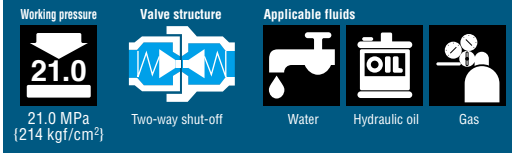
## For High Pressure

# HSU Cupla

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




## 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" | | | |
| Pressure unit | MPa | kgf/cm² | bar | PSI |
| Working pressure | 21.0 | 214 | 210 | 3050 |

| Seal material / Working temperature range | Seal material | Mark | 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 flow can be bi-directional when socket and plug are connected.

## 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 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)

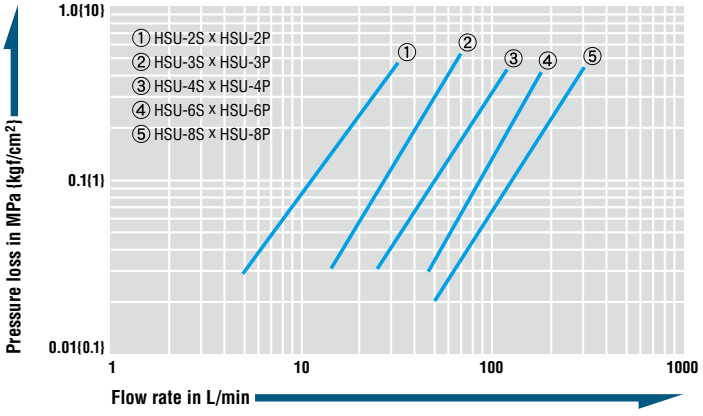
| Model | HSU-2SP | HSU-3SP | HSU-4SP | HSU-6SP | HSU-8SP |
|---|---|---|---|---|---|
| Volume of air admixture | 0.7 | 1.5 | 3.6 | 6.3 | 10.9 |

## Volume of Spillage per Disconnection May vary depending upon the usage conditions. (mL)

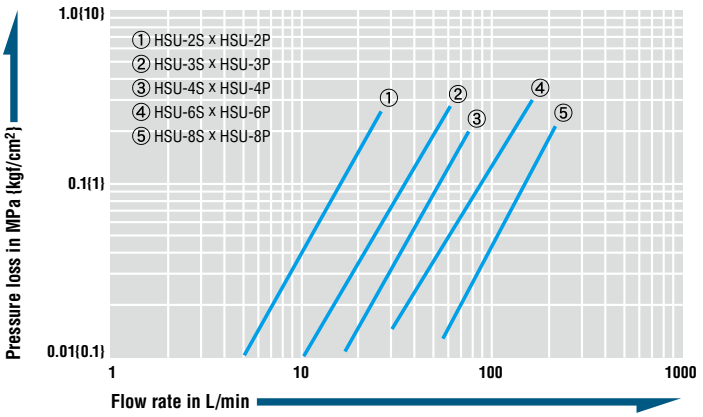
| Model | HSU-2SP | HSU-3SP | HSU-4SP | HSU-6SP | HSU-8SP |
|---|---|---|---|---|---|
| Volume of spillage | 0.6 | 1.7 | 3.0 | 6.8 | 11.2 |

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

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



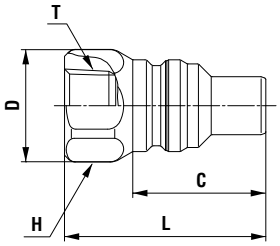

[Test conditions] •Fluid : Water •Temperature : 18°C



## Models and Dimensions

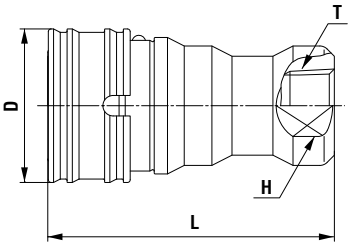
**WAF** : WAF stands for width across flats.

### 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

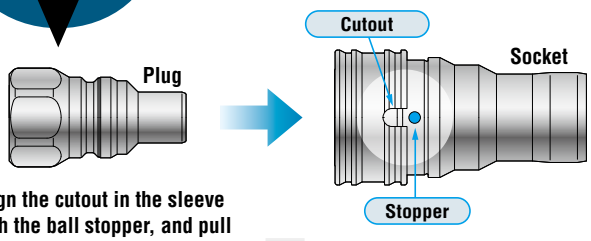



| Model | Application | Mass (g) | Dimensions (mm) | | | |
|---|---|---|---|---|---|---|
| | | | L | øD | H (WAF) | T |
| HSU-2S | R 1/4 | 142 | 63 | 28 | 19 | Rc 1/4 |
| HSU-3S | R 3/8 | 255 | 71.5 | 35 | 24 | Rc 3/8 |
| HSU-4S | R 1/2 | 479 | 84 | 45 | 30 | Rc 1/2 |
| HSU-6S | R 3/4 | 953 | 106 | 55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

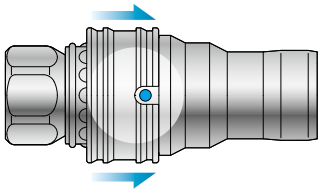
## Sleeve Stopper Mechanism

### Easy to operate sleeve stopper mechanism enhances operator safety.

**At connection**

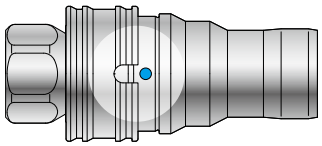



Align the cutout in the sleeve with the ball stopper, and pull the sleeve to connect the plug.

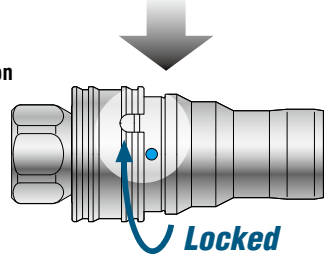



Sleeve stopper mechanism can be engaged by rotating sleeve after connection.

**Locking the sleeve**



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




**Accidental disconnection is prevented.**

The stopper is marked with blue for visual understanding.