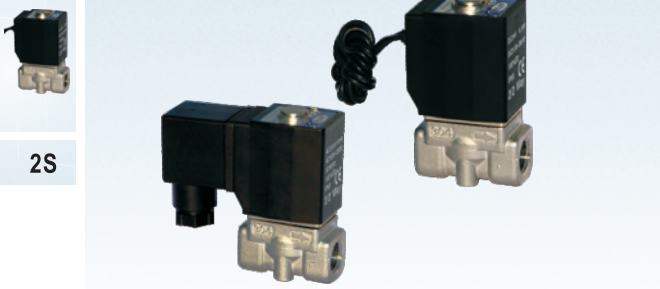


# Fluid control valve(2/2way)

## 2S Series (Direct-acting and normally closed)



2S

### Symbol



### Product feature

1. Direct acting and normally closed type 2/2 way solenoid valve. Its high sensibility allows it to change direction quickly;
2. It has wide pressure range, including extra high pressure (X), high pressure (H), standard, large volume(L) and extra large volume (T) to choose from;
3. It is compact, small size and light weight. It is easy to install and dismantle.
4. The valve body is made of SUS304. Its coil has a Heat resistance classification of Class B. The standard seal material is FPM-F. Please contact us if other material are required.
5. The protection class of the coil is IP65 and there is a choice for grommet or terminal electrical entry.

### Valve's specification

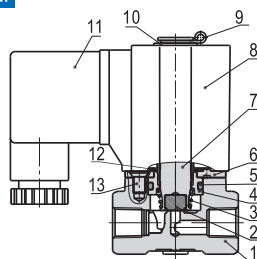
| Acting                            | Direct acting   |       |       |         |
|-----------------------------------|-----------------|-------|-------|---------|
| Initial stats                     | Normally closed |       |       |         |
| Adaptable fluid ①                 | Air, Water, Oil |       |       |         |
| Viscosity limit                   | Under 20CST     |       |       |         |
| Ambient and fluid temperature(°C) | Water           | Air   | Oil   | Ambient |
|                                   | Max. 80         | 90    | 80    | 70      |
|                                   | Min. 1          | -20 ② | -10 ③ | -20     |

① Note: Please refer to P121 for detail of other's fluid.

② Note: Dew point: -20(°C) or less. ③ Note: 50CST or less.

### Inner structure

#### 2S030 Terminal



| No. | Item          | No. | Item         | No. | Item      |
|-----|---------------|-----|--------------|-----|-----------|
| 1   | Body          | 6   | Wear ring    | 11  | Connector |
| 2   | Airtight ring | 7   | Movable core | 12  | Washer    |
| 3   | Spring        | 8   | Coil         | 13  | Screw     |
| 4   | Fixed cap     | 9   | E Clip       |     |           |
| 5   | O-ring        | 10  | Gasket       |     |           |

### Specification

| Type\Item | Port size ① | Orifice size (Φ mm) | Cv   | Valid area or section(mm²) | Weight ② (g) | Max.operating pressure differential |     | Proof pressure |     |
|-----------|-------------|---------------------|------|----------------------------|--------------|-------------------------------------|-----|----------------|-----|
|           |             |                     |      |                            |              | MPa                                 | psi | MPa            | psi |
| 2SX030    | -06 1/8"    | 1.5                 | 0.10 | 1.8                        | 300          | 3.0                                 | 450 | 5.0            | 750 |
|           | -08 1/4"    |                     |      |                            | 295          |                                     |     |                |     |
| 2SH030    | -06 1/8"    | 2.0                 | 0.18 | 3.0                        | 300          | 2.0                                 | 300 |                |     |
|           | -08 1/4"    |                     |      |                            | 290          |                                     |     |                |     |
| 2S030     | -06 1/8"    | 3.0                 | 0.33 | 6.0                        | 300          | 1.0                                 | 150 |                |     |
|           | -08 1/4"    |                     |      |                            | 290          |                                     |     |                |     |
| 2SL030    | -06 1/8"    | 4.0                 | 0.55 | 10.0                       | 300          | 0.5                                 | 75  |                |     |
|           | -08 1/4"    |                     |      |                            | 290          |                                     |     |                |     |
| 2ST030    | -06 1/8"    | 6.0                 | 1.10 | 12.0                       | 300          | 0.1                                 | 15  |                |     |
|           | -08 1/4"    |                     |      |                            | 290          |                                     |     |                |     |
| 2SX050    | -10 3/8"    | 3.0                 | 0.34 | 6.1                        | 600          | 3.0                                 | 450 |                |     |
|           | -15 1/2"    |                     |      |                            | 590          |                                     |     |                |     |
| 2SH050    | -10 3/8"    | 4.0                 | 0.55 | 10.0                       | 600          | 2.0                                 | 300 |                |     |
|           | -15 1/2"    |                     |      |                            | 590          |                                     |     |                |     |
| 2S050     | -10 3/8"    | 5.0                 | 0.83 | 15.0                       | 600          | 1.0                                 | 150 |                |     |
|           | -15 1/2"    |                     |      |                            | 590          |                                     |     |                |     |
| 2SL050    | -10 3/8"    | 7.0                 | 1.40 | 25.0                       | 600          | 0.5                                 | 75  |                |     |
|           | -15 1/2"    |                     |      |                            | 590          |                                     |     |                |     |
| 2ST050    | -10 3/8"    | 10.0                | 2.20 | 40.0                       | 600          | 0.1                                 | 15  |                |     |
|           | -15 1/2"    |                     |      |                            | 590          |                                     |     |                |     |

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

② The weight in the table is the terminal valve's weight, 2S030 series grommet valve's weight is 10g less than terminal's. 2S050series grommet valve's weight is 20g less than terminal's.

### Specification of coil

| Valve type | Coil type        | Power type | Frequency (Hz) | Voltage range | Electrical entry | Power Consumption (VA/W) | Insulation | Temp.rise(°C) |
|------------|------------------|------------|----------------|---------------|------------------|--------------------------|------------|---------------|
| 2S□030     | CDA116<br>CLA116 | AC         | 50             | ± 15 %        | Terminal (CDA)   | 10.0VA                   | Class B    | 35            |
|            |                  |            | 60             |               |                  | 8.0VA                    |            | 30            |
|            |                  | DC         | —              | ± 10 %        | 6.5W             | 30                       |            |               |
| 2S□050     | CDA170<br>CLA170 | AC         | 50             | ± 15 %        | Grommet (CLA)    | 25.0VA                   |            | 60            |
|            |                  |            | 60             |               |                  | 22.0VA                   |            | 55            |
|            |                  | DC         | —              | ± 10 %        |                  |                          |            |               |
|            |                  |            |                |               |                  | 10.5W                    | 40         |               |

### Ordering code

| 2S L 030 08 A □ □                             |  |  |  |                           |  |                         |  |                  |  |
|-----------------------------------------------|--|--|--|---------------------------|--|-------------------------|--|------------------|--|
| <b>Model</b>                                  |  |  |  | <b>Thread type</b>        |  | <b>Electrical entry</b> |  | <b>Voltage</b>   |  |
| 2S: 2/2 way direct-acting and normally closed |  |  |  | Blank: PT                 |  | Blank: Terminal         |  | A: AC220V        |  |
|                                               |  |  |  | T: NPT                    |  | I: Grommet              |  | B: DC24V         |  |
|                                               |  |  |  | G: G                      |  |                         |  | C: AC110V        |  |
|                                               |  |  |  |                           |  |                         |  | E: AC24V         |  |
|                                               |  |  |  |                           |  |                         |  | F: DC12V         |  |
|                                               |  |  |  | <b>Pressure condition</b> |  | <b>Size series</b>      |  | <b>Port size</b> |  |
| X: Extra high pressure                        |  |  |  | 030: 030 Series           |  | 06: 1/8"                |  | 030 Series       |  |
| H: High pressure                              |  |  |  | 050: 050 Series           |  | 08: 1/4"                |  | 050 Series       |  |
| Blank: Standard                               |  |  |  |                           |  | 10: 3/8"                |  |                  |  |
| L: Large volume                               |  |  |  |                           |  | 15: 1/2"                |  |                  |  |
| T: Extra large volume                         |  |  |  |                           |  |                         |  |                  |  |

### Ordering code of accessories

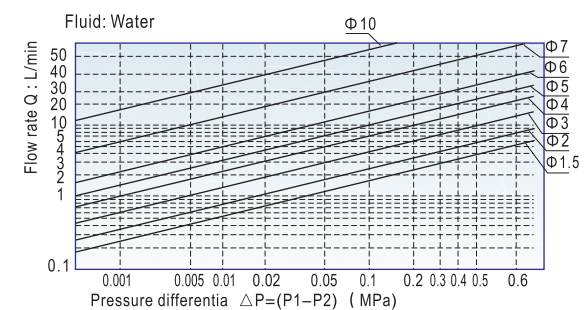
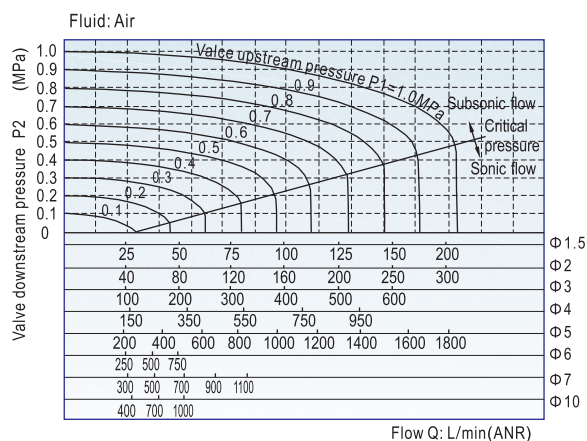
| F-2S030 LB              |  |  |  |                         |  |                        |  |  |  |
|-------------------------|--|--|--|-------------------------|--|------------------------|--|--|--|
| <b>Accessories code</b> |  |  |  | <b>Accessories type</b> |  | <b>Valve type</b>      |  |  |  |
| F: Mounting accessories |  |  |  | LB: LB type             |  | 2S030: 030 Series body |  |  |  |
|                         |  |  |  |                         |  | 2S050: 050 Series body |  |  |  |



# Fluid control valve(2/2way)

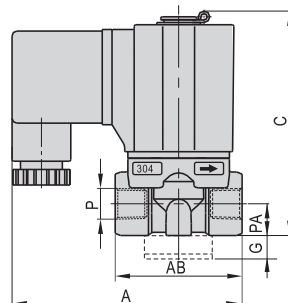
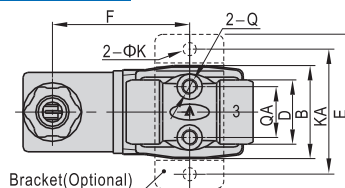
## 2S Series (Direct-acting and normally closed)

### Flow Chart



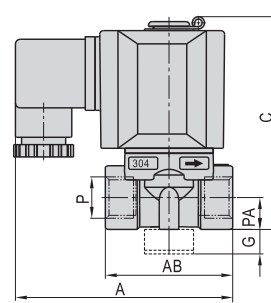
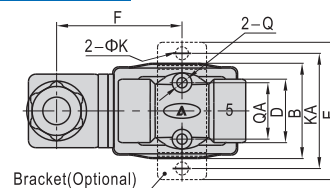
### Dimensions

#### 2S□030(Terminal)

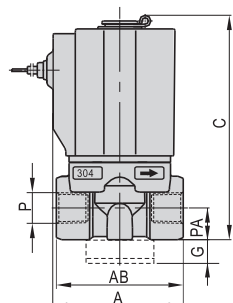
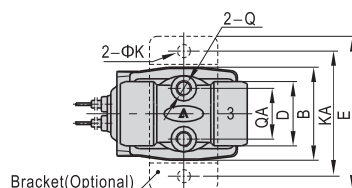


| Type\Item | A    | AB | B    | C  | D  | E  | F    | G  | K   | KA | P    | PA | Q  | QA |
|-----------|------|----|------|----|----|----|------|----|-----|----|------|----|----|----|
| 2S□030-06 | 72.5 | 40 | 29.5 | 71 | 20 | 49 | 43.5 | 10 | 5.3 | 40 | 1/8" | 10 | M5 | 16 |
| 2S□030-08 | 72.5 | 40 | 29.5 | 71 | 20 | 49 | 43.5 | 10 | 5.3 | 40 | 1/4" | 10 | M5 | 16 |
| 2S□050-10 | 89.5 | 52 | 39   | 87 | 26 | 56 | 51   | 10 | 5.3 | 48 | 3/8" | 13 | M5 | 23 |
| 2S□050-15 | 89.5 | 52 | 39   | 87 | 26 | 56 | 51   | 10 | 5.3 | 48 | 1/2" | 13 | M5 | 23 |

#### 2S□050(Terminal)

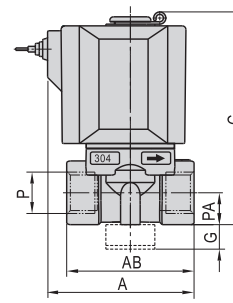
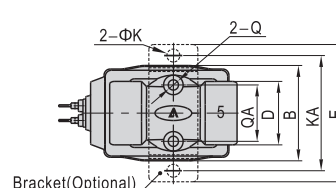


#### 2S□030(Grommet)



| Type\Item | A  | AB | B    | C  | D  | E  | G  | K   | KA | P    | PA | Q  | QA |
|-----------|----|----|------|----|----|----|----|-----|----|------|----|----|----|
| 2S□030-06 | 41 | 40 | 29.5 | 71 | 20 | 49 | 10 | 5.3 | 40 | 1/8" | 10 | M5 | 16 |
| 2S□030-08 | 41 | 40 | 29.5 | 71 | 20 | 49 | 10 | 5.3 | 40 | 1/4" | 10 | M5 | 16 |
| 2S□050-10 | 60 | 52 | 39   | 87 | 26 | 56 | 10 | 5.3 | 48 | 3/8" | 13 | M5 | 23 |
| 2S□050-15 | 60 | 52 | 39   | 87 | 26 | 56 | 10 | 5.3 | 48 | 1/2" | 13 | M5 | 23 |

#### 2S□050(Grommet)



2S