

Control valve(3/2way)

S3 Series



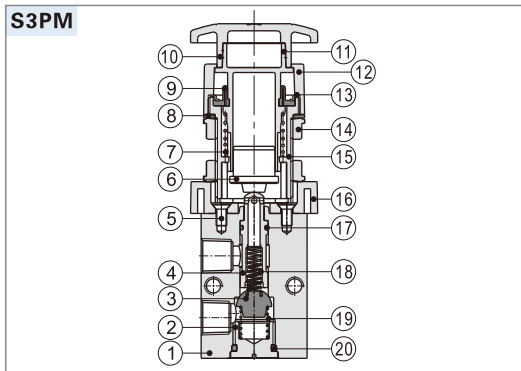
Symbol



Product feature

1. The external force required by changing the direction of the series of S3B, S3R, S3L and S3V is provided by external mechanism, which can be used for position test or limit switch.
2. The series of S3PF, S3PM, S3PP, S3PL, S3Y, S3HS, S3C and S3D are operated manually, owning control joints with several structure forms and suitable for application under different conditions.
3. Shut-off structure has good tightness and is sensitive in direction changing and lubricant is not necessary.
4. Multi-mounting makes it convenient to install and apply.
5. The control joints of series of S3C, S3D, S3Y, S3R and S3L are made of metal which has long service life and more reliable and steady performance.

Inner structure



| No. | Item | No. | Item | No. | Item |
|-----|------------------------|-----|---------------------|-----|-------------|
| 1 | Body | 8 | Clamping gasket | 15 | Button body |
| 2 | Bottom cover | 9 | Dust cover | 16 | Connector |
| 3 | Stopper plug | 10 | Button cap | 17 | O-ring |
| 4 | Valve core | 11 | Main body of button | 18 | Spring |
| 5 | Screw | 12 | Top cover | 19 | Spring |
| 6 | Button pressing buckle | 13 | Button ring | 20 | O-ring |
| 7 | Spring | 14 | Clamping nut | | |

Specification

| Model | S3B | S3C | S3D | S3V | S3R | S3L | S3Y | S3PM | S3PP | S3PF | S3PL | S3HS |
|---------------------|---|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
| Fluid | Air (to be filtered by 40 μm filter element) | | | | | | | | | | | |
| Operating | External control direct acting type | | | | | | | | | | | |
| Port size [Note1] | 05:M5 06:1/8" 08:1/4" | | | | | | | | | | | |
| Orifice size | 05:2.5 mm ² (Cv=0.14) 06:8.0mm ² (Cv=0.45) 08:12.0mm ² (Cv=0.67) | | | | | | | | | | | |
| Valve type | 3/2 Way | | | | | | | | | | | |
| Lubrication [Note2] | Not required | | | | | | | | | | | |
| Pressure range | 0~1.0MPa(0~145psi) | | | | | | | | | | | |
| Proof pressure | 1.5MPa(215psi) | | | | | | | | | | | |
| Temperature °C | -20~70 | | | | | | | | | | | |
| Material body | Aluminum alloy | | | | | | | | | | | |

[Note1] G thread is available.

[Note2] Once lubricated air is used, continue with same medium to optimise valve life span. It is suggested to use ISO VG32 lubricant or the oil with the same grade.

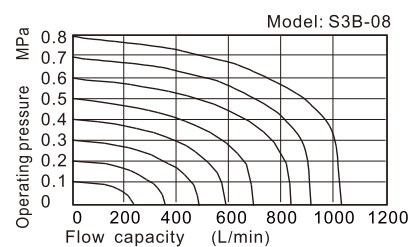
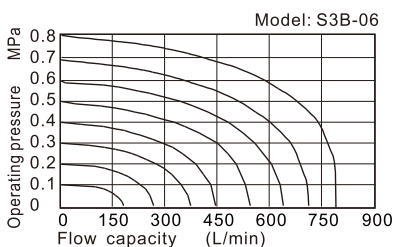
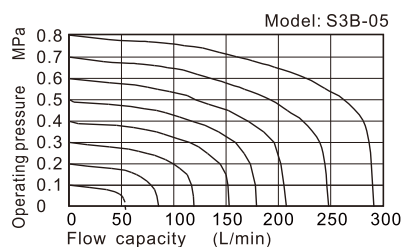
Reversal stroke

| Unit: mm | | | | | |
|----------|--------------|---------------|------|--------------|-----------------------|
| Type | Spool stroke | Button stroke | Type | Spool stroke | Roller(handle) stroke |
| S3B | 2.4~4.0 | — | S3R | 2.4~3.4 | 5.5~7.8 |
| S3PF | 2.4~4.0 | 3.8~5.4 | S3L | 2.4~3.4 | 6.0~8.6 |
| S3PP | 2.4~4.0 | 3.8~5.4 | S3V | 2.4~3.8 | 3.4~4.8 |
| S3PM | 2.4~4.0 | 3.8~5.4 | S3C | 2.4~3.8 | 14.4~18.4 |
| S3PL | 2.4~4.0 | 5.9~7.5 | S3D | 2.4~3.8 | 7.4~9.4 |
| S3HS | 2.4~4.0 | 5.1~6.7 | | | |

Ordering code

| S3 PM 06 R G | | | | |
|-----------------------|---------------------------------|--------------------------------|--------------------------------|---------------|
| ① Valve's type | ② Model | ③ Port size | ④ Button color | ⑤ Thread type |
| S3: S type 3/2 Way | B: Basic type | 05: M5 06: 1/8" 08: 1/4" | No this code | M5 1/8" 1/4" |
| | C: Long handle type | | | |
| | D: Short handle type | | | |
| | Y: Lever type | | | |
| | R: Roller type | | | |
| | L: Roller with free return type | | | |
| | V: Vertical type | | | |
| | PL: Latching type | | | |
| | PP: Protruding type | | | |
| | PF: Flat type | | | |
| | PM: Mushroom type | | R: Red | No this code |
| | HS: Selector type | | R: Red G: Green B: Black | |
| | | | | |
| | | | | G: G Thread |

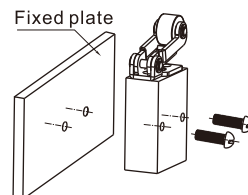
Flow chart



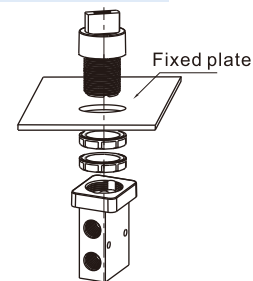
Installation and Application

- 1) The control set is made of engineering plastic which only allows manual operation and switching valves through metal impact is forbidden.
- 2) The series of S3B, S3C, S3D, S3PM, S3PF and S3PP get the function of automatic restoration. The hand valves of S3Y, S3HS and S3PL are in the type of manual restoration. S3PL will be restored by turning the revolve button after being pressed into orientation.
- 3) Pay attention to the reversing stroke. The reversing stroke can not surpass its stroke stipulated in stroke control table when the direction-change of the valve is forced by any external forces, otherwise it will cause the damage of the valve.
- 4) The S3L can only switch the valve in single direction (impact from right to left). The impact from the other direction is invalid (from left to right).
- 5) Control joint combination can be ordered individually. Please refer to the table on the right for order details.

Fixation way of body

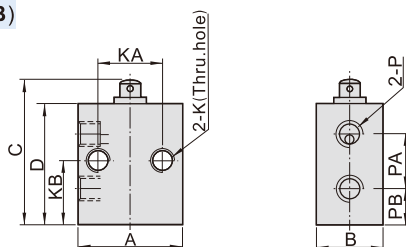


Fixation way of panel



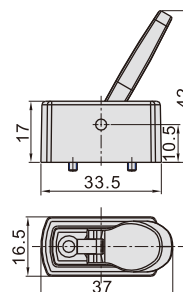
Dimension

Body(S3B)



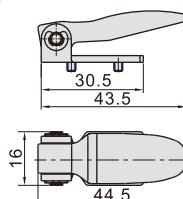
| Model\Item | A | B | C | D | K | KA | KB | P | PA | PB |
|------------|----|------|----|----|--------|----|------|--------|------|------|
| 05 | 26 | 16.5 | 36 | 30 | M5x0.8 | 16 | 15 | M5x0.8 | 13 | 9 |
| 06 | 30 | 16.5 | 47 | 41 | M5x0.8 | 23 | 20.5 | 1/8" | 17.5 | 11.5 |
| 08 | 34 | 17.5 | 52 | 46 | M5x0.8 | 24 | 22.5 | 1/4" | 21 | 12 |

Lever type(Y)



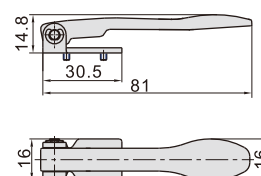
| Model | Lever type(Y) |
|---------------------|-----------------------------------|
| How to order | Ordering code M3Y210-P13A |
| | Type M3Y210Lever type control set |
| Applicable products | S3Y05,S3Y06,S3Y08 |

Short handle type(D)



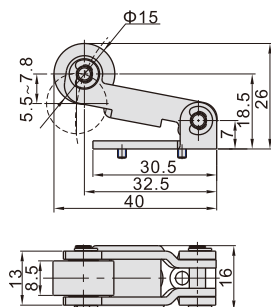
| Model | Short handle type(D) |
|---------------------|---|
| How to order | Ordering code M3D210-P13A |
| | Type M3D210 Short handle type control set |
| Applicable products | S3D05,S3D06,S3D08 |

Long handle type(C)



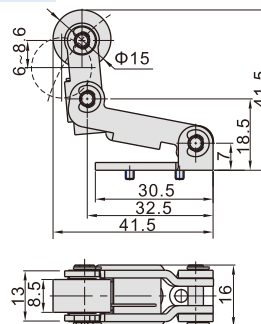
| Model | Long handle type(C) |
|---------------------|--|
| How to order | Ordering code M3C210-P13A |
| | Type M3C210 Long handle type control set |
| Applicable products | S3C05,S3C06,S3C08 |

Roller type(R)



| Model | Roller type(R) |
|---------------------|-------------------------------------|
| How to order | Ordering code M3R210-P14A |
| | Type M3R210 Roller type control set |
| Applicable products | S3R05,S3R06,S3R08 |

Roller with free return type(L)

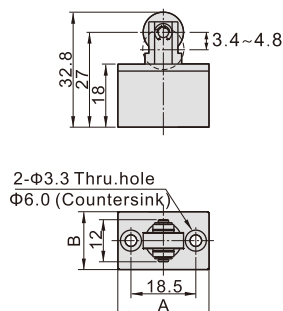


| Model | Roller with free return type(L) |
|---------------------|--|
| How to order | Ordering code M3L210-P14A |
| | Type M3L210 Roller with free return type control set |
| Applicable products | S3L05,S3L06,S3L08 |

Control valve(3/2way)

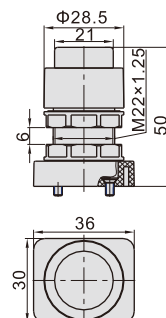
S3 Series

Vertical type(V)



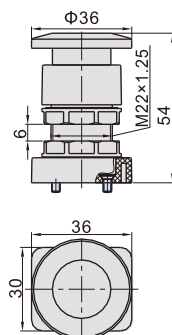
| Model | Vertical type (V) | |
|---------------------------------------|---------------------|---|
| How to order | Ordering code | S3V05(06/08)-P14A |
| | Type | S3V05(06. 08) Vertical type control set |
| Applicable products S3V05,S3V06,S3V08 | | |
| Model\Item | A | B |
| 05 | 26 | 16.5 |
| 06 | 30 | 16.5 |
| 08 | 34 | 17.5 |

Protruding type(PP)



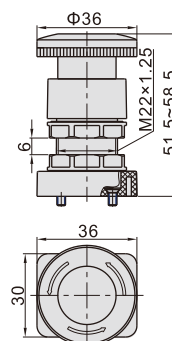
| Model | Protruding type(PP) | |
|--|---------------------|--|
| How to order | Ordering code | S3PP05-P11A |
| | Type | S3PP protruding type control set (Green) |
| How to order | Ordering code | S3PP05-P12A |
| | Type | S3PP protruding type control set (Red) |
| How to order | Ordering code | S3PP05-P13A |
| | Type | S3PP protruding type control set (Black) |
| Applicable products S3PP05,S3PP06,S3PP08 | | |

Mushroom type(PM)



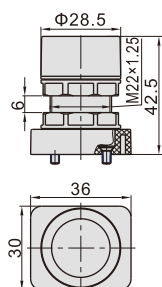
| Model | Mushroom type(PM) | |
|--|-------------------|--|
| How to order | Ordering code | S3PM05-P11A |
| | Type | S3PM mushroom type control set (Green) |
| How to order | Ordering code | S3PM05-P12A |
| | Type | S3PM mushroom type control set (Red) |
| How to order | Ordering code | S3PM05-P13A |
| | Type | S3PM mushroom type control set (Black) |
| Applicable products S3PM05,S3PM06,S3PM08 | | |

Latching type(PL)



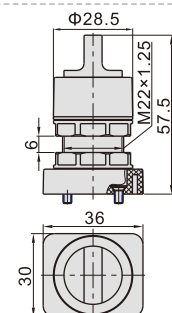
| Model | Latching type (only red)(PL) | |
|--|------------------------------|--------------------------------------|
| How to order | Ordering code | S3PL05-P12A |
| | Type | S3PL Latching type control set (Red) |
| Applicable products S3PL05,S3PL06,S3PL08 | | |

Flat type(PF)



| Model | Flat type(PF) | |
|--|---------------|------------------------------------|
| How to order | Ordering code | S3PF05-P11A |
| | Type | S3PF flat type control set (Green) |
| How to order | Ordering code | S3PF05-P12A |
| | Type | S3PF flat type control set (Red) |
| How to order | Ordering code | S3PF05-P13A |
| | Type | S3PF flat type control set (Black) |
| Applicable products S3PF05,S3PF06,S3PF08 | | |

Selector type(HS)



| Model | Selector type(HS) | |
|--|-------------------|--|
| How to order | Ordering code | S3HS05-P11A |
| | Type | S3HS selector type control set (Green) |
| How to order | Ordering code | S3HS05-P12A |
| | Type | S3HS selector type control set (Red) |
| How to order | Ordering code | S3HS05-P13A |
| | Type | S3HS selector type control set (Black) |
| Applicable products S3HS05,S3HS06,S3HS08 | | |