

# 5 Port Mechanical Valve/Metal Seal

# Series **VZM400**

**Compact design,  
Large flow capacity/Cv.0.55**

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

**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.**



## Specifications

Fluid	Air, Inert gas
Operating pressure	0.15 to 1.0MPa <sup>(1)</sup>
Ambient and fluid temperature	-5 to 60°C (No freezing)
Effective area (Cv)	9.9mm <sup>2</sup> (0.55)
Maximum frequency (Mechanical operation style)	300 c.p.m or less
Lubrication	Not required/Turbine oil #1 (ISO VG32)
Port size (Nominal size)	Main valve/Rc(PT) 1/8 (6A)
	Pilot valve (EXH)/M5 X 0.8
Option	Foot bracket <sup>(2)</sup>
Weight (Basic)	150g



\* Contact SMC for manifold mounting style.

Note 1) External pilot Main valve: 0 to 1.0MPa  
Pilot valve: 0.15 to 1.0MPa

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>VZM450-01-00</b>	-	-
	Roller lever	<b>VZM450-01-01</b>	VM-01C	Polyacetal roller
		<b>VZM450-01-01S</b>	VM-01CS	Hard steel roller
	One way roller lever	<b>VZM450-01-02</b>	VM-02C	Polyacetal roller
		<b>VZM450-01-02S</b>	VM-02CS	Hard steel roller
	Straight plunger	<b>VZM450-01-05</b>	VM-05C	-
Roller plunger	<b>VZM450-01-06</b>	VM-06C	Polyacetal roller	
	<b>VZM450-01-06S</b>	VM-06CS	Hard steel roller	
Manual operation	Toggle lever	<b>VZM450-01-08</b>	VM-08C	-
		<b>VZM450-01-30R</b>	VM-30CR	Red
		<b>VZM450-01-30B</b>	VM-30CB	Black
		<b>VZM450-01-30G</b>	VM-30CG	Green
	Push button (Mushroom)	<b>VZM450-01-30Y</b>	VM-30CY	Yellow
		<b>VZM450-01-32R</b>	VM-32CR	Red
		<b>VZM450-01-32B</b>	VM-32CB	Black
		<b>VZM450-01-32G</b>	VM-32CG	Green
	Push button (Extended)	<b>VZM450-01-32Y</b>	VM-32CY	Yellow
		<b>VZM450-01-33</b>	VM-33C	With a set of red, black, green, yellow
		Push button (Flush)	<b>VZM450-01-34R</b>	VM-34CR
	<b>VZM450-01-34B</b>		VM-34CB	Black
	<b>VZM450-01-34G</b>		VM-34CG	Green
<b>VZM450-01-34Y</b>	VM-34CY		Yellow	
Twist selector (2 position)	<b>VZM450-01-36</b>	VM-36C	-	
Key selector (2 position)				



Note) Actuator replacement is available for all styles.

# VZM400

## How to Order

VZM45 0 01 01 S

**Port size**  
01 Rc(PT) 1/8

**Body option**  
0 Internal pilot style  
1 External pilot style

**Actuator**

00	Basic
01	Roller lever
02	One way roller lever
05	Straight plunger
06	Roller plunger
08	Toggle lever
30	Push button (Mushroom)
32	Push button (Extended)
33	Push button (Flush)
34	Twist selector (2 position)
36	Key selector (2 position)

**Suffix of actuator**

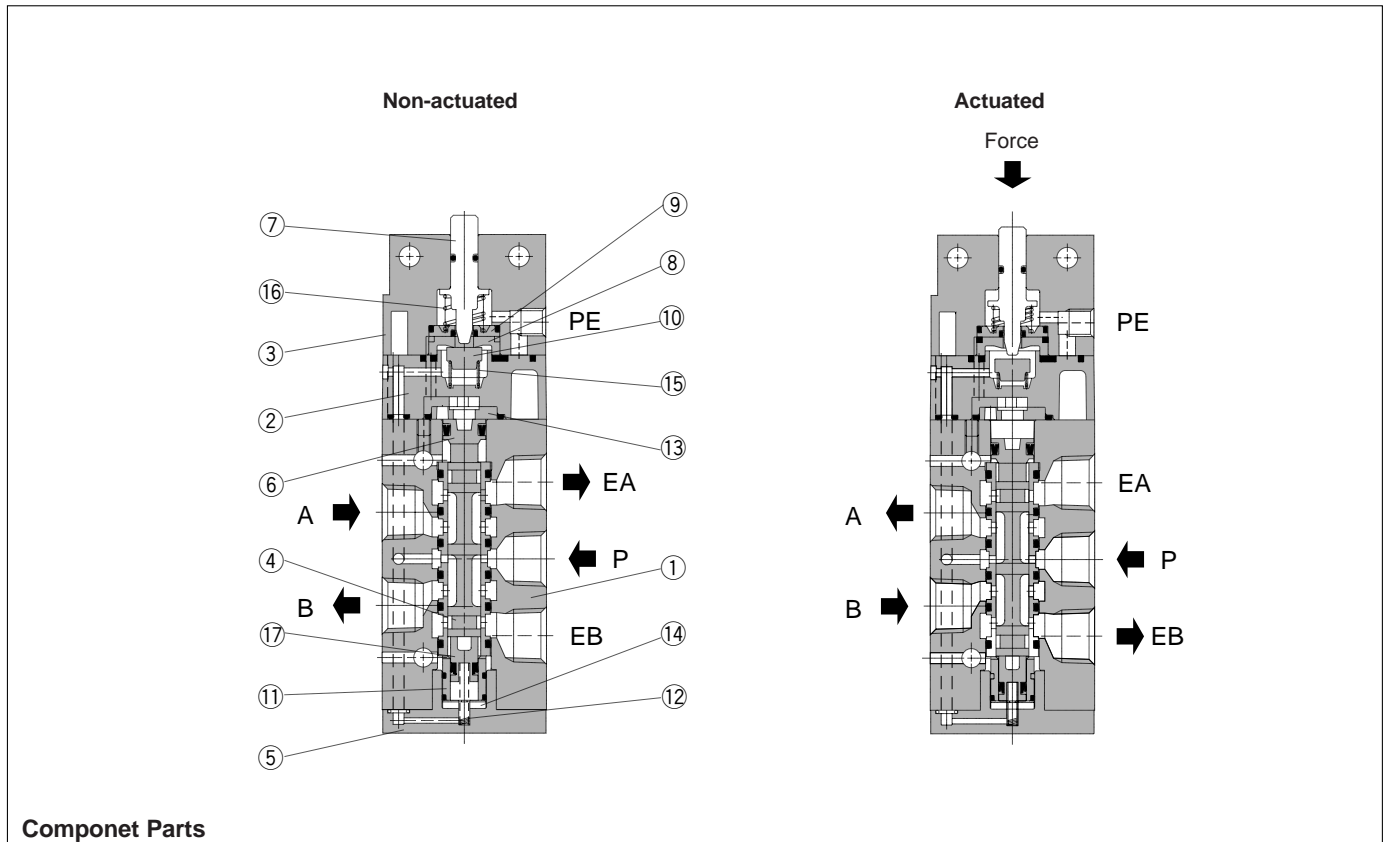
S	Hard steel roller
R	Red
B	Black
G	Green
Y	Yellow

Color of push button

**Option**

F	Foot bracket (Only internal pilot)
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## Construction



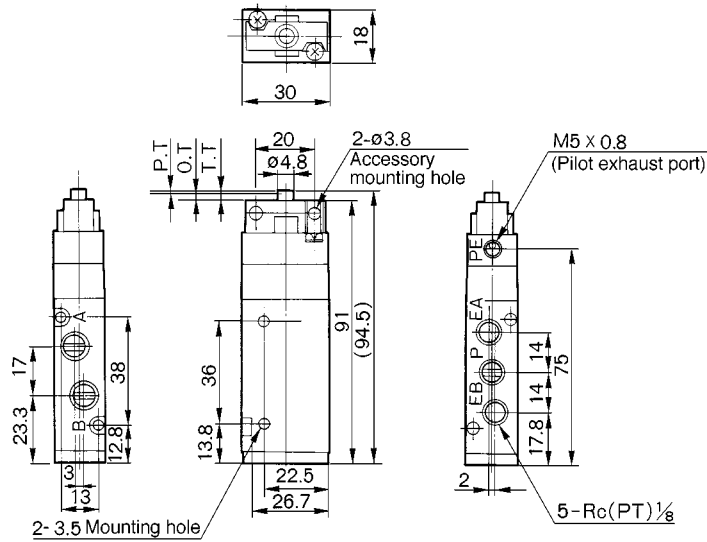
### Component Parts

No.	Description	Material	Notes
①	Body	ADC	Metallic plated
②	Pilot body	PBT	Only external pilot style: ZDC
③	Head cover	ZDC	Black zinc chromated
④	Spool sleeve	Stainless steel	
⑤	End cover	POM	
⑥	Piston A	POM	
⑦	Plunger	POM	
⑧	Valve seat (A)	POM	
⑨	Valve seat (B)	POM	

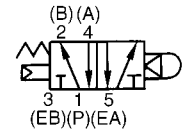
No.	Description	Material	Notes
⑩	Valve	NBR	
⑪	Piston guide B	Aluminum alloy	
⑫	Return spring	Stainless steel	
⑬	Cushion	Rubber	
⑭	Cushion	Rubber	
⑮	Valve spring	Stainless steel	
⑯	Return spring	Stainless steel	
⑰	Piston B	POM	

## Series VZM400

### Basic/VZM450-01-00



#### JIS Symbol



\* 0.5MPa supply

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

S□A

V□A

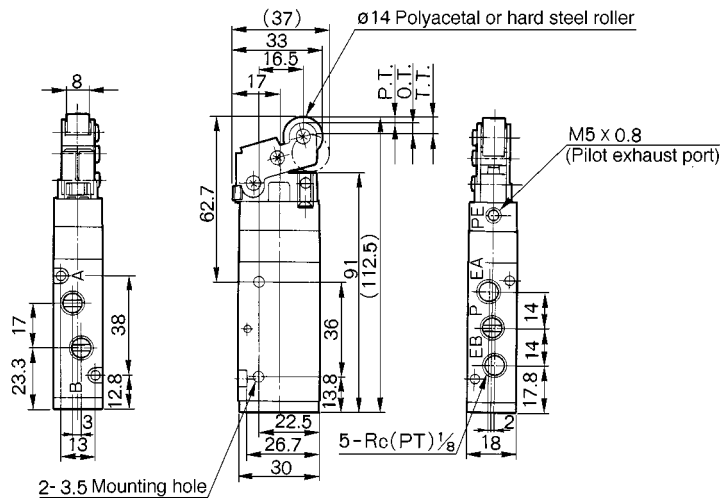
S□A

V□A

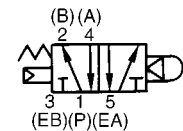
VMVR

VH

### Roller Lever/VZM450-01-01, VZM450-01-01S



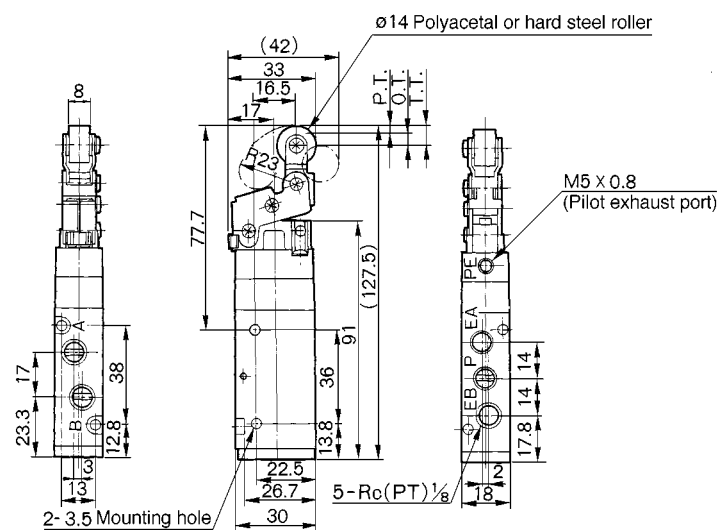
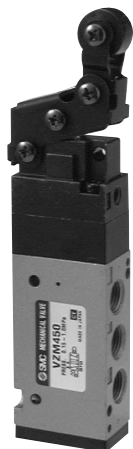
#### JIS Symbol



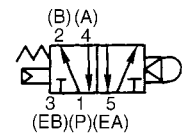
\* 0.5MPa supply

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

### One Way Roller Lever/VZM450-01-02, VZM450-01-02S



#### JIS Symbol



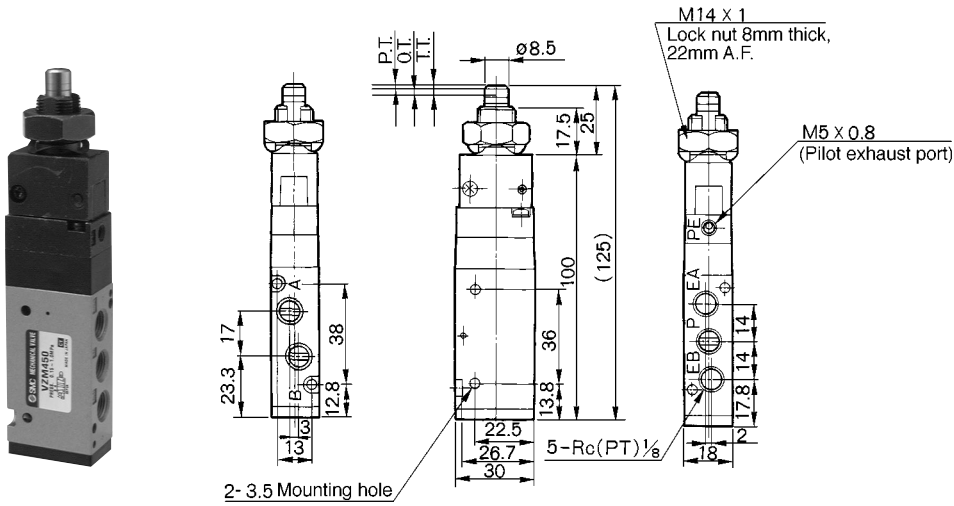
\* 0.5MPa supply

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

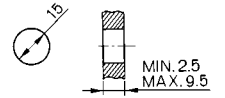
# VZM400

## Series VZM400

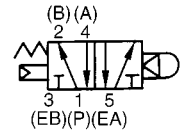
### Straight Plunger/VZM450-01-05



#### Panel mounted hole



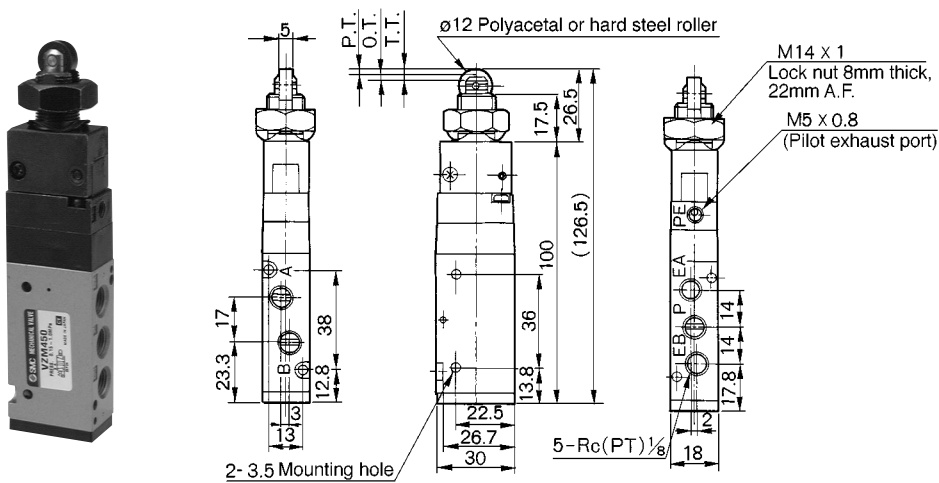
#### JIS Symbol



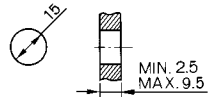
\* 0.5MPa supply

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

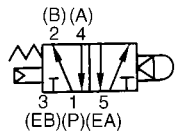
### Roller Plunger/VZM450-01-06, VZM450-01-06S



#### Panel mounted hole



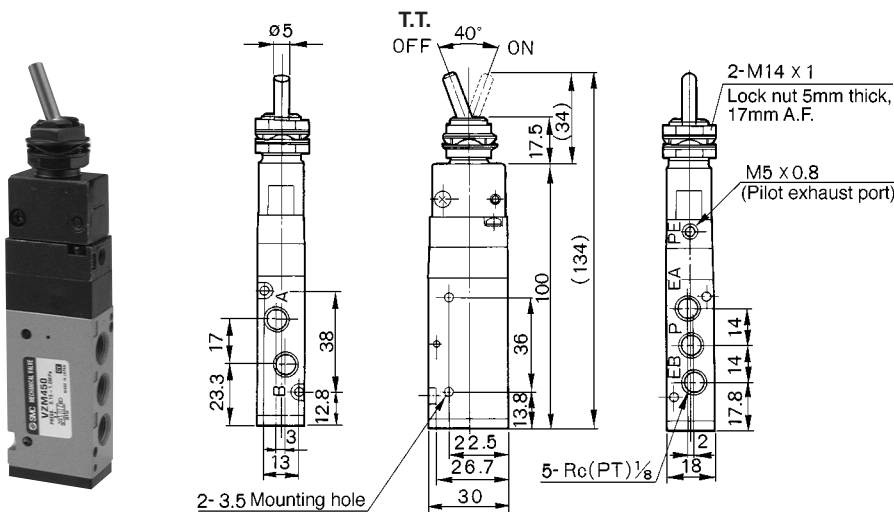
#### JIS Symbol



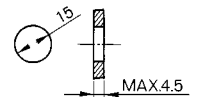
\* 0.5MPa supply

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

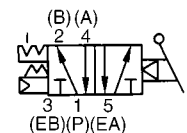
### Toggle Lever/VZM450-01-08



#### Panel mounted hole



#### JIS Symbol

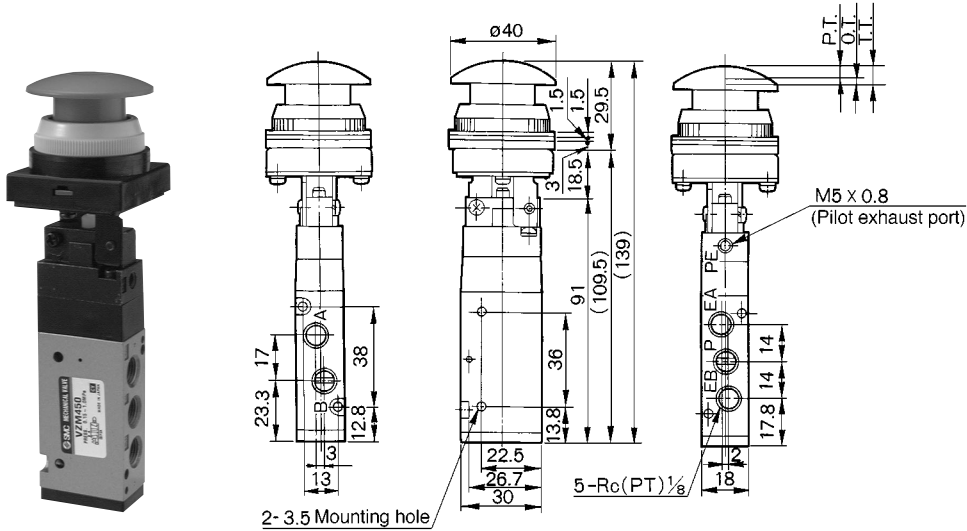


\* 0.5MPa supply

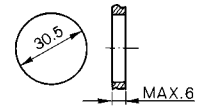
F.O.F.*	15N
T.T.	40°

## Series VZM400

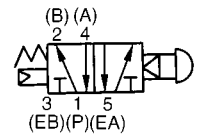
### Push Button (Mushroom)/VZM450-01-30R, B, G, Y



#### 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

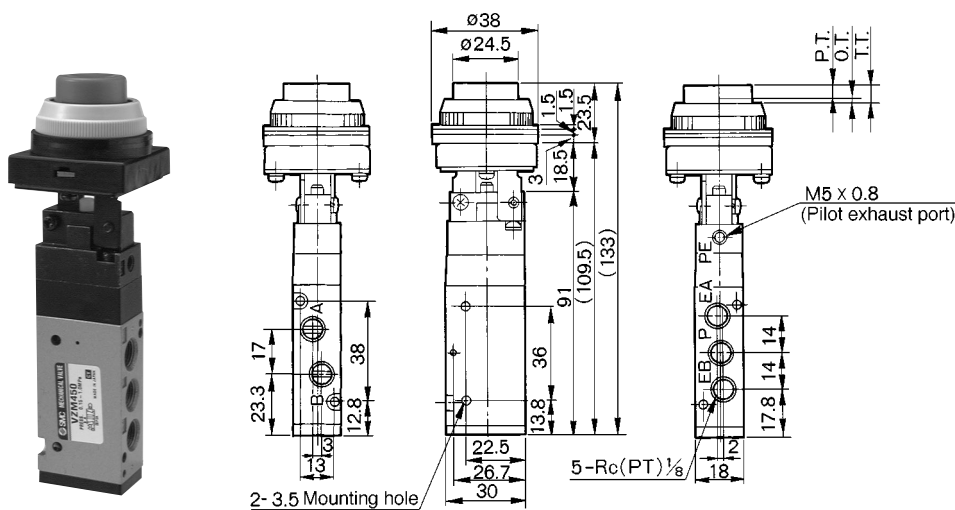
S□A

V□A

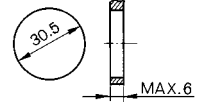
VMVR

VH

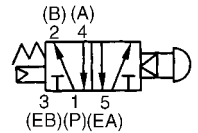
### Push Button (Extended)/VZM450-01-32R, B, G, Y



#### Panel mounted hole



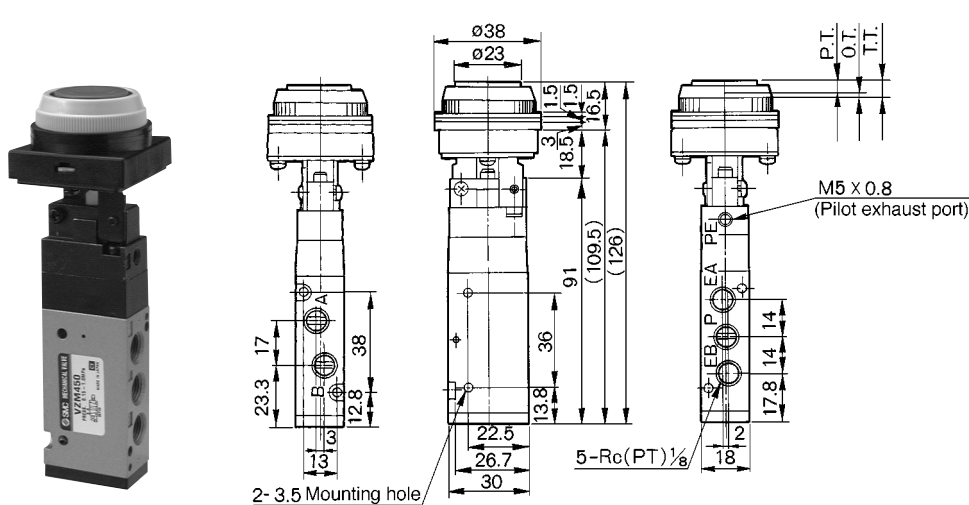
#### JIS Symbol



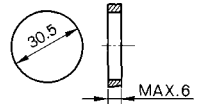
\* 0.5MPa supply

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

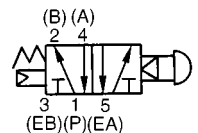
### Push Button (Flush)/VZM450-01-33



#### Panel mounted hole



#### JIS Symbol



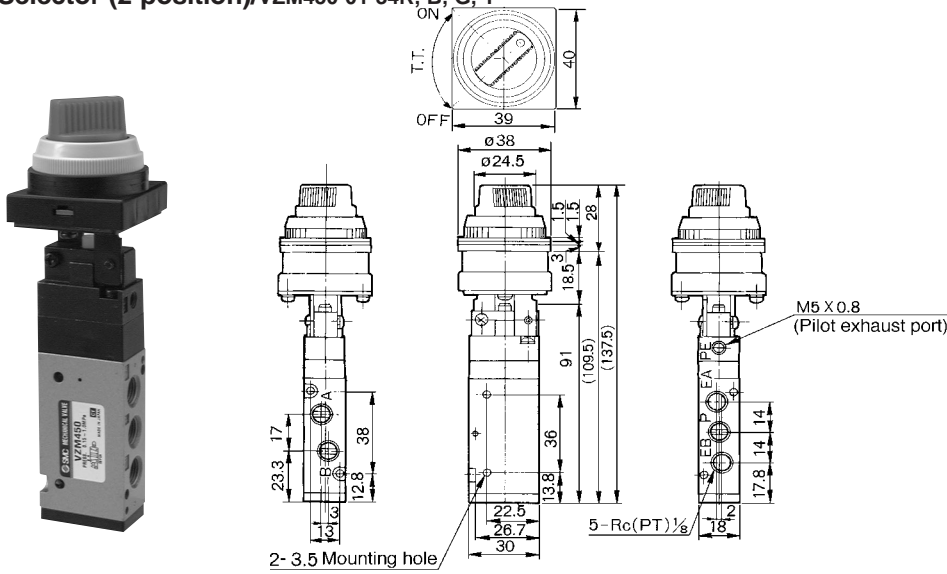
\* 0.5MPa supply

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

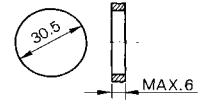
# VZM400

## Series VZM400

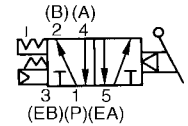
### Twist Selector (2 position)/VZM450-01-34R, B, G, Y



Panel mounted hole



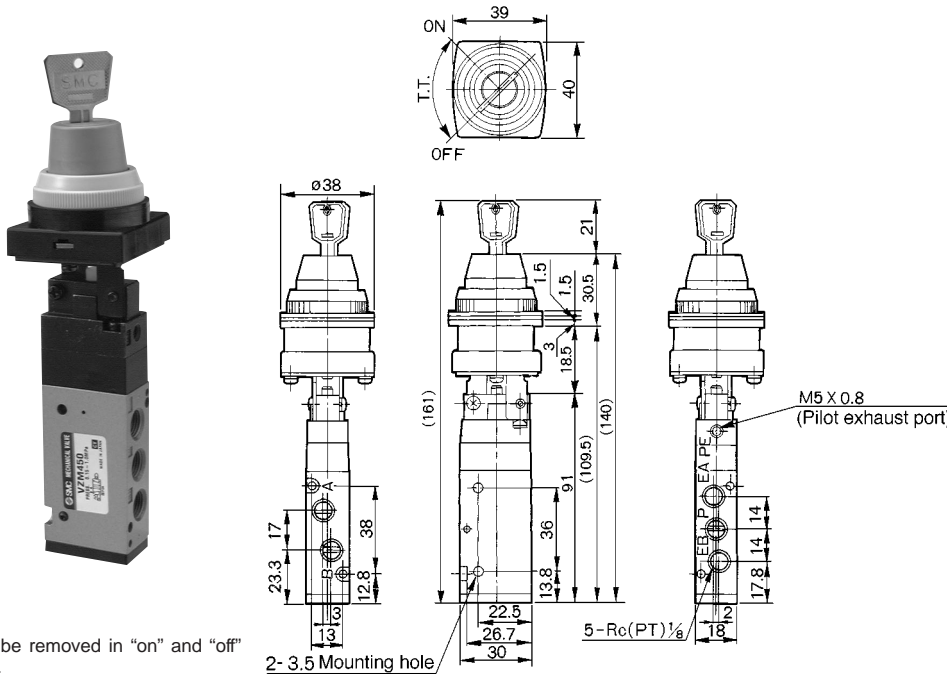
JIS Symbol



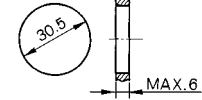
\* 0.5MPa supply

F.O.F.*	23N
T.T.	90°

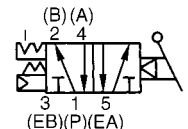
### Key Selector (2 position)/VZM450-01-36



Panel mounted hole



JIS Symbol

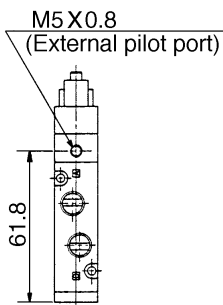


\* 0.5MPa supply

F.O.F.*	26N
T.T.	90°

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

### External Pilot Style VZM451 Type



### With Foot Bracket VZM450-01-□□-F

