

For Low Pressure

Compact Cupla

Small multipurpose type for low pressure lines

Working pressure



1.0 MPa
(10 kgf/cm²)

Valve structure



Two-way shut-off

Applicable fluids



Air

Water

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 : ø4 x ø6, ø6 x ø8		
		Polyolefin tube : ø4 x ø6, ø6 x ø8		
Fluorine contained resin tube : ø4 x ø6, ø6 x ø8				
Working pressure	MPa	1.0		
	kgf/cm ²	10		
	bar	10		
	PSI	145		
Seal material	Seal material	Mark	Working temperature range	Remarks
Working temperature range	Fluoro rubber	FKM	-20°C to +180°C	Standard material
	Ethylene-propylene rubber	EPDM	-40°C to +150°C	Available on request

Note: Working pressure and working temperature 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 may flow in either direction from plug or from socket side when coupled.



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

Admixture of air may vary depending upon the usage conditions.

(mL)

Volume of air admixture	0.34
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Volume of Spillage per Disconnection

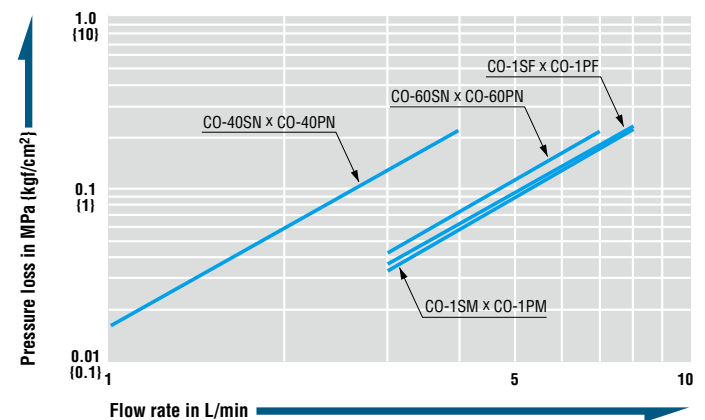
Volume of spillage may vary depending upon the usage conditions.

(mL)

Volume of spillage	0.23
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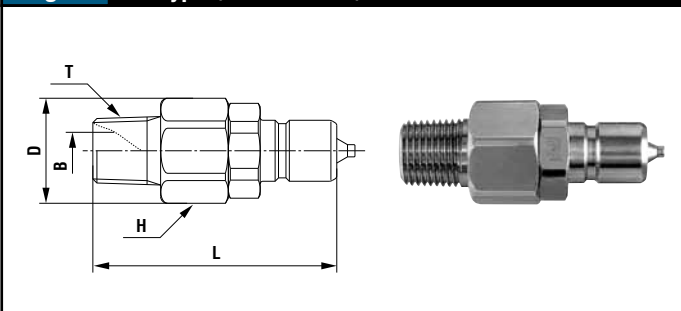
Flow Rate – Pressure Loss Characteristics

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



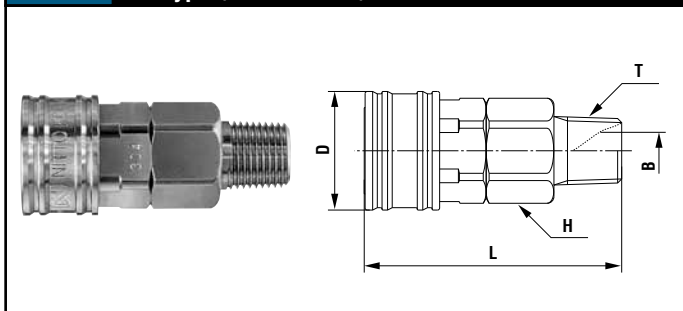
Models and Dimensions

Plug PM type (Male thread)



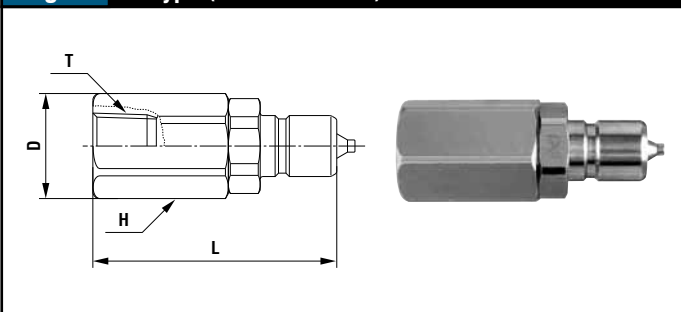
Model	Application	Body material, Mass (g)		Dimensions (mm)				
		Brass	Stainless steel	L	øD	H (WAF)	T	øB
CO-1PM	Rc 1/8	20	19	(36)	15.5	Hex.14	R 1/8	5.5

Socket SM type (Male thread)



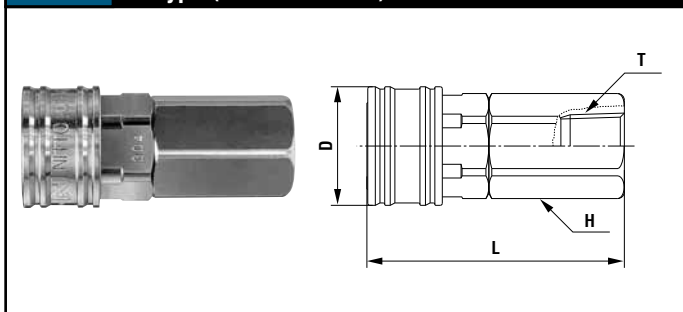
Model	Application	Body material, Mass (g)		Dimensions (mm)				
		Brass	Stainless steel	L	øD	H (WAF)	T	øB
CO-1SM	Rc 1/8	34	32	(38)	17.5	Hex.14	R 1/8	5.5

Plug PF type (Female thread)



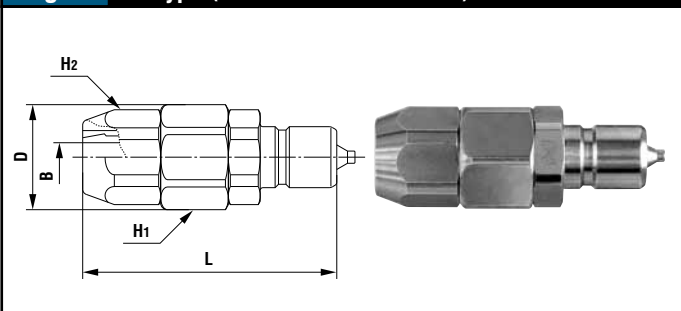
Model	Application	Body material, Mass (g)		Dimensions (mm)			
		Brass	Stainless steel	L	øD	H (WAF)	T
CO-1PF	R 1/8	25	23	(36)	15.5	Hex.14	Rc 1/8

Socket SF type (Female thread)



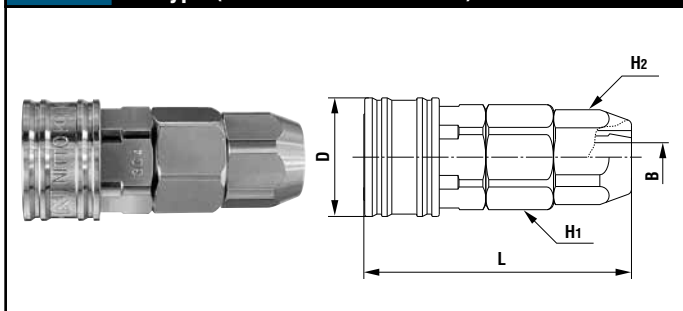
Model	Application	Body material, Mass (g)		Dimensions (mm)			
		Brass	Stainless steel	L	øD	H (WAF)	T
CO-1SF	R 1/8	39	36	(38)	17.5	Hex.14	Rc 1/8

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

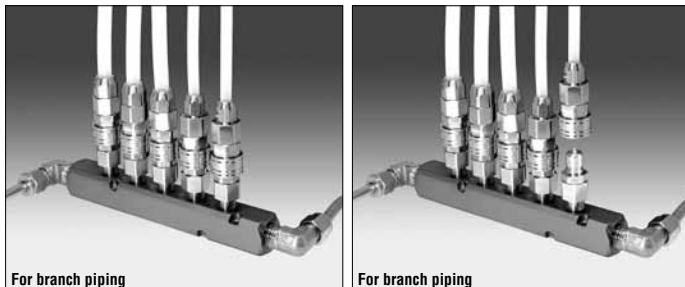
Socket SN type (For connection to tube)



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

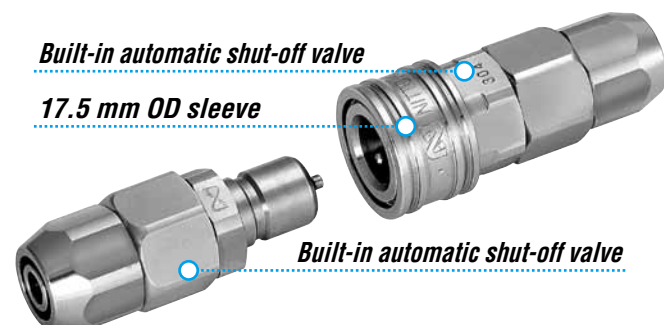
No difference in dimensions of brass and stainless steel Cupla
Before use, please be sure to read "Instruction Sheet" that comes with the products.

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