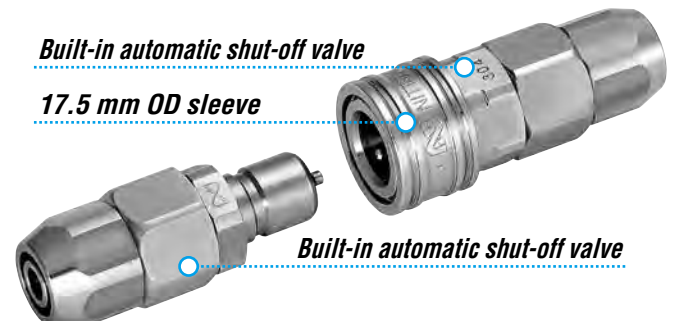
No difference in dimensions of brass and stainless steel Cupla

Application Example



For branch piping

For branch piping



Built-in automatic shut-off valve

17.5 mm OD sleeve

Built-in automatic shut-off valve