

For High Pressure

HSU CUPLA

Stainless steel CUPLA for high pressure up to 21.0 MPa {214 kgf/cm²}

Working pressure 21.0 MPa {214 kgf/cm ² }	Valve structure Two-way shut-off	Applicable fluids Water Hydraulic oil Gas
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The flow volume is increased by between 14 to 44% while at the same time the coupled length is reduced by at least 10% compared with the S210 CUPLA.

- Body material is excellent corrosion resistant stainless steel (SUS304). Suitable for use in tough / harsh environments such as offshore applications.
- Sleeve stopper mechanism can be engaged by rotating sleeve after connection.
- Despite having a stainless steel body, the working pressure, 21.0 MPa, of HSU CUPLA is comparable to that of special steel body CUPLA such as HSP CUPLA series.
- Both socket and plug have built-in automatic shut-off valves that prevent fluid outflow on disconnection.
- Hydrogenated nitrile rubber (HNBR) is used as a seal material for wide variety of liquids.



Specifications

Body material	Stainless steel (SUS304)			
Size (Thread)	1/4", 3/8", 1/2", 3/4", 1"			
Pressure unit	MPa	kgf/cm ²	bar	PSI
Working pressure	21.0	214	210	3050
Seal material	Seal material	Mark	Working temperature range	
Working temperature range	Hydrogenated nitrile rubber*	HNBR	-20°C to +120°C	

* The seal materials used in HSU CUPLA are not suitable for Freon gas.

Maximum Tightening Torque

Size (Thread)	1/4"	3/8"	1/2"	3/4"	1"
Torque	28 {286}	35 {357}	70 {714}	100 {1020}	180 {1836}

Flow Direction

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



Interchangeability

Socket and plug of different sizes cannot be connected.

Minimum Cross-Sectional Area

Model	HSU-2SP	HSU-3SP	HSU-4SP	HSU-6SP	HSU-8SP
Minimum cross-sectional area	27.1	48.2	84.2	143.6	221.2

Suitability for Vacuum

Socket only	Plug only	When connected
—	—	Operational

Admixture of Air on Connection

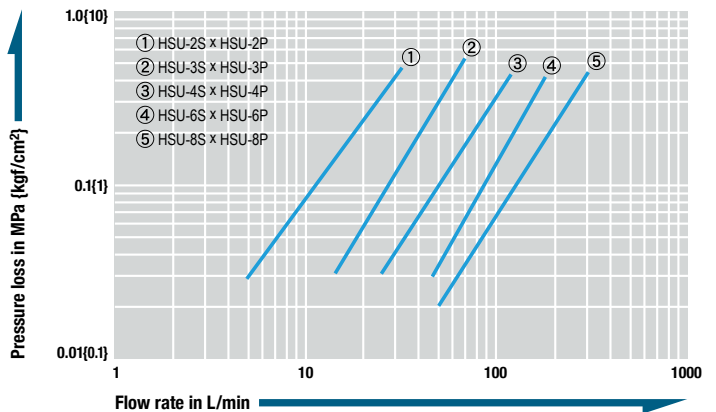
Model	HSU-2SP	HSU-3SP	HSU-4SP	HSU-6SP	HSU-8SP
Volume of air admixture	0.7	1.5	3.6	6.3	10.9

Volume of Spillage per Disconnection

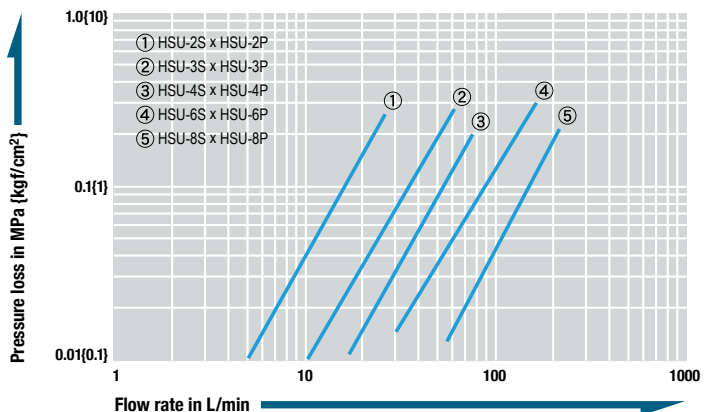
Model	HSU-2SP	HSU-3SP	HSU-4SP	HSU-6SP	HSU-8SP
Volume of spillage	0.6	1.7	3.0	6.8	11.2

Flow Rate – Pressure Loss Characteristics (Hydraulic oil / Water)

[Test conditions] • Fluid : Hydraulic oil • Temperature : 30°C to 32°C
• Fluid viscosity : 32 x 10⁻⁶ m²/s • Density : 0.87 x 10³ kg/m³

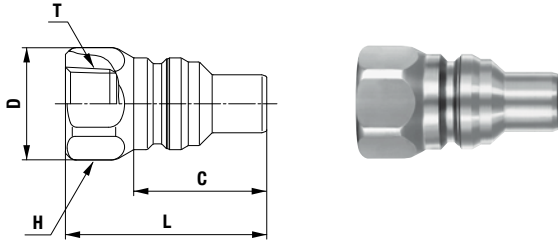


[Test conditions] • Fluid : Water • Temperature : 18°C



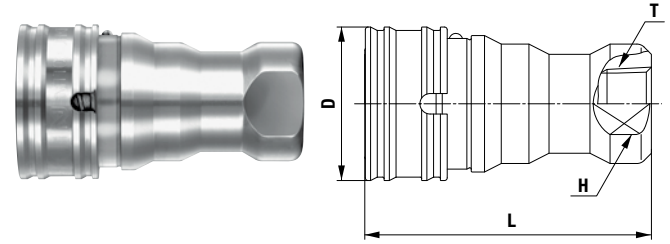
Models and Dimensions

Plug Female thread



Model	Application (Thread)	Mass (g)	Dimensions (mm)				
			L	C	øD	H (WAF)	T
HSU-2P	R 1/4	49	45.5	27.5	21	Hex.19	Rc 1/4
HSU-3P	R 3/8	86	51.5	32	26.5	Hex.24	Rc 3/8
HSU-4P	R 1/2	152	59	39	33	Hex.30	Rc 1/2
HSU-6P	R 3/4	295	74	51.5	42	Hex.38	Rc 3/4
HSU-8P	R 1	481	83	58	51	Hex.46	Rc 1

Socket Female thread

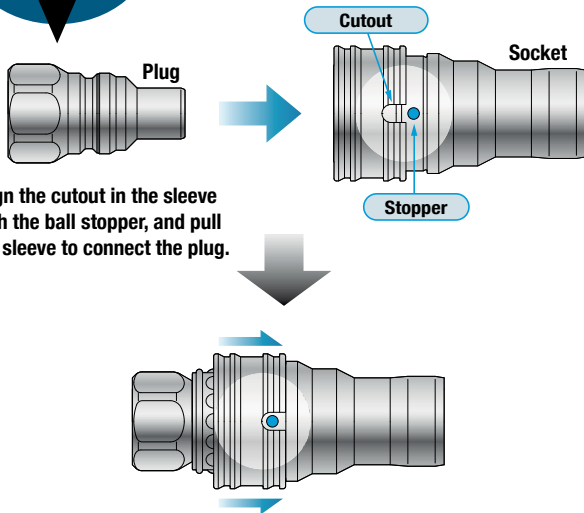


Model	Application (Thread)	Mass (g)	Dimensions (mm)			
			L	øD	H (WAF)	T
HSU-2S	R 1/4	142	63	28	19	Rc 1/4
HSU-3S	R 3/8	255	71.5	35	24	Rc 3/8
HSU-4S	R 1/2	479	84	45	30	Rc 1/2
HSU-6S	R 3/4	953	106	55	38	Rc 3/4
HSU-8S	R 1	1432	118	65	46	Rc 1

Sleeve Stopper Mechanism

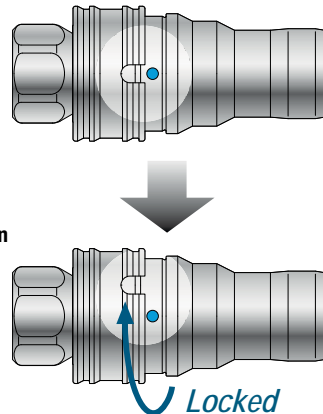
Easy to operate sleeve stopper mechanism enhances operator safety.

At connection



Align the cutout in the sleeve with the ball stopper, and pull the sleeve to connect the plug.

Locking the sleeve



Without alignment of the cutout with the ball stopper disconnection cannot be made.



Sleeve stopper mechanism can be engaged by rotating sleeve after connection.

Accidental disconnection is prevented.

The stopper is marked with blue for visual understanding.