

5 Port Mechanical Valve

Series VZM500

**Compact design,
large flow capacity 10.8 mm²
High cycle rate,
long life/300 c.p.m. or less
Piping possible to any EXH
port.**

Proper countermeasures can be taken for applications in which the noise of the exhaust could cause problems to the surroundings.

**External pilot model
available. (Option)**

**Foot bracket and manifold
mounting possible.**



PAT. PEND.

Specifications

| | |
|---|---|
| Fluid | Air/Inert gas |
| Operating pressure | 0.15 to 0.7 MPa ⁽¹⁾ |
| Ambient and fluid temperature | -5 to 60°C (No freezing) |
| Effective area | 10.8 mm ² |
| Maximum frequency (Mechanical operation type) | 300 c.p.m. or less |
| Lubrication | Not required (Use turbine oil Class 1 ISO VG32, if lubricated.) |
| Port size | Main valve/Rc 1/8 (6A) |
| | Pilot valve (EXH)/M5 x 0.8 |
| Option | Foot bracket ⁽²⁾ |
| Weight (Basic) | 130 g |

* Please contact SMC for manifold mounting style.
Note 1) External pilot type Main valve: 0 to 0.7 MPa
Pilot valve: 0.15 to 0.7 MPa

Note 2) The standard body can not be retrofitted with a foot bracket.

Model

| | Actuator | Model | Actuator part no. | Application |
|---------------------------|-----------------------------|---------------|-------------------|---|
| Mechanical operation | Basic | VZM550-01-00 | — | — |
| | Roller lever | VZM550-01-01 | VM-01C | Polyacetal roller |
| | | VZM550-01-01S | VM-01CS | Hard steel roller |
| | One way roller lever | VZM550-01-02 | VM-02C | Polyacetal roller |
| | | VZM550-01-02S | VM-02CS | Hard steel roller |
| | Straight plunger | VZM550-01-05 | VM-05C | — |
| Roller plunger | VZM550-01-06 | VM-06C | Polyacetal roller | |
| | VZM550-01-06S | VM-06CS | Hard steel roller | |
| Manual operation | Toggle lever | VZM550-01-08 | VM-08C | — |
| | Push button (Mushroom) | VZM550-01-30R | VM-30CR | Red |
| | | VZM550-01-30B | VM-30CB | Black |
| | | VZM550-01-30G | VM-30CG | Green |
| | | VZM550-01-30Y | VM-30CY | Yellow |
| | Push button (Extended) | VZM550-01-32R | VM-32CR | Red |
| | | VZM550-01-32B | VM-32CB | Black |
| | | VZM550-01-32G | VM-32CG | Green |
| | | VZM550-01-32Y | VM-32CY | Yellow |
| | Push button (Flush) | VZM550-01-33 | VM-33C | With a set of red, black, green, yellow |
| | Twist selector (2 position) | VZM550-01-34R | VM-34CR | Red |
| | | VZM550-01-34B | VM-34CB | Black |
| | | VZM550-01-34G | VM-34CG | Green |
| | | VZM550-01-34Y | VM-34CY | Yellow |
| Key selector (2 position) | VZM550-01-36 | VM-36C | — | |
| Push-pull | VZM550-01-37 | — | Black | |

Note 1) Actuator replacement is available for all types. (Except push-pull)
Note 2) For push button (mushroom), push button (extended), push button (flush) and a single unit of fastening ring, refer to pages 5-6-6 to 5-6-7. The other parts are not replaceable.

Note 3) The handle of the selector (2 position) cannot be removed or replaced alone.

S□A

V□A

S□A

V□A

VM

VR

VH

VHS

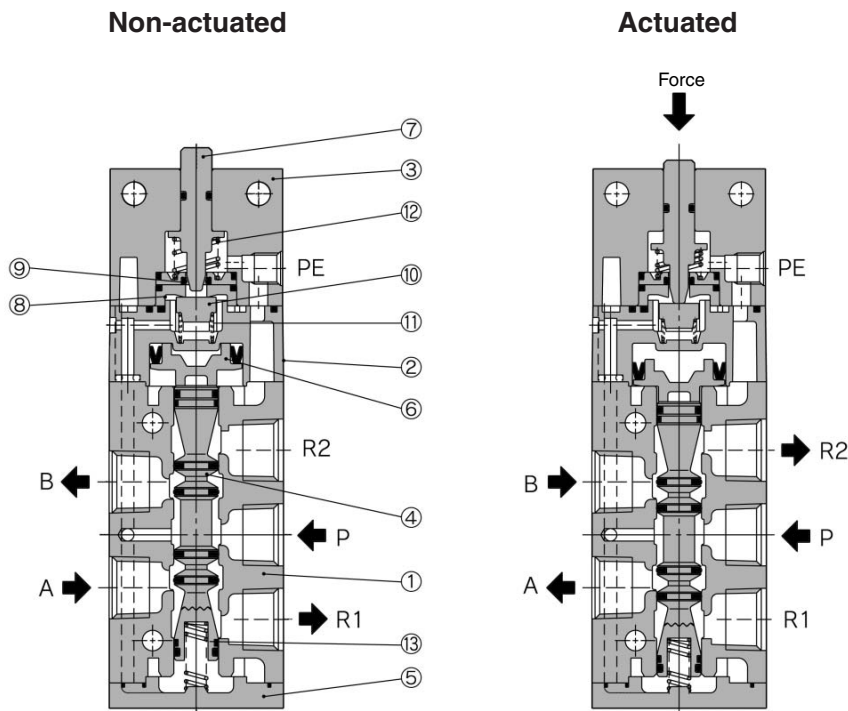
Series VZM500

How to Order

VZM55 0 01 01 S

| Port size | | Actuator type | | Suffix for actuator | | Option | |
|-----------------------|---------------------|---------------|-----------------------------|---------------------|-------------------|-------------------------------|--------------|
| 01 | Rc 1/8 | 00 | Basic | S | Hard steel roller | F | Foot bracket |
| N01 | NPT 1/8 | 01 | Roller lever | R | Red | Color of push button selector | |
| F01 | G 1/8 | 02 | One way roller lever | B | Black | | |
| | | 05 | Straight plunger | G | Green | | |
| | | 06 | Roller plunger | Y | Yellow | | |
| Body option | | 08 | Toggle lever | | | | |
| 0 | Standard | 30 | Push button (Mushroom) | | | | |
| 1* | External pilot type | 32 | Push button (Extended) | | | | |
| * Except VZM550-01-37 | | 33 | Push button (Flush) | | | | |
| | | 34 | Twist selector (2 position) | | | | |
| | | 36 | Key selector (2 position) | | | | |
| | | 37 | Push-pull | | | | |

Construction



Component Parts

| No. | Description | Material | Note |
|-----|----------------------|----------|-----------------------------|
| ① | Body | ADC | Metallic plated |
| ② | Pilot body | PBT | ZDC only for external pilot |
| ③ | Head cover | ZDC | Black zinc chromated |
| ④ | Spool valve assembly | | |
| ⑤ | End cover | ZDC | Metallic plated |
| ⑥ | Piston | POM | |
| ⑦ | Plunger | POM | |

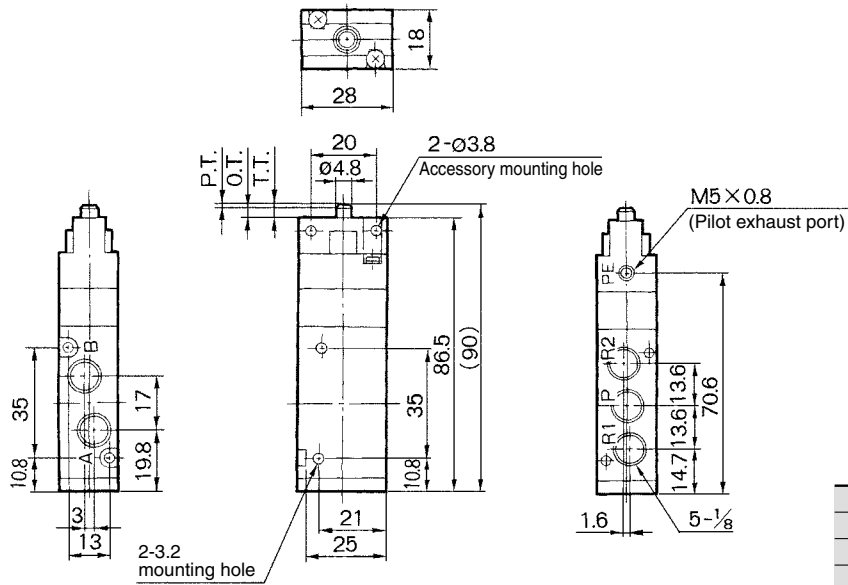
| No. | Description | Material | Note |
|-----|----------------|-----------------|------|
| ⑧ | Valve seat (A) | POM | |
| ⑨ | Valve seat (B) | POM | |
| ⑩ | Valve assembly | NBR | |
| ⑪ | Valve spring | Stainless steel | |
| ⑫ | Return spring | Stainless steel | |
| ⑬ | Spool spring | Stainless steel | |

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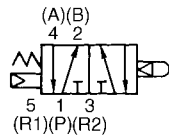
Series VZM500

Basic

VZM550-01-00



JIS Symbol



* 0.5 MPa supply

| | |
|----------|--------|
| F.O.F. * | 16 N |
| P.T. | 1.0 mm |
| O.T. | 2.0 mm |
| T.T. | 3.0 mm |

S□A

V□A

S□A

V□A

VM

VR

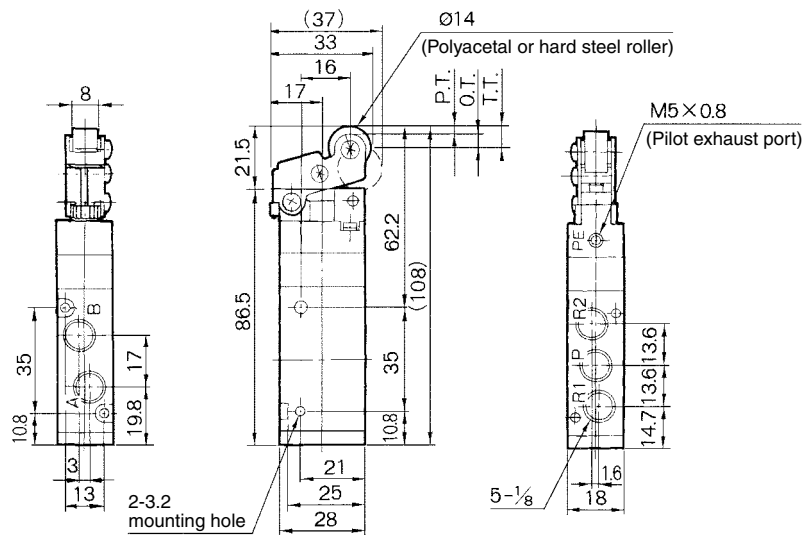
VH

VHS

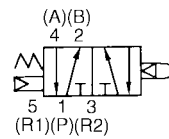
Roller lever

VZM550-01-01

VZM550-01-01S



JIS Symbol



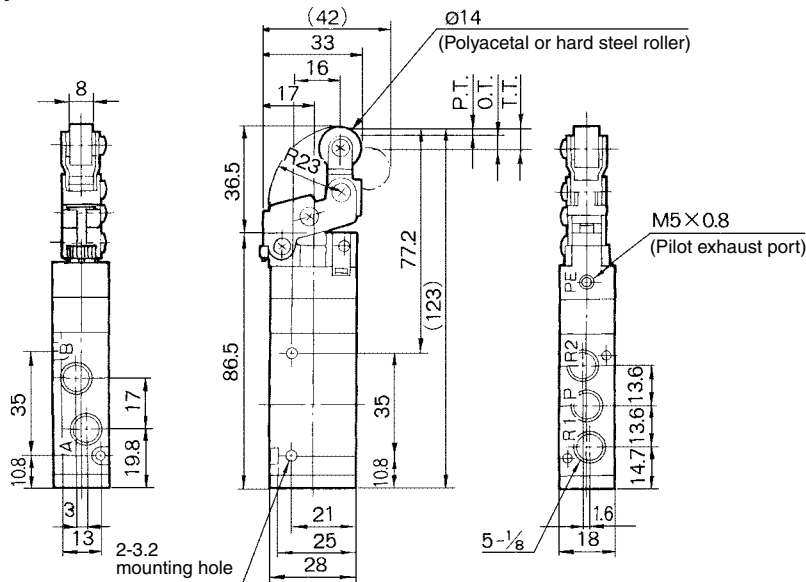
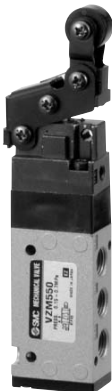
* 0.5 MPa supply

| | |
|----------|--------|
| F.O.F. * | 8 N |
| P.T. | 2.2 mm |
| O.T. | 4.0 mm |
| T.T. | 6.2 mm |

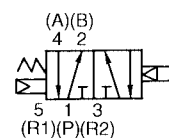
One way roller lever

VZM550-01-02

VZM550-01-02S



JIS Symbol



* 0.5 MPa supply

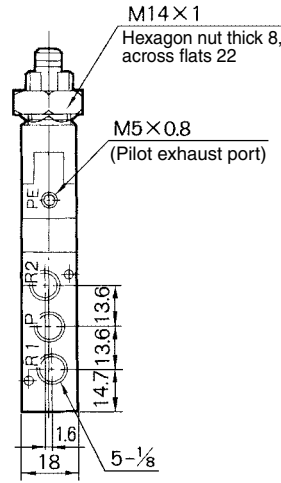
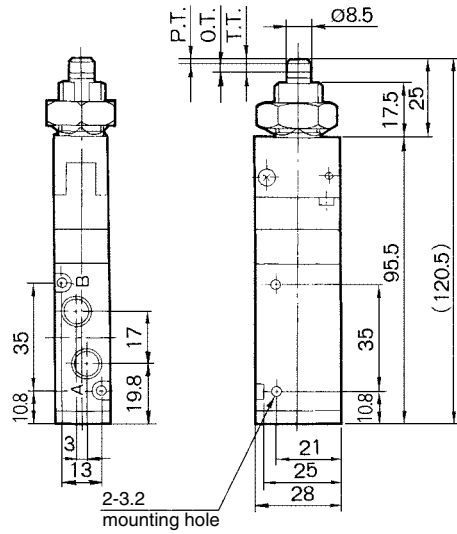
| | |
|----------|--------|
| F.O.F. * | 7 N |
| P.T. | 2.4 mm |
| O.T. | 4.6 mm |
| T.T. | 7.0 mm |

Series VZM500

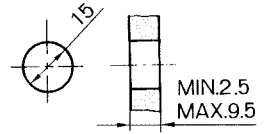
Series VZM500

Straight plunger

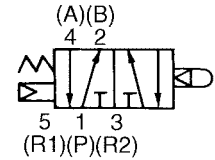
VZM550-01-05



Panel mounting hole



JIS Symbol



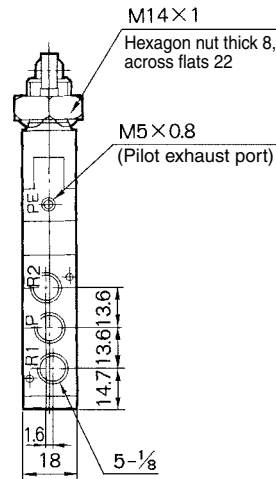
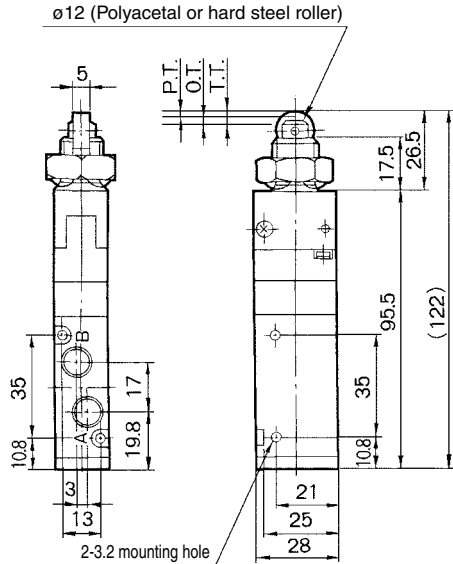
* 0.5 MPa supply

| | |
|----------|--------|
| F.O.F. * | 18 N |
| P.T. | 1.5 mm |
| O.T. | 2.0 mm |
| T.T. | 3.5 mm |

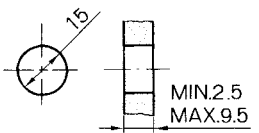
Roller plunger

VZM550-01-06

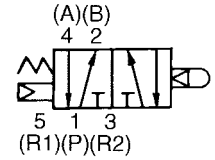
VZM550-01-06S



Panel mounting hole



JIS Symbol

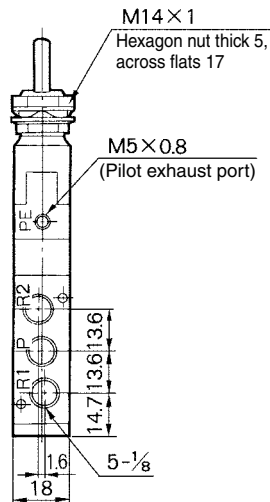
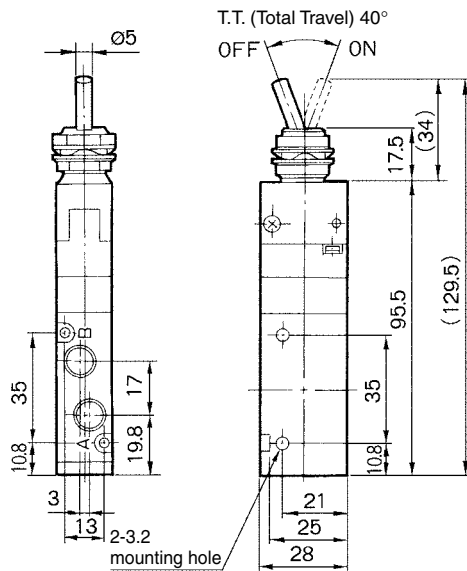


* 0.5 MPa supply

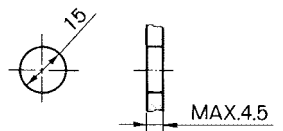
| | |
|----------|--------|
| F.O.F. * | 18 N |
| P.T. | 1.5 mm |
| O.T. | 2.0 mm |
| T.T. | 3.5 mm |

Toggle lever

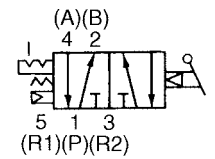
VZM550-01-08



Panel mounting hole



JIS Symbol



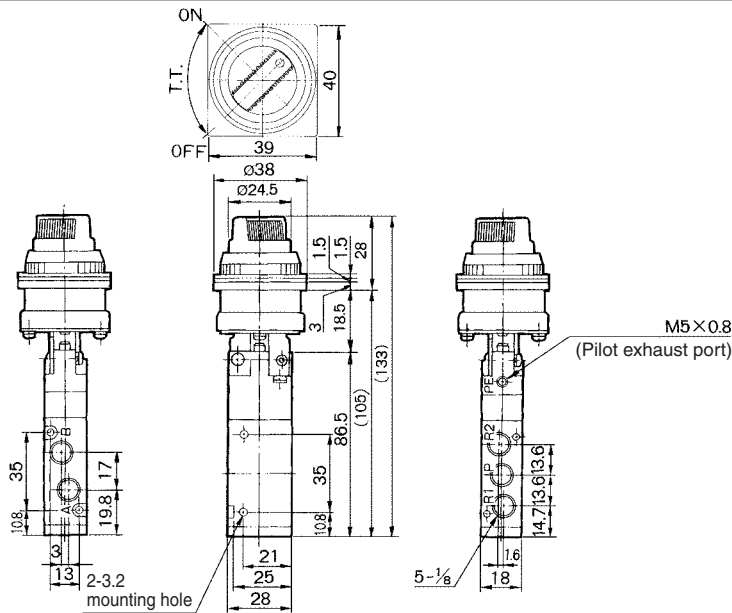
* 0.5 MPa supply

| | |
|----------|------|
| F.O.F. * | 15 N |
| T.T. | 40° |

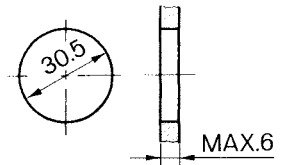
Series VZM500

Series VZM500

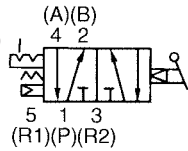
Selector (2 position) VZM550-01-34R/B/G/Y



Panel mounting hole



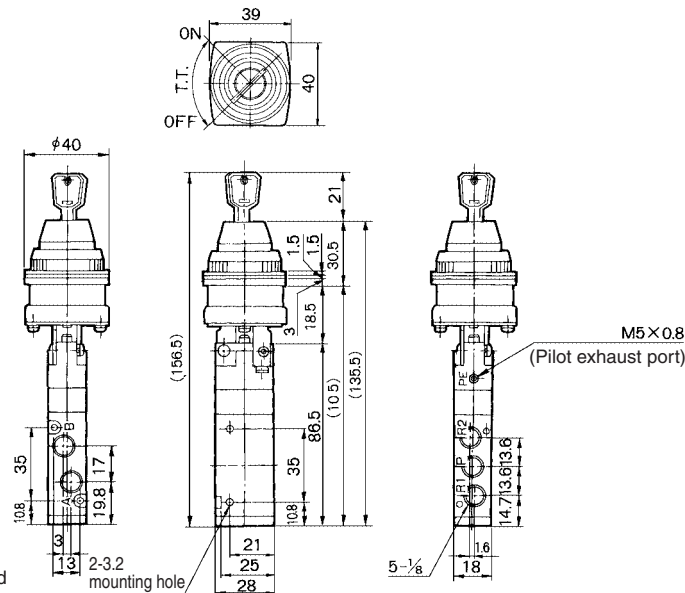
JIS Symbol



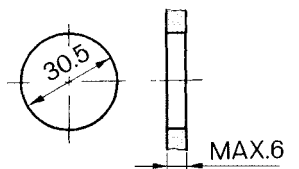
* 0.5 MPa supply

| | |
|----------|------|
| F.O.F. * | 23 N |
| T.T. | 90° |

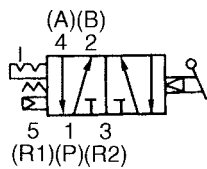
Key selector (2 position) VZM550-01-36



Panel mounting hole



JIS Symbol

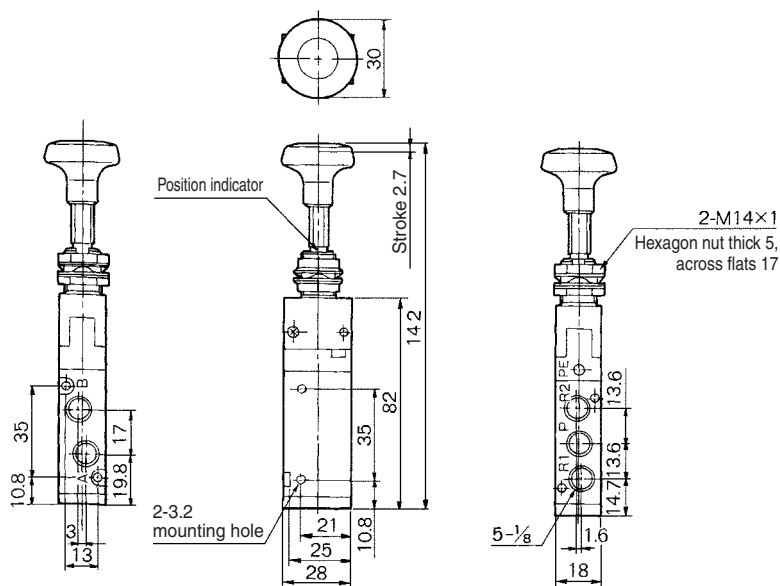


* 0.5 MPa supply

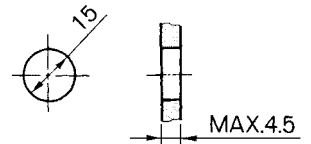
| | |
|----------|------|
| F.O.F. * | 26 N |
| T.T. | 90° |

Key can be removed at the "on" and "off" positions.

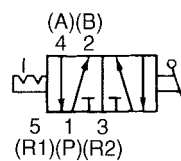
Push pull VZM550-01-37



Panel mounting hole



JIS Symbol

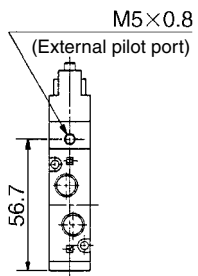


| | |
|--------|--------|
| F.O.F. | 20 N |
| T.T. | 2.7 mm |

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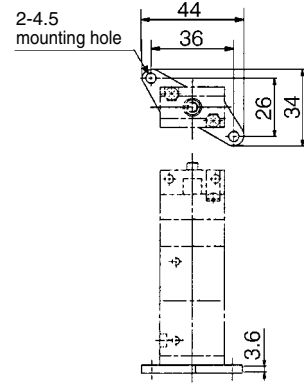
External pilot type

VZM551 type



With foot bracket

VZM55□-01-□□-F



- S□A
- V□A
- S□A
- V□A
- VM**
- VR
- VH
- VHS