

For High Pressure

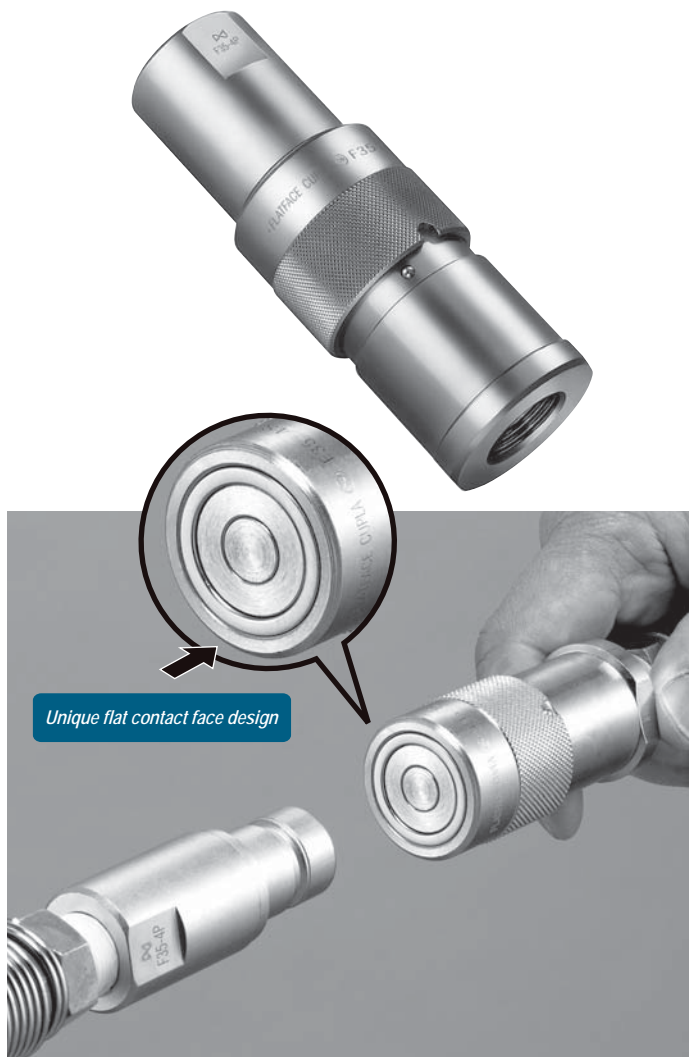
# FLATFACE CUPLA F35

For hydraulic pressures up to 35.0 MPa {357 kgf/cm<sup>2</sup>} with flat contact face

|   |  |                                       |
|---|--|---------------------------------------|
| Working pressure<br><b>35.0</b><br>35.0 MPa<br>(357 kgf/cm <sup>2</sup> ) | Valve structure<br><br>Two-way shut-off<br>(Spill Reduction) | Applicable fluid<br><br>Hydraulic oil |
|---|--|---------------------------------------|

## Flat contact face design reduces spill upon disconnection.

- Flat contact face design makes it easy to clean dust and foreign matter adhered on the surface of coupling so as to prevent them from entering inside and thus causing faulty operation of connection or disconnection.
- Flat contact face design minimizes air admixture during connection to keep the possible malfunction of equipment caused by the air bubbles in the hydraulic line at minimum level.
- Push-to-connect operation.
- Separation prevention mechanism is easily locked by turning the sleeve after connection. It prevents accidental disconnection even when vibration or impact is applied to CUPLA.
- The special design reduces pressure loss considerably, and especially suited to hydraulic applications in which big flow is needed. Both socket and plug have built-in automatic shut-off valves that prevent fluid spill out on disconnection.



### Specifications

|                              |                               |                     |                           |                   |
|------------------------------|-------------------------------|---------------------|---------------------------|-------------------|
| Body material                | Special steel (Nickel plated) |                     |                           |                   |
| Size (Thread)                | 1/4", 3/8", 1/2", 3/4", 1"    |                     |                           |                   |
| Pressure unit                | MPa                           | kgf/cm <sup>2</sup> | bar                       | PSI               |
| Working pressure             | 35.0                          | 357                 | 350                       | 5080              |
| Seal material                | Seal material                 | Mark                | Working temperature range | Remarks           |
| Working temperature range *1 | Fluoro rubber                 | FKM                 | -20°C to +180°C           | Standard material |

\*1: The operable temperature range depends on the operating conditions.

### Maximum Tightening Torque

| Size (Thread) | 1/4"     | 3/8"     | 1/2"     | 3/4"       | 1"         |
|---------------|----------|----------|----------|------------|------------|
| Torque        | 28 (286) | 40 (408) | 80 (816) | 150 (1530) | 250 (2550) |

### 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                        | F35-2SP | F35-3SP | F35-4SP | F35-6SP | F35-8SP |
|------------------------------|---------|---------|---------|---------|---------|
| Minimum cross-sectional area | 21.2    | 32.2    | 78.5    | 149.6   | 227.0   |

### Suitability for Vacuum

Not suitable for vacuum application in either connected or disconnected condition.

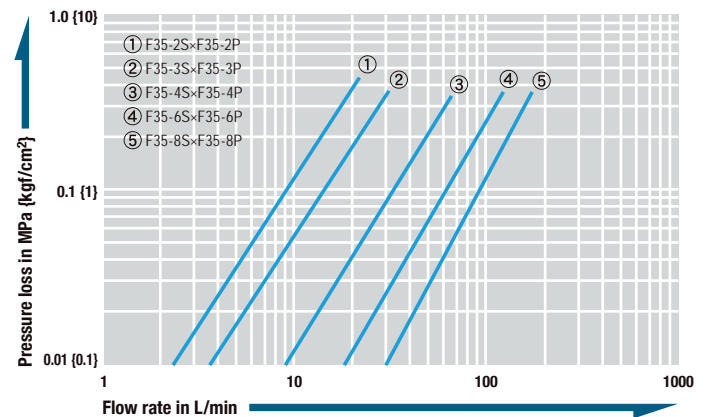
### Admixture of Air on Connection

May vary depending upon the usage conditions.

| Model         | F35-2SP | F35-3SP | F35-4SP | F35-6SP | F35-8SP |
|---------------|---------|---------|---------|---------|---------|
| Volume of air | 0.1     | 0.1     | 0.2     | 0.3     | 0.4     |

### Flow Rate – Pressure Loss Characteristics

[Test conditions] - Fluid : Hydraulic oil - Temperature : 30°C±5°C  
- Fluid viscosity : 32×10<sup>-6</sup> m<sup>2</sup>/s - Density : 0.87×10<sup>3</sup> kg/m<sup>3</sup>

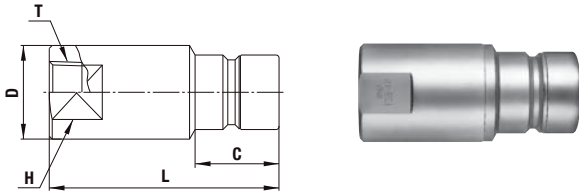


### ⚠ Precautions for use

Do not connect / disconnect CUPLA when pressure is applied or remaining.

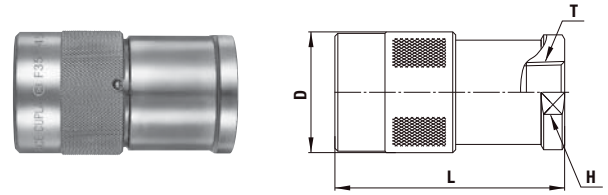
Models and Dimensions

**Plug** Female thread



| Model  | Application (Thread) | Mass (g) | Dimensions (mm) |      |      |        |        |
|--------|----------------------|----------|-----------------|------|------|--------|--------|
|        |                      |          | L               | C    | øD   | H(WAF) | T      |
| F35-2P | R 1/4                | 106      | 58              | 18.8 | 21.5 | 19     | Rc 1/4 |
| F35-3P | R 3/8                | 190      | 67.5            | 24   | 27   | 24     | Rc 3/8 |
| F35-4P | R 1/2                | 290      | 78              | 28.5 | 31.7 | 27     | Rc 1/2 |
| F35-6P | R 3/4                | 460      | 84.5            | 31   | 40   | 36     | Rc 3/4 |
| F35-8P | R 1                  | 1000     | 108             | 39   | 50   | 46     | Rc 1   |

**Socket** Female thread



| Model  | Application (Thread) | Mass (g) | Dimensions (mm) |      |          |        |
|--------|----------------------|----------|-----------------|------|----------|--------|
|        |                      |          | L               | øD   | H(WAF)   | T      |
| F35-2S | R 1/4                | 182      | (57.5)          | (28) | 26×ø28.5 | Rc 1/4 |
| F35-3S | R 3/8                | 320      | (70)            | (34) | 30       | Rc 3/8 |
| F35-4S | R 1/2                | 490      | (78)            | (41) | 36       | Rc 1/2 |
| F35-6S | R 3/4                | 815      | (85)            | (49) | 46×ø50   | Rc 3/4 |
| F35-8S | R 1                  | 1520     | (104)           | (63) | 55       | Rc 1   |

Application Example



Snow plow