

Micro-solenoid valve(3/2 way)

CPV10 Series



Symbol



Product feature

1. With anti-surge component can avoid the damage of solenoid valve.
2. Multi-direction installation and polarless circuit design.
3. AC voltage models possess a built-in full wave rectifier circuit to reduce the noise effectively.
4. Various of standard voltages: AC220V, AC110V, DC24V, DC12V.
5. Low starting voltage and long service life.
6. Equipped with a push-turn locking manual override for adjustment and troubleshooting.

Specification

| Model | | CPV10 | | | |
|----------------------------|----------------------|---|--|--|--|
| Fluid | | Air(to be filtered by 40 μ m filter element) | | | |
| Acting | | Direct acting | | | |
| Nominal diameter | | Φ0.55mm | | | |
| Effective area | | P to A:0.25mm ² (Cv=0.014); A to R:0.35mm ² (Cv=0.02) | | | |
| Valve type | | 3 /2 way | | | |
| Weight | micro-solenoid valve | 15g | | | |
| | Terminal line | 050: 4.6g 200: 21.4g | | | |
| | Screw(2pcs) | 0.46g | | | |
| Operating pressure | | 0~0.8MPa(0~114psi) | | | |
| Proof pressure | | 1.2MPa(175psi) | | | |
| Temperature | | -20~70℃ | | | |
| Standard voltage | | AC220V AC110V DC24V DC12V | | | |
| Scope of voltage | | DC±10%; AC+15%~-10% | | | |
| Protection | | Dustproof | | | |
| Temperature classification | | F Class | | | |
| Power consumption | | DC: 0.9W; AC: 1.5VA | | | |
| Electrical entry | | Terminal | | | |
| Activating time | | on<7ms; off<7ms | | | |

Ordering code

Ordering code of valve

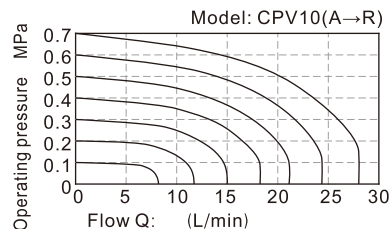
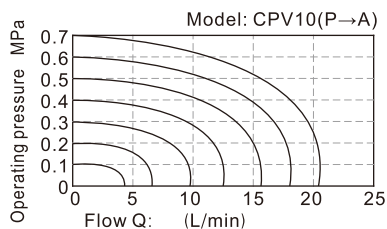
| CPV 10 B P-050 | | | | |
|--|-----------------|--|---------------------------|------------------------|
| ① | ② | ③ | ④ | ⑤ |
| ① Model | ② Width of body | ③ Voltage | ④ Code of manual override | ⑤ Wire length [Note1] |
| CPV: CPV series Micro-solenoid valve | 10: 10mm | A: AC220V B: DC24V C: AC110V F: DC12V | P: With manual override | 050: 0.5m 200: 2.0m |

[Note1] Contain two M1.6 screws.

Ordering code of terminal wire

| CPV T 050 | | |
|--------------------------------------|------------------|---------------------|
| ① | ② | ③ |
| ① Model | ② Terminal wire | ③ Wire length |
| CPV: CPV series Micro-solenoid valve | T: Terminal wire | 050: 0.5m 200: 2.0m |

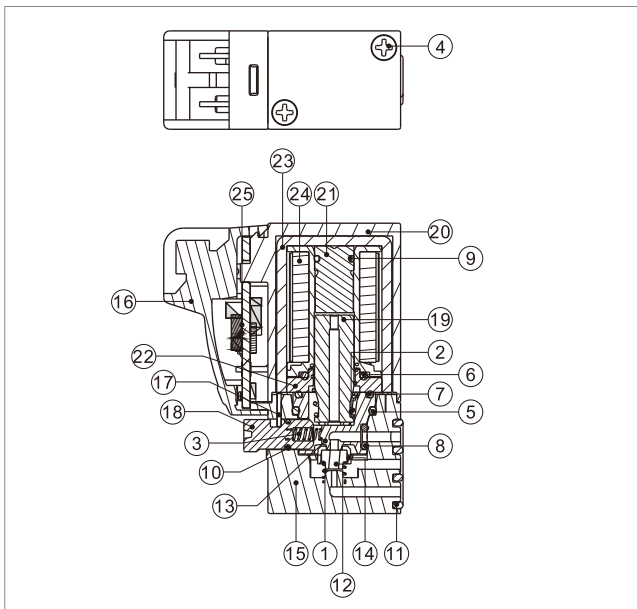
Flow chart



Micro-solenoid valve(3/2 way)

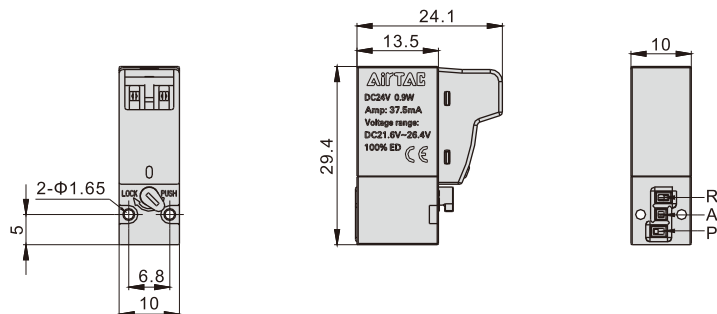
CPV10 Series

Inner structure



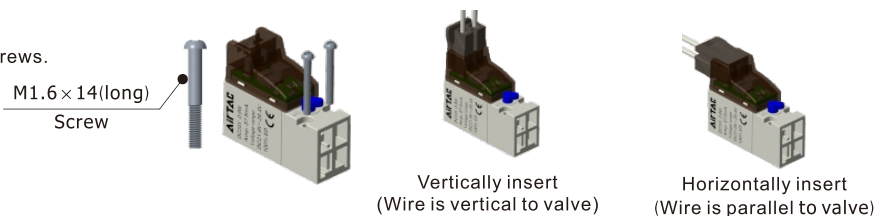
| No. | Item | Material | No. | Item | Material |
|-----|--------|-----------------|-----|------------------|-----------------|
| 1 | Spring | Stainless steel | 14 | mandril | Resin |
| 2 | Spring | Stainless steel | 15 | Body | Resin |
| 3 | Spring | Stainless steel | 16 | Connector shell | Resin |
| 4 | Screw | Carbon steel | 17 | Manual pin plate | Stainless steel |
| 5 | O-ring | NBR | 18 | Manual pin | Brass |
| 6 | O-ring | NBR | 19 | Movable core | Stainless steel |
| 7 | O-ring | NBR | 20 | Cover | Resin |
| 8 | O-ring | NBR | 21 | Electromagnet | Stainless steel |
| 9 | O-ring | NBR | 22 | Plate | Carbon steel |
| 10 | O-ring | NBR | 23 | U shape bracket | Carbon steel |
| 11 | Gasket | NBR | 24 | Coil | |
| 12 | Gasket | NBR | 25 | PCB assembly | |
| 13 | Crater | Resin | | | |

Dimensions



Installation and Application

1. Micro-solenoid valve assembly:
Fastened with torque of 0.1~0.15N.m by two M1.6X14L screws.
2. Wiring instruction:
Multi-direction installation and polar less circuit design.
Note: The terminal wire is non-polarity.
3. Prevent to connect AC coils in series with other devices.



Micro-solenoid valve(3/2 way)

CPV10 Series — Manifold



Specification

| Model | CPV10MJ□□2F | CPV10MJ□□3F | | CPV10MJ□□20F |
|-------------------|---|-------------|-------|--------------|
| Fluid | Air(to be filtered by 40 μm filter element) | | | |
| Temperature | -20~70℃ | | | |
| Port size | P/R: M5 A: Φ3.2 / Φ4(Push in fittings) | | | |
| Applicable valves | CPV10 series micro-solenoid valve | | | |

Product feature

1. Integrated installation saves space and reduces additional accessories.
2. Centralized air intake, exhaust, and wiring for quick air circuit checking.
3. Fixible combination and expandability for various applications. Blank plates are optional.

Ordering code

Ordering code of manifold

CPV10M J03 – 20F

| ① Model | ② Port size | ③ Number of stations |
|-------------------------------|----------------------|---|
| CPV10M: CPV10 series Manifold | J03: Φ3.2 J04: Φ4 | 2F: 2 stations 4F: 4 stations 6F: 6 stations 20F: 20 stations |

Ordering code of blank plate

P-CPV10M-R2

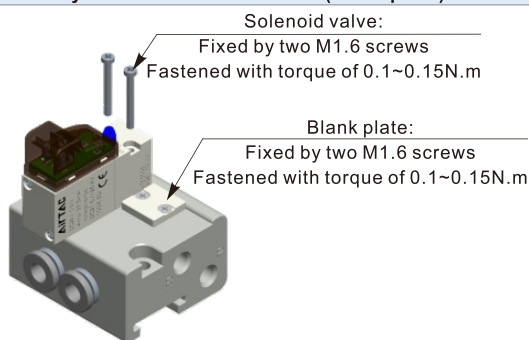
| ① Model | ② Code |
|-------------------------------|------------------------------|
| CPV10M: CPV10 series Manifold | R2: Blank plate for manifold |

[Note] Blank plate kits contains blank plate, gasket and screws.



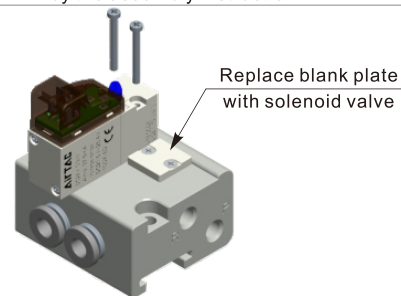
Installation and Application

Assembly of micro-solenoid valve (blank plate) and manifold



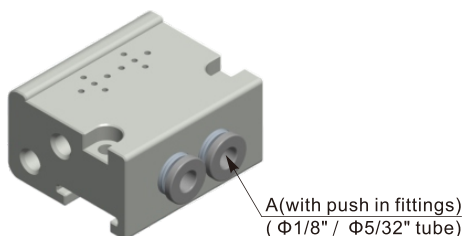
Expansion of micro-solenoid valve

Remove blank plate and install solenoid valve by the assembly instruction.



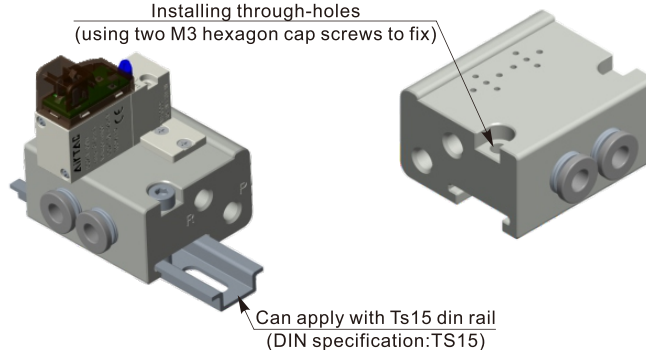
A port tubing

A port is at the side of manifold, port size is "Φ3.2 / Φ4"



Manifold mounting

Installing through-holes
(using two M3 hexagon cap screws to fix)

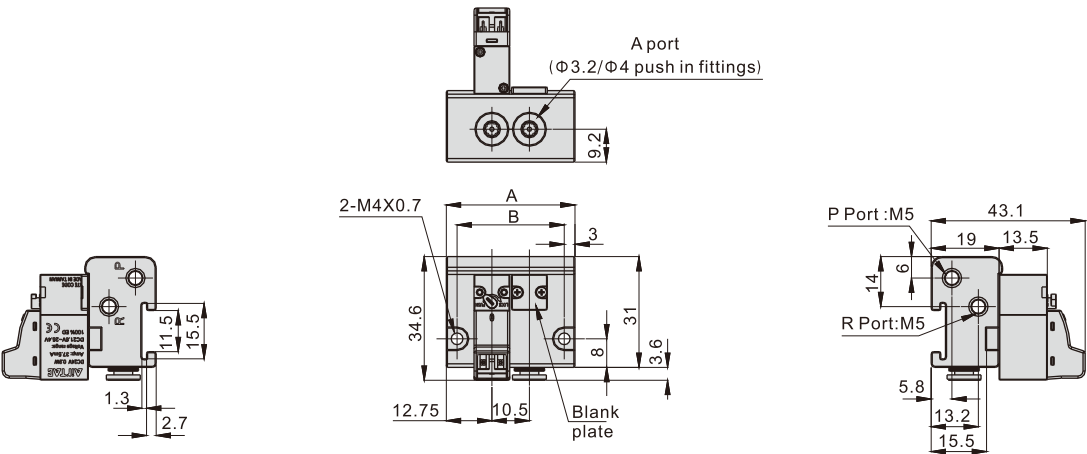


Micro-solenoid valve(3/2 way)



CPV10 Series —— Manifold

Dimensions



| Item\Number of stations | 2F | 3F | 4F | 5F | 6F | 7F | 8F | 9F | 10F | 11F | 12F | 13F | 14F | 15F | 16F | 17F | 18F | 19F | 20F |
|-------------------------|----|------|----|------|----|------|----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|
| A | 36 | 46.5 | 57 | 67.5 | 78 | 88.5 | 99 | 109.5 | 120 | 130.5 | 141 | 151.5 | 162 | 172.5 | 183 | 193.5 | 204 | 214.5 | 225 |
| B | 30 | 40.5 | 51 | 61.5 | 72 | 82.5 | 93 | 103.5 | 114 | 124.5 | 135 | 145.5 | 156 | 166.5 | 177 | 187.5 | 198 | 208.5 | 219 |