

For High Pressure

HSU Cupla

Stainless steel Cupla for high pressure up to 21.0 MPa (214 kgf/cm²)

Working pressure

21.0

21.0 MPa
(214 kgf/cm²)

Valve structure



Two-way shut-off

Applicable fluids



Water



Hydraulic oil



Gas

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 Cuplas 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"		
Working pressure	MPa	21.0	
	kgf/cm ²	214	
	bar	210	
	PSI	3045.8	
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.

Max. Tightening Torque

N·m {kgf·cm}

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 may flow in either direction from plug or from socket side when coupled.



Interchangeability

Different size socket and plug cannot be connected to each other.

Min. Cross-Sectional Area

(mm²)

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

Suitability for Vacuum

1.3 × 10⁻¹ Pa {1 × 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)

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

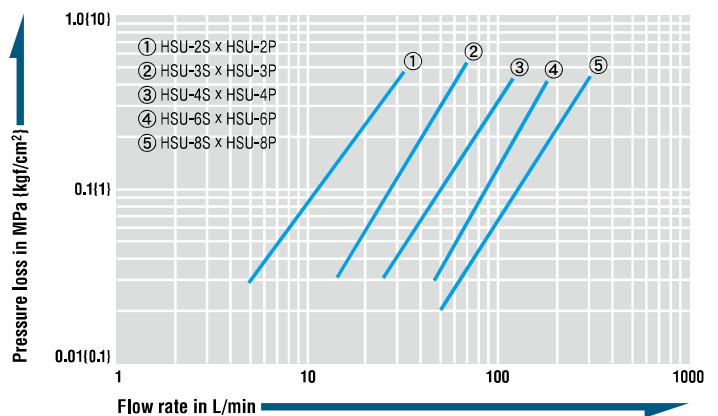
Volume of spillage may vary depending upon the usage conditions.

(mL)

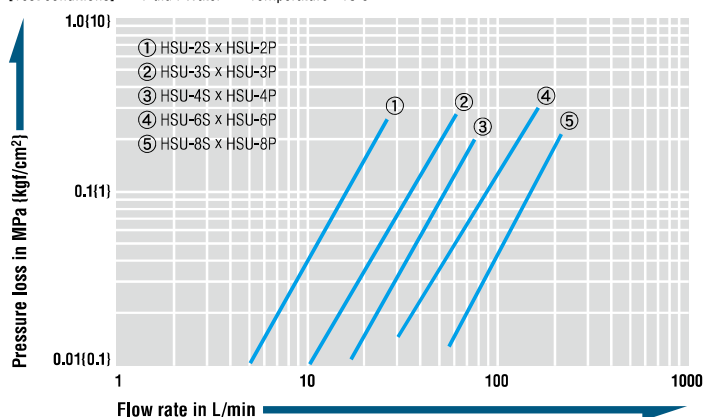
Model	HSU-2SP	HSU-3SP	HSU-4SP	HSU-6SP	HSU-8SP
Volume of spillage	0.6	1.7	3.0	6.8	11.2

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

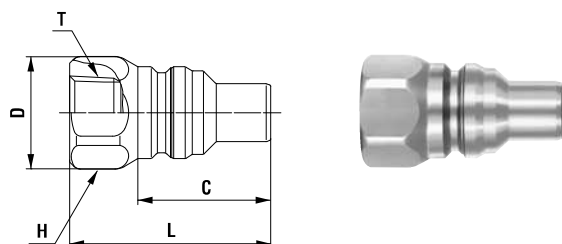
[Test conditions] • Fluid : Hydraulic oil • Temperature : 30°C to 32°C
• Fluid viscosity : 32 × 10⁻⁶ m²/s • Density : 0.87 × 10³ kg/m³



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

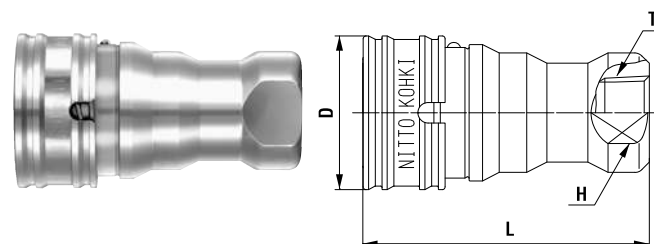


Plug Female thread



Model	Application	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

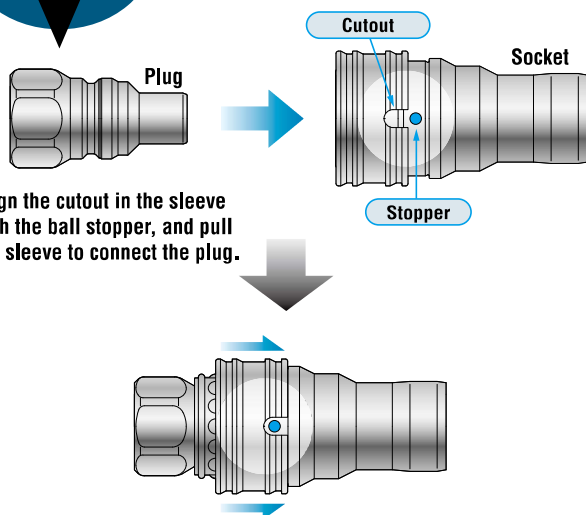


Model	Application	Mass (g)	Dimensions (mm)			
			L	øD	H (WAF)	T
HSU-2S	R 1/4	142	63	28	19	Rc 1/4
HSU-3S	R 3/8	255	71.5	35	24	Rc 3/8
HSU-4S	R 1/2	479	84	45	30	Rc 1/2
HSU-6S	R 3/4	953	106	55	38	Rc 3/4
HSU-8S	R 1	1432	118	65	46	Rc 1

Sleeve Stopper Mechanism

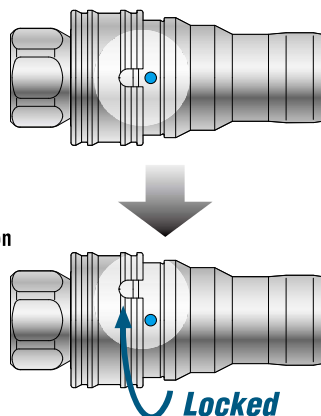
Easy to operate sleeve stopper mechanism enhances operator safety.

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.