

For Low Pressure

CUBE CUPLA

Small and lightweight coupling for air supply lines.

Working pressure

1.0 MPa
(10 kgf/cm²)

Valve structure

Two-way shut-off

One-way shut-off

Straight through

Applicable fluids

Air

Water

Both socket and plug have built-in valve types and valveless types. Simple one action for connection or disconnection. Lightweight plastic coupling.

- In all five color variations to prevent piping mistakes.
- Ultra-lightweight, made of polyacetal resin. Compact design for space saving.
- Just push plug into socket for connection. Simply press the button on the socket for disconnection.
- Two-way shut-off type with valve on both sides and straight through type with low pressure loss are available.
- L type plug ideal for piping in narrow spaces are available.
- Socket and plug cannot be disconnected unless two buttons on the socket are pressed simultaneously.

NEW

L type plug *Newly added*

Choose from 5 colors

Blue
Yellow
Pink
Green
Ivory

See page 3 for the colors

Push the buttons for quick disconnection

Push button for disconnection

Simple operation to push the buttons on the socket.

| Specifications | | | | |
|---------------------------|-----------------------------|---------------------|---------------------------|---------|
| Body material | Polyacetal resin (POM) | | | |
| Size | 4 mm and 6 mm ID tube, 1/8" | | | |
| Pressure unit | MPa | kgf/cm ² | bar | PSI |
| Working pressure | 1.0 | 10 | 10 | 145 |
| Seal material | Nitrile rubber | NBR (SG) | Working temperature range | Remarks |
| Working temperature range | -20°C to +60°C | | Standard material | |

| Tightening Torque Range | | Nm (kgf·cm) |
|-------------------------|------------------------|-------------|
| Size (Thread) | R 1/8 | |
| Torque | 0.9 to 1.1 {9.2 to 11} | |

Flow Direction

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

Interchangeability

Sockets and plugs can be connected regardless of end configurations. *Do not use in the combination of valved sockets and valveless plugs. The valve in the socket will not open and the fluid will not flow.

| Connection capability | | Plug | |
|-----------------------|---------|----------------------|----------------------|
| | | With | Without |
| Socket | With | Two-way shut-off | Not connectable |
| | Without | One-way shut-off | Straight through |

Note: When disconnected, the fluid from the valveless side will flow out. Take care if the fluid is water.

| Minimum Cross-Sectional Area (-VL means Valve less type) (mm ²) | | | | | | |
|---|----------|----------|----------|-------------|-------------|-------------|
| Model Plug / Socket | SPC-04SH | SPC-06SH | SPC-10SM | SPC-04SH-VL | SPC-06SH-VL | SPC-10SM-VL |
| SPC-04PH/PHB/PHL | 5 | 5 | 5 | 5 | 5 | 5 |
| SPC-06PH/PHB/PHL | 5 | 8.6 | 8.6 | 5 | 8.6 | 8.6 |
| SPC-10PM | 5 | 8.6 | 8.6 | 5 | 8.6 | 8.6 |
| SPC-04PH-VL/PHB-VL/PHL-VL | - | - | - | 5 | 5 | 5 |
| SPC-06PH-VL/PHB-VL | - | - | - | 5 | 10.2 | 10.2 |
| SPC-06PHL-VL | - | - | - | 5 | 10.2 | 12.6 |
| SPC-10PM-VL | - | - | - | 5 | 10.2 | 16.6 |

| Suitability for Vacuum | | | 53.0 kPa {400 mmHg} |
|------------------------|-----------|----------------|---------------------|
| Socket only | Plug only | When connected | |
| - | - | Operational | |

| Admixture of Air on Connection | | (mL) |
|--------------------------------|---------------------------------|------|
| Volume of air admixture | 0.60 (Built-in valve type only) | |

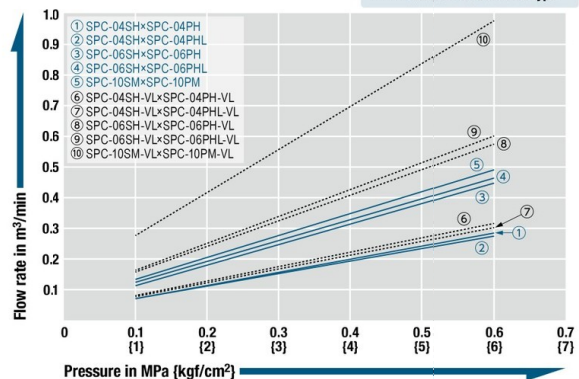
| Volume of Spillage per Disconnection | | (mL) |
|--------------------------------------|---------------------------------|------|
| Volume of spillage | 0.51 (Built-in valve type only) | |

Pressure - Flow Characteristics

(The fluid flow will not differ by body color)

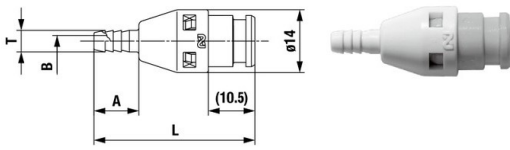
[Test conditions] *Fluid : Air *Temperature : Room temperature

— Solid line: Built-in valve type
..... Dotted line: Valveless type



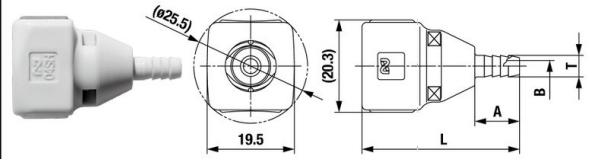
Models and Dimensions

Plug PH type (Hose barb)



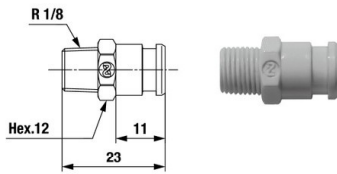
| Color | Model | Application (Tube) | Built-in valve | Mass (g) | Dimensions (mm) | | | |
|--------|-----------------|--------------------|----------------|----------|-----------------|----|-----|-----|
| | | | | | L | A | øT | øB |
| Ivory | SPC-04PH-IVR | 4 mm ID | With | 3.1 | (36) | 10 | 4.8 | 2.5 |
| | SPC-04PH-VL-IVR | 4 mm ID | Without | 2.6 | (36) | 10 | 4.8 | 2.5 |
| | SPC-06PH-IVR | 6 mm ID | With | 3.4 | (40) | 15 | 7 | 3.6 |
| | SPC-06PH-VL-IVR | 6 mm ID | Without | 2.9 | (40) | 15 | 7 | 3.6 |
| Blue | SPC-04PH-BLU | 4 mm ID | With | 3.1 | (36) | 10 | 4.8 | 2.5 |
| | SPC-04PH-VL-BLU | 4 mm ID | Without | 2.6 | (36) | 10 | 4.8 | 2.5 |
| | SPC-06PH-BLU | 6 mm ID | With | 3.4 | (40) | 15 | 7 | 3.6 |
| | SPC-06PH-VL-BLU | 6 mm ID | Without | 2.9 | (40) | 15 | 7 | 3.6 |
| Yellow | SPC-04PH-YEL | 4 mm ID | With | 3.1 | (36) | 10 | 4.8 | 2.5 |
| | SPC-04PH-VL-YEL | 4 mm ID | Without | 2.6 | (36) | 10 | 4.8 | 2.5 |
| | SPC-06PH-YEL | 6 mm ID | With | 3.4 | (40) | 15 | 7 | 3.6 |
| | SPC-06PH-VL-YEL | 6 mm ID | Without | 2.9 | (40) | 15 | 7 | 3.6 |
| Pink | SPC-04PH-PNK | 4 mm ID | With | 3.1 | (36) | 10 | 4.8 | 2.5 |
| | SPC-04PH-VL-PNK | 4 mm ID | Without | 2.6 | (36) | 10 | 4.8 | 2.5 |
| | SPC-06PH-PNK | 6 mm ID | With | 3.4 | (40) | 15 | 7 | 3.6 |
| | SPC-06PH-VL-PNK | 6 mm ID | Without | 2.9 | (40) | 15 | 7 | 3.6 |
| Green | SPC-04PH-GRN | 4 mm ID | With | 3.1 | (36) | 10 | 4.8 | 2.5 |
| | SPC-04PH-VL-GRN | 4 mm ID | Without | 2.6 | (36) | 10 | 4.8 | 2.5 |
| | SPC-06PH-GRN | 6 mm ID | With | 3.4 | (40) | 15 | 7 | 3.6 |
| | SPC-06PH-VL-GRN | 6 mm ID | Without | 2.9 | (40) | 15 | 7 | 3.6 |

Socket SH type (Hose barb)



| Color | Model | Application (Tube) | Built-in valve | Mass (g) | Dimensions (mm) | | | |
|--------|-----------------|--------------------|----------------|----------|-----------------|----|-----|-----|
| | | | | | L | A | øT | øB |
| Ivory | SPC-04SH-IVR | 4 mm ID | With | 6.5 | 35 | 10 | 4.8 | 2.5 |
| | SPC-04SH-VL-IVR | 4 mm ID | Without | 6.1 | 35 | 10 | 4.8 | 2.5 |
| | SPC-06SH-IVR | 6 mm ID | With | 7.0 | 40 | 15 | 7 | 3.6 |
| | SPC-06SH-VL-IVR | 6 mm ID | Without | 6.6 | 40 | 15 | 7 | 3.6 |
| Blue | SPC-04SH-BLU | 4 mm ID | With | 6.5 | 35 | 10 | 4.8 | 2.5 |
| | SPC-04SH-VL-BLU | 4 mm ID | Without | 6.1 | 35 | 10 | 4.8 | 2.5 |
| | SPC-06SH-BLU | 6 mm ID | With | 7.0 | 40 | 15 | 7 | 3.6 |
| | SPC-06SH-VL-BLU | 6 mm ID | Without | 6.6 | 40 | 15 | 7 | 3.6 |
| Yellow | SPC-04SH-YEL | 4 mm ID | With | 6.5 | 35 | 10 | 4.8 | 2.5 |
| | SPC-04SH-VL-YEL | 4 mm ID | Without | 6.1 | 35 | 10 | 4.8 | 2.5 |
| | SPC-06SH-YEL | 6 mm ID | With | 7.0 | 40 | 15 | 7 | 3.6 |
| | SPC-06SH-VL-YEL | 6 mm ID | Without | 6.6 | 40 | 15 | 7 | 3.6 |
| Pink | SPC-04SH-PNK | 4 mm ID | With | 6.5 | 35 | 10 | 4.8 | 2.5 |
| | SPC-04SH-VL-PNK | 4 mm ID | Without | 6.1 | 35 | 10 | 4.8 | 2.5 |
| | SPC-06SH-PNK | 6 mm ID | With | 7.0 | 40 | 15 | 7 | 3.6 |
| | SPC-06SH-VL-PNK | 6 mm ID | Without | 6.6 | 40 | 15 | 7 | 3.6 |
| Green | SPC-04SH-GRN | 4 mm ID | With | 6.5 | 35 | 10 | 4.8 | 2.5 |
| | SPC-04SH-VL-GRN | 4 mm ID | Without | 6.1 | 35 | 10 | 4.8 | 2.5 |
| | SPC-06SH-GRN | 6 mm ID | With | 7.0 | 40 | 15 | 7 | 3.6 |
| | SPC-06SH-VL-GRN | 6 mm ID | Without | 6.6 | 40 | 15 | 7 | 3.6 |

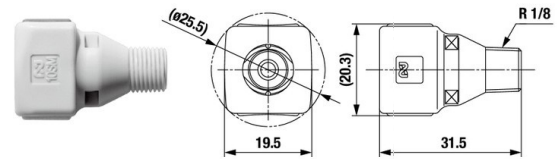
Plug PM type (Male thread)



Dimensions (mm)

| Color | Model | Application (Thread) | Built-in valve | Mass (g) |
|--------|-----------------|----------------------|----------------|----------|
| Ivory | SPC-10PM-IVR | Rc 1/8 | With | 2.0 |
| | SPC-10PM-VL-IVR | Rc 1/8 | Without | 1.5 |
| Blue | SPC-10PM-BLU | Rc 1/8 | With | 2.0 |
| | SPC-10PM-VL-BLU | Rc 1/8 | Without | 1.5 |
| Yellow | SPC-10PM-YEL | Rc 1/8 | With | 2.0 |
| | SPC-10PM-VL-YEL | Rc 1/8 | Without | 1.5 |
| Pink | SPC-10PM-PNK | Rc 1/8 | With | 2.0 |
| | SPC-10PM-VL-PNK | Rc 1/8 | Without | 1.5 |
| Green | SPC-10PM-GRN | Rc 1/8 | With | 2.0 |
| | SPC-10PM-VL-GRN | Rc 1/8 | Without | 1.5 |

Socket SM type (Male thread)



Dimensions (mm)

| Color | Model | Application (Thread) | Built-in valve | Mass (g) |
|--------|-----------------|----------------------|----------------|----------|
| Ivory | SPC-10SM-IVR | Rc 1/8 | With | 6.8 |
| | SPC-10SM-VL-IVR | Rc 1/8 | Without | 6.4 |
| Blue | SPC-10SM-BLU | Rc 1/8 | With | 6.8 |
| | SPC-10SM-VL-BLU | Rc 1/8 | Without | 6.4 |
| Yellow | SPC-10SM-YEL | Rc 1/8 | With | 6.8 |
| | SPC-10SM-VL-YEL | Rc 1/8 | Without | 6.4 |
| Pink | SPC-10SM-PNK | Rc 1/8 | With | 6.8 |
| | SPC-10SM-VL-PNK | Rc 1/8 | Without | 6.4 |
| Green | SPC-10SM-GRN | Rc 1/8 | With | 6.8 |
| | SPC-10SM-VL-GRN | Rc 1/8 | Without | 6.4 |

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

Models and Dimensions

| Plug | | PHB Type (For panel mount) | | | | | | | | | | | |
|--------|------------------|---|----------------|----------|-----------------|----|-----|-----|--------------|-----------------------------------|--|--|--|
| | | <p>J: The diameter of the mount hole. F: Thickness of panel must be 5 mm or less.</p> | | | | | | | | | | | |
| Color | Model | Application (Tube) | Built-in valve | Mass (g) | Dimensions (mm) | | | | | | | | |
| | | | | | L | A | øT | øB | F | øJ | | | |
| Ivory | SPC-04PHB-IVR | 4 mm ID | With | 5.9 | (40) | 10 | 4.8 | 2.5 | 5 mm or less | 11.1 ^{+0.3} ₀ | | | |
| | SPC-04PHB-VL-IVR | 4 mm ID | Without | 5.4 | (40) | 10 | 4.8 | 2.5 | 5 mm or less | 11.1 ^{+0.3} ₀ | | | |
| | SPC-06PHB-IVR | 6 mm ID | With | 6.2 | (45) | 15 | 7 | 3.6 | 5 mm or less | 11.1 ^{+0.3} ₀ | | | |
| Blue | SPC-04PHB-BLU | 4 mm ID | With | 5.9 | (40) | 10 | 4.8 | 2.5 | 5 mm or less | 11.1 ^{+0.3} ₀ | | | |
| | SPC-04PHB-VL-BLU | 4 mm ID | Without | 5.4 | (40) | 10 | 4.8 | 2.5 | 5 mm or less | 11.1 ^{+0.3} ₀ | | | |
| | SPC-06PHB-BLU | 6 mm ID | With | 6.2 | (45) | 15 | 7 | 3.6 | 5 mm or less | 11.1 ^{+0.3} ₀ | | | |
| Yellow | SPC-04PHB-YEL | 4 mm ID | With | 5.9 | (40) | 10 | 4.8 | 2.5 | 5 mm or less | 11.1 ^{+0.3} ₀ | | | |
| | SPC-04PHB-VL-YEL | 4 mm ID | Without | 5.4 | (40) | 10 | 4.8 | 2.5 | 5 mm or less | 11.1 ^{+0.3} ₀ | | | |
| | SPC-06PHB-YEL | 6 mm ID | With | 6.2 | (45) | 15 | 7 | 3.6 | 5 mm or less | 11.1 ^{+0.3} ₀ | | | |
| Pink | SPC-04PHB-PNK | 4 mm ID | With | 5.9 | (40) | 10 | 4.8 | 2.5 | 5 mm or less | 11.1 ^{+0.3} ₀ | | | |
| | SPC-04PHB-VL-PNK | 4 mm ID | Without | 5.4 | (40) | 10 | 4.8 | 2.5 | 5 mm or less | 11.1 ^{+0.3} ₀ | | | |
| | SPC-06PHB-PNK | 6 mm ID | With | 6.2 | (45) | 15 | 7 | 3.6 | 5 mm or less | 11.1 ^{+0.3} ₀ | | | |
| Green | SPC-04PHB-GRN | 4 mm ID | With | 5.9 | (40) | 10 | 4.8 | 2.5 | 5 mm or less | 11.1 ^{+0.3} ₀ | | | |
| | SPC-04PHB-VL-GRN | 4 mm ID | Without | 5.4 | (40) | 10 | 4.8 | 2.5 | 5 mm or less | 11.1 ^{+0.3} ₀ | | | |
| | SPC-06PHB-GRN | 6 mm ID | With | 6.2 | (45) | 15 | 7 | 3.6 | 5 mm or less | 11.1 ^{+0.3} ₀ | | | |

| Plug | | PHL Type (Hose barb) | | | | | | | | | | | |
|--------|------------------|----------------------|----------------|----------|-----------------|--------|------|------|-----|-----|--|--|--|
| | | | | | | | | | | | | | |
| Color | Model | Application (Tube) | Built-in valve | Mass (g) | Dimensions (mm) | | | | | | | | |
| | | | | | L | P | A | E | øT | øB | | | |
| Ivory | SPC-04PHL-IVR | 4 mm ID | With | 3.5 | (29) | (24.5) | 10.5 | 23.5 | 4.8 | 2.5 | | | |
| | SPC-04PHL-VL-IVR | 4 mm ID | Without | 3 | (29) | (24.5) | 10.5 | 23.5 | 4.8 | 2.5 | | | |
| | SPC-06PHL-IVR | 6 mm ID | With | 3.9 | (30.5) | (25.5) | 15.5 | 28.5 | 7 | 4 | | | |
| Blue | SPC-04PHL-BLU | 4 mm ID | With | 3.5 | (29) | (24.5) | 10.5 | 23.5 | 4.8 | 2.5 | | | |
| | SPC-04PHL-VL-BLU | 4 mm ID | Without | 3 | (29) | (24.5) | 10.5 | 23.5 | 4.8 | 2.5 | | | |
| | SPC-06PHL-BLU | 6 mm ID | With | 3.9 | (30.5) | (25.5) | 15.5 | 28.5 | 7 | 4 | | | |
| Yellow | SPC-04PHL-YEL | 4 mm ID | With | 3.5 | (29) | (24.5) | 10.5 | 23.5 | 4.8 | 2.5 | | | |
| | SPC-04PHL-VL-YEL | 4 mm ID | Without | 3 | (29) | (24.5) | 10.5 | 23.5 | 4.8 | 2.5 | | | |
| | SPC-06PHL-YEL | 6 mm ID | With | 3.9 | (30.5) | (25.5) | 15.5 | 28.5 | 7 | 4 | | | |
| Pink | SPC-06PHL-VL-YEL | 6 mm ID | Without | 3.4 | (30.5) | (25.5) | 15.5 | 28.5 | 7 | 4 | | | |
| | SPC-04PHL-PNK | 4 mm ID | With | 3.5 | (29) | (24.5) | 10.5 | 23.5 | 4.8 | 2.5 | | | |
| | SPC-04PHL-VL-PNK | 4 mm ID | Without | 3 | (29) | (24.5) | 10.5 | 23.5 | 4.8 | 2.5 | | | |
| Green | SPC-06PHL-PNK | 6 mm ID | With | 3.9 | (30.5) | (25.5) | 15.5 | 28.5 | 7 | 4 | | | |
| | SPC-06PHL-VL-PNK | 6 mm ID | Without | 3.4 | (30.5) | (25.5) | 15.5 | 28.5 | 7 | 4 | | | |
| | SPC-04PHL-GRN | 4 mm ID | With | 3.5 | (29) | (24.5) | 10.5 | 23.5 | 4.8 | 2.5 | | | |
| Green | SPC-04PHL-VL-GRN | 4 mm ID | Without | 3 | (29) | (24.5) | 10.5 | 23.5 | 4.8 | 2.5 | | | |
| | SPC-06PHL-GRN | 6 mm ID | With | 3.9 | (30.5) | (25.5) | 15.5 | 28.5 | 7 | 4 | | | |
| | SPC-06PHL-VL-GRN | 6 mm ID | Without | 3.4 | (30.5) | (25.5) | 15.5 | 28.5 | 7 | 4 | | | |

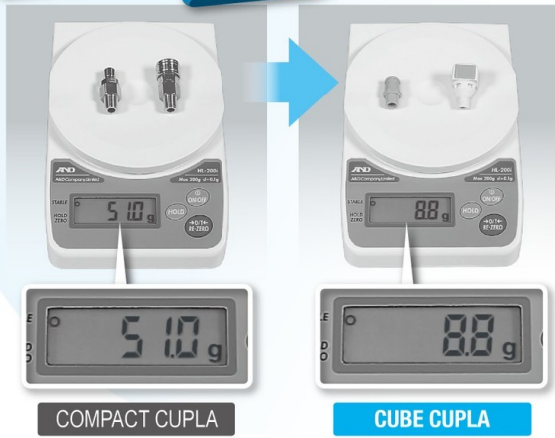
Choose from 5 colors: Blue, Yellow, Pink, Green, Ivory. The following part shown below are colored. The other plastic parts are ivory. [See page 3 for the colors](#)

- Resin (POM) such as the main body ... Conforms to article No.3-D-2-(2)-2 and has passed both material and elution tests specified in the Food sanitation Act and the standards For Food and Food additives (Notice No. 370 of 1959 issued by the Ministry of Health and Welfare of Japan).
- O-ring (NBR) ... Conforms to article No.3-D-3-(1) and has passed both material and elution tests specified in the Food sanitation Act and the standards For Food and Food additives (Notice No. 370 of 1959 issued by the Ministry of Health and Welfare of Japan).
- Silicone type grease (NSF H1, NSF 61 registered product) is applied to the sealing material.
- The CUPLA should be evaluated before use to determine the suitability with applications that require sanitation control.

Small size
Lightweight
made of resin

Compared with products of the same specification

(Our products with similar working pressure / flow rate)



The weight is about ...

1/5

Push-to-connect operation

Push in

A clicking sound

Push button easy disconnection

Just push the buttons

Push button for disconnection
2 places on the socket side

Push button easy disconnection


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

For Low Pressure (Air)

SUPER CUPLA


Light, compact for air piping connections

Working pressure




1.0 MPa
(10 kgf/cm²)

Valve structure



One-way shut-off

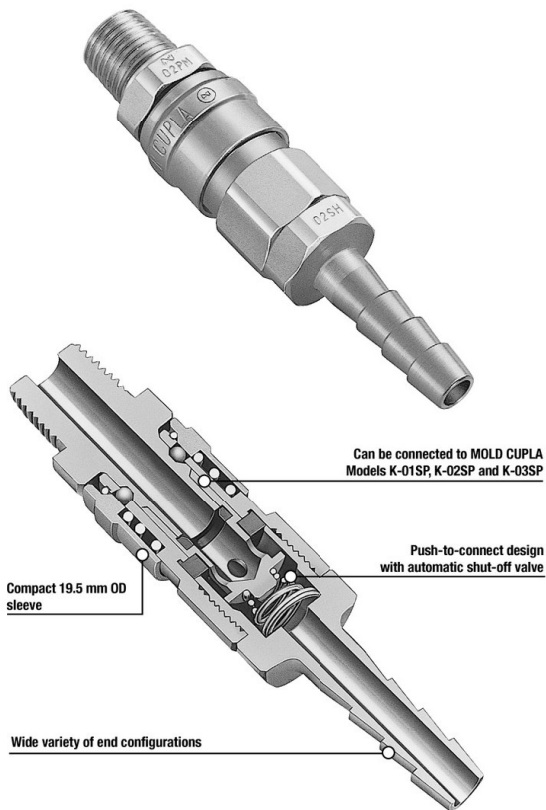
Applicable fluid



Air

The lightweight design makes the CUPLA best suited to power tools! Push-to-connect for easy operation.

- Lightweight design suits direct connection to power tools.
- Aluminum body is adopted for some models to reduce the weight.
- Just push the plug into socket for easy one hand connection.
- Available in various end configurations for a wide range of pneumatic applications.
- Model 02S20P can be connected with sockets of HI CUPLA Models 10, 17, 20, 30 and 40.
- Also available with quick connect / disconnect Tube Fitter type.



| Specifications | | | | |
|---------------------------|---|---|---------------------------|-------------------|
| Body material | CUPLA : Steel (Chrome plated), Aluminum alloy (*1) Tube Fitter Part : Brass (Nickel plated), Plastic | | | |
| Size | Thread | 1/8", 1/4" | | |
| | Hose barb | 1/4", Urethane hose : $\phi 5 \times \phi 8$, $\phi 6.5 \times \phi 10$ | | |
| | Tube barb (Tube fitter) | Polyurethane tube: Outside Dia. $\phi 6 \pm 0.1$, $\phi 8 \pm 0.15$ Polyamide tube: Outside Dia. $\phi 6^{+0.05}_{-0.08}$, $\phi 8^{+0.1}_{-0.1}$ Fluorine contained resin tube: Outside Dia. $\phi 6 \pm 0.07$, $\phi 8 \pm 0.07$ | | |
| Pressure unit | MPa | kgf/cm ² | bar | PSI |
| Working pressure | 1.0 | 10 | 10 | 145 |
| Seal material | Seal material | Mark | Working temperature range | Remarks |
| Working temperature range | Nitrile rubber | NBR (SG) | -20°C to +80°C | Standard material |

* Above specifications apply only to CUPLA. Maximum working pressure and working temperature range may vary depending on tube materials you use with and the working temperature.
CUPLA with Tube Fitter has NBR packing material only.
(*1) Aluminum alloy is used for the body of 01SN, 02SN, 02SMF, 02SC-6, 02SC-8, 02SCL-6, 02SCL-8, 02SCB-6, 02SCB-8.

| Maximum Tightening Torque | Nm (kgf·cm) | |
|---------------------------|-------------|----------|
| Size (Thread) | 1/8" | 1/4" |
| Torque | 7 {71} | 14 {143} |

| Tightening Torque Range | Nm (kgf·cm) | |
|-------------------------|---------------------|--|
| PN Type, SN Type | 9 to 11 {92 to 112} | |

To mount on urethane hose, slide it over to the hose barb and tighten the nut until it is flush against the hose barb base. It is recommended that grease is applied to the inside of the nut (threaded part and hose contact part) for easy tightening.



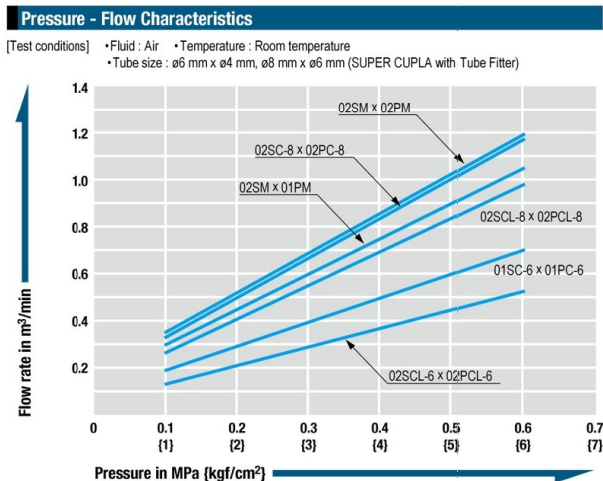
Interchangeability

Sockets and plugs can be connected regardless of end configurations and sizes.
*Interchangeable with MOLD CUPLA.
*Sockets of HI CUPLA models 10, 17, 20, 30, 40 can be connected when 02S20P is used.

| Plug / Socket | Minimum Cross-Sectional Area (mm ²) | | | | | |
|------------------------|---|------------------|------------------|-------------|------|--------------|
| | 01PN | 02PC-6 / 02PCL-6 | 02PC-8 / 02PCL-8 | 02PH / 01PM | 02PN | 02PM / 02PFF |
| 01SN | 11.3 | 11.3 | 11.3 | 11.3 | 11.3 | 11.3 |
| 02SC-6/02SCL-6/02SCB-6 | 11.3 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 |
| 02SC-8/02SCL-8/02SCB-8 | 11.3 | 12.5 | 19 | 19 | 19 | 19 |
| 02SH | 11.3 | 12.5 | 19 | 19.6 | 19.6 | 19.6 |
| 02SN | 11.3 | 12.5 | 19 | 19.6 | 22 | 22 |
| 02SM/02SF/02SMF | 11.3 | 12.5 | 19 | 19.6 | 22 | 28.2 |
| 02S20P | 11.3 | 12.5 | 19 | 19.6 | 22 | 28.2 |

Suitability for Vacuum

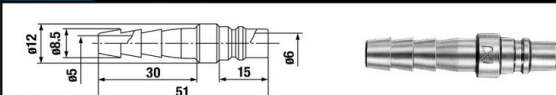
Not suitable for vacuum application in either connected or disconnected condition.



WAF : WAF stands for width across flats.

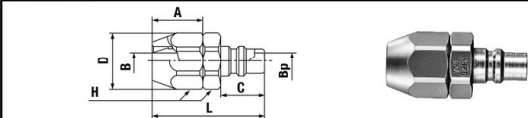
Models and Dimensions

Plug 02PH type (Hose barb)



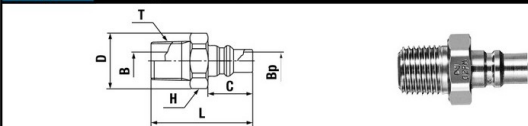
| Dimensions (mm) | | |
|-----------------|--------------------|----------|
| Model | Application (Hose) | Mass (g) |
| 02PH | 1/4" | 16 |

Plug PN type (For connection to urethane hose)



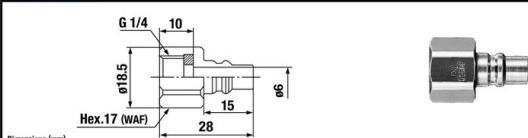
| Model | Application (Hose) | Mass (g) | Dimensions (mm) | | | | | | |
|-------|--------------------|----------|-----------------|----|------|----|--------|-----|-----|
| | | | L | C | øD | A | H(WAF) | øBp | øB |
| 01PN | ø5 mm x ø8 mm | 35.9 | (38.5) | 15 | 18.5 | 17 | Hex.17 | 6 | 3.8 |
| 02PN | ø6.5 mm x ø10 mm | 35.3 | (38.5) | 15 | 18.5 | 17 | Hex.17 | 6 | 5.3 |

Plug PM type (Male thread)



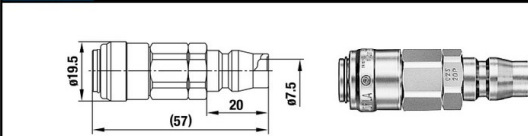
| Model | Application (Thread) | Mass (g) | Dimensions (mm) | | | | | | |
|-------|----------------------|----------|-----------------|----|------|--------|-------|-----|----|
| | | | L | C | øD | H(WAF) | T | øBp | øB |
| 01PM | Rc 1/8 | 12 | 31 | 15 | - | Hex.12 | R 1/8 | 6 | 5 |
| 02PM | Rc 1/4 | 22.7 | 34 | 15 | 18.5 | Hex.17 | R 1/4 | 6 | 6 |

Plug 02PFF type (Parallel female thread)



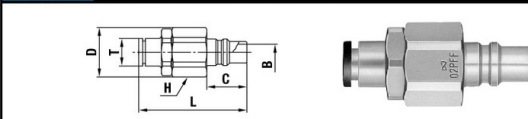
| Dimensions (mm) | | |
|-----------------|----------------------|----------|
| Model | Application (Thread) | Mass (g) |
| 02PFF | G 1/4 | 17.7 |

Plug/Socket Model 02S20P (Conversion model to connect HI CUPLA socket)



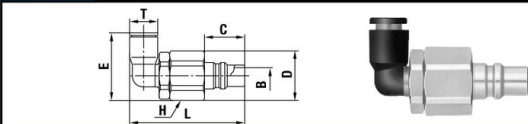
| Dimensions (mm) | | |
|-----------------|-------------------|----------|
| Model | Application | Mass (g) |
| 02S20P | HI CUPLA (Socket) | 58 |

Plug PC type (With Tube Fitter)



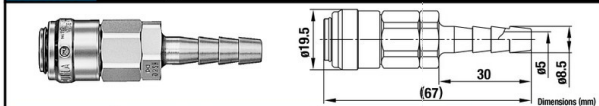
| Model | Application (Tube) | Mass (g) | Dimensions (mm) | | | | | | |
|--------|--------------------|----------|-----------------|----|------|------|--------|------|----|
| | | | L | C | øD | E | H(WAF) | øT | øB |
| 02PC-6 | 6 mm OD | 28.5 | (40.5) | 15 | 18.5 | 18.5 | Hex.17 | 10.3 | 6 |
| 02PC-8 | 8 mm OD | 33 | (47.5) | 15 | 18.5 | 18.5 | Hex.17 | 13.5 | 6 |

Plug PCL type (With L-shaped Tube Fitter)



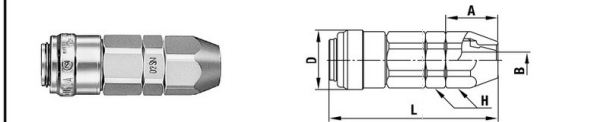
| Model | Application (Tube) | Mass (g) | Dimensions (mm) | | | | | | |
|---------|--------------------|----------|-----------------|----|------|--------|--------|------|----|
| | | | L | C | øD | E | H(WAF) | øT | øB |
| 02PCL-6 | 6 mm OD | 29.5 | (43) | 15 | 18.5 | (25.3) | Hex.17 | 10.5 | 6 |
| 02PCL-8 | 8 mm OD | 34.5 | (46.5) | 15 | 18.5 | (32.3) | Hex.17 | 13.5 | 6 |

Socket 02SH type (Hose barb)



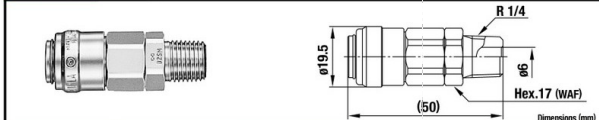
| Dimensions (mm) | | |
|-----------------|--------------------|----------|
| Model | Application (Hose) | Mass (g) |
| 02SH | 1/4" | 56 |

Socket SN type (For connection to urethane hose)



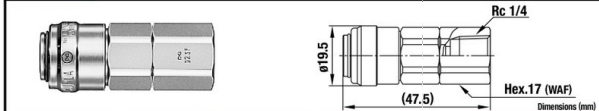
| Model | Application (Hose) | Mass (g) | Dimensions (mm) | | | | |
|-------|--------------------|----------|-----------------|----|------|--------|-----|
| | | | L | A | øD | H(WAF) | øB |
| 01SN | ø5 mm x ø8 mm | 45.8 | (54.5) | 17 | 19.5 | Hex.17 | 3.8 |
| 02SN | ø6.5 mm x ø10 mm | 44.4 | (54.5) | 17 | 19.5 | Hex.17 | 5.3 |

Socket SM type (Male thread)



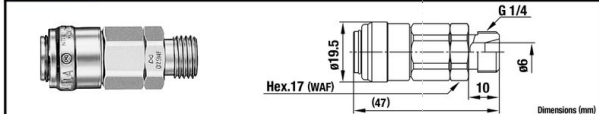
| Dimensions (mm) | | |
|-----------------|----------------------|----------|
| Model | Application (Thread) | Mass (g) |
| 02SM | Rc 1/4 | 57 |

Socket 02SF type (Female thread)



| Dimensions (mm) | | |
|-----------------|----------------------|----------|
| Model | Application (Thread) | Mass (g) |
| 02SF | R 1/4 | 56.4 |

Socket 02SMF type (Parallel male thread)



| Dimensions (mm) | | |
|-----------------|----------------------|----------|
| Model | Application (Thread) | Mass (g) |
| 02SMF | G 1/4 | 27 |

Socket SC type (With Tube Fitter)



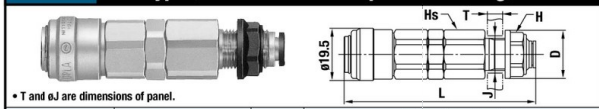
| Model | Application (Tube) | Mass (g) | Dimensions (mm) | | |
|--------|--------------------|----------|-----------------|------|------|
| | | | L | øD | øT |
| 02SC-6 | 6 mm OD | 46 | (65.5) | 19.5 | 10.5 |
| 02SC-8 | 8 mm OD | 50.5 | (70) | 19.5 | 13.5 |

Socket SCL type (With L-shaped Tube Fitter)



| Model | Application (Tube) | Mass (g) | Dimensions (mm) | | | | |
|---------|--------------------|----------|-----------------|------|--------|--------|------|
| | | | L | øD | H(WAF) | C | øT |
| 02SCL-6 | 6 mm OD | 47.5 | (63.5) | 19.5 | Hex.16 | (25.7) | 10.3 |
| 02SCL-8 | 8 mm OD | 49.5 | (67.7) | 19.5 | Hex.16 | (32.8) | 13.5 |

Socket SCB type (With Tube Fitter for panel mounting)



* T and øJ are dimensions of panel.

| Model | Application (Tube) | Mass (g) | Dimensions (mm) | | | | | |
|---------|--------------------|----------|-----------------|----|---------|--------|-----------|-----------------------------------|
| | | | L | øD | Hs(WAF) | H(WAF) | T | øJ |
| 02SCB-6 | 6 mm OD | 58.5 | (71.5) | 18 | Hex.17 | Hex.15 | 7 or less | 12.5 ^{+0.3} ₀ |
| 02SCB-8 | 8 mm OD | 60.4 | (72) | 21 | Hex.17 | Hex.18 | 8 or less | 15.5 ^{+0.3} ₀ |


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

For Low Pressure

HI CUPLA

Universal purpose couplings for air lines


Working pressure



1.5 MPa
(15 kgf/cm²)


1.0 MPa
(10 kgf/cm²)

Valve structure



One-way shut-off

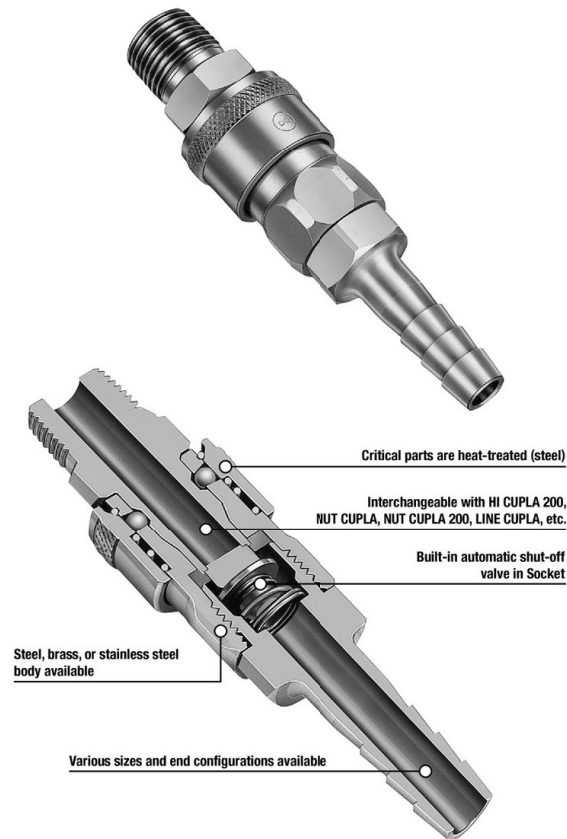
Applicable fluids (Steel applies to air only)



Air Water

From factory air line to pneumatic tool connection, available in various body materials, sizes and end configurations. Excellent durability.

- An excellent general purpose coupling for connecting factory air supply to pneumatic tools.
- Steel coupling is suitable for air. Brass or stainless steel is suitable for water. Note that fluid will come out from the plug when disconnected.
- Critical structural parts of steel models are heat-treated for increased strength giving greater durability and resistance to wear.
- Available in various body materials, sizes and end configurations applicable to a wide range of applications.



| Specifications | | | | |
|---------------------------|---------------------------|-----------------|--------------------------|-----------------|
| Body material | Steel (Chrome plated) | Brass | Stainless steel (SUS304) | |
| Size | Thread | 1/8" to 1" | | |
| | Hose barb | 1/4" to 1" hose | | |
| Working pressure | MPa | 1.5 | 1.0 | 1.5 |
| | kgf/cm ² | 15 | 10 | 15 |
| | bar | 15 | 10 | 15 |
| | PSI | 218 | 145 | 218 |
| Seal material | Nitrile rubber | FKM (X-100) | Fluoro rubber | |
| Working temperature range | Mark | NBR (SG) | FKM (X-100) | |
| | Working temperature range | -20°C to +80°C | | -20°C to +180°C |
| Remarks | Standard material | | | |

| Maximum Tightening Torque | | Nm (kgf·cm) | | | | | |
|---------------------------|-----------------|-------------|----------|----------|----------|------------|------------|
| Size (Thread) | 1/8" | 1/4" | 3/8" | 1/2" | 3/4" | 1" | |
| | Steel | 7 {71} | 14 {143} | 22 {224} | 60 {612} | 100 {1020} | 120 {1224} |
| Torque | Brass | 5 {51} | 9 {92} | 11 {112} | 30 {306} | 50 {510} | 65 {663} |
| | Stainless steel | — | 14 {143} | 22 {224} | 60 {612} | 100 {1020} | 120 {1224} |

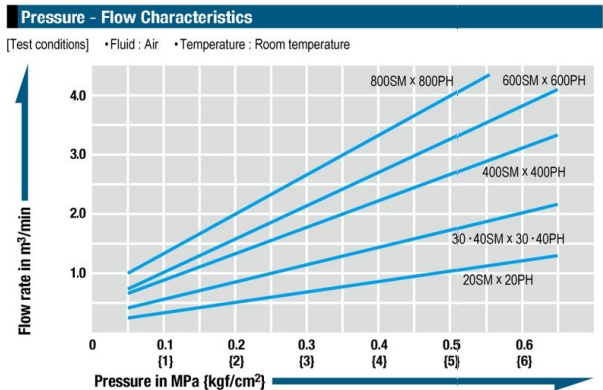


- Interchangeability**
- 1 Sockets and plugs of models 10, 17, 20, 30, and 40 can be connected with each other regardless of end configurations.
 - 2 Sockets and plugs of models 400, 600, and 800 can be connected with each other regardless of end configurations. 1 and 2 can not be connected across each group.
 - 3 Interchangeable with each models of NUT CUPLA series and HI CUPLA series. Please see page 19 for "HI CUPLA Series Interchangeability".

| Minimum Cross-Sectional Area | | (mm ²) | | | | | | | | | | |
|------------------------------|------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|
| ■ 10, 17, 20, 30, 40 type | | | | | | | | | | | | |
| Socket | Plug | 17PH | 20PH | 30PH | 40PH | 10PM | 20PM | 30PM | 40PM | 20PF | 30PF | 40PF |
| 10SM | | 16 | 20 | 20 | 20 | 13 | 20 | 20 | 20 | 20 | 20 | 20 |
| 17SH | | 16 | 16 | 16 | 16 | 13 | 16 | 16 | 16 | 16 | 16 | 16 |
| 20SH | | 16 | 20 | 20 | 20 | 13 | 20 | 20 | 20 | 20 | 20 | 20 |
| 20SM, SF | | 16 | 20 | 33 | 33 | 13 | 33 | 33 | 33 | 33 | 33 | 33 |
| 30SH | | 16 | 20 | 33 | 33 | 13 | 33 | 33 | 33 | 33 | 33 | 33 |
| 30SM, SF | | 16 | 20 | 33 | 33 | 13 | 33 | 33 | 33 | 33 | 33 | 33 |
| 40SH | | 16 | 20 | 33 | 33 | 13 | 33 | 33 | 33 | 33 | 33 | 33 |
| 40SM, SF | | 16 | 20 | 33 | 33 | 13 | 33 | 33 | 33 | 33 | 33 | 33 |
| ■ 400, 600, 800 type | | | | | | | | | | | | |
| Socket | Plug | 400PH | 600PH | 800PH | 400PM | 600PM | 800PM | 400PF | 600PF | 800PF | | |
| 400SH | | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | | |
| 400SM, SF | | 64 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | | |
| 600SH | | 64 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | | |
| 600SM, SF | | 64 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | | |
| 800SH | | 64 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | | |
| 800SM, SF | | 64 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | | |

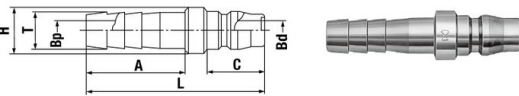
Suitability for Vacuum

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



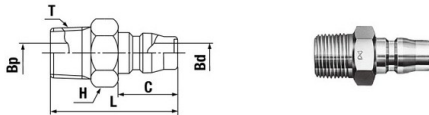
Models and Dimensions

Plug PH type (Hose barb)



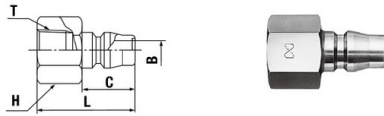
| Model | Application (Hose) | Body material • Mass (g) | | | Dimensions (mm) | | | | | | |
|-------|--------------------|--------------------------|-------|-----------------|-----------------|----|----|----|------|-----|-----|
| | | Steel | Brass | Stainless steel | L | øH | A | C | øT | øBp | øBd |
| 17PH | 1/4" | 24 | - | - | 54 | 16 | 27 | 20 | 7.2 | 4.5 | 7.5 |
| 20PH | 1/4" | 28 | 31 | 27 | 57 | 16 | 30 | 20 | 9 | 5 | 7.5 |
| 30PH | 3/8" | 32 | 34 | 33 | 61 | 16 | 34 | 20 | 11.3 | 7.5 | 7.5 |
| 40PH | 1/2" | 59 | 64 | 60 | 63 | 20 | 36 | 20 | 15 | 9 | 7.5 |
| 400PH | 1/2" | 65 | 71 | 66 | 66 | 22 | 36 | 23 | 15 | 9 | 13 |
| 600PH | 3/4" | 123 | 130 | 124 | 77 | 30 | 45 | 23 | 21 | 13 | 13 |
| 800PH | 1" | 151 | 161 | 151 | 85 | 34 | 54 | 23 | 27 | 20 | 13 |

Plug PM type (Male thread)



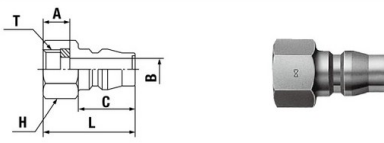
| Model | Application (Thread) | Body material • Mass (g) | | | Dimensions (mm) | | | | | | |
|-------|----------------------|--------------------------|-------|-----------------|-----------------|----------------------|----|-------|-----|-----|--|
| | | Steel | Brass | Stainless steel | L | H(WAF) | C | T | øBp | øBd | |
| 10PM | Rc 1/8 | 22 | 24 | - | 37 | Hex.14 | 20 | R 1/8 | 4 | 7.5 | |
| 20PM | Rc 1/4 | 25 | 27 | 26 | 41 | Hex.14 | 20 | R 1/4 | 7.5 | 7.5 | |
| 30PM | Rc 3/8 | 40 | 43 | 41 | 42 | Hex.19 ^{*3} | 20 | R 3/8 | 7.5 | 7.5 | |
| 40PM | Rc 1/2 | 60 | 65 | 60 | 46 | Hex.22 | 20 | R 1/2 | 12 | 7.5 | |
| 400PM | Rc 1/2 | 70 | 73 | 69 | 50 | Hex.22 | 23 | R 1/2 | 13 | 13 | |
| 600PM | Rc 3/4 | 113 | 121 | 114 | 55 | Hex.32 | 23 | R 3/4 | 19 | 13 | |
| 800PM | Rc 1 | 182 | 196 | 183 | 63 | Hex.35 | 23 | R 1 | 22 | 13 | |

Plug PF type (Female thread)



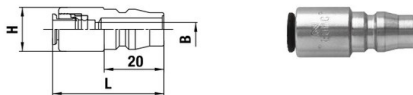
| Model | Application (Thread) | Body material • Mass (g) | | | Dimensions (mm) | | | | | |
|-------|----------------------|--------------------------|-------|-----------------|-----------------|--------|----|--------|-----|--|
| | | Steel | Brass | Stainless steel | L | H(WAF) | C | T | øB | |
| 20PF | R 1/4 | 28 | 31 | 29 | 36 | Hex.17 | 20 | Rc 1/4 | 7.5 | |
| 30PF | R 3/8 | 35 | 41 | 38 | 37 | Hex.21 | 20 | Rc 3/8 | 7.5 | |
| 40PF | R 1/2 | 69 | 76 | 70 | 38 | Hex.29 | 20 | Rc 1/2 | 7.5 | |
| 400PF | R 1/2 | 82 | 86 | 81 | 41 | Hex.29 | 23 | Rc 1/2 | 13 | |
| 600PF | R 3/4 | 115 | 124 | 115 | 45 | Hex.35 | 23 | Rc 3/4 | 13 | |
| 800PF | R 1 | 189 | 207 | 190 | 54 | Hex.41 | 23 | Rc 1 | 13 | |

Plug PFF type (Parallel female thread)



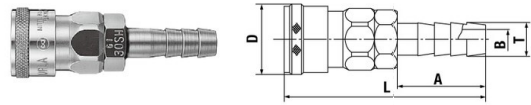
| Model | Application (Thread) | Body material • Mass (g) | | | Dimensions (mm) | | | | | |
|-------|----------------------|--------------------------|-------|-----------------|-----------------|--------|---|----|-------|-----|
| | | Steel | Brass | Stainless steel | L | H(WAF) | A | C | T | øB |
| 20PFF | G 1/4 | 23 | - | - | 32 | Hex.17 | 9 | 20 | G 1/4 | 7.5 |

Plug PC type (Tube Fitter)



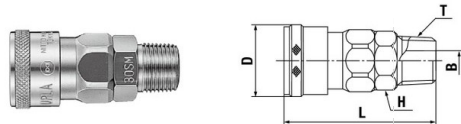
| Model | Application (Tube) | Mass (g) | Dimensions (mm) | | |
|-------|--------------------|----------|-----------------|------|-----|
| | | | L | øH | øB |
| 60PC | For 6 mm OD tube | 25 | (37) | 14.5 | 4.5 |
| 80PC | For 8 mm OD tube | 30 | (41) | 16.5 | 6.5 |
| 100PC | For 10 mm OD tube | 43 | (45) | 19.5 | 7.5 |

Socket SH type (Hose barb)



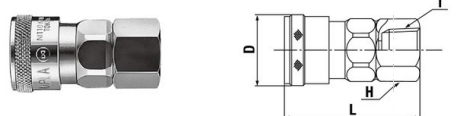
| Model | Application (Hose) | Body material • Mass (g) | | | Dimensions (mm) | | | | | |
|-------|--------------------|--------------------------|-------|-----------------|-----------------|----------------------|----|------|-----|--|
| | | Steel | Brass | Stainless steel | L | øD | A | øT | øB | |
| 17SH | 1/4" | 99 | - | - | (69.5) | (26.5) | 27 | 7.2 | 4.5 | |
| 20SH | 1/4" | 99 | 105 | 97 | (72.5) | (26.5) ⁺¹ | 30 | 9 | 5 | |
| 30SH | 3/8" | 102 | 107 | 100 | (76.5) | (26.5) ⁺¹ | 34 | 11.3 | 7.5 | |
| 40SH | 1/2" | 115 | 122 | 113 | (78.5) | (26.5) ⁺¹ | 36 | 15 | 9 | |
| 400SH | 1/2" | 220 | 235 | 230 | (83) | 35 | 36 | 15 | 9 | |
| 600SH | 3/4" | 243 | 262 | 242 | (92) | 35 | 45 | 21 | 14 | |
| 800SH | 1" | 327 | 350 | 325 | (102) | 35 | 55 | 27 | 16 | |

Socket SM type (Male thread)



| Model | Application (Thread) | Body material • Mass (g) | | | Dimensions (mm) | | | | | | |
|-------|----------------------|--------------------------|-------|-----------------|-----------------|----------------------|----------------------|-------|-----------------|--|--|
| | | Steel | Brass | Stainless steel | L | øD | H(WAF) | T | øB | | |
| 10SM | Rc 1/8 | 97 | - | - | (52.5) | (26.5) | Hex.19 | R 1/8 | 5 | | |
| 20SM | Rc 1/4 | 97 | 103 | 96 | (55.5) | (26.5) ⁺¹ | Hex.19 | R 1/4 | 7 | | |
| 30SM | Rc 3/8 | 104 | 108 | 100 | (56.5) | (26.5) ⁺¹ | Hex.19 | R 3/8 | 8 ⁺¹ | | |
| 40SM | Rc 1/2 | 127 | 135 | 126 | (59.5) | (26.5) ⁺¹ | Hex.23 ⁺² | R 1/2 | 9 | | |
| 400SM | Rc 1/2 | 210 | 224 | 212 | (63) | 35 | Hex.29 | R 1/2 | 13 | | |
| 600SM | Rc 3/4 | 242 | 259 | 243 | (67) | 35 | Hex.32 | R 3/4 | 16 | | |
| 800SM | Rc 1 | 329 | 353 | 328 | (72) | 35 | Hex.36 | R 1 | 16 | | |

Socket SF type (Female thread)



| Model | Application (Thread) | Body material • Mass (g) | | | Dimensions (mm) | | | | | |
|-------|----------------------|--------------------------|-------|-----------------|-----------------|----------------------|--------|--------|--|--|
| | | Steel | Brass | Stainless steel | L | øD | H(WAF) | T | | |
| 20SF | R 1/4 | 97 | 101 | 94 | (49.5) | (26.5) ⁺¹ | Hex.19 | Rc 1/4 | | |
| 30SF | R 3/8 | 98 | 103 | 95 | (50.5) | (26.5) ⁺¹ | Hex.21 | Rc 3/8 | | |
| 40SF | R 1/2 | 136 | 146 | 138 | (52.5) | (26.5) ⁺¹ | Hex.29 | Rc 1/2 | | |
| 400SF | R 1/2 | 216 | 233 | 215 | (57) | 35 | Hex.29 | Rc 1/2 | | |
| 600SF | R 3/4 | 259 | 277 | 257 | (61) | 35 | Hex.35 | Rc 3/4 | | |
| 800SF | R 1 | 327 | 361 | 327 | (68) | 35 | Hex.41 | Rc 1 | | |

* Above pictures are plugs and sockets of steel 20, 30 and 40 models.

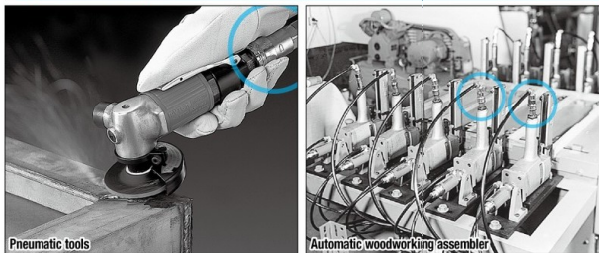
*1 : D = 25.4 for brass and stainless steel models.

*2 : H = Hex. 22 for brass and stainless steel models.

*3 : H = Hex. 17 for brass and stainless steel models.

*4 : B = 9 for brass and stainless steel models.

Application Example



All of socket, plug and tube can be connected in one push-to-connect operation.

Just push the tube into CUPLA and then it is locked.

Polyurethane, Nylon and Fluorine contained resin tubes.

PC type (Tube Fitter)


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

For Low Pressure

HI CUPLA BL


Universal purpose couplings with sleeve lock mechanism for air lines

Working pressure




1.5
1.5 MPa
(15 kgf/cm²)

Valve structure



One-way shut-off

Applicable fluids (Steel applies to air only)



Air Water

Sleeve-lock mechanism is engaged by rotating the sleeve after connection.

- Sleeve-lock mechanism prevents accidental disconnection.
- An excellent general purpose coupling for connecting factory air supply to pneumatic tools.
- Steel coupling is suitable for air. Stainless steel is suitable for water. Note that fluid will come out from the plug when disconnected.
- Critical structural parts made of steel are heat-treated for increased strength giving greater durability and resistance to wear.
- Various body materials, sizes, and end configurations are available.
- SN-BL type for connection to urethane hose requires no hose clamp.



| Specifications | | | | |
|---------------------------|---------------------------|--|--------------------------|--|
| Body material | | Steel (Chrome plated) | Stainless steel (SUS304) | |
| Size | Thread and hose barb | 1/4", 3/8", 1/2" | | |
| | SN Type for urethane hose | For ø6.5 x ø10 mm hose For ø8 x ø12 mm hose For ø8.5 x ø12.5 mm hose | | |
| | | - | | |
| Pressure unit | | MPa | kgf/cm ² | bar PSI |
| Working pressure | | 1.5 | 15 | 15 218 |
| Seal material | | Seal material | Mark | Working temperature range Remarks |
| Working temperature range | | Nitrile rubber | NBR (SG) | -20°C to +80°C Standard material |

Note: Working temperature range of SN-BL type is -20°C to +60°C.

| Maximum Tightening Torque | | | Nm {kgf·cm} | |
|---------------------------|-----------------|----------|-------------|----------|
| Size (Thread) | | 1/4" | 3/8" | 1/2" |
| Torque | Steel | 14 {143} | 22 {224} | 60 {612} |
| | Stainless steel | 14 {143} | 22 {224} | 60 {612} |

| Tightening Torque Range | | Nm {kgf·cm} | |
|---------------------------|--|-------------|--|
| SN Type for urethane hose | | | |
| 9 to 11 {92 to 112} | | | |

To mount on urethane hose, slide it over to the hose barb and tighten the nut until it is flush against the hose barb base. It is recommended that grease is applied to the inside of the nut (threaded part and hose contact part) for easy tightening.

Flow Direction

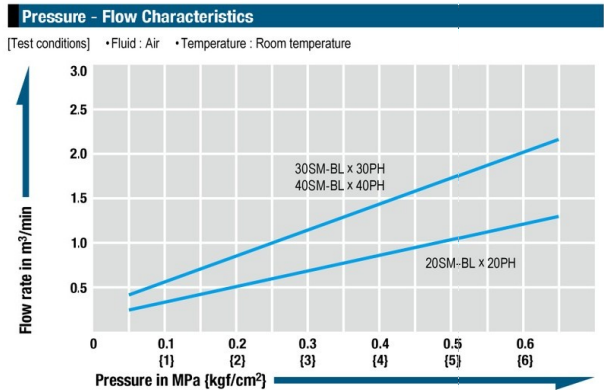
Fluid must run from socket to plug.

- ### Interchangeability
- 1 Sockets and plugs of models 10, 17, 20, 30, and 40 can be connected with each other regardless of end configurations.
 - 2 Interchangeable with each models of NUT CUPLA series and HI CUPLA series. Please see page 19 for "HI CUPLA Series Interchangeability".

| Minimum Cross-Sectional Area | | (mm ²) | | | | | | | | | | |
|------------------------------|------|--------------------|------|------|------|------|------|------|------|------|------|------|
| Socket | Plug | 17PH | 20PH | 30PH | 40PH | 10PM | 20PM | 30PM | 40PM | 20PF | 30PF | 40PF |
| 20SH-BL | 16 | 20 | 20 | 20 | 20 | 13 | 20 | 20 | 20 | 20 | 20 | 20 |
| 20SM-BL | 16 | 20 | 33 | 33 | 33 | 13 | 33 | 33 | 33 | 33 | 33 | 33 |
| 20SF-BL | 16 | 20 | 33 | 33 | 33 | 13 | 33 | 33 | 33 | 33 | 33 | 33 |
| 30SH-BL | 16 | 20 | 33 | 33 | 33 | 13 | 33 | 33 | 33 | 33 | 33 | 33 |
| 30SM-BL | 16 | 20 | 33 | 33 | 33 | 13 | 33 | 33 | 33 | 33 | 33 | 33 |
| 30SF-BL | 16 | 20 | 33 | 33 | 33 | 13 | 33 | 33 | 33 | 33 | 33 | 33 |
| 40SH-BL | 16 | 20 | 33 | 33 | 33 | 13 | 33 | 33 | 33 | 33 | 33 | 33 |
| 40SM-BL | 16 | 20 | 33 | 33 | 33 | 13 | 33 | 33 | 33 | 33 | 33 | 33 |
| 40SF-BL | 16 | 20 | 33 | 33 | 33 | 13 | 33 | 33 | 33 | 33 | 33 | 33 |
| 65SN-BL | 16 | 20 | 22 | 22 | 13 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| 80SN-BL | 16 | 20 | 33 | 33 | 13 | 33 | 33 | 33 | 33 | 33 | 33 | 33 |
| 85SN-BL | 16 | 20 | 33 | 33 | 13 | 33 | 33 | 33 | 33 | 33 | 33 | 33 |

Suitability for Vacuum

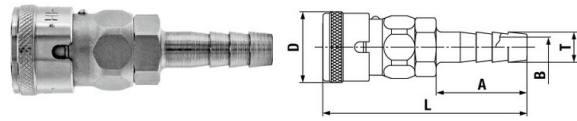
Not suitable for vacuum application in either connected or disconnected condition.



Models and Dimensions

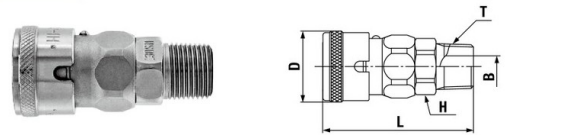
Steel

Socket SH-BL type (Hose barb)



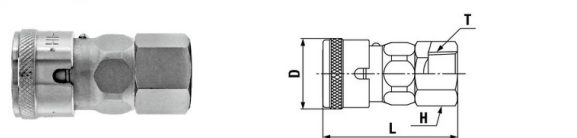
| Model | Application (Hose) | Mass (g) | Dimensions (mm) | | | | |
|---------|--------------------|----------|-----------------|--------|----|------|-----|
| | | | L | øD | A | øT | øB |
| 20SH-BL | 1/4" | 103 | (72.5) | (26.5) | 30 | 9 | 5 |
| 30SH-BL | 3/8" | 106 | (76.5) | (26.5) | 34 | 11.3 | 7.5 |
| 40SH-BL | 1/2" | 118 | (78.5) | (26.5) | 36 | 15 | 9 |

Socket SM-BL type (Male thread)



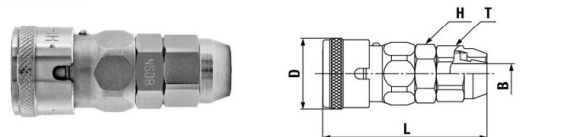
| Model | Application (Thread) | Mass (g) | Dimensions (mm) | | | | |
|---------|----------------------|----------|-----------------|--------|--------|-------|----|
| | | | L | øD | H(WAF) | T | øB |
| 20SM-BL | Rc 1/4 | 101 | (55.5) | (26.5) | Hex.19 | R 1/4 | 7 |
| 30SM-BL | Rc 3/8 | 108 | (56.5) | (26.5) | Hex.19 | R 3/8 | 8 |
| 40SM-BL | Rc 1/2 | 131 | (59.5) | (26.5) | Hex.23 | R 1/2 | 9 |

Socket SF-BL type (Female thread)



| Model | Application (Thread) | Mass (g) | Dimensions (mm) | | | |
|---------|----------------------|----------|-----------------|--------|--------|--------|
| | | | L | øD | H(WAF) | T |
| 20SF-BL | R 1/4 | 95 | (49.5) | (26.5) | Hex.19 | Rc 1/4 |
| 30SF-BL | R 3/8 | 103 | (50.5) | (26.5) | Hex.21 | Rc 3/8 |
| 40SF-BL | R 1/2 | 139 | (52.5) | (26.5) | Hex.29 | Rc 1/2 |

Socket SN-BL type (For urethane hose connection)



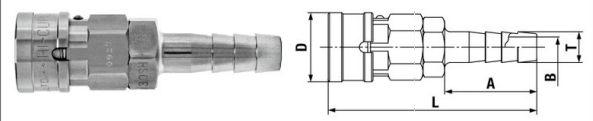
| Model | Application (Hose) | Mass (g) | Dimensions (mm) | | | | |
|---------|--------------------|----------|-----------------|--------|-----|--------|--------|
| | | | L | øD | øB | H(WAF) | T(WAF) |
| 65SN-BL | ø6.5 x ø10 | 115 | (59.5) | (26.5) | 5.3 | Hex.19 | Hex.17 |
| 80SN-BL | ø8 x ø12 | 120 | (61.5) | (26.5) | 7.5 | Hex.19 | Hex.19 |
| 85SN-BL | ø8.5 x ø12.5 | 120 | (61.5) | (26.5) | 7.5 | Hex.19 | Hex.19 |

*Above pictures are sockets of 30 and 80 models.



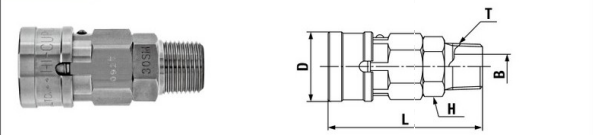
Stainless steel

Socket SH-BL type (Hose barb)



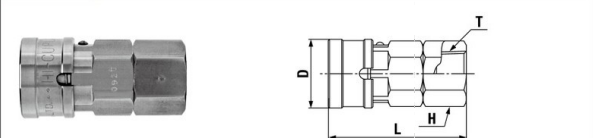
| Model | Application (Hose) | Mass (g) | Dimensions (mm) | | | | |
|---------|--------------------|----------|-----------------|------|----|------|-----|
| | | | L | øD | A | øT | øB |
| 20SH-BL | 1/4" | 100 | (72.5) | 25.4 | 30 | 9 | 5 |
| 30SH-BL | 3/8" | 101 | (76.5) | 25.4 | 34 | 11.3 | 7.5 |
| 40SH-BL | 1/2" | 118 | (78.5) | 25.4 | 36 | 15 | 9 |

Socket SM-BL type (Male thread)



| Model | Application (Thread) | Mass (g) | Dimensions (mm) | | | | |
|---------|----------------------|----------|-----------------|------|--------|-------|----|
| | | | L | øD | H(WAF) | T | øB |
| 20SM-BL | Rc 1/4 | 96 | (55.5) | 25.4 | Hex.19 | R 1/4 | 7 |
| 30SM-BL | Rc 3/8 | 105 | (56.5) | 25.4 | Hex.19 | R 3/8 | 9 |
| 40SM-BL | Rc 1/2 | 120 | (59.5) | 25.4 | Hex.22 | R 1/2 | 9 |

Socket SF-BL type (Female thread)



| Model | Application (Thread) | Mass (g) | Dimensions (mm) | | | |
|---------|----------------------|----------|-----------------|------|--------|--------|
| | | | L | øD | H(WAF) | T |
| 20SF-BL | R 1/4 | 98 | (49.5) | 25.4 | Hex.19 | Rc 1/4 |
| 30SF-BL | R 3/8 | 99 | (50.5) | 25.4 | Hex.21 | Rc 3/8 |
| 40SF-BL | R 1/2 | 138 | (52.5) | 25.4 | Hex.29 | Rc 1/2 |

Unlocked

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

Labels: Cutout in the sleeve, Ball stopper

The stopper is marked with blue for visual understanding.

Locking the sleeve

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

Accidental disconnection is prevented.

Label: Locked

Align the cutout in the sleeve with the ball stopper, and pull the sleeve for disconnection.


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

For Low Pressure (Air)

HI CUPLA 200


Push-to-connect type for air lines

Working pressure




1.5
1.5 MPa
(15 kgf/cm²)

Valve structure



One-way shut-off

Applicable fluid



Air

Simple and secure push-to-connect type! Big flow rate! End-face seal design. Gives excellent handling touch.

- Just push the plug into the socket for simple and secure connection. This reduces connection time and improves efficiency.
- New valve design for low pressure loss to achieve flow rate increase (15% up over the conventional model).
- End-face seal is achieved when connected.
- Enhanced operability with low connection resistance.
- End-face seal design is superior to external seal with an O-ring due to no seal damage caused by exhausted lubrication.
- Available only with steel body. Not suitable for water or oil.
- Also available with quick connect/disconnect Tube Fitter type.



▼ With Tube Fitter



Specifications

| | | | | | |
|---------------------------|-------------------------|---|---------------------------|-------------------|--|
| Body material | | Steel (Chrome plated) | | | |
| Size | Thread and hose barb | 1/4", 3/8", 1/2" | | | |
| | Tube barb (Tube fitter) | Polyurethane tube: Outer dia. $\phi 6 \pm 0.1$, $\phi 8 \pm 0.15$, $\phi 10 \pm 0.15$ Polyamide tube: Outer dia. $\phi 6^{+0.05}_{-0.08}$, $\phi 8^{+0.05}_{-0.1}$, $\phi 10^{+0.05}_{-0.1}$ Fluorine contained resin tube: Outer dia. $\phi 6 \pm 0.07$, $\phi 8 \pm 0.07$, $\phi 10 \pm 0.07$ | | | |
| Pressure unit | MPa | kgf/cm ² | bar | PSI | |
| Working pressure | 1.5 | 15 | 15 | 218 | |
| Seal material | Seal material | Mark | Working temperature range | Remarks | |
| Working temperature range | Nitrile rubber | NBR (SG) | -20°C to +60°C | Standard material | |

* Above specifications apply only to CUPLA. Maximum working pressure and working temperature range may vary depending on materials of the tube and the working temperature.

Maximum Tightening Torque Nm (kgf·cm)

| | | | |
|---------------|----------|----------|----------|
| Size (Thread) | 1/4" | 3/8" | 1/2" |
| Torque | 14 {143} | 22 {224} | 60 {612} |

Flow Direction



Interchangeability

Interchangeable with plugs of HI CUPLA models 10, 17, 20, 30 and 40. Interchangeable with each models of NUT CUPLA series and HI CUPLA series (except models 400, 600, and 800). Please see page 19 for "HI CUPLA Series Interchangeability".

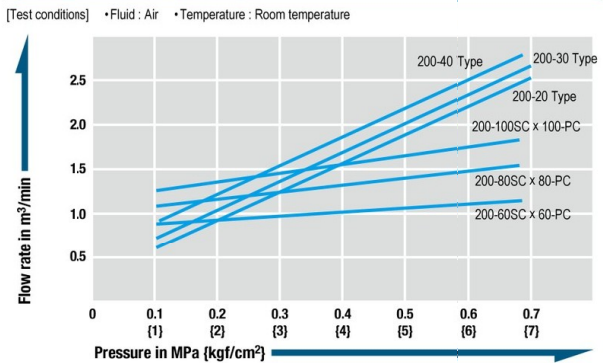
Minimum Cross-Sectional Area (mm²)

| Socket | Plug | 17PH | 20PH | 30PH | 40PH | 10PM | 20PM | 30PM | 40PM | 20PF | 30PF | 40PF |
|----------|------|------|------|------|------|------|------|------|------|------|------|------|
| 200-17SH | | 16 | 16 | 16 | 16 | 13 | 16 | 16 | 16 | 16 | 16 | 16 |
| 200-20SH | | 16 | 20 | 20 | 20 | 13 | 20 | 20 | 20 | 20 | 20 | 20 |
| 200-30SH | | 16 | 20 | 41 | 41 | 13 | 41 | 41 | 41 | 41 | 41 | 41 |
| 200-40SH | | 16 | 20 | 41 | 41 | 13 | 41 | 41 | 41 | 41 | 41 | 41 |
| 200-20SM | | 16 | 20 | 41 | 41 | 13 | 41 | 41 | 41 | 41 | 41 | 41 |
| 200-30SM | | 16 | 20 | 41 | 41 | 13 | 41 | 41 | 41 | 41 | 41 | 41 |
| 200-40SM | | 16 | 20 | 41 | 41 | 13 | 41 | 41 | 41 | 41 | 41 | 41 |
| 200-20SF | | 16 | 20 | 41 | 41 | 13 | 41 | 41 | 41 | 41 | 41 | 41 |
| 200-30SF | | 16 | 20 | 41 | 41 | 13 | 41 | 41 | 41 | 41 | 41 | 41 |
| 200-40SF | | 16 | 20 | 41 | 41 | 13 | 41 | 41 | 41 | 41 | 41 | 41 |

Suitability for Vacuum

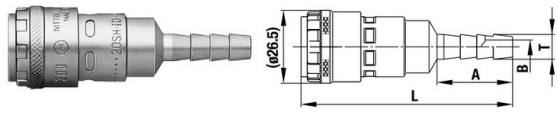
Not suitable for vacuum application in either connected or disconnected condition.

Pressure - Flow Characteristics



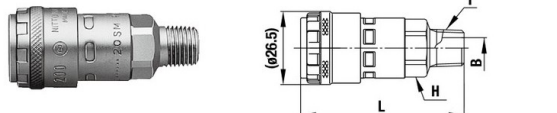
Models and Dimensions WAF : WAF stands for width across flats.

Socket SH type (Hose barb)



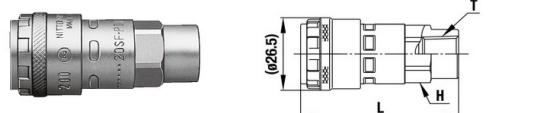
| Model | Application (Hose) | Mass (g) | Dimensions (mm) | | | |
|----------|--------------------|----------|-----------------|------|------|-----|
| | | | L | A | øT | øB |
| 200-17SH | 1/4" | 86 | (77) | 27 | 7.2 | 4.5 |
| 200-20SH | 1/4" | 90 | (77) | 27.5 | 9 | 5 |
| 200-30SH | 3/8" | 92 | (79) | 32 | 11.3 | 7.5 |
| 200-40SH | 1/2" | 104 | (79.5) | 32 | 15 | 10 |

Socket SM type (Male thread)



| Model | Application (Thread) | Mass (g) | Dimensions (mm) | | | |
|----------|----------------------|----------|-----------------|--------|-------|-----|
| | | | L | H(WAF) | T | øB |
| 200-20SM | Rc 1/4 | 89 | (60) | Hex.19 | R 1/4 | 7.5 |
| 200-30SM | Rc 3/8 | 91 | (60.5) | Hex.19 | R 3/8 | 10 |
| 200-40SM | Rc 1/2 | 102 | (56) | Hex.24 | R 1/2 | 13 |

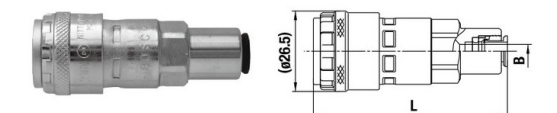
Socket SF type (Female thread)



| Models | Application (Thread) | Mass (g) | Dimensions (mm) | | |
|----------|----------------------|----------|-----------------|--------|--------|
| | | | L | H(WAF) | T |
| 200-20SF | R 1/4 | 94 | (57.5) | Hex.19 | Rc 1/4 |
| 200-30SF | R 3/8 | 103 | (55.5) | Hex.22 | Rc 3/8 |
| 200-40SF | R 1/2 | 138 | (57.5) | Hex.29 | Rc 1/2 |

Models and Dimensions (With Tube Fitter)

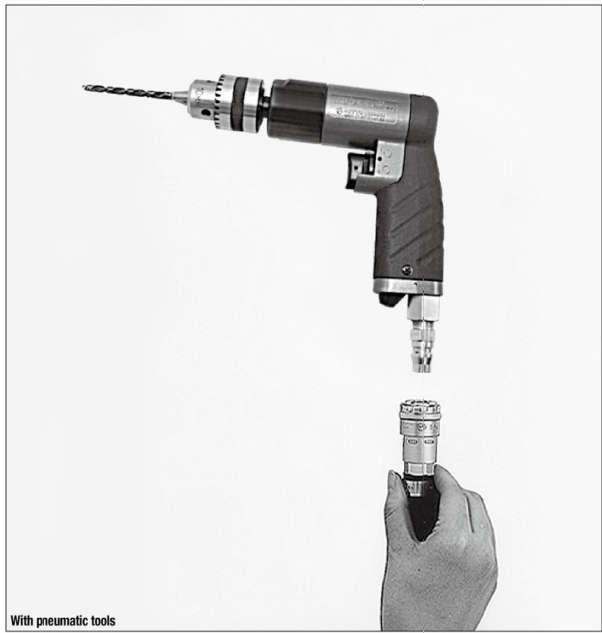
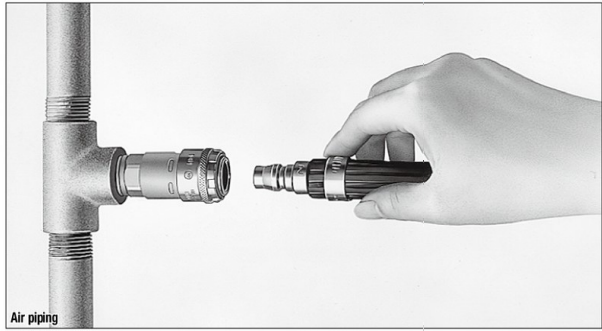
Socket SC type (Tube Fitter)



| Model | Application (Tube) | Mass (g) | Dimensions (mm) | |
|-----------|--------------------|----------|-----------------|-----|
| | | | L | øB |
| 200-60SC | For 6 mm OD tube | 100 | (64) | 5 |
| 200-80SC | For 8 mm OD tube | 105 | (67.5) | 6.5 |
| 200-100SC | For 10 mm OD tube | 123 | (70.5) | 8.5 |

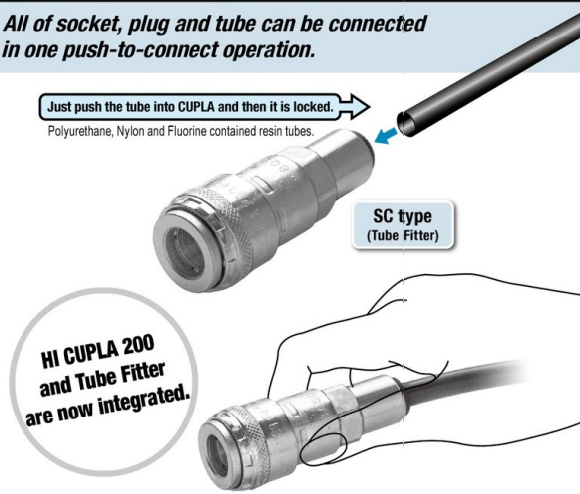
* The outer dimensions of Model 200-100SC are a little bit different from those of other models.

Application example



All of socket, plug and tube can be connected in one push-to-connect operation.

Just push the tube into CUPLA and then it is locked.
Polyurethane, Nylon and Fluorine contained resin tubes.



HI CUPLA 200 and Tube Fitter are now integrated.

Major applications: miniature pneumatic equipment, automatic control equipment, physicochemical equipment and medical devices.

Just push in for quick connection.

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

For Low Pressure (Air)

HI CUPLA for Connection to Braided Hoses

NUT CUPLA NUT CUPLA 200 ROTARY NUT CUPLA

For connection to urethane hose, braided hose

Working pressure

1.5 MPa
(15 kgf/cm²) 1.0 MPa
(10 kgf/cm²)

Valve structure

One-way shut-off

Applicable fluids (Steel applies to air only)

Air Water

No hose clamp required!
Fitted with hose guard nut to prevent possible kinking.
HI CUPLA for connection to braided hoses is now available.

- Nut types are available in HI CUPLA Series and HI CUPLA 200 Series. Hose guard nut type available to prevent hose kinking.
- To mount on hose, simply slide it over the nipple and tighten the nut.
- The design to tighten outside of hose reduces hose slip away or fluid leaks.
- Also available are ROTARY NUT CUPLA equipped with ball bearing swivel mechanism to prevent and relieve tension on operator's hands.



| Specifications (NUT CUPLA / NUT CUPLA 200 / ROTARY NUT CUPLA) | | | | |
|---|--|---------------------|---------------------------|-------------------|
| Body material | Steel (Chrome plated) | | | |
| Urethane hose size | For ø5 mm x ø8 mm, ø6 mm x ø9 mm hose For ø6.5 mm x ø10 mm, ø8 mm x ø12 mm hose For ø8.5 mm x ø12.5 mm, ø11 mm x ø16 mm hose | | | |
| Pressure unit | MPa | kgf/cm ² | bar | PSI |
| Working pressure | 1.5 | 15 | 15 | 218 |
| Seal material | Seal material | Mark | Working temperature range | Remarks |
| Working temperature range | Nitrile rubber | NBR (SG) | -20°C to +60°C | Standard material |

| Specifications (HI CUPLA for Connection to Braided Hoses) | | | | |
|---|-------------------------|----------|---------------------------|-------------------|
| Body material | Steel (Chrome plated) | | Brass | |
| Braided hose size | For ø9 mm x ø15 mm hose | | | |
| Working pressure | MPa | 1.5 | 1.0 | |
| | kgf/cm ² | 15 | 10 | |
| | bar | 15 | 10 | |
| | PSI | 218 | 145 | |
| Seal material | Seal material | Mark | Working temperature range | Remarks |
| Working temperature range | Nitrile rubber | NBR (SG) | -20°C to +80°C | Standard material |

Maximum working pressure and temperature range of PN/SN type for braided hoses depends upon the specification of the braided hose to be used.

| Model | Tightening Torque Range | | | Nm (kgf·cm) |
|--------|-------------------------|-----------------------|-----------------------|-------------|
| | SN, PN, SNR Type | 65SNG, PNG, SNRG Type | 85SNG, PNG, SNRG Type | |
| Torque | 9 to 11 {92 to 112} | 5 to 6 {51 to 61} | 7 to 8 {71 to 82} | |

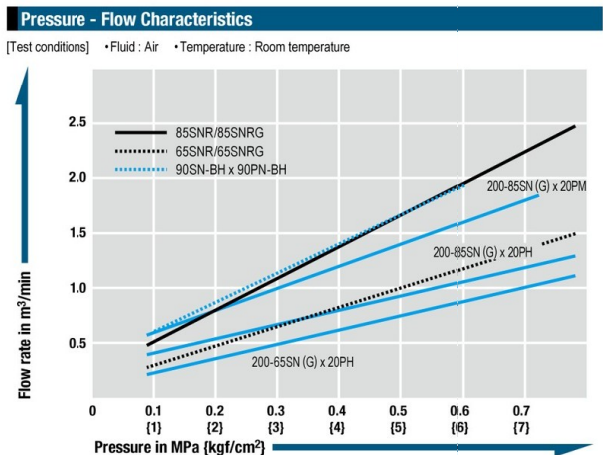
To mount on braided hose or urethane hose, slide it over to the hose barb and tighten the nut until it is flush against the hose barb base. It is recommended that grease is applied to the inside of the nut (threaded part and hose contact part) for easy tightening.



Interchangeability
 Interchangeable with HI CUPLA models 10, 17, 20, 30 and 40.
 Interchangeable with each models of NUT CUPLA series and HI CUPLA series (except models 400, 600, and 800).
 Please see page 19 for "HI CUPLA Series Interchangeability".

| | | Minimum Cross-Sectional Area (mm ²) | | | | | | | | | | | |
|-----------|------|---|------|------|------|------|------|------|------|------|------|------|---------|
| | | 17PH | 20PH | 30PH | 40PH | 10PM | 20PM | 30PM | 40PM | 20PF | 30PF | 40PF | 90PN-BH |
| Socket | Plug | | | | | | | | | | | | |
| 200-50SN | | 16 | 16 | 16 | 16 | 13 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| 200-60SN | | 16 | 20 | 22 | 22 | 13 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| 200-65SN | | 16 | 20 | 22 | 22 | 13 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| 200-80SN | | 16 | 20 | 41 | 41 | 13 | 41 | 41 | 41 | 41 | 41 | 41 | 41 |
| 200-85SN | | 16 | 20 | 41 | 41 | 13 | 41 | 41 | 41 | 41 | 41 | 41 | 41 |
| 200-110SN | | 16 | 20 | 41 | 41 | 13 | 41 | 41 | 41 | 41 | 41 | 41 | 41 |
| 200-50SNG | | 16 | 16 | 16 | 16 | 13 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| 200-65SNG | | 16 | 20 | 22 | 22 | 13 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| 200-85SNG | | 16 | 20 | 40 | 41 | 13 | 41 | 41 | 41 | 41 | 41 | 41 | 41 |
| 90SN-BH | | 16 | 20 | 33 | 33 | 13 | 33 | 33 | 33 | 33 | 33 | 33 | 33 |

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



HI CUPLA for Connection to Braided Hoses / NUT CUPLA / NUT CUPLA 200 / ROTARY NUT CUPLA

Models and Dimensions (NUT CUPLA / NUT CUPLA 200)

WAF : WAF stands for width across flats.

Plug PN type (HI CUPLA for connection to braided hoses)

Grease is applied to the threaded part of steel nut to prevent galling.

| Model | Application (Hose) | Wall Thickness (mm) | Body material* Mass (g) | | Dimensions (mm) | | | | |
|---------|--------------------|---------------------|-------------------------|-------|-----------------|---------|---------|----|-----|
| | | | Steel | Brass | L | H1(WAF) | H2(WAF) | C | øB |
| 90PN-BH | ø9 x ø15 | 3±0.3 | 86 | 88 | (51) | Hex.23 | Hex.24 | 20 | 7.5 |

Socket SN type (HI CUPLA for connection to braided hoses)

Grease is applied to the threaded part of steel nut to prevent galling.

| Model | Application (Hose) | Wall Thickness (mm) | Body material* Mass (g) | | Dimensions (mm) | | | | |
|---------|--------------------|---------------------|-------------------------|-------|-----------------|----------------------|---------|---------|-----|
| | | | Steel | Brass | L | øD | H1(WAF) | H2(WAF) | øB |
| 90SN-BH | ø9 x ø15 | 3±0.3 | 147 | 154 | (64.5) | (26.5) _{±1} | Hex.24 | Hex.24 | 8.5 |

Plug PN type (NUT CUPLA for urethane hose connection)

Grease is applied to the threaded part of stainless steel nut to prevent galling.

| Model | Application (Hose) | Body material* Mass (g) | | Dimensions (mm) | | | | | | |
|-------|--------------------|-------------------------|-----------------|-----------------|----|-----|-----|--------|--------|--|
| | | Steel | Stainless steel | L | C | øBp | øBd | H(WAF) | T(WAF) | |
| 50PN | ø5 x ø8 | 30 | - | (43) | 20 | 4.5 | 7.5 | Hex.17 | Hex.17 | |
| 60PN | ø6 x ø9 | 40 | - | (43) | 20 | 5.3 | 7.5 | Hex.17 | Hex.17 | |
| 65PN | ø6.5 x ø10 | 42 | 43 | (43) | 20 | 5.3 | 7.5 | Hex.17 | Hex.17 | |
| 80PN | ø8 x ø12 | 50 | 52 | (45) | 20 | 7.5 | 7.5 | Hex.19 | Hex.19 | |
| 85PN | ø8.5 x ø12.5 | 52 | 53 | (45) | 20 | 7.5 | 7.5 | Hex.19 | Hex.19 | |
| 110PN | ø11 x ø16 | 75 | - | (52) | 20 | 7.5 | 7.5 | Hex.23 | Hex.24 | |

Socket SN type (NUT CUPLA for urethane hose connection)

Grease is applied to the threaded part of stainless steel nut to prevent galling.

| Model | Application (Hose) | Body material* Mass (g) | | Dimensions (mm) | | | | | | |
|-------|--------------------|-------------------------|-----------------|-----------------|----------------------|-----|--------|--------|--|--|
| | | Steel | Stainless steel | L | øD | øB | H(WAF) | T(WAF) | | |
| 50SN | ø5 x ø8 | 117 | - | (60) | (26.5) | 4.5 | Hex.19 | Hex.17 | | |
| 60SN | ø6 x ø9 | 115 | - | (59.5) | (26.5) | 5.3 | Hex.19 | Hex.17 | | |
| 65SN | ø6.5 x ø10 | 115 | 110 | (59.5) | (26.5) _{±2} | 5.3 | Hex.19 | Hex.17 | | |
| 80SN | ø8 x ø12 | 120 | 114 | (61.5) | (26.5) _{±2} | 7.5 | Hex.19 | Hex.19 | | |
| 85SN | ø8.5 x ø12.5 | 120 | 115 | (61.5) | (26.5) _{±2} | 7.5 | Hex.19 | Hex.19 | | |
| 110SN | ø11 x ø16 | 153 | - | (64.5) | (26.5) | 10 | Hex.23 | Hex.24 | | |

Socket SN type (NUT CUPLA 200 for urethane hose connection)

| Model | Application (Hose) | Mass (g) | Dimensions (mm) | | | | |
|-----------|--------------------|----------|-----------------|--------|-----|--------|--------|
| | | | L | øD | øB | H(WAF) | T(WAF) |
| 200-50SN | ø5 x ø8 | 105 | (64.5) | (26.5) | 4.5 | Hex.19 | Hex.17 |
| 200-60SN | ø6 x ø9 | 105 | (64.5) | (26.5) | 5.3 | Hex.19 | Hex.17 |
| 200-65SN | ø6.5 x ø10 | 106 | (64.5) | (26.5) | 5.3 | Hex.19 | Hex.17 |
| 200-80SN | ø8 x ø12 | 112 | (66.5) | (26.5) | 7.5 | Hex.19 | Hex.19 |
| 200-85SN | ø8.5 x ø12.5 | 113 | (66.5) | (26.5) | 7.5 | Hex.19 | Hex.19 |
| 200-110SN | ø11 x ø16 | 127 | (62) | (26.5) | 10 | Hex.23 | Hex.24 |

Plug PNG type (For urethane hose with hose guard nut connection)

| Model | Application (Hose) | Mass (g) | Dimensions (mm) | | | | | | | |
|---------------------|--------------------|----------|-----------------|----|----|----|-----|-----|--------|--------|
| | | | L | C | A | øD | øBp | øBd | H(WAF) | T(WAF) |
| 50PNG ^{*3} | ø5 x ø8 | 41 | (116) | 20 | 90 | 23 | 4.5 | 7.5 | Hex.17 | Hex.19 |
| 65PNG | ø6.5 x ø10 | 43 | (116) | 20 | 90 | 23 | 5.3 | 7.5 | Hex.17 | Hex.19 |
| 85PNG | ø8.5 x ø12.5 | 55 | (116) | 20 | 90 | 26 | 7.5 | 7.5 | Hex.19 | Hex.22 |

Socket SNG type (For urethane hose with hose guard nut connection)

| Model | Application (Hose) | Mass (g) | Dimensions (mm) | | | | | |
|-------------------------|--------------------|----------|-----------------|----|--------|-----|--------|--------|
| | | | L | A | øD | øB | H(WAF) | T(WAF) |
| 200-50SNG ^{*3} | ø5 x ø8 | 105 | (137.5) | 90 | (26.5) | 4.5 | Hex.19 | Hex.19 |
| 200-65SNG | ø6.5 x ø10 | 107 | (137.5) | 90 | (26.5) | 5.3 | Hex.19 | Hex.19 |
| 200-85SNG | ø8.5 x ø12.5 | 116 | (137.5) | 90 | (26.5) | 7.5 | Hex.19 | Hex.22 |

Socket SNR type (ROTARY NUT CUPLA with swivel mechanism)

| Model | Application (Hose) | Mass (g) | Dimensions (mm) | | | | |
|-------|--------------------|----------|-----------------|--------|-----|--------|--------|
| | | | L | øD | øB | H(WAF) | T(WAF) |
| 65SNR | ø6.5 x ø10 | 120 | (67.3) | (26.5) | 5.3 | Hex.19 | Hex.17 |
| 85SNR | ø8.5 x ø12.5 | 136 | (69.3) | (26.5) | 7.5 | Hex.21 | Hex.19 |

Socket SNRG type (ROTARY NUT CUPLA with swivel mechanism)

| Model | Application (Hose) | Mass (g) | Dimensions (mm) | | | | | |
|--------|--------------------|----------|-----------------|----|--------|-----|--------|--------|
| | | | L | A | øD | øB | H(WAF) | T(WAF) |
| 65SNRG | ø6.5 x ø10 | 121 | (140.3) | 90 | (26.5) | 5.3 | Hex.19 | Hex.19 |
| 85SNRG | ø8.5 x ø12.5 | 139 | (140.3) | 90 | (26.5) | 7.5 | Hex.21 | Hex.22 |

The pictures of HI CUPLA for connection to braided hoses and PN type and SN type of NUT CUPLA show steel bodies.

*1: Brass: øD=25.4 *2: Stainless steel: øD=25.4 *3: Made-to-order item


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

For Low Pressure (Air)

LOCK CUPLA 200


Air line coupling with sleeve safety lock feature

Working pressure




1.5 MPa
(15 kgf/cm²)

Valve structure



One-way shut-off

Applicable fluid



Air

Push-to-connect operation. Added easy lock design for safety!



- Locking mechanism prevents accidental disconnection after connection. Good for connections between hoses.
- Simple one push of plug and socket to each other for connection. Easy handling improves job efficiency.
- Ball bearing swivel mechanism prevents hose twists and relieves load on holding hands (SNRG type).
- To mount on hose, simply slide it over the nipple and tighten the nut (SNRG type).
- Hose guard nut to prevent hose from kinking as a standard feature (SNRG type).
- Low pressure loss valve design gives improved flow rate.

Application Example

| Applicable fluid | Application |
|------------------|--|
| Air | Pneumatic tools, Pneumatic devices, Various air piping |

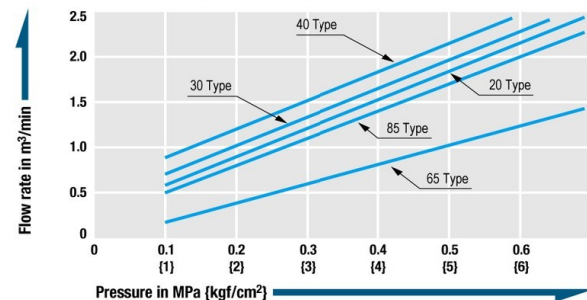
Suitability for Vacuum

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

| Plus LOCK CUPLA 200 | Minimum Cross-sectional Area (mm ²) | | | | | | | | | | |
|------------------------|---|------|------|------|------|------|------|------|------|------|------|
| | 17PH | 20PH | 30PH | 40PH | 10PM | 20PM | 30PM | 40PM | 20PF | 30PF | 40PF |
| L200-20SH | 16 | 20 | 20 | 20 | 13 | 20 | 20 | 20 | 20 | 20 | 20 |
| L200-30SH | 16 | 20 | 41 | 41 | 13 | 41 | 41 | 41 | 41 | 41 | 41 |
| L200-40SH | 16 | 20 | 41 | 41 | 13 | 41 | 41 | 41 | 41 | 41 | 41 |
| L200-20SM | 16 | 20 | 41 | 41 | 13 | 41 | 41 | 41 | 41 | 41 | 41 |
| L200-30SM | 16 | 20 | 41 | 41 | 13 | 41 | 41 | 41 | 41 | 41 | 41 |
| L200-40SM | 16 | 20 | 41 | 41 | 13 | 41 | 41 | 41 | 41 | 41 | 41 |
| L200-20SF | 16 | 20 | 41 | 41 | 13 | 41 | 41 | 41 | 41 | 41 | 41 |
| L200-30SF | 16 | 20 | 41 | 41 | 13 | 41 | 41 | 41 | 41 | 41 | 41 |
| L200-40SF | 16 | 20 | 41 | 41 | 13 | 41 | 41 | 41 | 41 | 41 | 41 |
| L200-65SNRG | 16 | 20 | 20 | 20 | 13 | 20 | 20 | 20 | 20 | 20 | 20 |
| L200-85SNRG | 16 | 38 | 38 | 38 | 13 | 38 | 38 | 38 | 38 | 38 | 38 |

Pressure - Flow Characteristics

[Test conditions] • Fluid : Air • Temperature : Room temperature



Specifications

| | | | | |
|------------------|-----------------------|--|---------------------------|-------------------|
| Body material | Steel (Chrome plated) | | | |
| Size | Thread and hose barb | 1/4", 3/8", 1/2" | | |
| | SNRG type | For ø6.5 mm x ø10mm, ø8.5 mm x ø12.5 mm hose | | |
| Pressure unit | MPa | kgf/cm ² | bar | PSI |
| Working pressure | 1.5 | 15 | 15 | 218 |
| Seal material | Seal material | Mark | Working temperature range | Remarks |
| | Nitrile rubber | NBR (SG) | -20°C to +60°C | Standard material |

Maximum Tightening Torque, Tightening Torque Range Nm {kgf·cm}

| Type of connection | Thread | | | Hose guard nut | |
|--------------------|----------|----------|----------|-------------------|-------------------|
| Applicable size | 1/4" | 3/8" | 1/2" | ø6.5 mm x ø10mm | ø8.5 mm x ø12.5mm |
| Torque | 14 {143} | 22 {224} | 60 {612} | 5 to 6 {51 to 61} | 7 to 8 {71 to 82} |

To mount on urethane hose, slide it over to the hose barb and tighten the nut until it is flush against the hose barb base. It is recommended that grease is applied to the inside of the nut (threaded part and hose contact part) for easy tightening.

Flow Direction

Fluid must run from socket to plug.



Interchangeability

Interchangeable with plugs of HI CUPLA models 10, 17, 20, 30 and 40. Interchangeable with each models of NUT CUPLA series and HI CUPLA series. Please see page 19 for "HI CUPLA Series Interchangeability".

Models and Dimensions

WAF : WAF stands for width across flats.

Socket SH type (Hose barb)



| Model | Application (Hose) | Mass (g) | Dimensions (mm) | | | |
|-----------|--------------------|----------|-----------------|------|------|-----|
| | | | L | A | øT | øB |
| L200-20SH | 1/4" | 90 | (77) | 27.5 | 9 | 5 |
| L200-30SH | 3/8" | 92 | (79) | 32 | 11.3 | 7.5 |
| L200-40SH | 1/2" | 104 | (79.5) | 32 | 15 | 10 |

Socket SM type (Male thread)



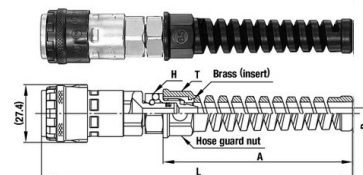
| Model | Application (Thread) | Mass (g) | Dimensions (mm) | | | |
|-----------|----------------------|----------|-----------------|--------|-------|-----|
| | | | L | H(WAF) | T | øB |
| L200-20SM | Rc 1/4 | 89 | (60) | Hex.19 | R 1/4 | 7.5 |
| L200-30SM | Rc 3/8 | 91 | (60.5) | Hex.19 | R 3/8 | 10 |
| L200-40SM | Rc 1/2 | 102 | (56) | Hex.24 | R 1/2 | 13 |

Socket SF type (Female thread)



| Model | Application (Thread) | Mass (g) | Dimensions (mm) | | | |
|-----------|----------------------|----------|-----------------|--------|--------|----|
| | | | L | H(WAF) | T | øB |
| L200-20SF | R 1/4 | 94 | (57.5) | Hex.19 | Rc 1/4 | |
| L200-30SF | R 3/8 | 103 | (55.5) | Hex.22 | Rc 3/8 | |
| L200-40SF | R 1/2 | 138 | (57.5) | Hex.29 | Rc 1/2 | |

Socket SNRG type (For hose with hose guard nut connection)



| Model | Application (Hose) | Mass (g) | Dimensions (mm) | | | | |
|-------------|--------------------|----------|-----------------|------|--------|--------|-----|
| | | | L | A | H(WAF) | T(WAF) | øB |
| L200-65SNRG | ø6.5 mm x ø10 mm | 125 | (147.8) | (90) | Hex.19 | Hex.19 | 5.3 |
| L200-85SNRG | ø8.5 mm x ø12.5 mm | 132 | (146.8) | (90) | Hex.21 | Hex.22 | 7.5 |

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


For Low Pressure (Air)

HI CUPLA

Two Way Type


For bi-directional compressed air flow

Working pressure




1.5 MPa
(15 kgf/cm²)

Valve structure



One-way shut-off

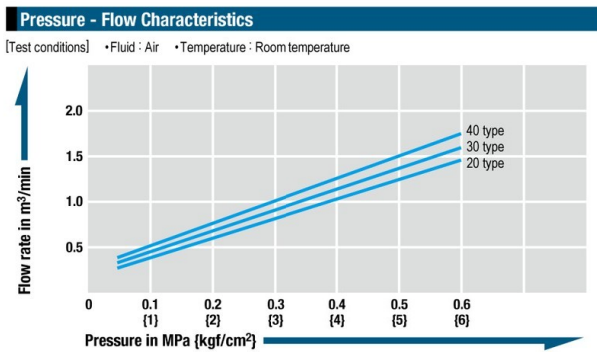
Applicable fluid



Air

Air flows in either direction from plug or from socket side when coupled. Ideal for connection of factory air supply lines to pneumatic devices.

- Can be connected with plugs for HI CUPLA Models 10, 17, 20, 30 and 40 and allows fluid to flow from either plug or socket side when coupled.
- Wide range of connections such as from ports on air pipes in factory to individual pneumatic devices.
- Critical structural parts are heat-treated for increased strength giving greater durability and resistance to wear.
- Available in various sizes and end configurations to suit a wide range of applications.



| Specifications | | Body material of brass or stainless steel is available as made-to-order item. | | | |
|---------------------------|-----------------------|---|---------------------------|--------------------|--|
| Body material | Steel (Chrome plated) | | | | |
| Size | Thread | 1/4", 3/8", 1/2" | | | |
| | Hose barb | For ø6.5 mm x ø10 mm, ø8.5 mm x ø12.5 mm hose | | | |
| Pressure unit | MPa | kgf/cm ² | bar | PSI | |
| Working pressure | 1.5 | 15 | 15 | 218 | |
| Seal material | Seal material | Mark | Working temperature range | Remarks | |
| | Nitrile rubber | NBR (SG) | -20°C to +80°C | Standard material | |
| Working temperature range | Fluoro rubber | FKM (X-100) | -20°C to +180°C | Made-to-order item | |

| Maximum Tightening Torque | | Nm (kgf·cm) | | |
|---------------------------|----------|-------------|----------|--|
| Size (Thread) | 1/4" | 3/8" | 1/2" | |
| Torque | 14 {143} | 22 {224} | 60 {612} | |

Flow Direction

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

Interchangeability

Interchangeable with plugs of HI CUPLA models 10, 17, 20, 30 and 40. Interchangeable with each models of NUT CUPLA series and HI CUPLA series. Please see page 19 for "HI CUPLA Series Interchangeability".

Suitability for Vacuum

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

Models and Dimensions WAF : WAF stands for width across flats.

Socket SH type (Hose barb)

| Model | Application (Hose) | Mass (g) | Dimensions (mm) | | | | |
|--------|--------------------|----------|-----------------|--------|----|------|-----|
| | | | L | øD | A | øT | øB |
| TW20SH | 1/4" | 98 | (72.5) | (26.5) | 30 | 9 | 5 |
| TW30SH | 3/8" | 102 | (76.5) | (26.5) | 34 | 11.3 | 7.5 |
| TW40SH | 1/2" | 117 | (78.5) | (26.5) | 36 | 15 | 9 |

Socket SM type (Male thread)

| Model | Application (Thread) | Mass (g) | Dimensions (mm) | | | | |
|--------|----------------------|----------|-----------------|--------|--------|-------|----|
| | | | L | øD | H(WAF) | T | øB |
| TW20SM | Rc 1/4 | 95 | (55.5) | (26.5) | Hex.19 | R 1/4 | 7 |
| TW30SM | Rc 3/8 | 109 | (56.5) | (26.5) | Hex.19 | R 3/8 | 8 |
| TW40SM | Rc 1/2 | 116 | (59.5) | (26.5) | Hex.23 | R 1/2 | 9 |

Socket SF type (Female thread)

| Model | Application (Thread) | Mass (g) | Dimensions (mm) | | | |
|--------|----------------------|----------|-----------------|--------|--------|--------|
| | | | L | øD | H(WAF) | T |
| TW20SF | R 1/4 | 95 | (49.5) | (26.5) | Hex.19 | Rc 1/4 |
| TW30SF | R 3/8 | 96 | (50.5) | (26.5) | Hex.21 | Rc 3/8 |
| TW40SF | R 1/2 | 137 | (52.5) | (26.5) | Hex.29 | Rc 1/2 |


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

For Low Pressure (Air)

FULL-BLOW CUPLA


Air line coupling with low pressure loss and high flow rate

Working pressure




1.5 MPa
(15 kgf/cm²)

Valve structure



One-way shut-off

Applicable fluid

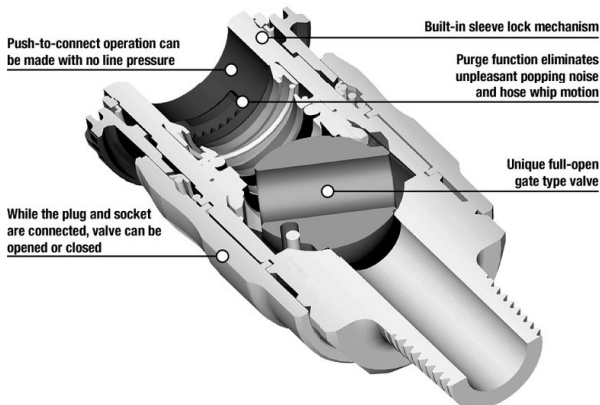


Air

Unique full-open gate type valve mechanism realizes low pressure loss and high flow rate, which reduces required source air volume.

- The flow rate is increased by up to 40% more than that of conventional CUPLA.
- During connection and disconnection, the valve is closed, enabling connection/disconnection under zero line pressure.
- When the sleeve of socket is returned to its original position, the purge mechanism releases the residual air pressure in the plug, eliminating unpleasant popping noise and hose whip motion on disconnection.
- Built-in sleeve lock mechanism prevents accidental disconnection of CUPLA, ensuring safe operation.
- The valve can be opened and closed while the socket and plug are connected.
- The weight is reduced by 30 to 45% compared with that of conventional CUPLA.

Note: Direct mounting of FULL-BLOW CUPLA to percussive and vibrating tools should be avoided.



| Specifications | | | | |
|------------------|---------------------------|---|---------------------------|-------------------|
| Body material | Aluminum alloy | | | |
| Size | Thread and hose barb | 1/4", 3/8", 1/2" | | |
| | SN type for urethane hose | For ø6.5 mm x ø10 mm, ø8 mm x ø12 mm polyurethane hose For ø8.5 mm x ø12.5 mm, ø11 mm x ø16 mm polyurethane hose | | |
| Pressure unit | MPa | kgf/cm ² | bar | PSI |
| Working pressure | 1.5 | 15 | 15 | 218 |
| Seal material | Seal material | Mark | Working temperature range | Remarks |
| | Nitrile rubber | NBR (SG) | -20°C to +60°C | Standard material |

| Maximum Tightening Torque | | | Nm {kgf·cm} |
|---------------------------|----------|----------|-------------|
| Size (Thread) | 1/4" | 3/8" | 1/2" |
| Torque | 14 {143} | 22 {224} | 60 {612} |

| Tightening Torque Range | | Nm {kgf·cm} |
|---------------------------|--|-------------|
| SN Type for urethane hose | | |
| 9 to 11 {92 to 112} | | |

To mount on urethane hose, slide it over to the hose barb and tighten the nut until it is flush against the hose barb base. It is recommended that grease is applied to the inside of the nut (threaded part and hose contact part) for easy tightening.

Flow Direction

Fluid must run from socket to plug.

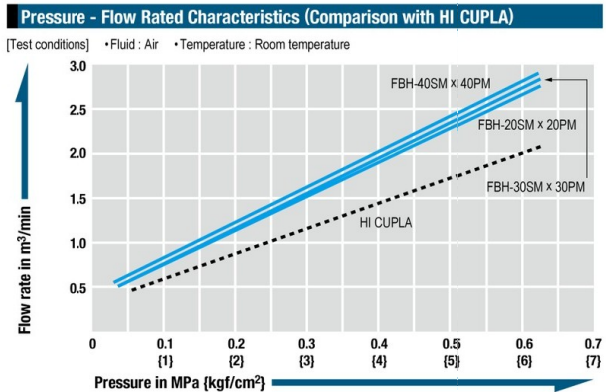
Interchangeability

Interchangeable with plugs of HI CUPLA models 10, 17, 20, 30 and 40.
Interchangeable with each models of NUT CUPLA series and HI CUPLA series.
Not interchangeable with some plugs of plastic HI CUPLA 250 (discontinued product).
Please see page 19 for "HI CUPLA Series Interchangeability".

| Minimum Cross-Sectional Area | | (mm ²) | | | | | | | | | | |
|------------------------------|------|--------------------|------|------|------|------|------|------|------|------|------|------|
| Socket | Plug | 17PH | 20PH | 30PH | 40PH | 10PM | 20PM | 30PM | 40PM | 20PF | 30PF | 40PF |
| FBH-20SH | 16 | 20 | 24 | 24 | 13 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| FBH-30SH | 16 | 20 | 44 | 44 | 13 | 44 | 44 | 44 | 44 | 44 | 44 | 44 |
| FBH-40SH | 16 | 20 | 44 | 44 | 13 | 44 | 44 | 44 | 44 | 44 | 44 | 44 |
| FBH-20SM | 16 | 20 | 44 | 44 | 13 | 44 | 44 | 44 | 44 | 44 | 44 | 44 |
| FBH-30SM | 16 | 20 | 44 | 44 | 13 | 44 | 44 | 44 | 44 | 44 | 44 | 44 |
| FBH-40SM | 16 | 20 | 44 | 44 | 13 | 44 | 44 | 44 | 44 | 44 | 44 | 44 |
| FBH-20SF | 16 | 20 | 44 | 44 | 13 | 44 | 44 | 44 | 44 | 44 | 44 | 44 |
| FBH-30SF | 16 | 20 | 44 | 44 | 13 | 44 | 44 | 44 | 44 | 44 | 44 | 44 |
| FBH-40SF | 16 | 20 | 44 | 44 | 13 | 44 | 44 | 44 | 44 | 44 | 44 | 44 |
| FBH-65SN | 16 | 20 | 24 | 24 | 13 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| FBH-80SN | 16 | 20 | 44 | 44 | 13 | 44 | 44 | 44 | 44 | 44 | 44 | 44 |
| FBH-85SN | 16 | 20 | 44 | 44 | 13 | 44 | 44 | 44 | 44 | 44 | 44 | 44 |
| FBH-110SN | 16 | 20 | 44 | 44 | 13 | 44 | 44 | 44 | 44 | 44 | 44 | 44 |

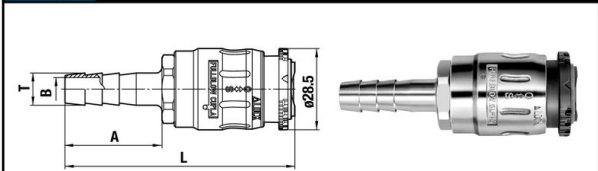
Suitability for Vacuum

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



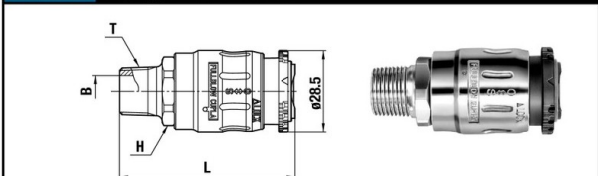
Models and Dimensions WAF : WAF stands for width across flats.

Socket SH type (Hose barb)



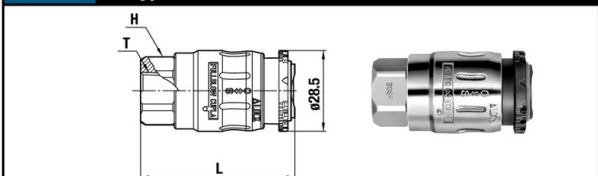
| Model | Application (Hose) | Mass (g) | Dimensions (mm) | | | |
|----------|--------------------|----------|-----------------|----|------|-----|
| | | | L | A | øT | øB |
| FBH-20SH | 1/4" | 70 | (77) | 30 | 9 | 5.5 |
| FBH-30SH | 3/8" | 74 | (81) | 34 | 11.3 | 8 |
| FBH-40SH | 1/2" | 85 | (83) | 36 | 15 | 10 |

Socket SM type (Male thread)



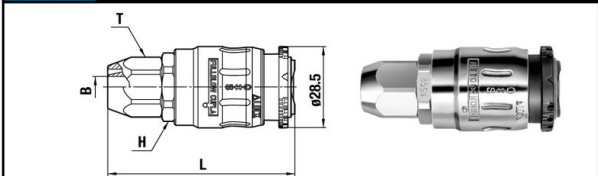
| Model | Application (Thread) | Mass (g) | Dimensions (mm) | | | |
|----------|----------------------|----------|-----------------|--------|-------|----|
| | | | L | H(WAF) | T | øB |
| FBH-20SM | Rc 1/4 | 71 | (62) | Hex.22 | R 1/4 | 8 |
| FBH-30SM | Rc 3/8 | 75 | (62) | Hex.22 | R 3/8 | 11 |
| FBH-40SM | Rc 1/2 | 86 | (66) | Hex.22 | R 1/2 | 15 |

Socket SF type (Female thread)



| Model | Application (Thread) | Mass (g) | Dimensions (mm) | | |
|----------|----------------------|----------|-----------------|--------|--------|
| | | | L | H(WAF) | T |
| FBH-20SF | R 1/4 | 77 | (54.5) | Hex.22 | Rc 1/4 |
| FBH-30SF | R 3/8 | 69 | (54.5) | Hex.22 | Rc 3/8 |
| FBH-40SF | R 1/2 | 90 | (61) | Hex.26 | Rc 1/2 |

Socket SN type (For urethane hose connection)

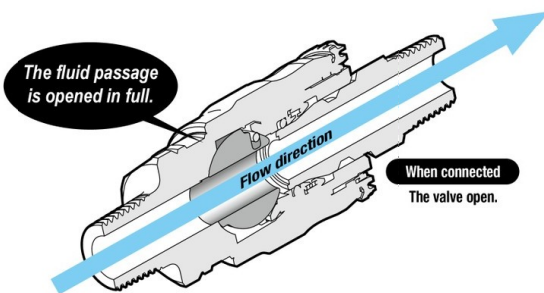
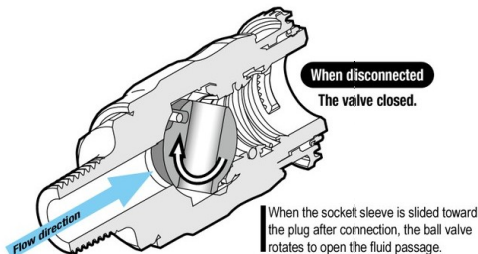


| Model | Application (Hose) | Mass (g) | Dimensions (mm) | | | |
|-----------|--------------------|----------|-----------------|--------|--------|-----|
| | | | L | H(WAF) | T(WAF) | øB |
| FBH-65SN | ø6.5 mm x ø10 mm | 64 | (64) | Hex.22 | Hex.17 | 5.5 |
| FBH-80SN | ø8 mm x ø12 mm | 67 | (66) | Hex.22 | Hex.19 | 7.5 |
| FBH-85SN | ø8.5 mm x ø12.5 mm | 68 | (66) | Hex.22 | Hex.19 | 7.5 |
| FBH-110SN | ø11 mm x ø16 mm | 86 | (71) | Hex.26 | Hex.24 | 10 |

Features of FULL-BLOW CUPLA

Up to about 40% increase in flow rate.

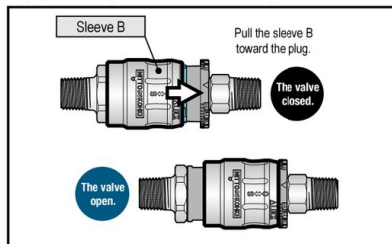
Pressure loss is reduced to the ultimate level. Up to about 40% increase in flow rate compared with conventional CUPLA.



How It Works

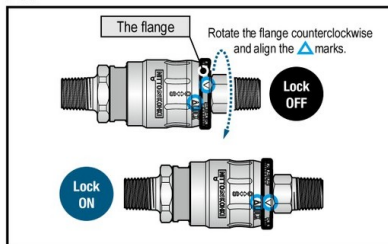
1. Open the valve

Only after connection with the plug, you can slide the socket sleeve B toward the plug in order to open the built-in valve. Full flow path is then obtained.



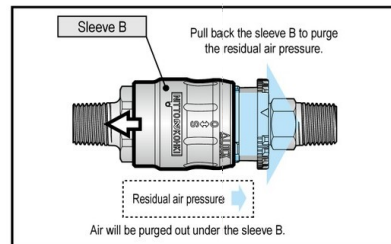
2. Lock the sleeve

Rotate the flange counterclockwise to lock the sleeve B. Without unlocking the plug you cannot disconnect.



3. Purge the residual air

To disconnect the plug, first turn the flange back to its original position for unlocking and then pull the sleeve B back to the original position. The built-in valve will be closed to purge the residual air pressure.



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


For Low Pressure (Air)

PURGE HI CUPLA

PVR Type


Air line coupling with built-in residual air pressure release function

Working pressure




1.5 MPa
(15 kgf/cm²)

Valve structure



One-way shut-off

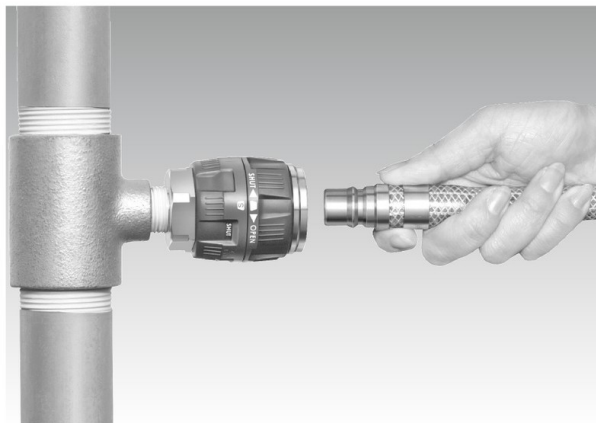
Applicable fluid



Air

Connection can be made smoothly regardless of the existing pressure inside the socket.

- Push-to-connect operation. Easy one-hand operation.
- Built-in sleeve lock mechanism prevents accidental disconnection of CUPLA, ensuring safe operation.
- Upon completion of sleeve locking the valve will open to supply air.
- When the sleeve is turned back to its original position, the valve is closed and purges residual air pressure in the plug without unpleasant popping noise and hose whip motion on disconnection.
- Even after connection, valve opening/closing control is possible.
- Flow rate increases by approximately 20% over that of HI CUPLA Model 400SM.
- Can be connected with plugs for HI CUPLA Models 400, 600 and 800.



| Specifications | | | | |
|------------------|---|---------------------|---------------------------|-------------------|
| Body material | Zinc alloy (part Brass and others) | | | |
| Size | Thread | 1/2", 3/4", 1" | | |
| | Hose barb | 1/2", 3/4", 1" hose | | |
| Pressure unit | MPa | kgf/cm ² | bar | PSI |
| Working pressure | 1.5 | 15 | 15 | 218 |
| Seal material | Seal material | Mark | Working temperature range | Remarks |
| | Nitrile rubber Hydrogenated nitrile rubber | NBR (SG) | -20°C to +60°C | Standard material |

| Maximum Tightening Torque | | | Nm (kgf·cm) |
|---------------------------|----------|----------|-------------|
| Size (Thread) | 1/2" | 3/4" | 1" |
| Torque | 30 {306} | 50 {510} | 65 {663} |

Flow Direction

Fluid must run from socket to plug.

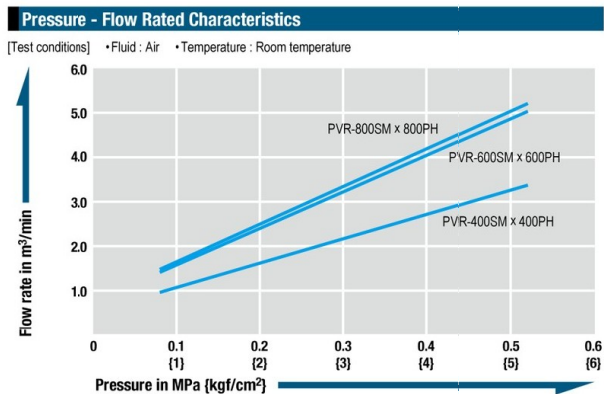
Interchangeability

Can be connected with plugs of HI CUPLA models 400, 600 and 800. Please see page 19 for "HI CUPLA Series Interchangeability".

| Model | Minimum Cross-Sectional Area (mm ²) | | | | | | | | |
|-----------|---|-------|-------|-------|-------|-------|-------|-------|-------|
| | 400PH | 600PH | 800PH | 400PM | 600PM | 800PM | 400PF | 600PF | 800PF |
| PVR-400SH | 64 | 71 | 71 | 71 | 71 | 71 | 71 | 71 | 71 |
| PVR-600SH | 64 | 116 | 116 | 116 | 116 | 116 | 116 | 116 | 116 |
| PVR-800SH | 64 | 116 | 116 | 116 | 116 | 116 | 116 | 116 | 116 |
| PVR-400SM | 64 | 116 | 116 | 116 | 116 | 116 | 116 | 116 | 116 |
| PVR-600SM | 64 | 116 | 116 | 116 | 116 | 116 | 116 | 116 | 116 |
| PVR-800SM | 64 | 116 | 116 | 116 | 116 | 116 | 116 | 116 | 116 |
| PVR-400SF | 64 | 116 | 116 | 116 | 116 | 116 | 116 | 116 | 116 |
| PVR-600SF | 64 | 116 | 116 | 116 | 116 | 116 | 116 | 116 | 116 |
| PVR-800SF | 64 | 116 | 116 | 116 | 116 | 116 | 116 | 116 | 116 |

Suitability for Vacuum

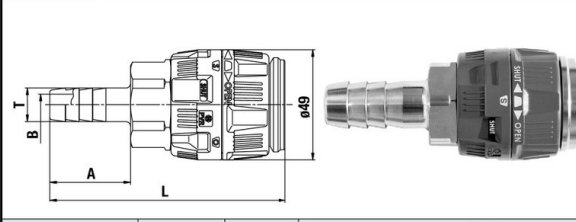
Not suitable for vacuum application in either connected or disconnected condition.



PURGE HI CUPLA PVR Type

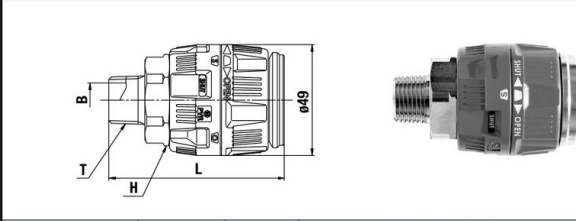
Models and Dimensions WAF : WAF stands for width across flats.

Socket SH type (Hose barb)



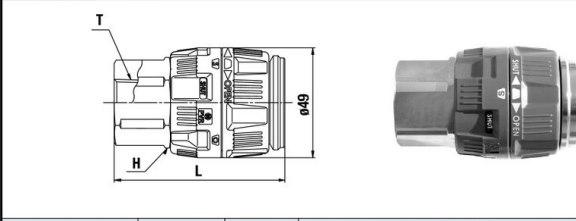
| Model | Application (Hose) | Mass (g) | Dimensions (mm) | | | |
|-----------|--------------------|----------|-----------------|----|----|-----|
| | | | L | A | øT | øB |
| PVR-400SH | 1/2" | 380 | (105) | 36 | 15 | 9.5 |
| PVR-600SH | 3/4" | 361 | (109) | 45 | 21 | 14 |
| PVR-800SH | 1" | 440 | (118) | 55 | 27 | 16 |

Socket SM type (Male thread)



| Model | Application (Thread) | Mass (g) | Dimensions (mm) | | | |
|-----------|----------------------|----------|-----------------|--------|-------|----|
| | | | L | H(WAF) | T | øB |
| PVR-400SM | Rc 1/2 | 327 | (78) | Hex.35 | R 1/2 | 14 |
| PVR-600SM | Rc 3/4 | 345 | (82) | Hex.35 | R 3/4 | 18 |
| PVR-800SM | Rc 1 | 374 | (84) | Hex.35 | R 1 | 24 |

Socket SF type (Female thread)

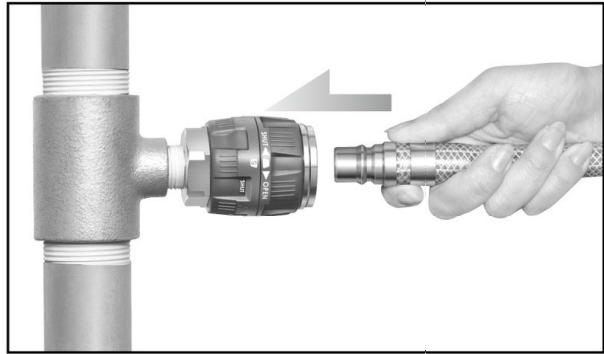


| Model | Application (Thread) | Mass (g) | Dimensions (mm) | | |
|-----------|----------------------|----------|-----------------|--------|--------|
| | | | L | H(WAF) | T |
| PVR-400SF | R 1/2 | 394 | (76) | Hex.35 | Rc 1/2 |
| PVR-600SF | R 3/4 | 370 | (77) | Hex.35 | Rc 3/4 |
| PVR-800SF | R 1 | 440 | (82) | Hex.41 | Rc 1 |

Function of PURGE HI CUPLA PVR Type

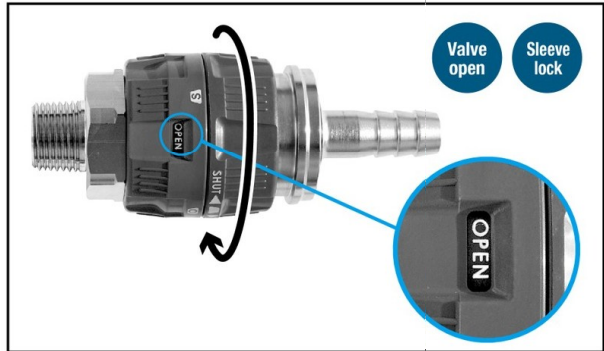
1. Connection

Valve opening/closing operation and plug connection to socket can be made independently. Push-to-connect operation is achieved regardless of existing pressure inside the pipe.



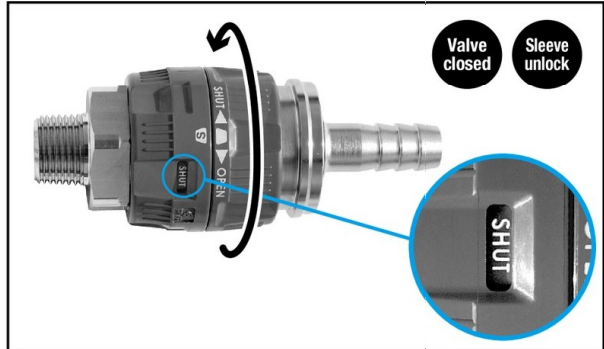
2. Open the valve and lock the sleeve.

Turning the operation ring will open the valve in the socket to supply air and lock the sleeve to prevent accidental disconnection.



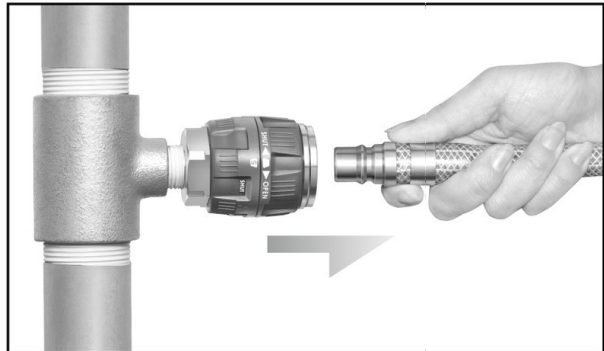
3. Close the valve and unlock the sleeve

Turning the operation ring back to its original position will close the valve and stop air flow, release the residual air pressure in the plug, and unlock the sleeve.



4. Disconnection

Disconnection can be made without unpleasant popping noise and hose whip motion due to no residual air pressure inside the plug.




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

For Low Pressure (Air)

PURGE HI CUPLA


Air line coupling with residual pressure release function

Working pressure




1.0 MPa
(10 kgf/cm²)

Valve structure



One-way shut-off

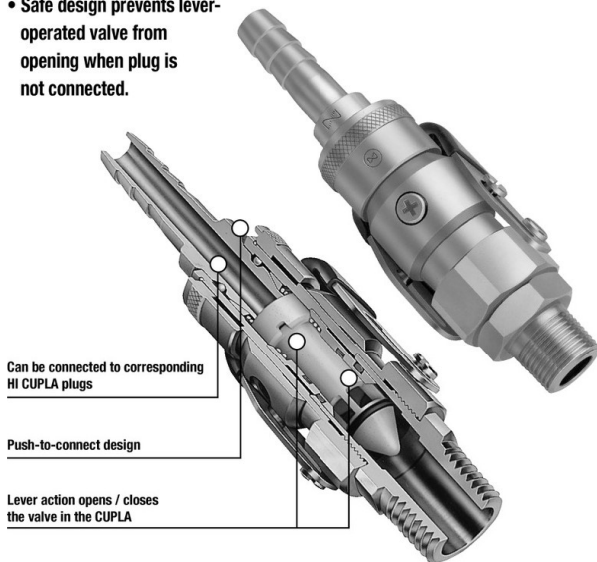
Applicable fluid



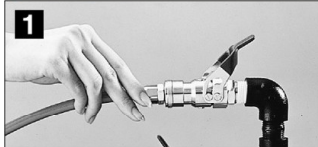
Air

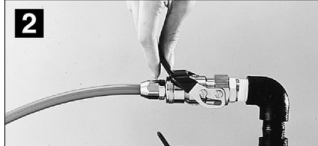
Push-to-connect operation even with existing internal pressure! Eliminates unpleasant popping noise and hose whip motion on disconnection.

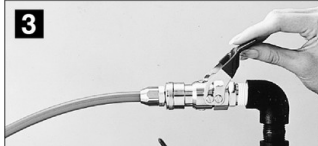
- Just push in the plug for connection regardless of internal pressure in socket.
- Even after connection, lever operation gives perfect control over valve opening/closing.
- In disconnection, lever action releases residual air pressure in the plug without unpleasant popping noise and hose whip motion.
- Safe design prevents lever-operated valve from opening when plug is not connected.



How to Operate

- 

Just push the plug into socket. (In this stage the valve of the socket is not open.)
- 

Turning down the lever opens the valve and allows the fluid flow. (The turned-down lever works as a sleeve stopper and prevents disconnection.)
- 

When the lever is pulled up, residual air pressure in the plug is purged without unpleasant popping noise and hose whip motion on disconnection. In this stage, the socket valve is still closed.

Specifications

| | | | | |
|------------------|------------------------|---------------------|----------------|-------------------|
| Body material | Brass (Chrome plated) | | | |
| Size (Thread) | 1/4", 3/8", 1/2", 3/4" | | | |
| Pressure unit | MPa | kgf/cm ² | bar | PSI |
| Working pressure | 1.0 | 10 | 10 | 145 |
| Seal material | Nitrile rubber | NBR (SG) | -20°C to +60°C | Standard material |

Maximum Tightening Torque Nm {kgf·cm}

| Model | PV-20SM | PV-30SM | PV-40SM | PV-400SM | PV-600SM |
|--------|---------|----------|----------|----------|----------|
| Torque | 9 {92} | 11 {112} | 30 {306} | 30 {306} | 50 {510} |



Interchangeability

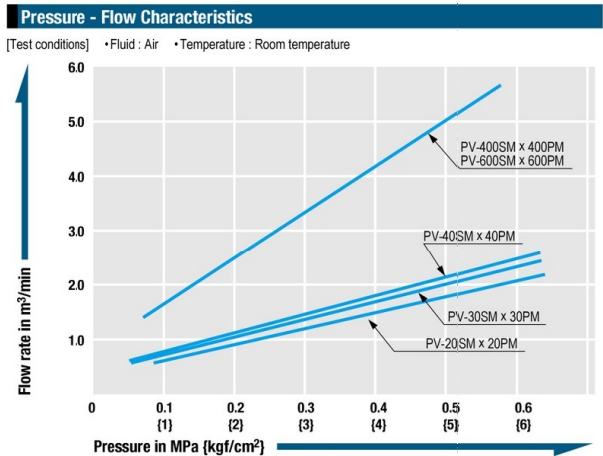
Models 20, 30 and 40 can be connected to plugs of HI CUPLA Models 10, 17, 20, 30 and 40. Interchangeable with each models of NUT CUPLA series and HI CUPLA series. Models 400 and 600 can be connected with plugs of HI CUPLA models 400, 600 and 800. Please see page 19 for "HI CUPLA Series Interchangeability".

Minimum Cross-Sectional Area (mm²)

| Model | PV-20SM | PV-30SM | PV-40SM | PV-400SM | PV-600SM |
|---------------------------|---------|---------|---------|----------|----------|
| Min. cross-sectional area | 38 | 41 | 41 | 94 | 94 |

Suitability for Vacuum

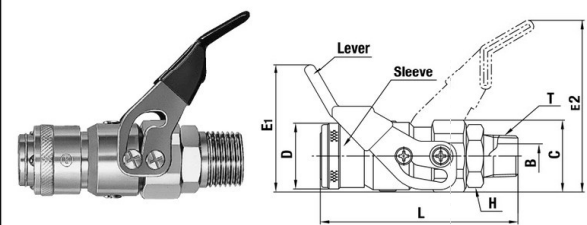
Not suitable for vacuum application in either connected or disconnected condition.



Models and Dimensions

WAF : WAF stands for width across flats.

Socket



| Model | Application (Thread) | Mass (g) | Dimensions (mm) | | | | | | | |
|----------|----------------------|----------|-----------------|------|----------------|----------------|--------|------|-------|----|
| | | | L | øD | E ₁ | E ₂ | H(WAF) | øC | T | øB |
| PV-20SM | Rc 1/4 | 225 | (79) | 26.5 | (50.5) | (70) | Hex.22 | 29 | R 1/4 | 7 |
| PV-30SM | Rc 3/8 | 229 | (80) | 26.5 | (50.5) | (70) | Hex.22 | 29 | R 3/8 | 10 |
| PV-40SM | Rc 1/2 | 235 | (82) | 26.5 | (50.5) | (70) | Hex.22 | 29 | R 1/2 | 14 |
| PV-400SM | Rc 1/2 | 411 | (94) | 35 | (61.5) | (82) | Hex.30 | 37.5 | R 1/2 | 13 |
| PV-600SM | Rc 3/4 | 424 | (97) | 35 | (61.5) | (82) | Hex.30 | 37.5 | R 3/4 | 18 |

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

For Low Pressure (Air)

PURGE LINE CUPLA

Simple air line coupling manifold with residual pressure release function

Working pressure



1.0 MPa
(10 kgf/cm²)

Valve structure



One-way shut-off

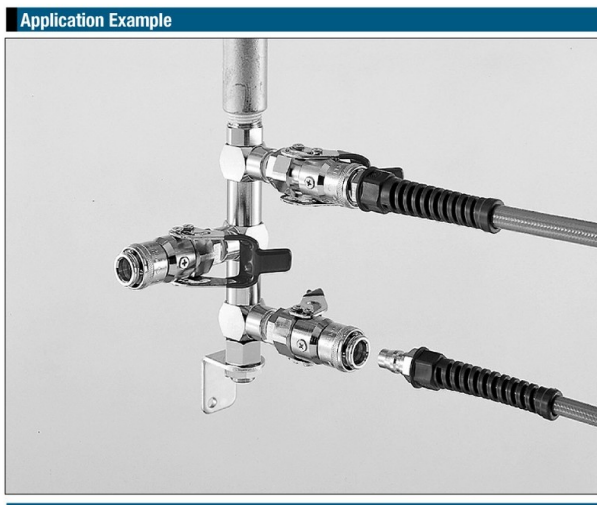
Applicable fluid



Air

Residual pressure can be released by a mere lever turn. Very smooth connection/disconnection!

- Single action, just push in the plug to connect regardless of internal pressure in socket.
 - No unpleasant noise of air pressure discharge and no hose whip motion on disconnection for safety operation.
 - Safe design – socket valve will not open or close unless plug is connected.
 - Even after connection, a lever turn will open/close valve with perfect control of air flow or line shut-off.
 - Enables simultaneous air supply to three outlets from a single air line.
- (A single outlet PURGE HI CUPLA is also available – see the pages of PURGE HI CUPLA for details.)



| Specifications | | | | |
|---------------------------|-----------------------|---------------------|----------------|-------------------|
| Body material | Brass (Chrome plated) | | | |
| Size | Inlet | R 1/2 | | |
| | Outlet | Socket (PV-30SM) | | |
| Pressure unit | MPa | kgf/cm ² | bar | PSI |
| Working pressure | 1.0 | 10 | 10 | 145 |
| Seal material | Nitrile rubber | NBR (SG) | -20°C to +60°C | Standard material |
| Working temperature range | | | | |

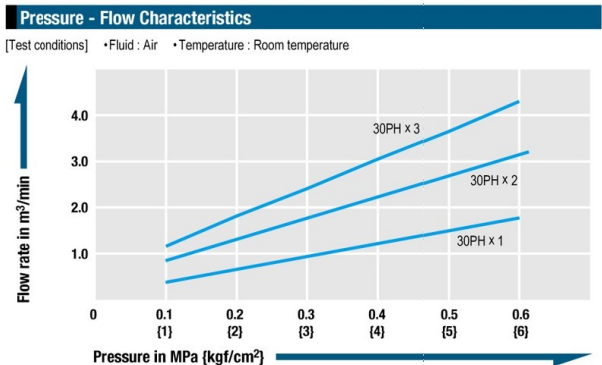
| Maximum Tightening Torque | | Nm {kgf·cm} |
|---------------------------|--|-------------|
| Size (Thread) | | 1/2" |
| Torque | | 30 {306} |

Flow Direction
Fluid must run from the intake port to the outlet ports. Please refer to the flow directions (arrows) on the * Models and Dimensions. *

Interchangeability
Interchangeable with plugs of HI CUPLA models 10, 17, 20, 30 and 40.
Interchangeable with each models of NUT CUPLA series and HI CUPLA series.
Please see page 19 for "HI CUPLA Series Interchangeability".

| Minimum Cross-Sectional Area | | (mm ²) |
|------------------------------|--|--------------------|
| Min. cross-sectional area | | 41 |

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



Models and Dimensions WAF : WAF stands for width across flats.

Socket RE-PV-30 type (For three outlets)

Mass : 1,090 g

- Fluid must run in the direction of the arrow.

Dimensions (mm)

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

For Low Pressure (Air)

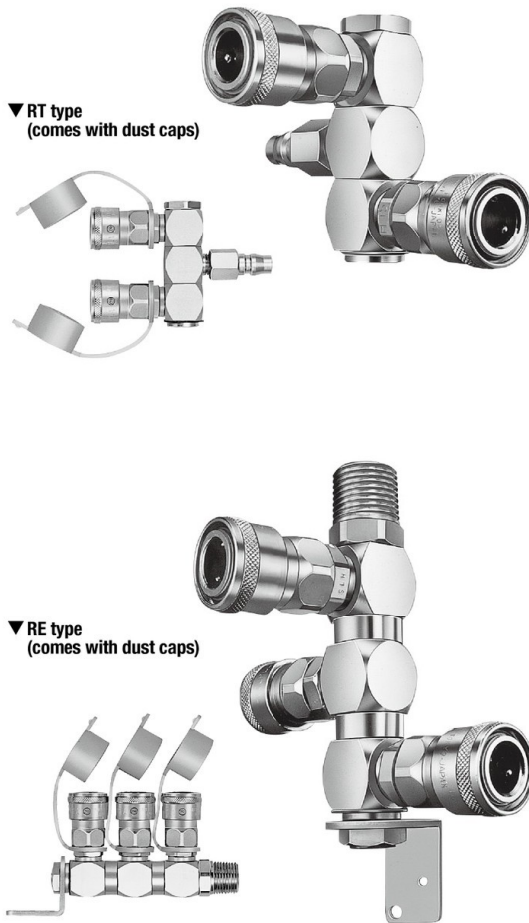
ROTARY LINE CUPLA

Simple design air line couplings on free turn manifold

| | | |
|---|--|--|
| <p>Working pressure</p>  <p>1.5 1.5 MPa (15 kgf/cm²)</p> | <p>Valve structure</p>  <p>One-way shut-off</p> | <p>Applicable fluid</p>  <p>Air</p> |
|---|--|--|

Each air outlet can be turned freely to any angle independently.

- Multiple outlets are available from single air supply source.
- Sideway air outlets are rotatable to any angle. Possible hose twists can be eliminated by the component couplings' swivel mechanism.
- Choose either RT type (2 outlets) or RE type (3 outlets) to suit your application.



| Specifications | | | | |
|---------------------------|---|---------------------------------|----------------------------------|---------------------------------|
| Body material | Body : Brass (Chrome plated), CUPLA : Steel (Chrome plated) | | | |
| Model | RT Type (for two branch lines) | | RE Type (for three branch lines) | |
| Size | Inlet | HI CUPLA Plug 20PF | Inlet | R 1/2 |
| | Outlet | 2 sockets for HI CUPLA Model 20 | | 3 sockets for HI CUPLA Model 20 |
| Pressure unit | MPa | kgf/cm ² | bar | PSI |
| Working pressure | 1.5 | 15 | 15 | 218 |
| Seal material | Seal material | Mark | Working temperature range | Remarks |
| Working temperature range | Nitrile rubber | NBR (SG) | -20°C to +60°C | Standard material |

• The products come with dust caps.

| Maximum Tightening Torque (RE Type) | | Nm [kgf·cm] |
|-------------------------------------|----------|-------------|
| Size (Thread) | 1/2" | |
| Torque | 30 (306) | |

Fluid Flow Direction

Fluid must run from the inlet port to the outlet ports.

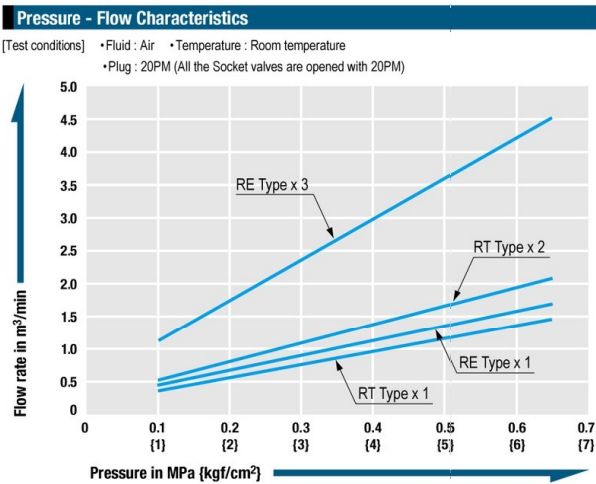
Interchangeability

Interchangeable with plugs of HI CUPLA models 10, 17, 20, 30 and 40.
Interchangeable with each models of NUT CUPLA series and HI CUPLA series.
Please see page 19 for "HI CUPLA Series Interchangeability".

| Minimum Cross-Sectional Area (mm ²) | |
|---|-----------------|
| Model | RT type RE type |
| Minimum cross-sectional area | 33 |

Suitability for Vacuum

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

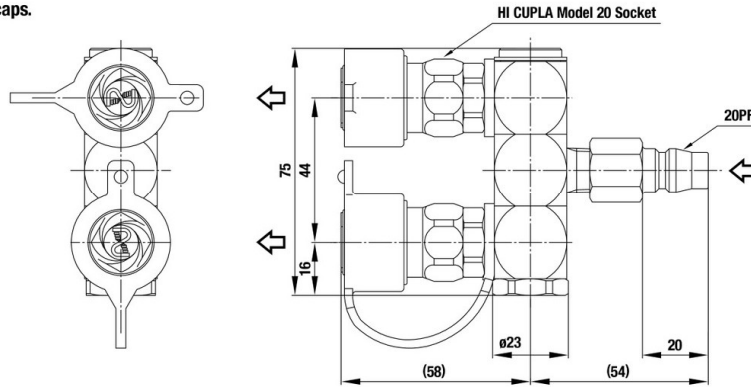


Models and Dimensions

Socket RT type (For two outlets)

Mass : 490 g

- Fluid must run in the direction of the arrow.
- The product comes with dust caps.

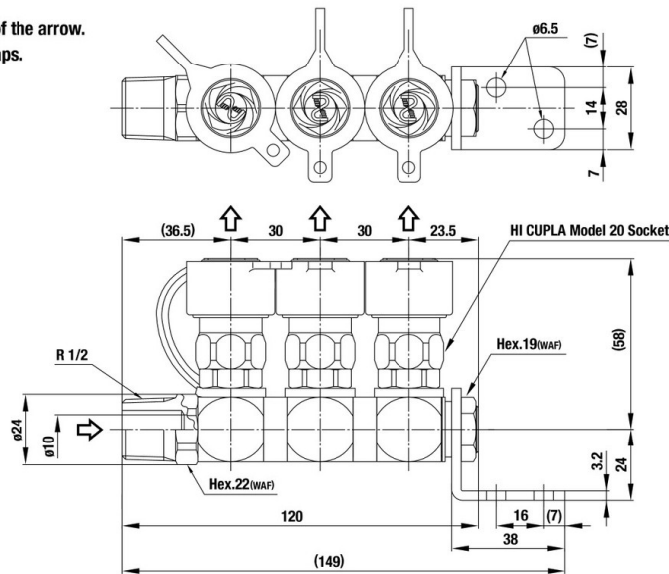


Dimensions (mm)

Socket RE type (For three outlets)

Mass : 660 g

- Fluid must run in the direction of the arrow.
- The product comes with dust caps.



Dimensions (mm)

Application Example



Air line manifold

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

For Low Pressure (Air)

LINE CUPLA

200T Type, 200L Type, 200S Type

Simple design air line coupling on manifold

Working pressure

1.5 MPa
(15 kgf/cm²)

Valve structure

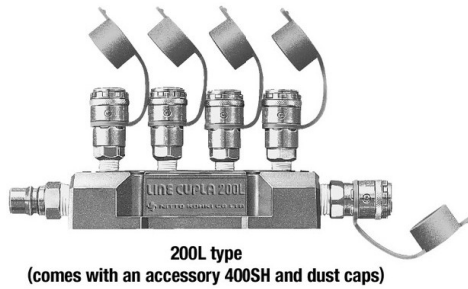
One-way shut-off

Applicable fluid

Air

Enables several air lines to be taken simultaneously from one supply line!

- Just push in the plug into socket for simple and secure connection.
- Multiple outlets are available from single air supply source.
- Choose from the 2-outlet type (Model 200T), the 5-outlet straight type (Model 200L) and the 5-outlet star type (Model 200S) to suit your application.



| Specifications | | | | |
|---------------------------|--|---|---------------------------|-------------------|
| Body material | Body : Aluminum alloy, CUPLA : Steel (Chrome plated) | | | |
| Size | Inlet | 200T Type : 20PM 200L Type / 200S Type : 400PM | | |
| | Outlet | 200T Type : 200-20SM 200L Type / 200S Type : 200-20SM, 40SM | | |
| Pressure unit | MPa | kgf/cm ² | bar | PSI |
| Working pressure | 1.5 | 15 | 15 | 218 |
| Seal material | Seal material | Mark | Working temperature range | Remarks |
| Working temperature range | Nitrile rubber | NBR (SG) | -20°C to +60°C | Standard material |

• The products come with dustproof caps.

Flow Direction

Fluid must run from the inlet port to the outlet ports.

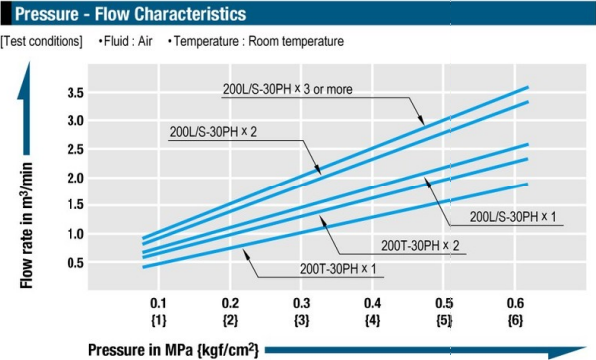
Interchangeability

Interchangeable with plugs of HI CUPLA models 10, 17, 20, 30 and 40.
Interchangeable with each models of NUT CUPLA series and HI CUPLA series.
Please see page 19 for "HI CUPLA Series Interchangeability".

| Minimum Cross-Sectional Area (mm ²) | |
|---|---------------------------------|
| Model | 200T type, 200L type, 200S type |
| Minimum cross-sectional area | 19 |

Suitability for Vacuum

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

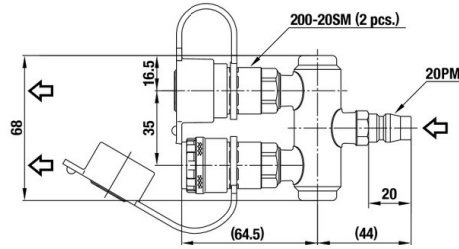


Models and Dimensions

Socket 200T type (For two outlets)

Mass : 272 g

- Fluid must run in the direction of the arrow.
- The product comes with dust caps.

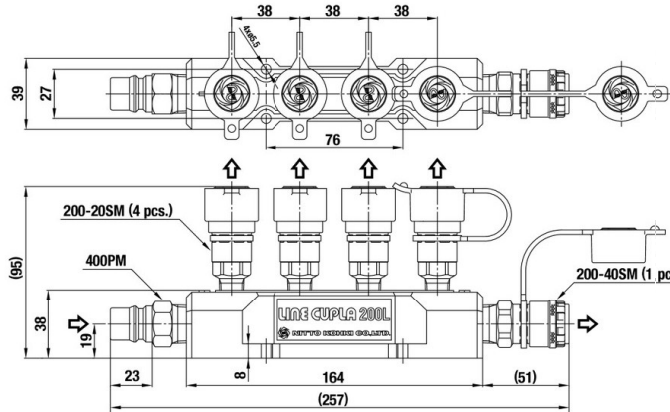


Dimensions (mm)

Socket 200L type (For five outlets, in-line type)

Mass : 890 g

- Fluid must run in the direction of the arrow.
- The product comes with dust caps.
- Accessory : 400SH

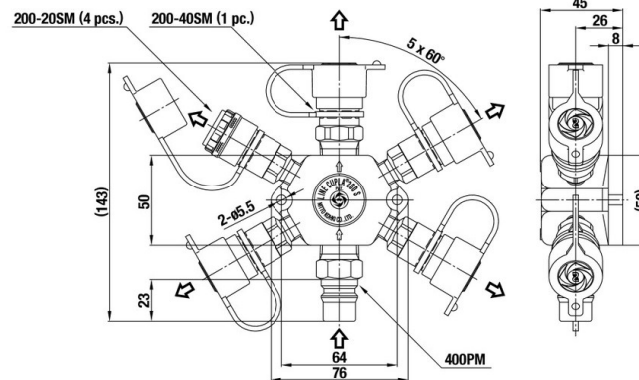


Dimensions (mm)

Socket 200S type (For five outlets, star type)

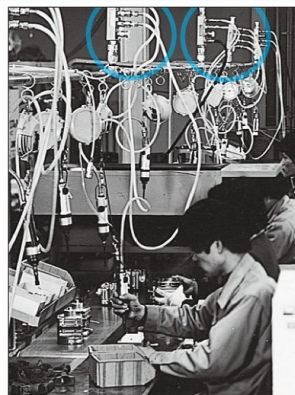
Mass : 769 g

- Fluid must run in the direction of the arrow.
- The product comes with dust caps.
- Accessory : 400SH



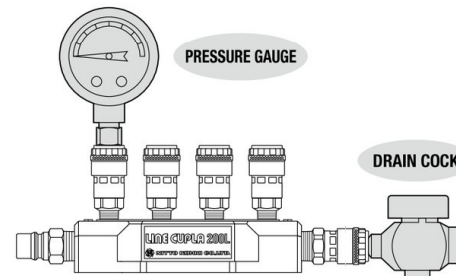
Dimensions (mm)

Application Example



Optional Items : PRESSURE GAUGE and DRAIN COCK

"PRESSURE GAUGE" and "DRAIN COCK" are available as optional items to be mounted on LINE CUPLA 200. (See page 151)



Appearance subject to change for improvement without notice.


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

For Low Pressure (Air)

ROTARY FULL-BLOW LINE CUPLA


Free rotating branch air line coupling with low pressure loss & high flow rate

Working pressure




1.5 MPa
(15 kgf/cm²)

Valve structure



One-way shut-off

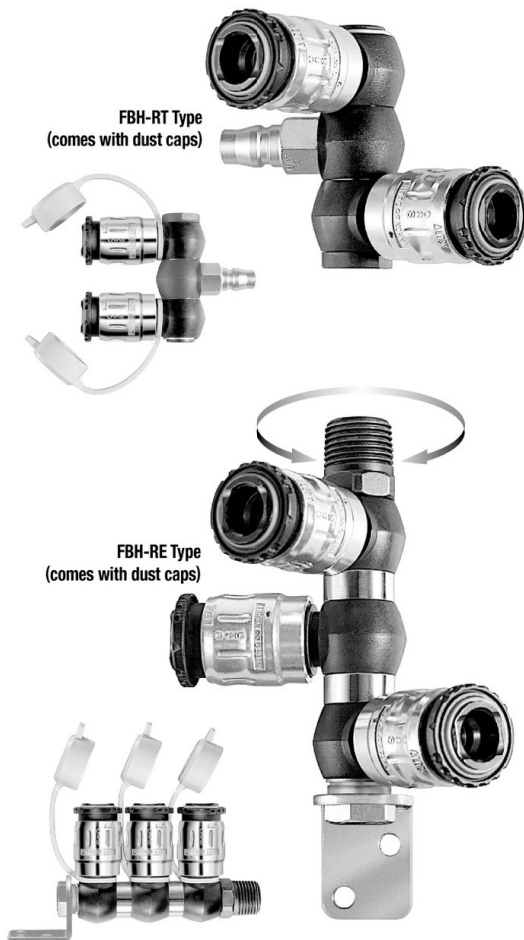
Applicable fluid



Air

Each air outlet can be turned freely to any angle independently.

- Multiple outlets are available from single air supply source.
- Sideway air outlets are rotatable to any angle.
- Choose either RT type (2 outlets) or RE type (3 outlets) to suit your application.
- The flow rate increases by 40% to 50% over that of conventional CUPLA.
- During connection and disconnection, the valve is closed, enabling connection/disconnection under zero line pressure.
- When the sleeve of socket is returned to its original position, the purge mechanism releases the residual air pressure in the plug, eliminating unpleasant popping noise and hose whip motion on disconnection.
- Built-in sleeve lock mechanism prevents accidental disconnection of CUPLA, ensuring safe operation.
- The valve can be opened and closed while the socket and plug is connected.



| Specifications | | | | |
|---------------------------|---------------------------|---------------------|-----------------------------|-------------------|
| Body material | Zinc alloy | | | |
| Size | RT type (For two outlets) | | RE type (For three outlets) | |
| | Inlet | Plug (20PFF) | Inlet | R 1/2 |
| | Outlet | FULL-BLOW CUPLA | Outlet | FULL-BLOW CUPLA |
| Pressure unit | MPa | kgf/cm ² | bar | PSI |
| Working pressure | 1.5 | 15 | 15 | 218 |
| Seal material | Nitrile rubber | NBR (SG) | -20°C to +60°C | Standard material |
| Working temperature range | | | | |

• The product comes with dust caps.

| Maximum Tightening Torque (FBH-RE Type) | | Nm (kgf·cm) |
|---|--|-------------|
| Size (Thread) | | 1/2" |
| Torque | | 30 (306) |

Flow Direction

Fluid must run from the inlet port to the outlet ports.

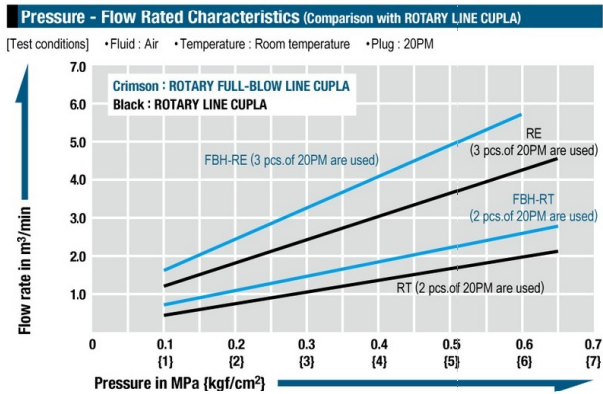
Interchangeability

Interchangeable with plugs of HI CUPLA models 10, 17, 20, 30 and 40.
Interchangeable with each models of NUT CUPLA series and HI CUPLA series.
Not interchangeable with some plugs of plastic HI CUPLA 250 (discontinued product).
Please see page 19 for "HI CUPLA Series Interchangeability".

| Minimum Cross-Sectional Area (mm ²) | | |
|---|--------|--------|
| Model | FBH-RT | FBH-RE |
| Minimum cross-sectional area | 44 | 44 |

Suitability for Vacuum

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

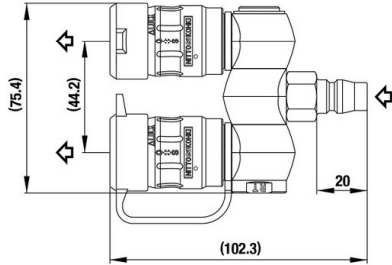


ROTARY FULL-BLOW LINE CUPLA

Models and Dimensions

Socket FBH-RT type (For two branch lines)

- Inlet : 1/4" HI CUPLA (20PFF)
- Outlet : FULL-BLOW CUPLA
- Mass : 358 g
- Fluid must run in the direction of the arrow.

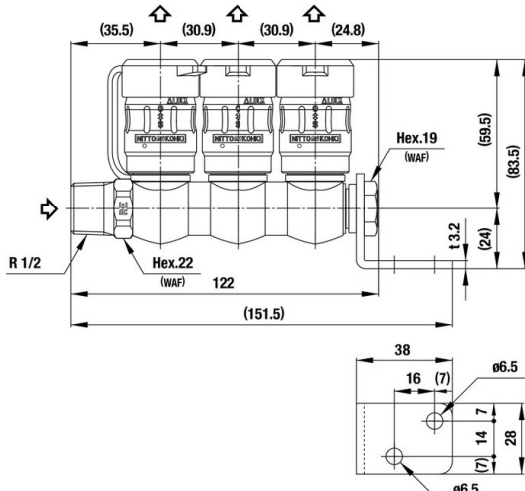


• The product comes with dust caps.

Dimensions (mm)

Socket FBH-RE type (For three branch lines)

- Inlet : R 1/2
- Outlet : FULL-BLOW CUPLA
- Mass : 527 g
- Fluid must run in the direction of the arrow.



• The product comes with dust caps.

Dimensions (mm)

Features of ROTARY FULL-BLOW LINE CUPLA

Flow rate is significantly increased.

Significant energy saving effect (Source pressure reduction effects)

When disconnected The valve closed.

When the socket sleeve is slid toward the plug after connection, the ball valve rotates to open the fluid passage.

Full-open port type valve

When connected The valve open.

Far easier operation

No valve push back pressure design enables powerless connection.

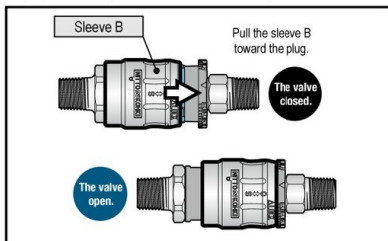
Increased safety operation

Purge function eliminates unpleasant popping noise and hose whip motion.

How It Works

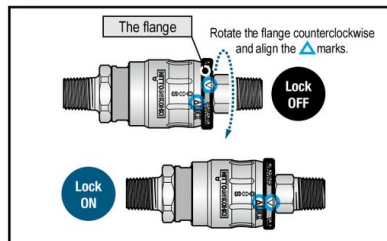
1. Open the valve

Only after connection with the plug, you can slide the socket sleeve B toward the plug in order to open the built-in valve. Full flow path is then obtained.



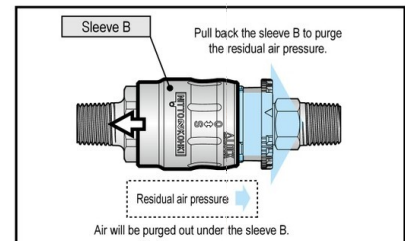
2. Lock the sleeve

Rotate the flange counterclockwise to lock the sleeve B. Without unlocking the plug you cannot disconnect.



3. Purge the residual air

To disconnect the plug, first turn the flange back to its original position for unlocking and then pull the sleeve B back to the original position. The built-in valve will be closed to purge the residual air pressure.




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

For Low Pressure

HI CUPLA ACE


Lightweight plastic coupling with automatic safety lock for air line applications

Working pressure




1.5 MPa
(15 kgf/cm²)

Valve structure



One-way shut-off

Applicable fluids



Air Water

The weight is merely a quarter of steel HI CUPLA's and smooth push-in connection is achieved. Sleeve lock mechanism for safety operation.

- Pressure ratings comparable to steel CUPLA.
- A built-in "lock mechanism" locks the sleeve upon connection, thus prevents accidental disconnection.
- Just push plug into socket for simple connection.
- The weight is a quarter of steel HI CUPLA for easy handling.
- Can be used for air and water.
- Air flows in either direction from plug or from socket side when coupled.
- Plug and socket with hose guard nut are also available (see page 64 of NK CUPLA HOSE / NK CUPLA COIL HOSE for details).



| Specifications | | | | | | | |
|------------------|---------------------------------------|--|-------------------------------------|---------------------------|----------------|---------|-------------------|
| Body material | | Engineering plastics (PBT, POM) | | | | | |
| Size | Thread and hose barb | 1/4", 3/8" / 1/4", 3/8" | | | | | |
| | PN type, SN type (PNG type, SNG type) | For ø5 mm x ø8 mm, ø6 mm x ø9 mm, ø6.5 mm x ø10 mm, ø8 mm x ø12 mm, ø8.5 mm x ø12.5 mm polyurethane hose | | | | | |
| | T type | HA-T type • Inlet : 20P-PLA • Outlet : HA-65S x 2 | | | | | |
| Working pressure | MPa | 1.5 | 1.0 for plastic plug and Model HA-T | | | | |
| | kgf/cm ² | 15 | 10 for plastic plug and Model HA-T | | | | |
| | bar | 15 | 10 for plastic plug and Model HA-T | | | | |
| | PSI | 218 | 145 for plastic plug and Model HA-T | | | | |
| Seal material | Nitrile rubber | Mark | NBR (SG) | Working temperature range | -20°C to +60°C | Remarks | Standard material |

| Tightening Torque Range | | | | Nm {kgf·cm} | |
|-------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--|
| Model | 20/30SM 20/30PM | 50/60/65SN 50/60/65PN | 80/85SN 80/85PN | 20PFF | |
| Torque | 2.5 to 3.0 {26 to 31} | 1.6 to 2.0 {16 to 20} | 2.2 to 2.8 {22 to 29} | 2.0 to 2.5 {20 to 25} | |

Flow Direction

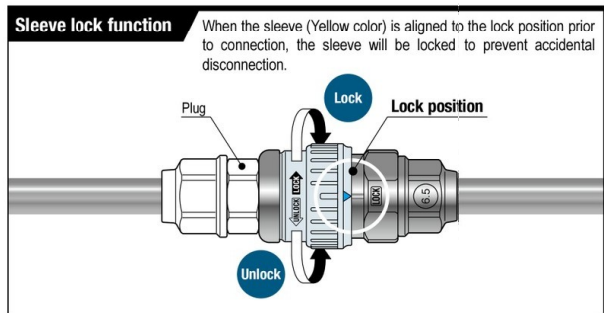
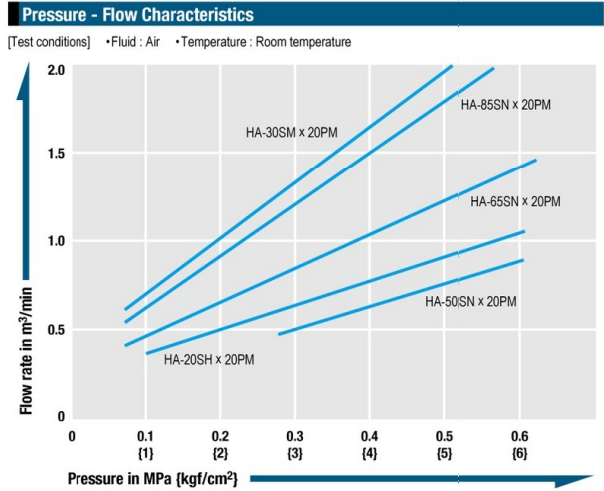
Fluid flow can be bi-directional when socket and plug are connected.

Interchangeability

Interchangeable with HI CUPLA models 10, 17, 20, 30 and 40. Interchangeable with each models of NUT CUPLA series and HI CUPLA series (except models 400, 600, and 800). Please see page 19 for "HI CUPLA Series Interchangeability".

Suitability for Vacuum

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



Models and Dimensions

Plug PH type (Plastic plug / Hose barb)

| Model | Application (Hose) | Mass (g) | Dimensions (mm) | | | | | |
|----------|--------------------|----------|-----------------|----|------|------|-----|-----|
| | | | L | øH | A | øT | øBp | øBd |
| 20PH-PLA | 1/4" | 3 | 49 | 14 | 21.5 | 9 | 5.5 | 7 |
| 30PH-PLA | 3/8" | 4 | 52 | 16 | 23.5 | 11.5 | 7.5 | 7 |

Socket SH type (Hose barb)

| Model | Application (Hose) | Mass (g) | Dimensions (mm) | | | | |
|---------|--------------------|----------|-----------------|------|------|------|----|
| | | | L | A1 | A2 | øT | øB |
| HA-20SH | 1/4" | 26 | (65.5) | 25.5 | 21.5 | 9 | 5 |
| HA-30SH | 3/8" | 28 | (68) | 28 | 23.5 | 11.5 | 7 |

Plug PM type (Plastic plug / Male thread)

| Model | Application (Thread) | Mass (g) | Dimensions (mm) | | |
|----------|----------------------|----------|-----------------|-----|-----|
| | | | T | øBp | øBd |
| 20PM-PLA | Rc 1/4 | 8 | R 1/4 | 7.1 | 7.4 |
| 30PM-PLA | Rc 3/8 | 6 | R 3/8 | 10 | 7.4 |

Socket SM type (Male thread)

| Model | Application (Thread) | Mass (g) | Dimensions (mm) | |
|---------|----------------------|----------|-----------------|-----|
| | | | T | øB |
| HA-20SM | Rc 1/4 | 27 | R 1/4 | 7.1 |
| HA-30SM | Rc 3/8 | 26 | R 3/8 | 8 |

Plug PN type (Plastic plug / For urethane hose connection)

| Model | Application (Hose) | Mass (g) | Dimensions (mm) | | | | |
|----------|--------------------|----------|-----------------|----|---------|-----|-----|
| | | | L | øH | Hp(WAF) | øBp | øBd |
| 50PN-PLA | ø5 mm x ø8 mm | 9 | (46) | 23 | Hex.19 | 4 | 7 |
| 60PN-PLA | ø6 mm x ø9 mm | 9 | (46) | 23 | Hex.19 | 4.7 | 7 |
| 65PN-PLA | ø6.5 mm x ø10 mm | 9 | (46) | 23 | Hex.19 | 5.3 | 7 |
| 80PN-PLA | ø8 mm x ø12 mm | 12 | (48.5) | 26 | Hex.22 | 6.5 | 7 |
| 85PN-PLA | ø8.5 mm x ø12.5 mm | 12 | (48.5) | 26 | Hex.22 | 7 | 7 |

Socket SN type (For urethane hose connection)

| Model | Application (Hose) | Mass (g) | Dimensions (mm) | | |
|---------|--------------------|----------|-----------------|--------|-----|
| | | | L | H(WAF) | øB |
| HA-50SN | ø5 mm x ø8 mm | 27 | (57) | Hex.19 | 4 |
| HA-60SN | ø6 mm x ø9 mm | 27 | (57) | Hex.19 | 4.7 |
| HA-65SN | ø6.5 mm x ø10 mm | 27 | (57) | Hex.19 | 5.3 |
| HA-80SN | ø8 mm x ø12 mm | 29 | (59.5) | Hex.22 | 6.5 |
| HA-85SN | ø8.5 mm x ø12.5 mm | 29 | (59.5) | Hex.22 | 7 |

Plug PFF type (Plastic plug / Parallel female thread)

| Model | Application (Thread) | Mass (g) |
|-------|----------------------|----------|
| | | |

Socket T type (For two branch lines)

| Model | Inlet / Outlet | Mass (g) |
|-------|----------------|----------|
| | | |

Plug PNG type (Plastic plug / For hose with hose guard nut connection)

| Model | Application (Hose) | Mass (g) | Dimensions (mm) | | | |
|-----------|--------------------|----------|-----------------|--------|------|-----|
| | | | L | H(WAF) | A | øB |
| 50PNG-PLA | ø5 mm x ø8 mm | 14 | (119) | Hex.19 | (90) | 4 |
| 65PNG-PLA | ø6.5 mm x ø10 mm | 15 | (119) | Hex.19 | (90) | 5.3 |
| 85PNG-PLA | ø8.5 mm x ø12.5 mm | 17 | (119) | Hex.22 | (90) | 7 |

Socket SNG type (For hose with hose guard nut connection)

| Model | Application (Hose) | Mass (g) | Dimensions (mm) | | | |
|----------|--------------------|----------|-----------------|--------|------|-----|
| | | | L | H(WAF) | A | øB |
| HA-50SNG | ø5 mm x ø8 mm | 31 | (130) | Hex.19 | (90) | 4 |
| HA-65SNG | ø6.5 mm x ø10 mm | 33 | (130) | Hex.19 | (90) | 5.3 |
| HA-85SNG | ø8.5 mm x ø12.5 mm | 35 | (130) | Hex.22 | (90) | 7 |


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

For Low Pressure (Air)

ROTARY PLUG


For pneumatic tools and devices

Working pressure




1.5 MPa
(15 kgf/cm²)

Valve structure



One-way shut-off

Applicable fluid

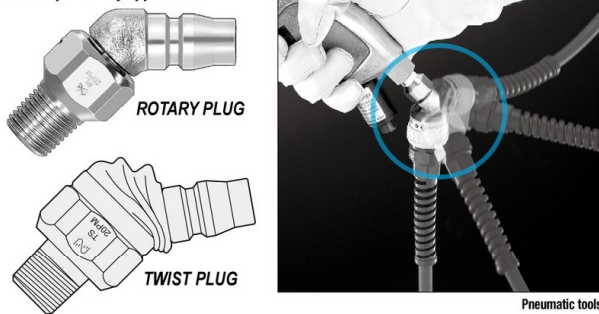


Air

Newly developed rotary function allows 360° swivelling!
Big improvement for handling of pneumatic tools!

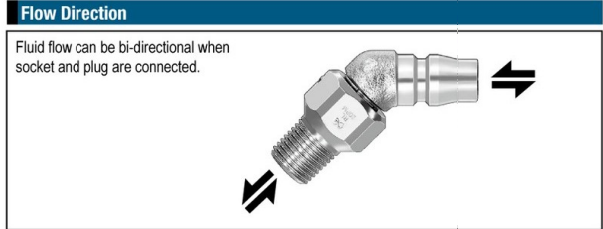
- Rotary neck plug for hose connection to pneumatic tools and pneumatic devices.
- Fits at 45° angle to the tool eliminating annoying offset load caused by connected hose.
- Ideal compact design enables optimum workability by simple body structure. Now far lighter and smaller than conventional models.
- New dust-proof design for increased durability.
- For air tackers, nailers, impact wrenches and other pneumatic tools.

Comparison by appearance



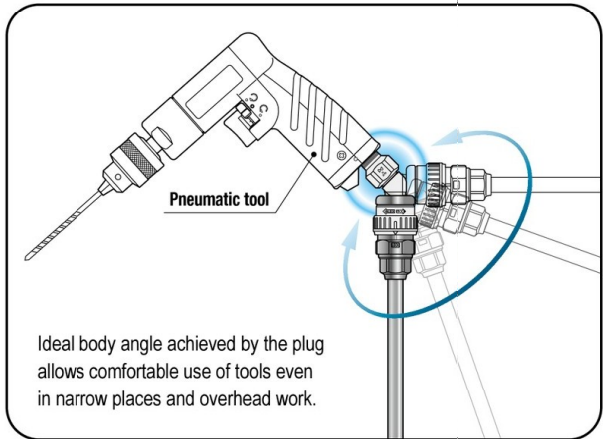
| Specifications | | | | |
|---------------------------|-----------------------|---------------------|---------------------------|-------------------|
| Body material | Steel (Nickel plated) | | | |
| Size (Thread) | 1/4", 3/8" | | | |
| Pressure unit | MPa | kgf/cm ² | bar | PSI |
| Working pressure | 1.5 | 15 | 15 | 218 |
| Seal material | Nitrile rubber | NBR (SG) | Working temperature range | Standard material |
| Working temperature range | -20°C to +80°C | | | |

| Maximum Tightening Torque | | Nm {kgf·cm} | |
|---------------------------|----------|-------------|--|
| Size (Thread) | 1/4" | 3/8" | |
| Torque | 14 {143} | 22 {224} | |



Interchangeability

Interchangeable with sockets of HI CUPLA models 10, 17, 20, 30 and 40.
 Interchangeable with each models of NUT CUPLA series and HI CUPLA series (except models 400, 600, and 800).
 Please see page 19 for "HI CUPLA Series Interchangeability".



Models and Dimensions WAF : WAF stands for width across flats.

Plug PM type (Male thread)

| Model | Application (Thread) | Mass (g) | Dimensions (mm) | | |
|---------|----------------------|----------|-----------------|--------|-------|
| | | | L | D | T |
| RL-20PM | Rc 1/4 | 52 | (52.1) | (34.1) | R 1/4 |
| RL-30PM | Rc 3/8 | 73 | (50.8) | (32.8) | R 3/8 |

Plug Model RL-20PFF type (Female thread)

● Application (Thread) : G 1/4
 ● Mass : 57 g

Dimensions (mm)

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