

# 5 Port Mechanical Valve

# Series **VZM500**

**Compact design,  
Large flow capacity/N<sub>d</sub>/min: 589**

**High cycle rate,  
Long life/300c.p.m.**

**Piping possible to any EXH port.**

Proper countermeasures can be taken for applications in which the fouling or 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 0.7MPa <sup>(1)</sup>
Ambient and fluid temperature	-5 to 60°C (No freezing)
Effective area (N <sub>d</sub> /min)	10.8mm <sup>2</sup> (534.90)
Maximum frequency (Mechanical operation style)	300 c.p.m or less
Lubrication	Not required/Turbine oil #1 (ISO VG32)
Port size	Main valve 1/8
	Pilot valve (EXH)/M5
Option	Foot bracket <sup>(2)</sup>
Weight (Basic)	130g



\* Contact SMC for manifold mounting style.

Note 1) External pilot style Main valve: 0 to 0.7MPa  
Pilot valve: 0.15 to 0.7MPa

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

S□A

V□A

S□A

V□A

VMVR

VH

## Model

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



Note) Actuator replacement is available for all styles. (Except for push-pull)

# VZM500

## How to Order

**E** VZM55 **0** **01** **01** **S** **Option**

**Area code**

-	Japan, Asia, Australia, England
<b>E</b>	Europe
<b>N</b>	North America

**Thread**

-	Rc(PT)
<b>F</b>	G(PF)
<b>N</b>	NPT
<b>T</b>	NPTF

**Port size**

<b>01</b>	1/8
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**Actuator**

<b>00</b>	Basic
<b>01</b>	Roller lever
<b>02</b>	One way roller lever
<b>05</b>	Straight plunger
<b>06</b>	Roller plunger
<b>08</b>	Toggle lever
<b>30</b>	Push button (Mushroom)
<b>32</b>	Push button (Extended)
<b>33</b>	Push button (Flash)
<b>34</b>	Twist selector (2 position)
<b>36</b>	Key selector (2 position)
<b>37</b>	Push-pull

**Suffix of actuator**

<b>S</b>	Hard steel roller
<b>R</b>	Red
<b>B</b>	Black
<b>G</b>	Green
<b>Y</b>	Yellow

**Option**

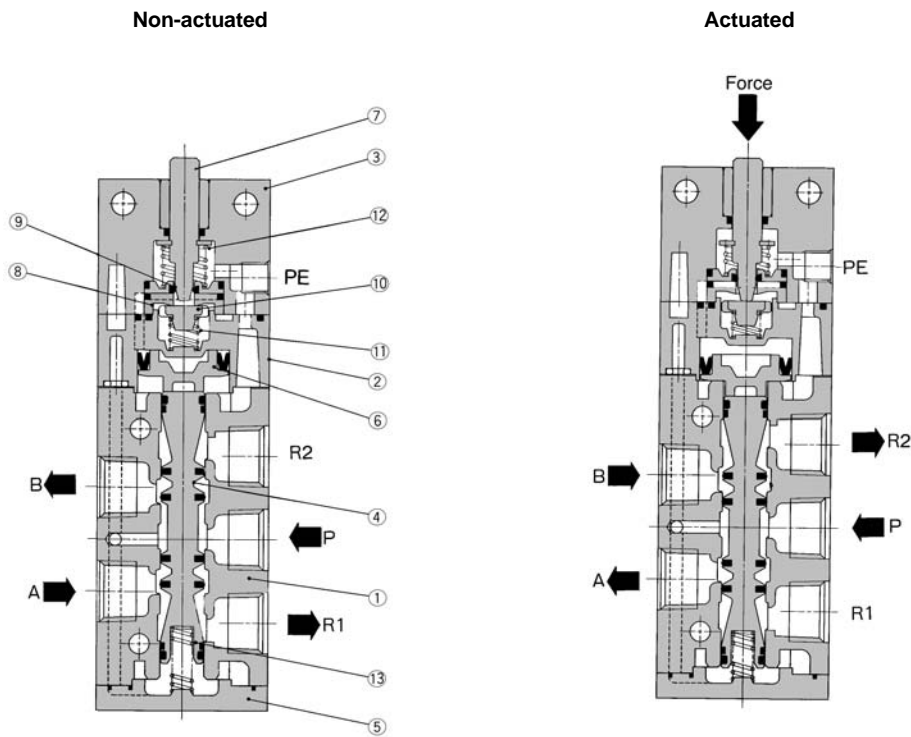
<b>F</b>	Foot bracket
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**Body option**

<b>0</b>	Standard
<b>1*</b>	External pilot style

\* Except for VZM550-01-37

## Construction



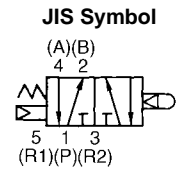
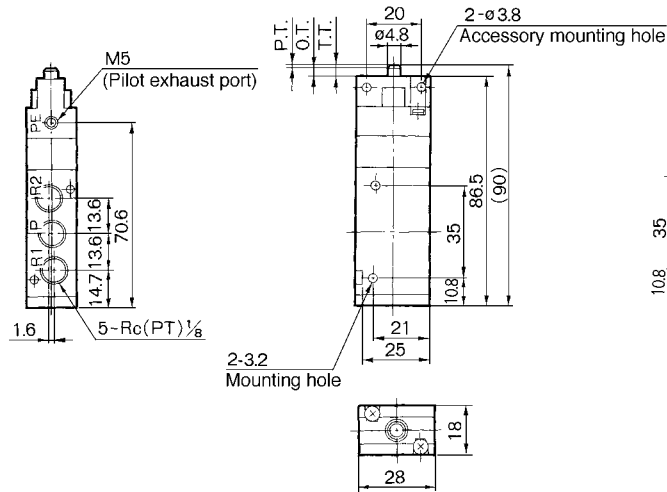
### Component Parts

No.	Description	Material	Notes
①	Body	Aluminum alloy	Metallic plated
②	Pilot body	Zinc alloy	Metallic plated
③	Head cover	Zinc alloy	Black zinc chromate
④	Spool assembly		
⑤	End cover	Zinc alloy	Metallic plated
⑥	Piston	Polyacetal	
⑦	Plunger	Stainless steel	

No.	Description	Material	Notes
⑧	Valve seat (A)	Brass	
⑨	Valve seat (B)	Brass	
⑩	Valve assembly	Brass, NBR	
⑪	Valve spring	Stainless steel	
⑫	Return spring	Stainless steel	
⑬	Spool spring	Stainless steel	

## Series VZM500

### Basic/VZM550-01-00



\* 0.5MPa supply

F.O.F.*	16N
P.T.	1mm
O.T.	2mm
T.T.	3mm

S□A

V□A

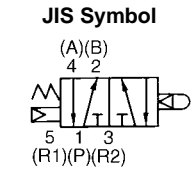
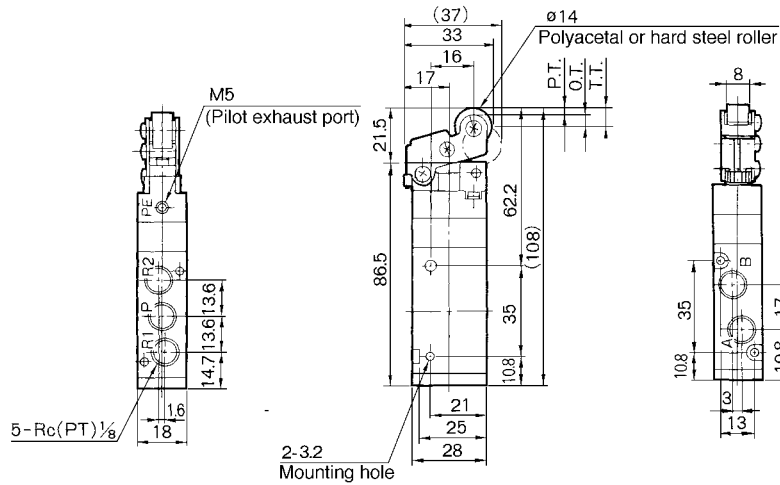
S□A

V□A

VM/VR

VH

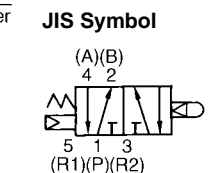
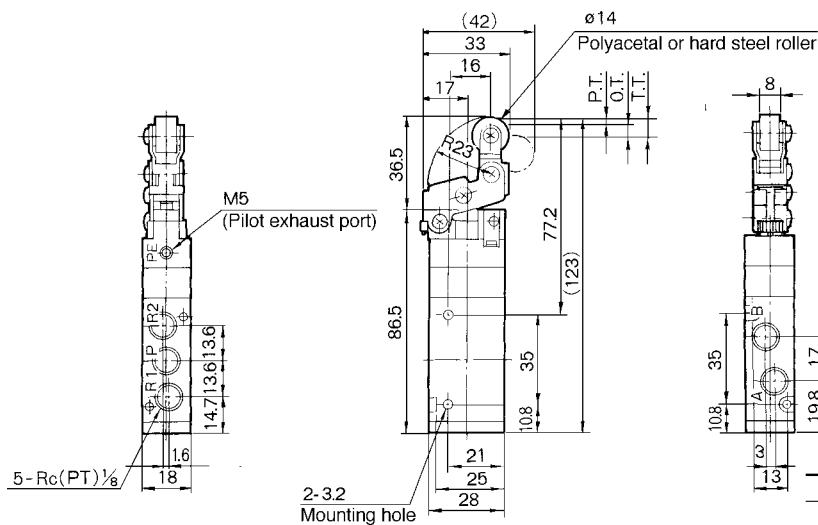
### Roller Lever/VZM550-01-01, VZM550-01-01S



\* 0.5MPa supply

F.O.F.*	8N
P.T.	2.2mm
O.T.	4mm
T.T.	6.2mm

### One Way Roller Lever/VZM550-01-02, VZM550-01-02S



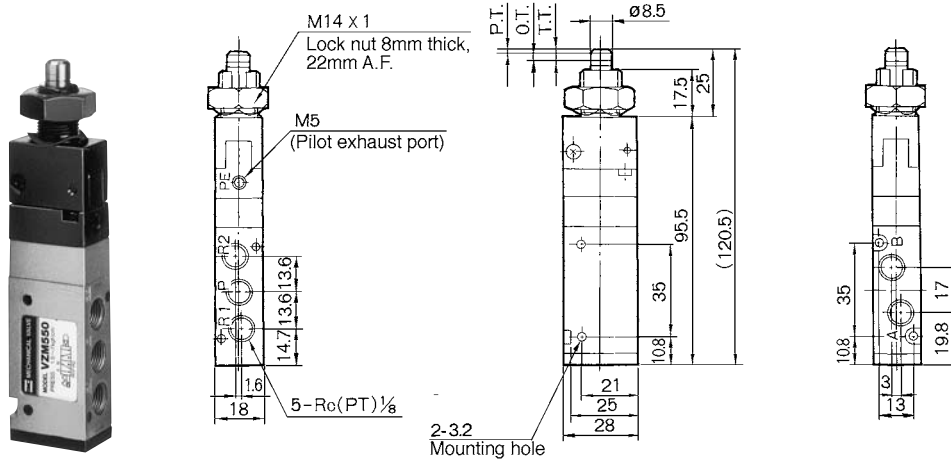
\* 0.5MPa supply

F.O.F.*	7N
P.T.	2.4mm
O.T.	4.6mm
T.T.	7mm

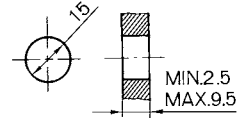
# VZM500

## Series VZM500

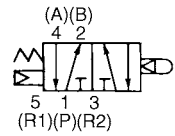
### Straight Plunger/VZM550-01-05



#### Panel mounted hole



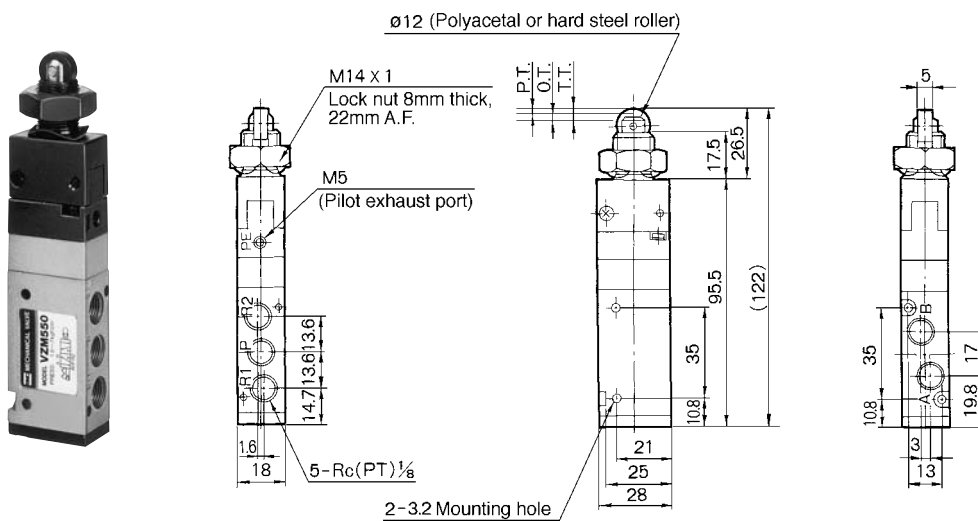
#### JIS Symbol



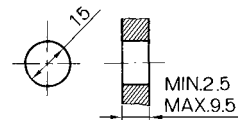
\* 0.5MPa supply

F.O.F.*	18N
P.T.	1.5mm
O.T.	2mm
T.T.	3.5mm

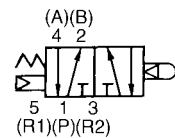
### Roller Plunger/VZM550-01-06, VZM550-01-06S



#### Panel mounted hole



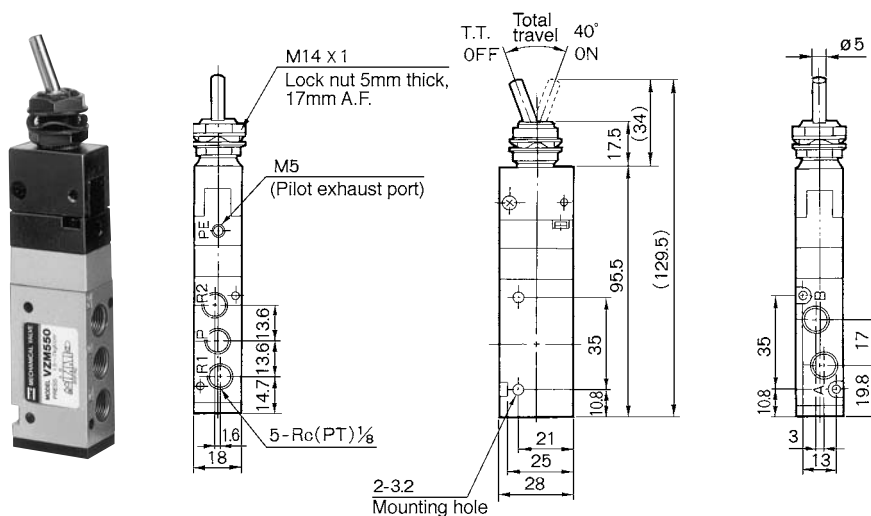
#### JIS Symbol



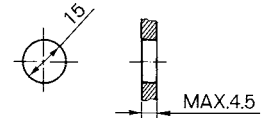
\* 0.5MPa supply

F.O.F.*	18N
P.T.	1.5mm
O.T.	2mm
T.T.	3.5mm

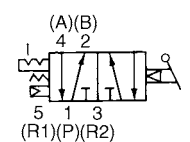
### Toggle Lever/VZM550-01-08



#### Panel mounted hole



#### JIS Symbol

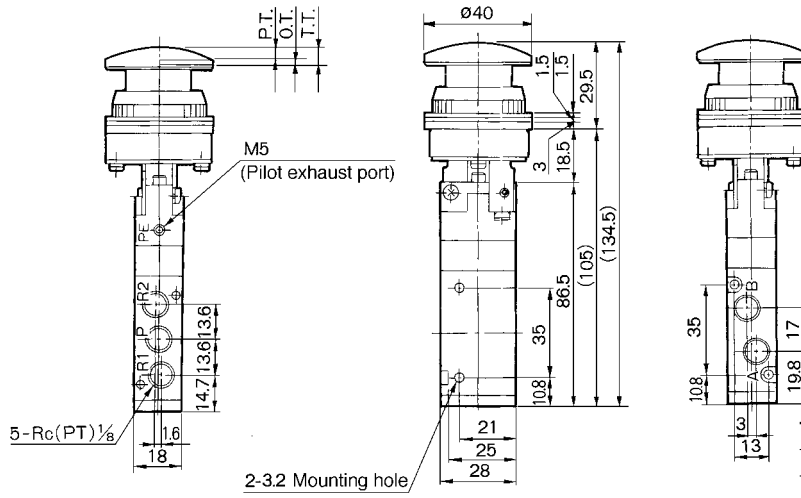


\* 0.5MPa supply

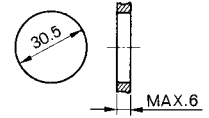
F.O.F.*	15N
T.T.	40°

## Series VZM500

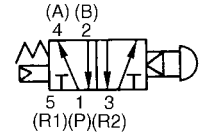
### Push Button (Mushroom)/VZM550-01-30R, B, G, Y



Panel mounted hole



JIS Symbol



\* 0.5MPa supply

F.O.F.*	21N
P.T.	4.8mm
O.T.	1.7mm
T.T.	6.5mm

S□A

V□A

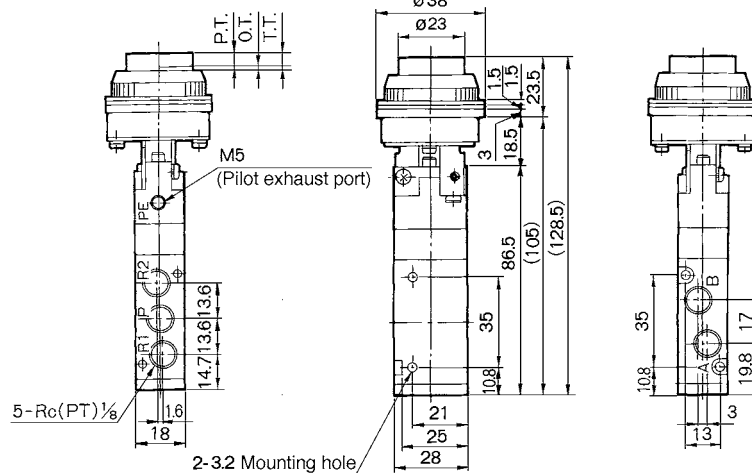
S□A

V□A

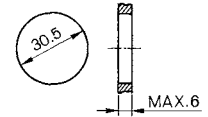
VM/VR

VH

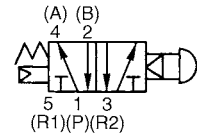
### Push Button (Extended)/VZM550-01-32R, B, G, Y



Panel mounted hole



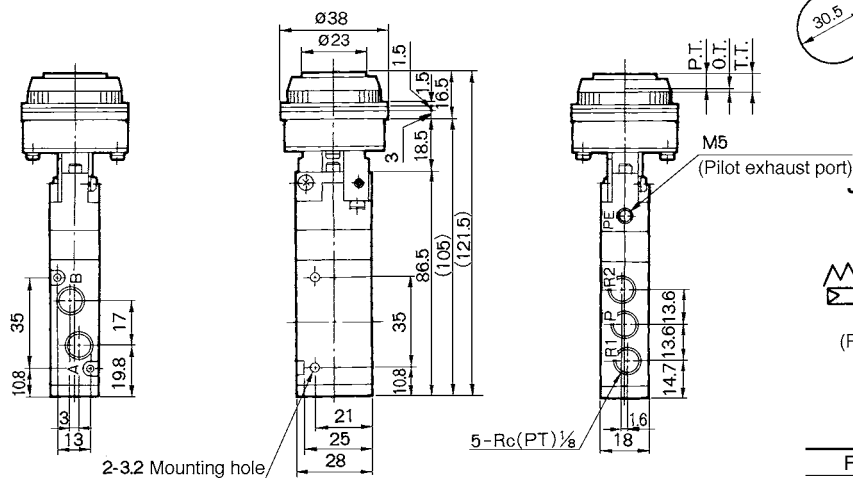
JIS Symbol



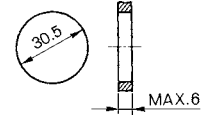
\* 0.5MPa supply

F.O.F.*	21N
P.T.	4.8mm
O.T.	1.7mm
T.T.	6.5mm

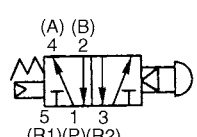
### Push Button (Flush)/VZM550-01-33



Panel mounted hole



JIS Symbol



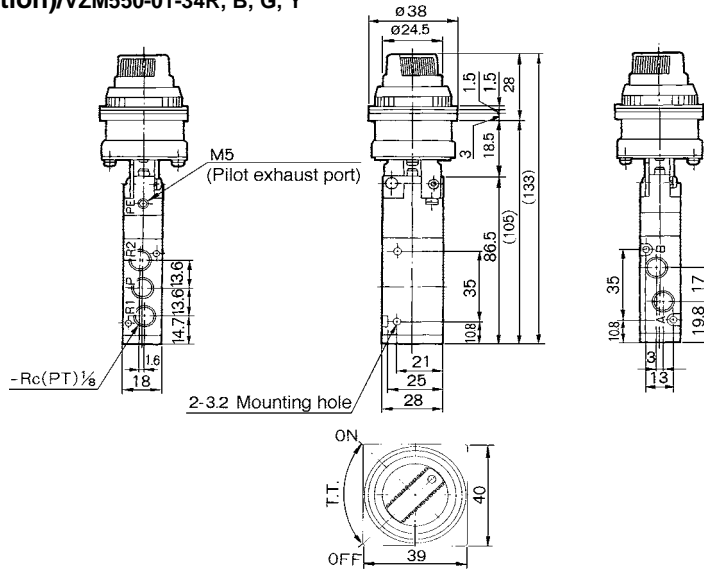
\* 0.5MPa supply

F.O.F.*	21N
P.T.	4.8mm
O.T.	1.7mm
T.T.	6.5mm

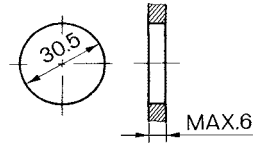
# VZM500

## Series VZM500

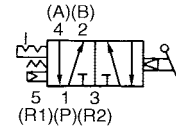
### Twist Selector (2 position)/VZM550-01-34R, B, G, Y



#### Panel mounted hole



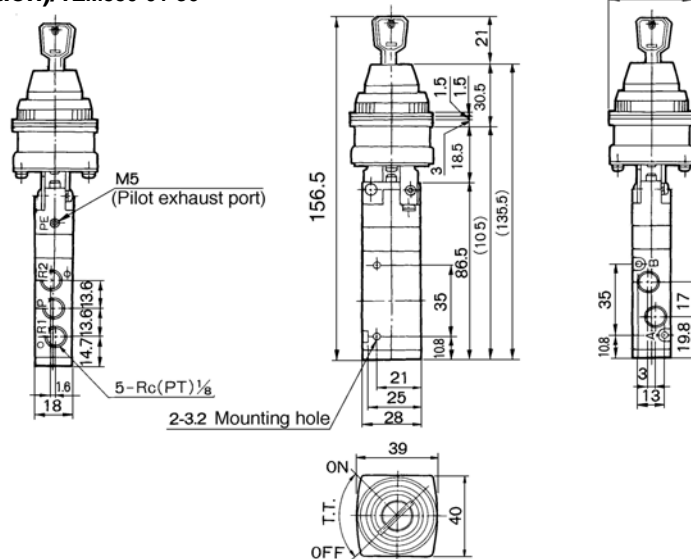
#### JIS Symbol



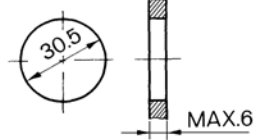
\* 0.5MPa supply

F.O.F.*	23N
T.T.	90°

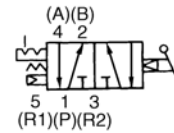
### Key Selector (2 position)/VZM550-01-36



#### Panel mounted hole



#### JIS Symbol

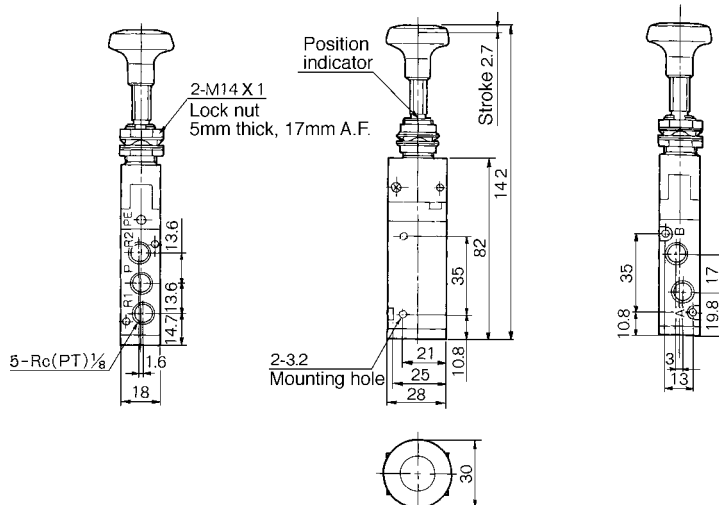


\* 0.5MPa supply

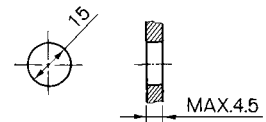
F.O.F.*	26N
T.T.	90°

Key can be removed in "on" and "off" positions.

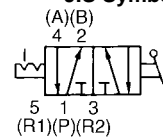
### Push-pull/VZM550-01-37



#### Panel mounted hole

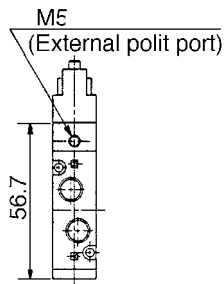


#### JIS Symbol

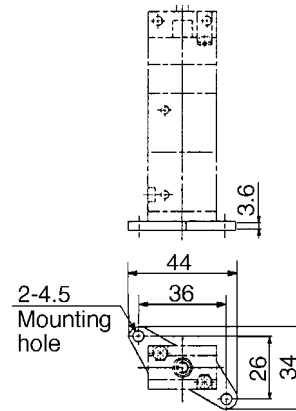


F.O.F.	20N
T.T.	2.7mm

**External Pilot Style**  
VZM551 Type



**With Foot Bracket**  
VZM55□-01-□□-F



S□A

V□A

S□A

V□A

**VM/VR**

VH