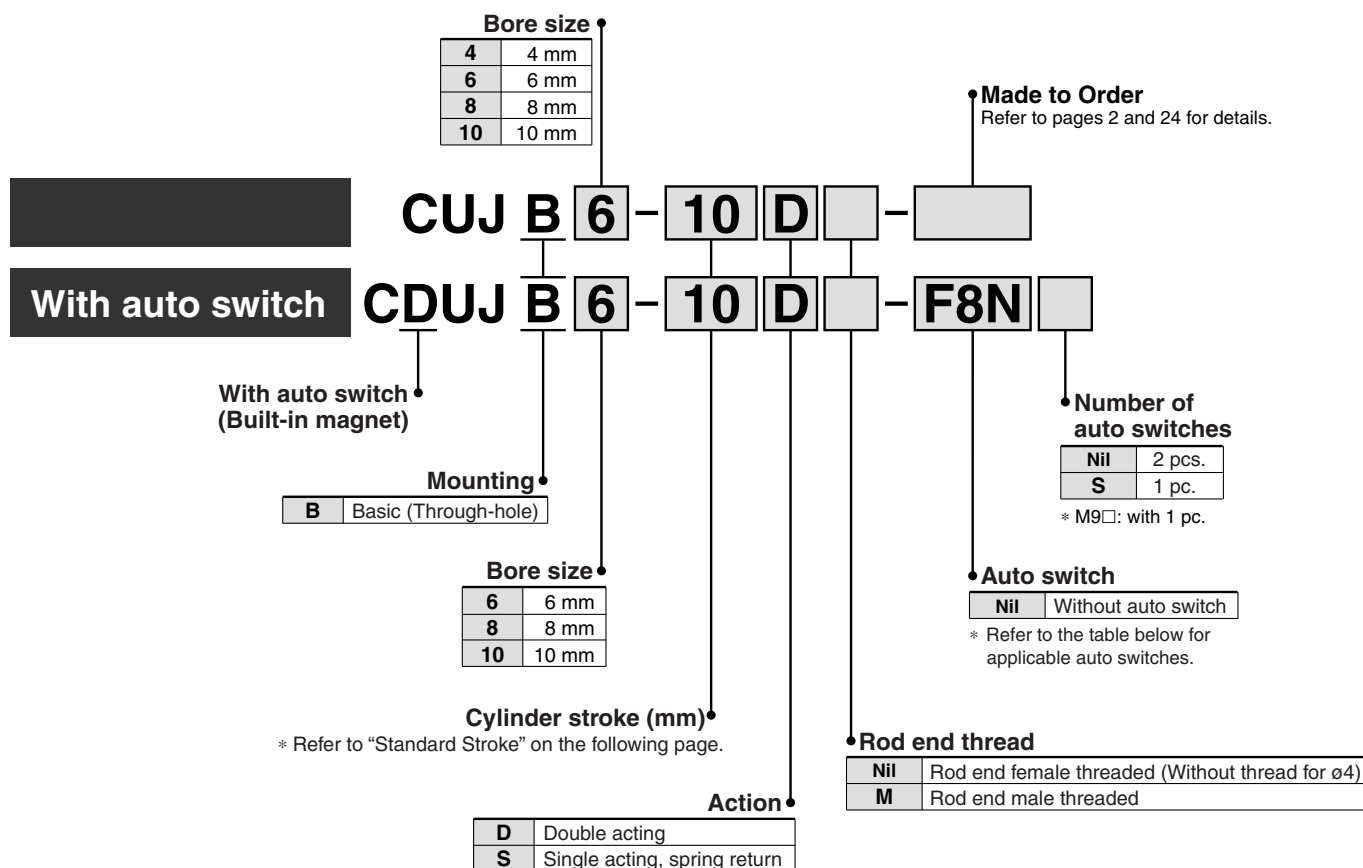


Mini Free Mount Cylinder

Series CUJ

ø4, ø6, ø8, ø10

How to Order



Built-in Magnet Cylinder Model

In the case of built-in magnet without auto switch, the symbol for auto switch is "Nil".
(Example) CDUJB8-15DM

Applicable Auto Switches/Refer to pages 21 through to 23 for additional information on auto switches.

| Type | Special function | Electrical entry | Indicator light | Wiring (Output) | Load voltage | | Auto switch model | | Lead wire length (m) * | | | | Pre-wired connector | Applicable load | | | |
|--------------------|--|------------------|-----------------|-----------------|--------------|-----------|-------------------|---------|------------------------|-------|-------|-------|---------------------|-----------------|------------|------------|---|
| | | | | | DC | AC | Electrical entry | | 0.5 (Nil) | 1 (M) | 3 (L) | 5 (Z) | | | | | |
| | | | | | | | Perpendicular | In-line | | | | | | | | | |
| Solid state switch | — | Grommet | Yes | 3-wire (NPN) | 24 V | 5 V, 12 V | — | — | M9N | ● | — | ● | ○ | ○ | IC circuit | Relay, PLC | |
| | | | | 3-wire (PNP) | | | | — | F8N | — | ● | — | ● | ○ | | | ○ |
| | | | | 2-wire | | | | — | M9P | — | ● | — | ● | ○ | | | ○ |
| | | | | 3-wire (NPN) | 12 V | — | — | F8P | — | ● | — | ● | ○ | ○ | — | | |
| | | | | 3-wire (PNP) | | | — | M9B | — | ● | — | ● | ○ | ○ | | | |
| | | | | 2-wire | | | — | F8B | — | ● | — | ● | ○ | ○ | | | |
| | Diagnostic indication (2-color indication) | Grommet | Yes | 3-wire (NPN) | 24 V | 5 V, 12 V | — | — | M9NW | ● | ● | ● | ○ | ○ | IC circuit | | |
| | | | | 3-wire (PNP) | | | | — | M9PW | ● | ● | ● | ○ | ○ | | | ○ |
| | | | | 2-wire | | | | — | M9BW | ● | ● | ● | ○ | ○ | | | ○ |
| | | | | 2-wire | | | | — | M9BW | ● | ● | ● | ○ | ○ | | | ○ |

* Lead wire length symbols: 0.5 m Nil (Example) M9NW
1 m M (Example) M9NWM
3 m L (Example) M9NWL
5 m Z (Example) M9NWZ

* Auto switches marked with "○" are produced upon receipt of order.

Note 1) For 2-color indication type, use caution on hysteresis. Refer to page 19, "Auto Switch Hysteresis" prior to use.

Note 2) Refer to pages 21 through to 23 for detailed auto switch specifications.

* Refer to "Best Pneumatics" catalog for further information on auto switches with pre-wired connector.

* Auto switches are included, (but not assembled).

Specifications

| Bore size (mm) | | 4 | 6 | 8 | 10 |
|-------------------------------|------------------------------|---|---------|---|---------|
| Action | | Double acting; Single acting, spring return | | | |
| Fluid | | Air | | | |
| Proof pressure | | 1.05 MPa | | | |
| Minimum operating pressure | Double acting | 0.15 MPa | | | 0.1 MPa |
| | Single acting, spring return | 0.35 MPa | 0.3 MPa | | 0.2 MPa |
| Maximum operating pressure | | 0.7 MPa | | | |
| Ambient and fluid temperature | | Without auto switch: −10 to 70°C (No freezing) With auto switch: −10 to 60°C (No freezing) | | | |
| Cushion | | None | | | |
| Lubrication | | Non-lube | | | |
| Piston speed | | 50 to 500 mm/s | | | |
| Stroke length tolerance | | +0.5 0 | | | |
| Mounting | | Through-hole | | | |

Theoretical Output: Double Acting

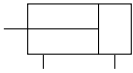


Unit: N

| Bore size (mm) | Rod size (mm) | Operating direction | Piston area (mm ²) | Operating pressure (MPa) | | |
|----------------|---------------|---------------------|--------------------------------|--------------------------|-------|-------|
| | | | | 0.3 | 0.5 | 0.7 |
| 4 | 2 | OUT | 12.6 | 3.76 | 6.28 | 8.79 |
| | | IN | 9.4 | 2.82 | 4.71 | 6.59 |
| 6 | 4 | OUT | 28.3 | 8.48 | 14.13 | 19.79 |
| | | IN | 15.7 | 4.71 | 7.85 | 10.99 |
| 8 | 5 | OUT | 50.3 | 15.07 | 25.13 | 35.18 |
| | | IN | 30.6 | 9.18 | 15.31 | 21.44 |
| 10 | 6 | OUT | 78.5 | 23.56 | 39.26 | 54.97 |
| | | IN | 50.3 | 15.07 | 25.13 | 35.18 |

JIS Symbol

Double acting, single rod

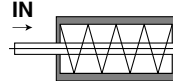


Single acting, spring return



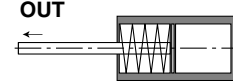
Spring Reaction Force: Single Acting, Spring Return

Spring in pre-loaded condition



When the spring is set in the cylinder.

Spring in loaded condition



When the spring is contracted by applying air.

Unit: N

Standard Stroke

| Action | Bore size (mm) | Standard stroke (mm) |
|------------------------------|----------------|----------------------|
| Double acting | 4 | 4, 6, 8, 10, 15, 20 |
| | 6 | 4, 6, 8, 10, 15, 20 |
| | 8, 10 | 25, 30 |
| Single acting, spring return | 4 | 4, 6 |
| | 6 | 4, 6, 8 |
| | 8, 10 | 4, 6, 8, 10 |

| Bore size (mm) | Spring condition | Stroke (mm) | | | |
|----------------|------------------|-------------|------|------|------|
| | | 4 | 6 | 8 | 10 |
| 4 | Pre-loaded | 1.70 | 1.27 | — | — |
| | Loaded | 2.55 | 2.55 | — | — |
| 6 | Pre-loaded | 2.45 | 2.01 | 1.57 | — |
| | Loaded | 3.33 | 3.33 | 3.33 | — |
| 8 | Pre-loaded | 4.67 | 3.76 | 2.86 | 1.96 |
| | Loaded | 6.47 | 6.47 | 6.47 | 6.47 |
| 10 | Pre-loaded | 5.04 | 4.18 | 3.31 | 2.45 |
| | Loaded | 6.77 | 6.77 | 6.77 | 6.77 |



Made to Order
(Refer to page 24 for details.)

| Symbol | Contents |
|--------|--|
| -XB6 | Heat resistant cylinder (-10 to 150°C) |

Note) Except models with auto switch and single-acting, spring return type
Except bore size 4

Mass: Double Acting

Unit: g

| Bore size (mm) | Standard stroke (mm) | | | | | | | | Additional mass | |
|----------------|----------------------|------|------|------|------|------|------|------|-----------------|-----------------------|
| | 4 | 6 | 8 | 10 | 15 | 20 | 25 | 30 | Built-in magnet | Rod end male threaded |
| CUJB4 | 7.2 | 7.9 | 8.6 | 9.3 | 11.1 | 12.8 | — | — | — | 0.4 |
| CUJB6 | 12.4 | 13.6 | 14.8 | 16.0 | 18.9 | 21.8 | 24.7 | 27.6 | 2.7 | 0.8 |
| CUJB8 | 15.6 | 17.0 | 18.4 | 19.7 | 23.0 | 26.4 | 29.9 | 33.4 | 3.0 | 1.5 |
| CUJB10 | 17.9 | 19.4 | 20.8 | 22.3 | 25.9 | 29.5 | 33.1 | 36.7 | 3.2 | 2.6 |

Mass: Single Acting, Spring Return

Unit: g

| Bore size (mm) | Standard stroke (mm) | | | | Additional mass | |
|----------------|----------------------|------|------|------|-----------------|-----------------------|
| | 4 | 6 | 8 | 10 | Built-in magnet | Rod end male threaded |
| CUJB4 | 7.2 | 7.9 | — | — | — | 0.4 |
| CUJB6 | 12.8 | 14.0 | 15.2 | — | 2.4 | 0.8 |
| CUJB8 | 15.8 | 17.2 | 18.6 | 19.9 | 2.5 | 1.5 |
| CUJB10 | 17.9 | 19.4 | 20.8 | 22.3 | 2.4 | 2.6 |