

Block valve

FPV-FP1 Series

● Port size: M5, R1/8 to 1/2

JIS symbol



Features

- Compact valve ideal for position locking dropping and for cylinder braking.
- Compact and lightweight
- Variety of bore sizes available
Series variations from M5 to R1/2 bore sizes enable direct cylinder installation.

Specifications

| Item | FPV-M5 | FPV-6A | | FPV-8A | | FPV-10A | | FPV-15A | |
|--|-------------------------------------|--------|----|--------|----|---------|-----|---------|-----|
| Port size | M5 | R 1/8 | | R 1/4 | | R 3/8 | | R 1/2 | |
| Main side compatible tube O.D. | ø6 | ø6 | ø8 | ø6 | ø8 | ø8 | ø10 | ø10 | ø12 |
| Pilot side compatible tube O.D. | ø4 | | ø4 | | ø4 | | ø4 | | |
| Working fluid | Compressed air | | | | | | | | |
| Max. working pressure MPa | 1.0 | | | | | | | | |
| Min. working pressure MPa | 0 | | | | | | | | |
| Proof pressure MPa | 1.5 | | | | | | | | |
| Pilot pressure MPa | * Refer to the appendix (page 190). | | | | | | | | |
| Fluid temperature °C | 5 to 60 | | | | | | | | |
| Ambient temperature °C | 0 to 60 (no freezing) | | | | | | | | |
| Weight g | 28 | 26 | 50 | 51 | 90 | 93 | 143 | 145 | |
| Effective cross-sectional area mm ² | 1.3 | 5 | 10 | 10 | 17 | 17 | 27 | 27 | |

How to order

FPV - 6A - 06 - FP1

● A Port size

| A Port size | |
|-------------|-------|
| M5 | M5 |
| 6A | R 1/8 |
| 8A | R 1/4 |
| 10A | R 3/8 |
| 15A | R 1/2 |

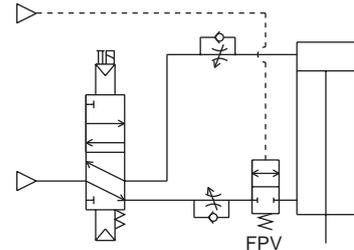
● B Applicable tube bore

| | | A Piping port size | | | | |
|-----------|-----|--------------------|-----|-----|------|------|
| | | M5 | 6 A | 8 A | 10 A | 15 A |
| 06 | ø6 | ● | ● | ● | | |
| 08 | ø8 | | ● | ● | ● | |
| 10 | ø10 | | | | ● | ● |
| 12 | ø12 | | | | | ● |

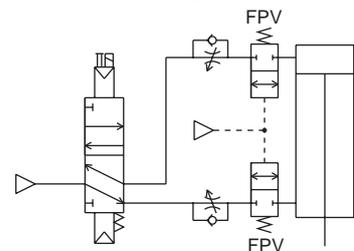
■ Not available

Applications

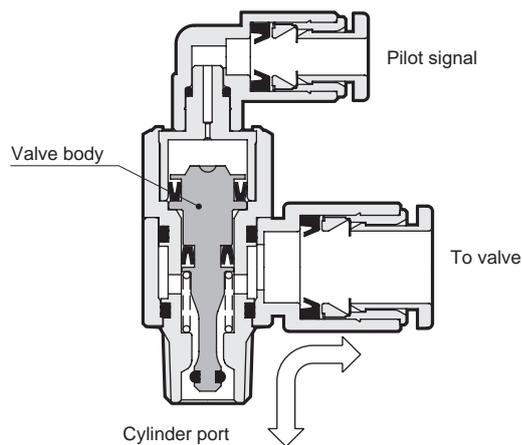
- Used for cylinder position locking circuit



- Used for cylinder braking circuit



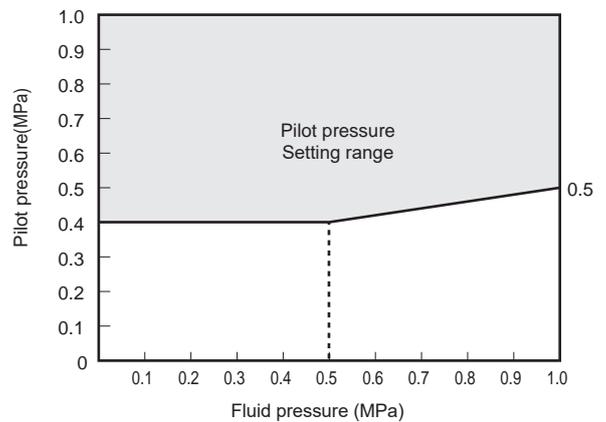
Operational principle



The valve opens if there is a pilot signal, but closes if the pilot signal is cut off.

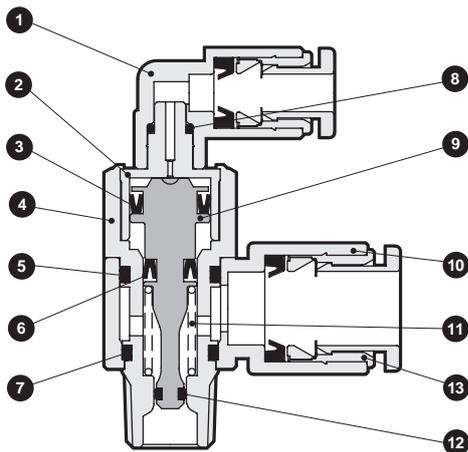
Pilot pressure

Set pilot air pressure within the specified range.



Note that the characteristics differ from the standard.

Internal structure and parts list



| Part No. | Part name | Material |
|----------|-----------------|---|
| 1 | Fitting body | Polybutylene terephthalate (flame-resistant resin) |
| 2 | Rotary shaft A | Copper alloy (electroless nickeling) |
| 3 | Packing | Nitrile rubber |
| 4 | Rotary shaft B | Copper alloy (electroless nickeling) |
| 5 | O-ring | Nitrile rubber |
| 6 | Packing | Nitrile rubber |
| 7 | O-ring | Nitrile rubber |
| 8 | O-ring | Nitrile rubber |
| 9 | Valve body | Copper alloy (electroless nickeling) |
| 10 | Body | Polybutylene terephthalate (flame-resistant resin) *1 |
| 11 | Spring | Stainless steel |
| 12 | O-ring | Nitrile rubber |
| 13 | Push-in fitting | |

*1: Zinc alloy die-casting is applied for female thread.

For dimensions, refer to the FPV Series in "Pneumatic, Vacuum and Auxiliary Components (CB-024SA)".

Electric actuator
Pneumatic cylinders
Assistive device
Pneumatic valves
FRL/Auxiliary Components
Electronic Component
Vacuum components
Main line components
Fluid control valves
Main line components
Anti-bacterial/bacteria-removing filter
Vacuum components
Fluid control valves