

High Flow Cupla BI Type

Cupla with ferrule flange for piping of water and fluids for temperature control

Working pressure
1.0
1.0 MPa
(10 kgf/cm²)

Valve structure
Two-way shut-off

Applicable fluids
Water
Cooling water

High flow Cupla and ferrule flange are combined to achieve efficient piping.

- Easy connection with stainless steel pipe.
- Connection to plastic hose is possible with optional hose connection kit.
- Connection to various tubes is also possible via the use of appropriate optional inserts.



Specifications

Body material	Stainless steel			
Applicable pipe size	1/4", 3/8", 1/2" (See the below list for hose and tube size.)			
Pressure unit	MPa	kgf/cm ²	bar	PSI
Working pressure	1.0	10	10	145
Seal material	Seal material	Mark	Working temperature range	Remarks
	Ethylene-propylene rubber	EPDM	-40°C to +150°C	Standard material
Working temperature range	Fluoro rubber	FKM	-20°C to +180°C	Made-to-order item

Flow Direction

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



Interchangeability

Different sizes are not connectable.

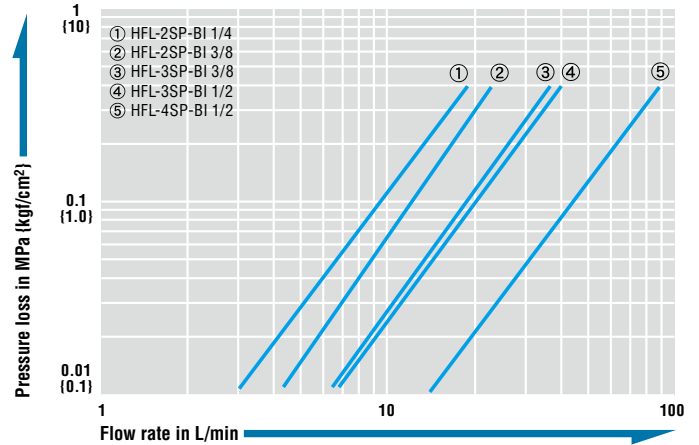
Suitability for Vacuum

1.3 x 10⁻¹ Pa (1 x 10⁻³ mmHg)

Socket only	Plug only	When connected
—	—	Operational

Flow Rate – Pressure Loss Characteristics (When connected to stainless steel pipe)

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



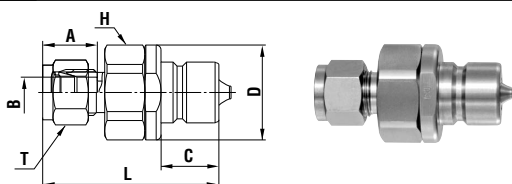
Stainless steel pipe, hose, and tube size

Model	Stainless steel pipe	Hose connection nut (Optional)	Tube connection insert (Optional)						
	Pipe dia. Inch (mm)	Model	Hose size (ID x OD)	Type of insert	Tube dimensions (ID x OD)	Insert dimensions (E, L, A, D)			
HFL-2SP-BI 1/4	1/4 (ø6.35)	—	—	DTI 4-2	ø3.18 x ø6.35	2.3	11.9	6.35	3.18
				DTI 4-2.5	ø3.97 x ø6.35	2.7	11.9	6.35	3.97
				DTI 4-2.75	ø4.32 x ø6.35	2.7	11.9	6.35	4.32
				DTI 4-3	ø4.76 x ø6.35	3.5	11.9	6.35	4.76
HFL-2SP-BI 3/8	3/8 (ø9.53)	—	—	DTI 6-3	ø4.76 x ø9.53	3.0	14.3	9.53	4.76
				DTI 6-4	ø6.35 x ø9.53	4.8	14.3	9.53	6.35
HFL-3SP-BI 3/8	3/8 (ø9.53)	—	—	DTI 6-3	ø4.76 x ø9.53	3.0	14.3	9.53	4.76
				DTI 6-4	ø6.35 x ø9.53	4.8	14.3	9.53	6.35
HFL-3SP-BI 1/2	1/2 (ø12.7)	E1-6 x 11	ø6 x ø11	DTI 8-4	ø6.35 x ø12.7	4.8	19.1	12.7	6.35
				DTI 8-6	ø9.53 x ø12.7	7.9	19.1	12.7	9.53
HFL-4SP-BI 1/2	1/2 (ø12.7)	E1-6 x 11	ø6 x ø11	DTI 8-4	ø6.35 x ø12.7	4.8	19.1	12.7	6.35
				DTI 8-6	ø9.53 x ø12.7	7.9	19.1	12.7	9.53

Note: The material of tube to be applied must be any of nylon, polyester, polypropylene, or Teflon. The nut for stainless steel pipe comes with standard High Flow Cupla. When a hose or tube is connected to the Cupla, an optional hose connection nut or tube connection insert is required.

Models and Dimensions

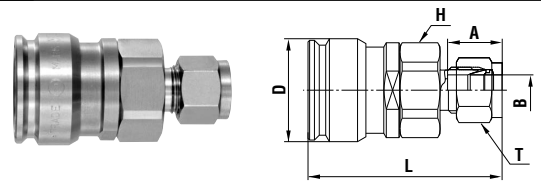
Plug For pipe connection



Model	Application (Pipe size) (mm)	Mass (g)	Dimensions (mm)						
			L	C	A	øD	øB	H(WAF)	T(WAF)
HFL-2P-BI 1/4	6.35 (1/4")	66	(51.9)	16.5	(15.4)	23	(6.35)	Hex.20.64 (13/16")	Hex.14.29 (9/16")
HFL-2P-BI 3/8	9.53 (3/8")	74	(53.4)	16.5	(17)	23	(9.53)	Hex.20.64 (13/16")	Hex.17.46 (11/16")
HFL-3P-BI 3/8	9.53 (3/8")	109	(54.8)	18	(17)	29.5	(9.53)	Hex.26.99 (1 1/16")	Hex.17.46 (11/16")
HFL-3P-BI 1/2	12.7 (1/2")	134	(59)	18	(23)	29.5	(12.7)	Hex.26.99 (1 1/16")	Hex.22.23 (7/8")
HFL-4P-BI 1/2	12.7 (1/2")	160	(68.7)	22.5	(23)	32	(12.7)	Hex.28.58 (1 1/8")	Hex.22.23 (7/8")

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

Socket For pipe connection



Model	Application (Pipe size) (mm)	Mass (g)	Dimensions (mm)						
			L	A	øD	øB	H(WAF)	T(WAF)	
HFL-2S-BI 1/4	6.35 (1/4")	97	(54.9)	(15.4)	26	(6.35)	Hex.20.64 (13/16")	Hex.14.29 (9/16")	
HFL-2S-BI 3/8	9.53 (3/8")	105	(56.5)	(17)	26	(9.53)	Hex.20.64 (13/16")	Hex.17.46 (11/16")	
HFL-3S-BI 3/8	9.53 (3/8")	165	(60.3)	(17)	32	(9.53)	Hex.26.99 (1 1/16")	Hex.17.46 (11/16")	
HFL-3S-BI 1/2	12.7 (1/2")	189	(64.6)	(23)	32	(12.7)	Hex.26.99 (1 1/16")	Hex.22.23 (7/8")	
HFL-4S-BI 1/2	12.7 (1/2")	233	(73.2)	(23)	35	(12.7)	Hex.28.58 (1 1/8")	Hex.22.23 (7/8")	