

# Fluid control valve(2/2way)

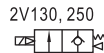
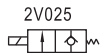
**AirTAC**

## 2V Series



2V

### Symbol



### Product feature

#### 2V025 series

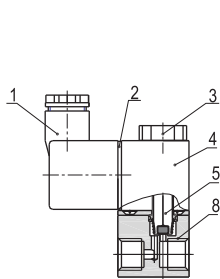
1. Direct drive (acting) and normally closed type 2/2 way solenoid valve can quickly and sensitively change the direction.
2. The structure is delicate and compact.
3. The valve body is made of brass, and the heat resistance classification of coil is B. The seals are made of fluorine rubber (VITON) which is suitable for several kinds of working medium.

#### 2V130 and 250 series

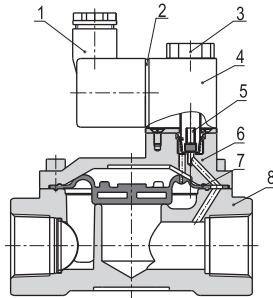
1. The 2/2 way diaphragm piloted solenoid valve has low energy consumption and large flow volume.
2. The starting pressure is low and operation differential pressure is < 0.05MPa.
3. The valve body is made of brass, and the heat resistance classification of coil is B step. The seals are made of NBR.

### Inner structure

#### 2V025 Terminal



#### 2V250 Terminal



| No. | Item             | No. | Item | No. | Item              | No. | Item      |
|-----|------------------|-----|------|-----|-------------------|-----|-----------|
| 1   | Connector        | 3   | Nut  | 5   | Armature assembly | 7   | Diaphragm |
| 2   | Connector gasket | 4   | Coil | 6   | Body cover        | 8   | Body      |

### Specification

| Model                    | 2V025-06               | 2V025-08 | 2V130-10                  | 2V130-15 | 2V250-20 | 2V250-25 |
|--------------------------|------------------------|----------|---------------------------|----------|----------|----------|
| Fluid                    | Air. Water. Oil        |          |                           |          |          |          |
| Acting                   | Direct acting          |          | Internally piloted acting |          |          |          |
| Type                     | Normally closed        |          |                           |          |          |          |
| Orifice size(Φmm)        | 2.5                    | 2.5      | 13.0                      | 13.0     | 25.0     | 25.0     |
| Cv valve                 | 0.23                   | 0.25     | 6.20                      | 6.20     | 13.00    | 13.00    |
| Port size ①              | 1/8"                   | 1/4"     | 3/8"                      | 1/2"     | 3/4"     | 1"       |
| Viscosity limit          | Under 20CST            |          |                           |          |          |          |
| Pressure range           | 0~1.0MPa(0~145psi)     |          | 0.05~1.0MPa(7~145psi)     |          |          |          |
| Proof pressure           | 1.5MPa(215psi)         |          |                           |          |          |          |
| Material body            | Brass with zinc plated |          | Brass                     |          |          |          |
| Seal material            | VITON                  |          | NBR                       |          |          |          |
| Min. activating time sec | 0.05 sec and below     |          |                           |          |          |          |

① PT thread, NPT thread and G thread are available.

### Specification of coil

| Valve type | Power type | Frequency (Hz) | Voltage range | Electrical entry | Power Consumption (VA/W) | Insulation | Temp. rise(℃) |
|------------|------------|----------------|---------------|------------------|--------------------------|------------|---------------|
| 2V025      | AC         | 50             | ± 15%         | Terminal Grommet | 7.0VA                    | Class B    | 35            |
| 2V130      | DC         | 60             | ± 10%         |                  | 7.0W                     |            | 45            |

### Ordering code

| 2V 025 08 A □ P                      |                                                            |                                            |                               |
|--------------------------------------|------------------------------------------------------------|--------------------------------------------|-------------------------------|
| Model                                | Thread type                                                | Orifice size                               | Electrical entry              |
| 2V: 2 port 2 position solenoid valve | P: PT<br>T: NPT<br>G: G                                    | 025: Φ 2.5mm<br>130: Φ 13mm<br>250: Φ 25mm | Blank: Terminal<br>I: Grommet |
| Port size                            | Voltage                                                    |                                            |                               |
| Orifice size                         | A: AC220V<br>B: DC24V<br>C: AC110V<br>E: AC24V<br>F: DC12V | Port size                                  |                               |
| Φ 2.5mm                              |                                                            | 06: 1/8"                                   |                               |
| Φ 13mm                               |                                                            | 08: 1/4"                                   |                               |
|                                      |                                                            | 10: 3/8"                                   |                               |
| Φ 25mm                               |                                                            | 15: 1/2"                                   |                               |
|                                      |                                                            | 20: 3/4"                                   |                               |
|                                      |                                                            | 25: 1"                                     |                               |

### Usable fluid

| Seal material\Fluid | Water      | Dry air   | Acetone*      | ISOVG32 oil   | Glycol*   | Nitrogen      | Heavy oil       |       |
|---------------------|------------|-----------|---------------|---------------|-----------|---------------|-----------------|-------|
| NBR                 | ○          | ◎         | △             | ◎             | ○         | ◎             | ○               |       |
| Seal material\Fluid | JIS# 1 Oil | JIS#3 Oil | Vegetable Oil | Inorganic Oil | Start Oil | Silicagel Oil | CO <sub>2</sub> | Argon |
| NBR                 | ◎          | ○         | ◎             | ◎             | ○         | ◎             | ○               | ◎     |

1 Note: ○= Excellent(nearly without affect). ○= Good(workable thought some affect). △= Poor(large affect).

2 Note: "\*" means inflamable and explosive dangerous fluid. Please use the relative explosion proof coil.

3 Note: Please consult the technical department before using fluid that has not been shown in the above table.

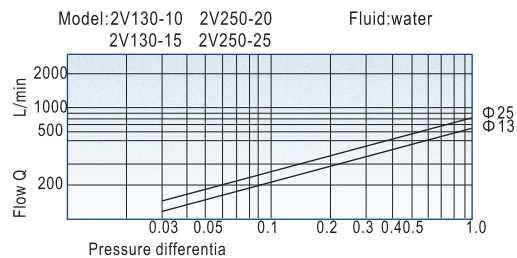
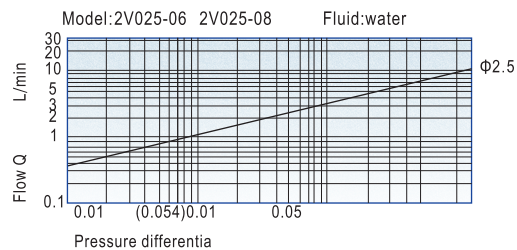
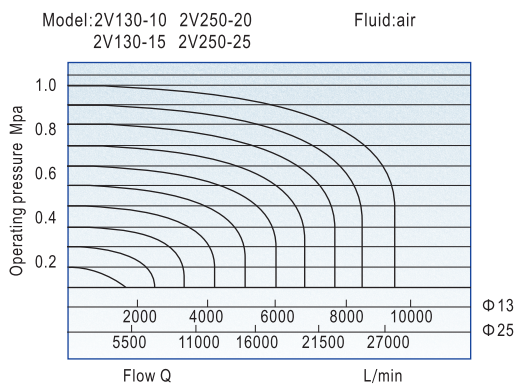
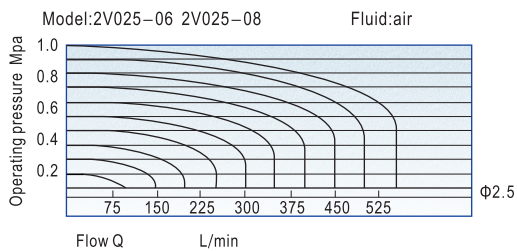


# Fluid control valve(2/2way)



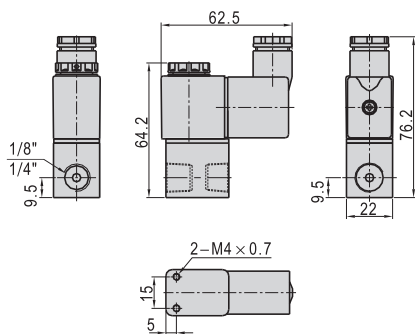
## 2V Series

### Flow chart

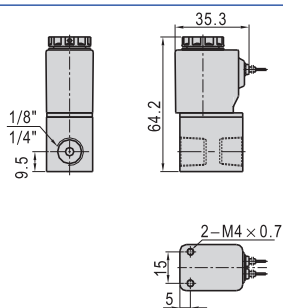


### Dimensions

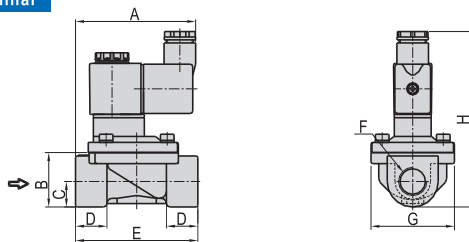
#### 2V025 Terminal



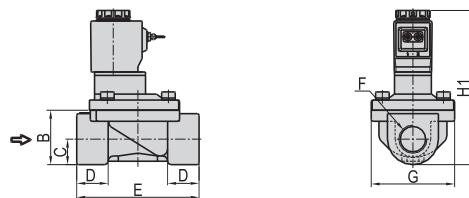
#### 2V025 Grommet



#### 2V130, 250 Terminal



#### 2V130, 250 Grommet



| Model\Item | A    | B  | C  | D    | E   | F    | H    | H1    |
|------------|------|----|----|------|-----|------|------|-------|
| 2V130-10   | 70.7 | 32 | 15 | 18.5 | 72  | 3/8" | 49   | 103.2 |
| 2V130-15   | 70.7 | 32 | 15 | 18.5 | 72  | 1/2" | 49   | 103.2 |
| 2V250-20   | 73.7 | 45 | 21 | 23   | 102 | 3/4" | 77.5 | 120   |
| 2V250-25   | 73.7 | 45 | 21 | 23   | 102 | 1"   | 77.5 | 120   |



2V



# Fluid control valve(2/2way)



## 2P Series



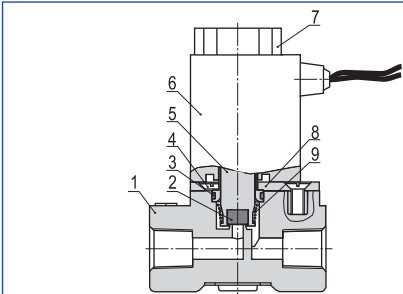
### Symbol



### Product feature

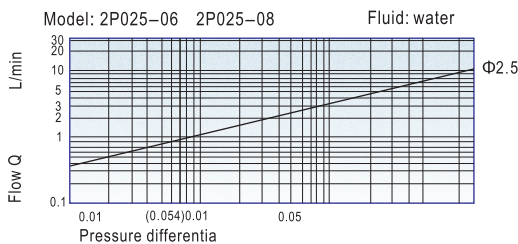
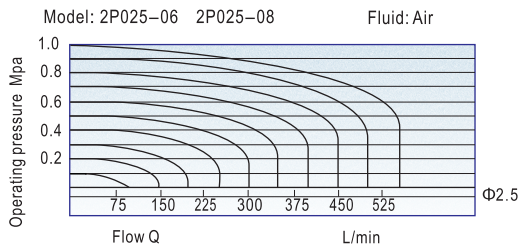
- 1. Direct acting and normally closed type 2/2 way solenoid valve can quickly and sensitively change the direction.
- 2. It has compact structure, small size and light weight. It is easy to be installed and dismantled.
- 3. The valve body is made of nylon 66. The heat resistance classification of coil is B step. The seals are made of VITON which is suitable for different kinds of fluid.
- 4. The protection class of coil is IP65, and the electrical entry is grommet.

### Inner structure



| No. | Item                | No. | Item        | No. | Item        |
|-----|---------------------|-----|-------------|-----|-------------|
| 1   | Body                | 4   | Pilot screw | 7   | Coil nut    |
| 2   | Bottom cover gasket | 5   | Armature    | 8   | Fixed plate |
| 3   | O-ring              | 6   | Coil        | 9   | Spring      |

### Flow chart



### Specification

| Model                    | 2P025-06           | 2P025-08 |
|--------------------------|--------------------|----------|
| Fluid                    | Air, Water, Oil    |          |
| Acting                   | Direct acting      |          |
| Type                     | Normally closed    |          |
| Orifice size(Φ mm)       | 2.5                |          |
| Cv valve                 | 0.23               |          |
| Port siz                 | G1/8               | G1/4     |
| Viscosity limit          | Under 20CST        |          |
| Pressure range           | 0~0.7MPa(0~100psi) |          |
| Proof pressure           | 1.05MPa(150psi)    |          |
| Material body            | Nylon 66           |          |
| Seal material            | VITON              |          |
| Min. activating time sec | 0.05 sec and below |          |

### Specification of coil

| Valve type | Power type | Frequency (Hz) | Voltage range | Electrical entry | Power Consumption (VA/W) | Insulation | Temp. rise(°C) |
|------------|------------|----------------|---------------|------------------|--------------------------|------------|----------------|
| 2P025      | AC         | 50             | ± 15 %        | Terminal Grommet | 7.0VA                    | Class B    | 35             |
|            |            | 60             |               |                  | 7.0W                     |            | 45             |
|            | DC         | —              | ± 10 %        |                  |                          |            |                |

### Ordering code

| 2P 025 08 A G                                           |             |
|---------------------------------------------------------|-------------|
| Model                                                   | Thread type |
| 2P:2 port 2 position solenoid valve(plastic steel type) | G:G         |
| Orifice size                                            | Voltage     |
| 025:Φ 2.5mm                                             | A:AC220V    |
| Port size                                               | B:DC24V     |
| 06:G1/8                                                 | C:AC110V    |
| 08:G1/4                                                 | E:AC24V     |
|                                                         | F:DC12V     |

### Dimensions

