

# 5 Port Mechanical Valve Metal Seal

## Series VZM400

**Compact design,  
large flow capacity 9.9 mm<sup>2</sup>  
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.**



### Specifications

Fluid	Air/Inert gas
Operating pressure	0.15 to 1.0 MPa <sup>(1)</sup>
Ambient and fluid temperature	-5 to 60°C (No freezing)
Effective area	9.9 mm <sup>2</sup>
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 <sup>(2)</sup>
Weight (Basic)	150 g

\* Please contact SMC for manifold mounting style.  
 Note 1) External pilot type Main valve: 0 to 1.0 MPa  
 Pilot valve: 0.15 to 1.0 MPa

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

### Model

	Actuator	Model	Actuator part no.	Application
Mechanical operation	Basic	VZM450-01-00	—	—
	Roller lever	VZM450-01-01	VM-01C	Polyacetal roller
		VZM450-01-01S	VM-01CS	Hard steel roller
	One way roller lever	VZM450-01-02	VM-02C	Polyacetal roller
		VZM450-01-02S	VM-02CS	Hard steel roller
	Straight plunger	VZM450-01-05	VM-05C	—
Roller plunger	VZM450-01-06	VM-06C	Polyacetal roller	
	VZM450-01-06S	VM-06CS	Hard steel roller	
Manual operation	Toggle lever	VZM450-01-08	VM-08C	—
	Push button (Mushroom)	VZM450-01-30R	VM-30CR	Red
		VZM450-01-30B	VM-30CB	Black
		VZM450-01-30G	VM-30CG	Green
		VZM450-01-30Y	VM-30CY	Yellow
	Push button (Extended)	VZM450-01-32R	VM-32CR	Red
		VZM450-01-32B	VM-32CB	Black
		VZM450-01-32G	VM-32CG	Green
		VZM450-01-32Y	VM-32CY	Yellow
	Push button (Flush)	VZM450-01-33	VM-33C	With a set of red, black, green, yellow
	Twist selector (2 position)	VZM450-01-34R	VM-34CR	Red
		VZM450-01-34B	VM-34CB	Black
		VZM450-01-34G	VM-34CG	Green
		VZM450-01-34Y	VM-34CY	Yellow
Key selector (2 position)	VZM450-01-36	VM-36C	—	

Note 1) Actuator replacement is available for all types.

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

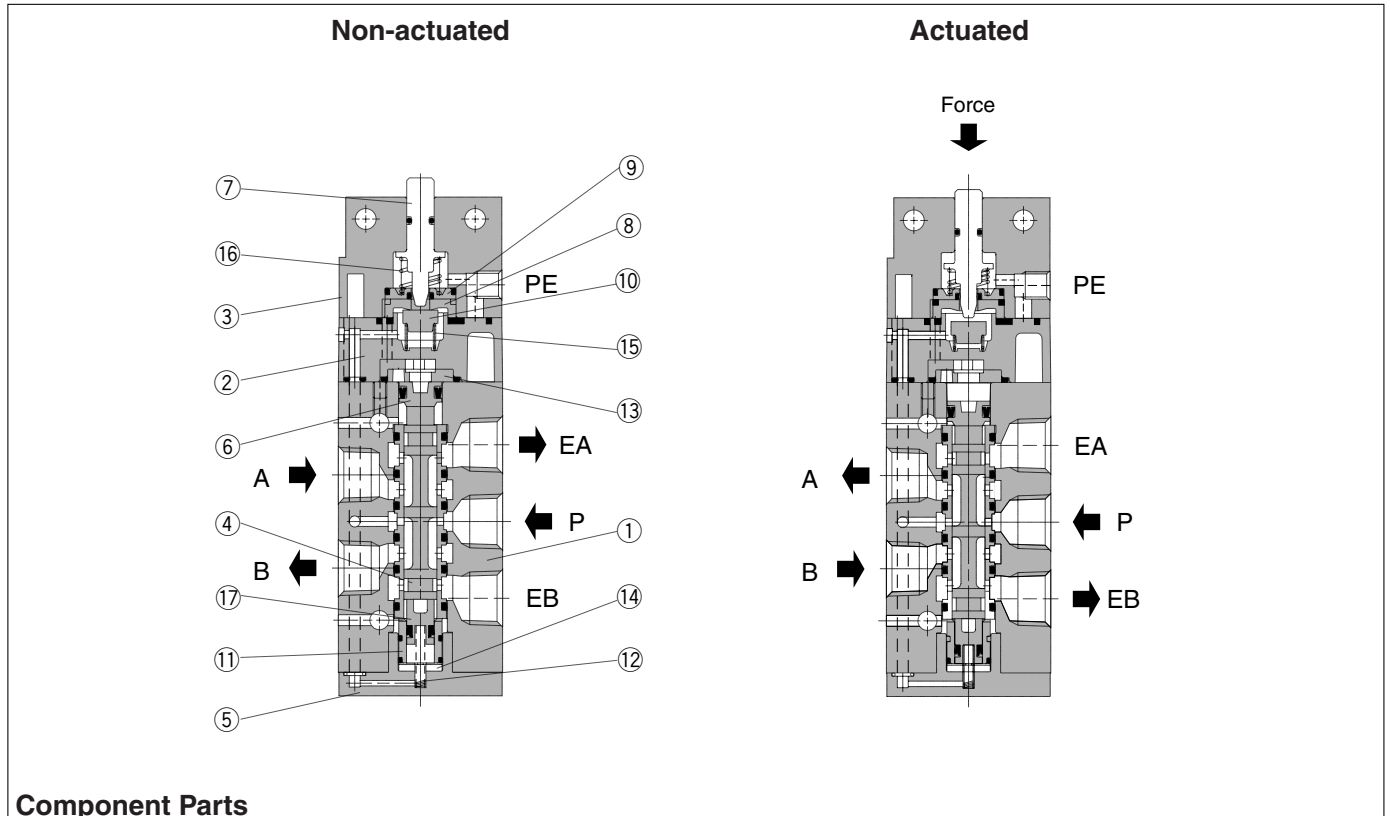
# Series VZM400

## How to Order

VZM45 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 (Only internal pilot)
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		
		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)				

## Construction



### Component Parts

No.	Description	Material	Note
①	Body	ADC	Metallic plated
②	Pilot body	PBT	Metallic plated
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	

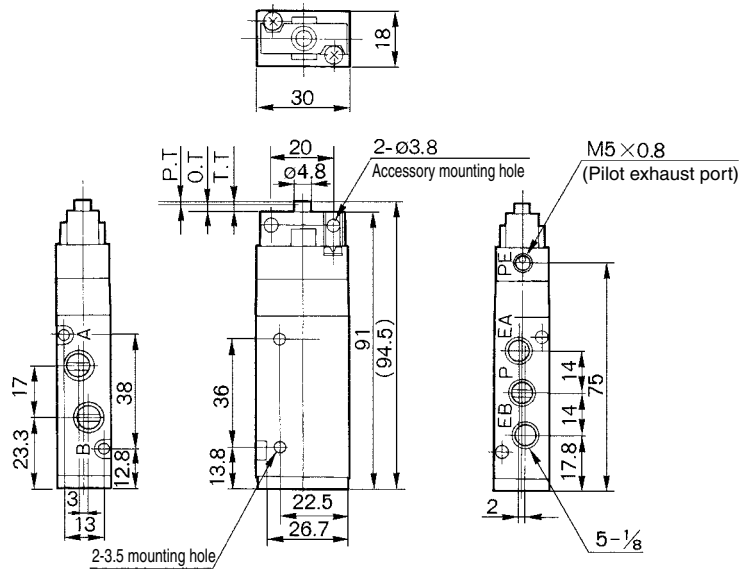
No.	Description	Material	Note
⑩	Valve	NBR	
⑪	Piston guide B	Aluminum alloy	
⑫	Return spring	Stainless steel	
⑬	Cushion	Rubber	
⑭	Cushion	Rubber	
⑮	Valve spring	Stainless steel	
⑯	Return spring	Stainless steel	
⑰	Piston B	POM	

# 5 Port Mechanical Valve Metal Seal Series VZM400

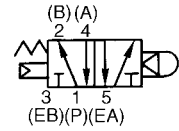
## Series VZM400

### Basic

VZM450-01-00



### JIS Symbol



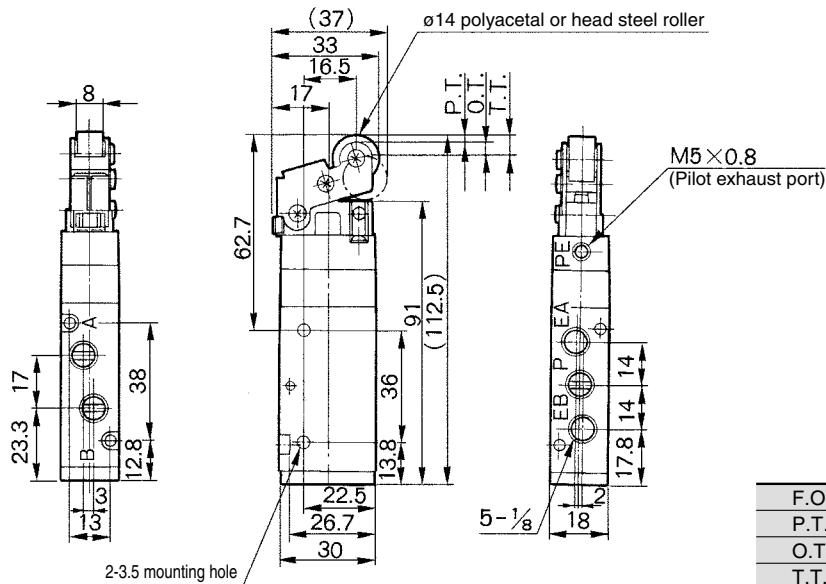
\* 0.5 MPa supply

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

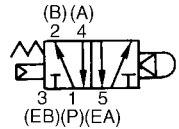
### Roller lever

VZM450-01-01

VZM450-01-01S



### JIS Symbol



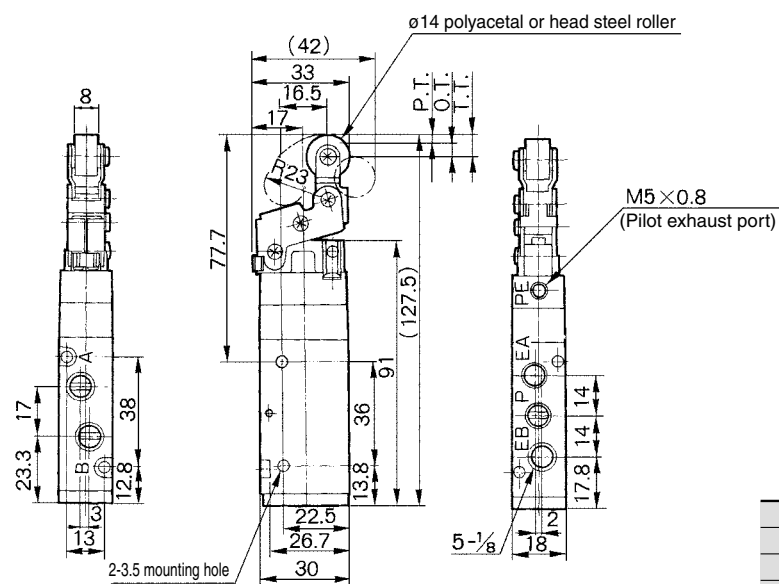
\* 0.5 MPa supply

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

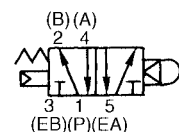
### One way roller lever

VZM450-01-02

VZM450-01-02S



### 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

S□A

V□A

S□A

V□A

VM

VR

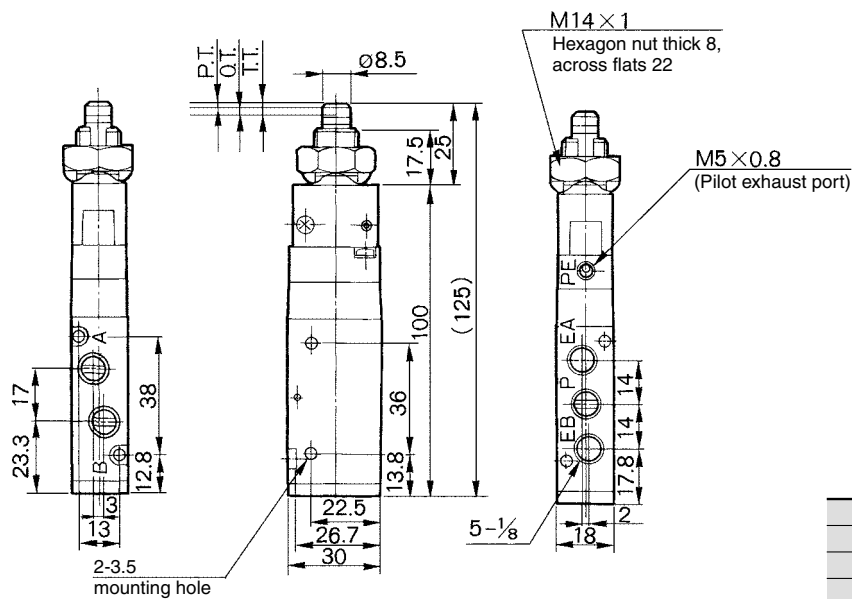
VH

VHS

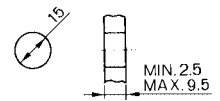
# Series VZM400

## Series VZM400

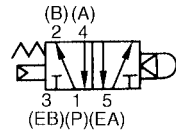
### Straight plunger VZM450-01-05



#### Panel mounting hole



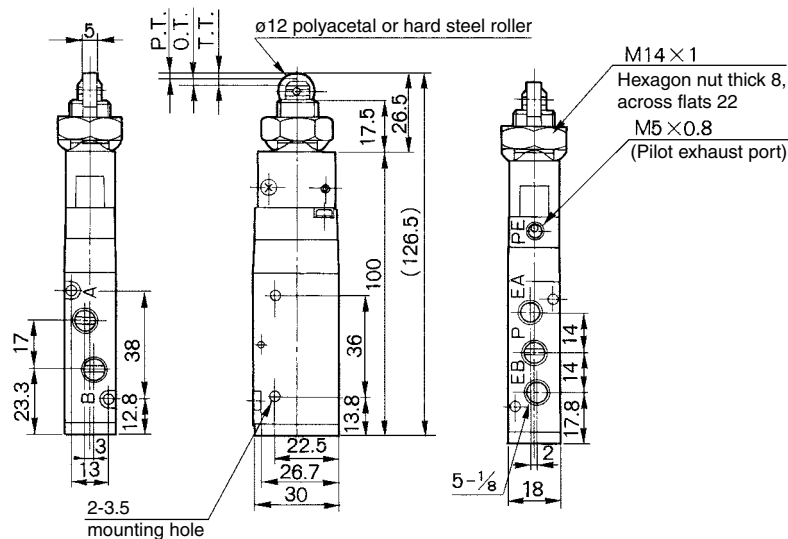
#### JIS Symbol



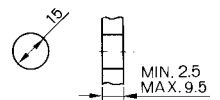
\* 0.5 MPa supply

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

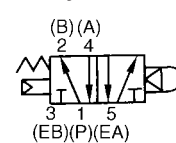
### Roller plunger VZM450-01-06 VZM450-01-06S



#### Panel mounting hole



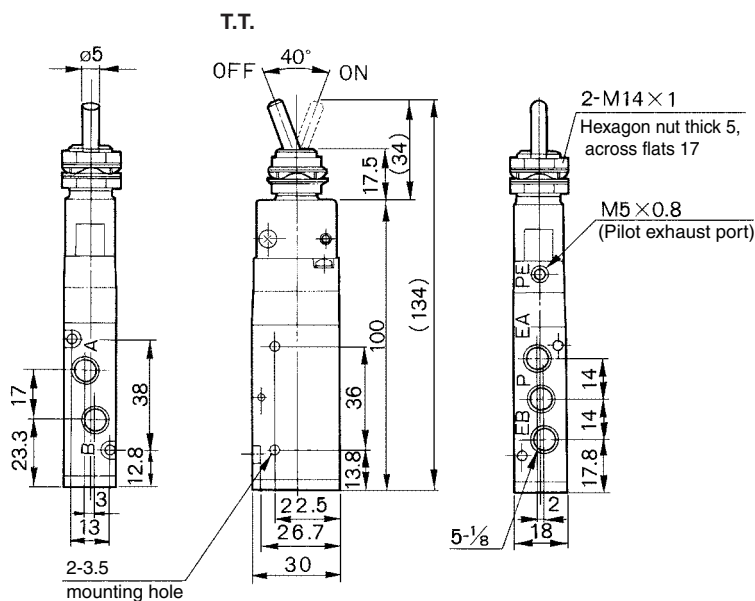
#### JIS Symbol



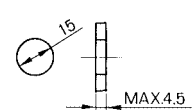
\* 0.5 MPa supply

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

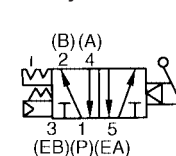
### Toggle lever VZM450-01-08



#### Panel mounting hole



#### JIS Symbol



\* 0.5 MPa supply

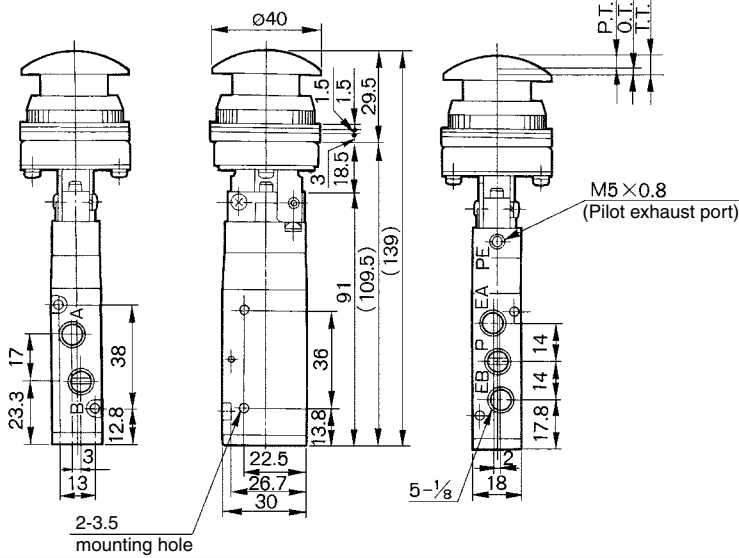
F.O.F. *	15 N
T.T.	40°

# 5 Port Mechanical Valve Metal Seal Series VZM400

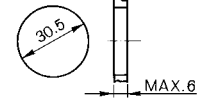
## Series VZM400

### Push button (Mushroom)

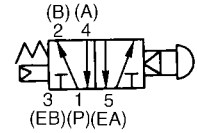
VZM450-01-30R/B/G/Y



Panel mounting hole



JIS Symbol



\* 0.5 MPa supply

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

□ A

□ A

□ A

□ A

VM

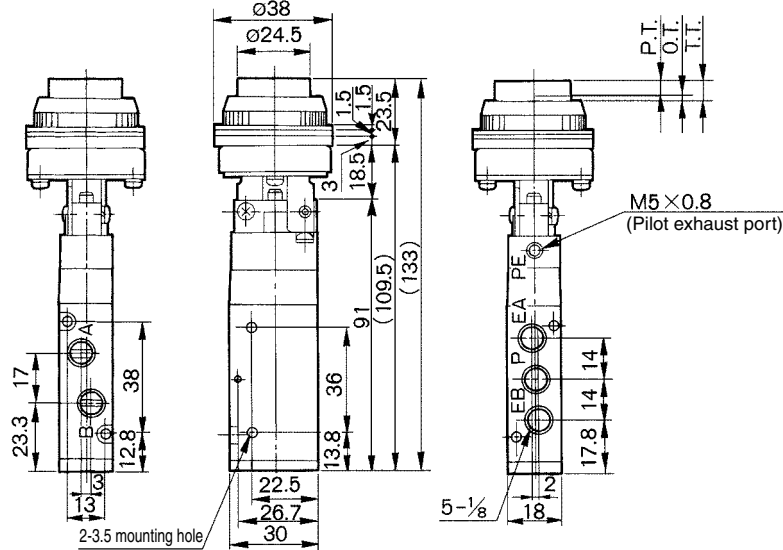
VR

VH

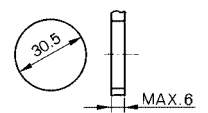
VHS

### Push button (Extended)

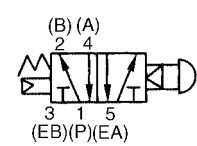
VZM450-01-32R/B/G/Y



Panel mounting hole



JIS Symbol

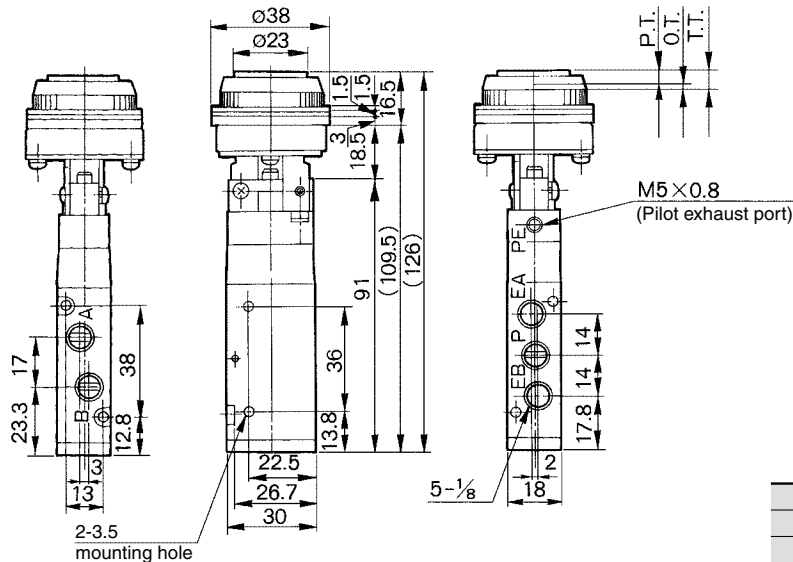


\* 0.5 MPa supply

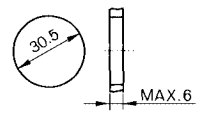
F.O.F. *	21 N
P.T.	4.8 mm
O.T.	1.7 mm
T.T.	6.5 mm

### Push button (Flush)

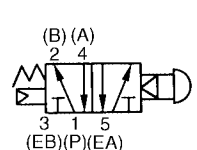
VZM450-01-33



Panel mounting hole



JIS Symbol



\* 0.5 MPa supply

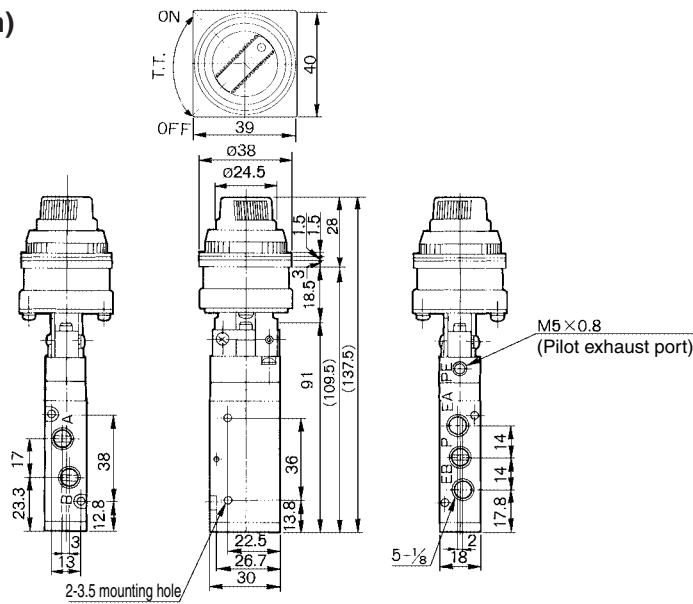
F.O.F. *	21 N
P.T.	4.8 mm
O.T.	1.7 mm
T.T.	6.5 mm

# Series VZM400

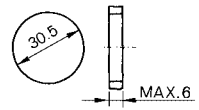
## 5 Port Mechanical Valve Series VZM400

### Twist selector (2 position)

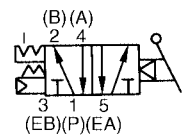
VZM450-01-34R/B/G/Y



#### Panel mounting hole



#### JIS Symbol

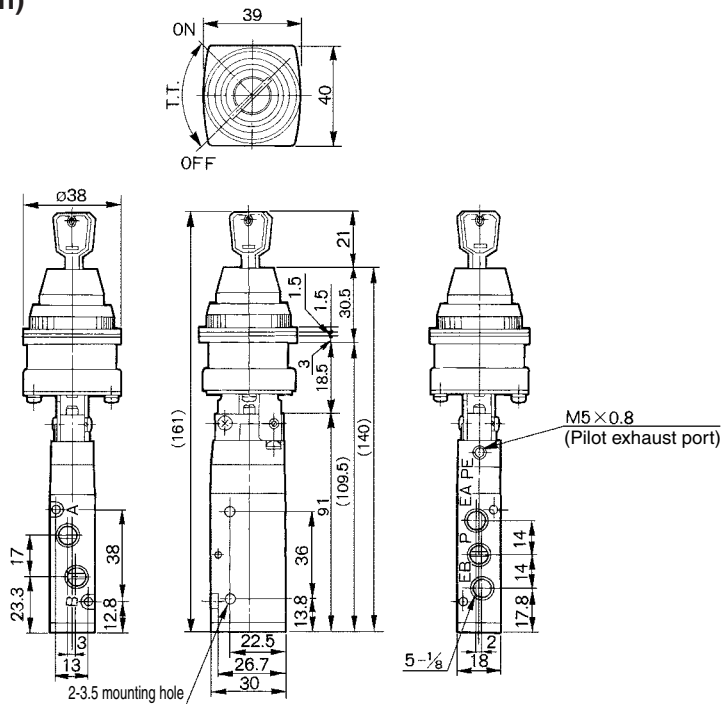


\* 0.5 MPa supply

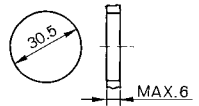
F.O.F. *	23 N
T.T.	90°

### Key selector (2 position)

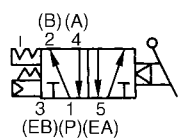
VZM450-01-36



#### Panel mounting hole



#### JIS Symbol



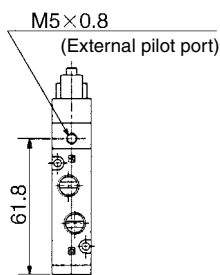
\* 0.5 MPa supply

F.O.F. *	26 N
T.T.	90°

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

### External pilot type

VZM451 type



### With foot bracket

VZM450-01-□□-F

