

## 5 Port Mechanical Valve/Metal Seal

# Series **VFM200**

**Compact design,  
Large flow capacity/Cv.1.0**

**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	0.1 to 1.0MPa <sup>(1)</sup>
Ambient and fluid temperature	-5 to 60°C (No freezing)
Effective area (Cv)	18mm <sup>2</sup> (1.0)
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) 1/4 (8A)
	Pilot valve (EXH)/M5 X 0.8
Option	Foot bracket <sup>(2)</sup>
Weight (Basic)	300g



\* Contact SMC for manifold mounting style.

Note 1) External pilot style Main valve: 0 to 1.0MPa  
Pilot valve: 0.1 to 1.0MPa

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

### Model

	Actuator	Model	Actuator part No.	Application
Mechanical operation	Basic	<b>VFM250-02-00</b>	—	—
	Roller lever	<b>VFM250-02-01</b>	VM-01C	Polyacetal roller
		<b>VFM250-02-01S</b>	VM-01CS	Hard steel roller
	One way roller lever	<b>VFM250-02-02</b>	VM-02C	Polyacetal roller
		<b>VFM250-02-02S</b>	VM-02CS	Hard steel roller
	Straight plunger	<b>VFM250-02-05</b>	VM-05D	—
	Roller plunger	<b>VFM250-02-06</b>	VM-06D	Polyacetal roller
		<b>VFM250-02-06S</b>	VM-06DS	Hard steel roller
Toggle lever	<b>VFM250-02-08</b>	VM-08D	—	
Manual operation	Push button (Mushroom)	<b>VFM250-02-30R</b>	VM-30CR	Red
		<b>VFM250-02-30B</b>	VM-30CB	Black
		<b>VFM250-02-30G</b>	VM-30CG	Green
		<b>VFM250-02-30Y</b>	VM-30CY	Yellow
	Push button (Extended)	<b>VFM250-02-32R</b>	VM-32CR	Red
		<b>VFM250-02-32B</b>	VM-32CB	Black
		<b>VFM250-02-32G</b>	VM-32CG	Green
		<b>VFM250-02-32Y</b>	VM-32CY	Yellow
	Push button (Flush)	<b>VFM250-02-33</b>	VM-33C	With a set of red, black, green, yellow
	Twist selector (2 position)	<b>VFM250-02-34R</b>	VM-34CR	Red
		<b>VFM250-02-34B</b>	VM-34CB	Black
		<b>VFM250-02-34G</b>	VM-34CG	Green
		<b>VFM250-02-34Y</b>	VM-34CY	Yellow
	Key selector (2 position)	<b>VFM250-02-36</b>	VM-36C	—



Note) Actuator replacement is available for all styles.

## How to Order

VFM25 0 02 01 S

Body option		Port size		Actuator		Suffix of actuator		Option	
0	Internal pilot style	02	Rc(PT) 1/4	00	Basic	S	Hard steel roller	F	Foot bracket (Only internal pilot)
1	External pilot style			01	Roller lever	R	Red		
				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)				

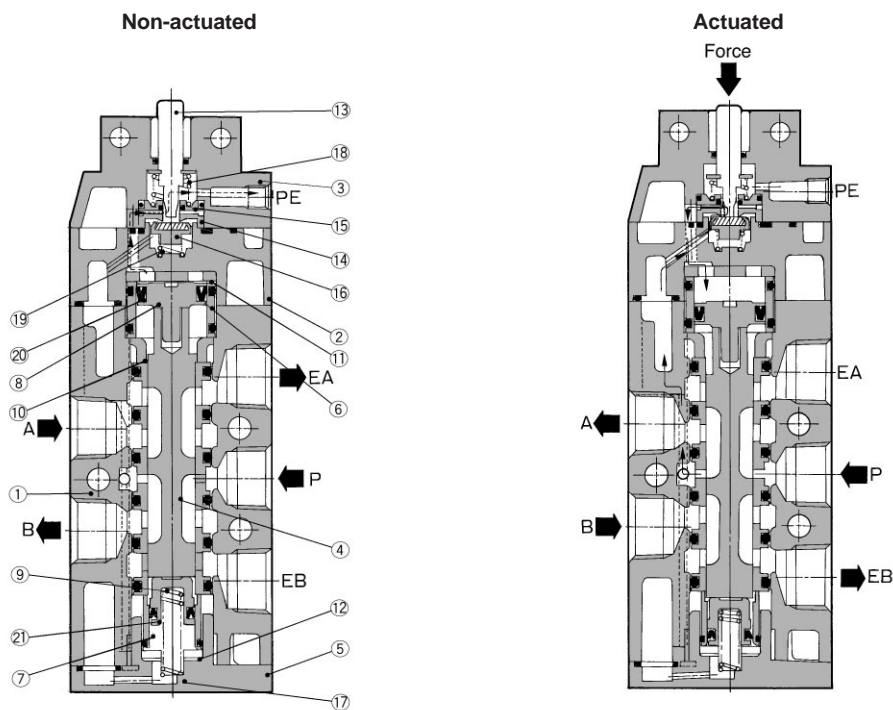
S□A

V□A

S□A

V□A

## Construction



VM/VR

VH

### Component Parts

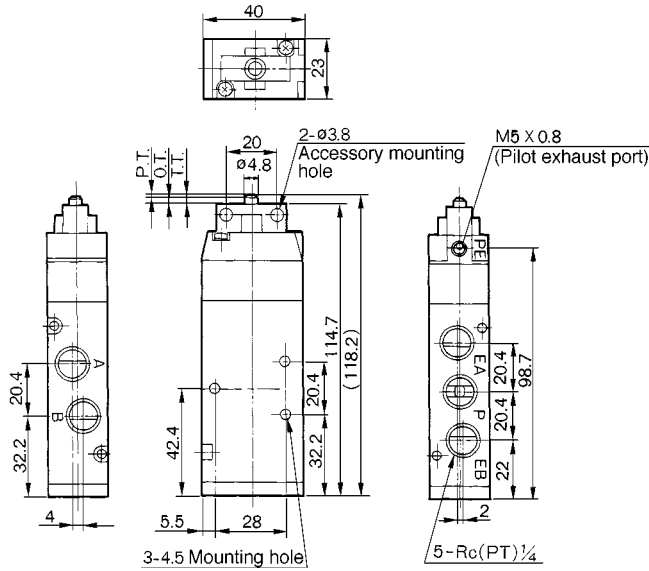
No.	Description	Material	Notes
①	Body	Aluminum alloy	Metallic plated
②	Pilot body	Zinc alloy	Metallic plated
③	Head cover	Zinc alloy	Black zinc chromate
④	Spool/sleeve	Stainless steel	
⑤	End cover	Polyacetal	
⑥	Piston guide	Brass	
⑦	Piston guide for end cover	Brass	
⑧	Piston	Polyacetal	
⑨	Piston for end cover	Polyacetal	
⑩	Guide bushing	Polyacetal	
⑪	Cushion	Urethane rubber	

No.	Description	Material	Notes
⑫	Cushion for end cover	Urethane rubber	
⑬	Plunger	Stainless steel	
⑭	Valve seat (A)	Brass	
⑮	Valve seat (B)	Brass	
⑯	Valve	NBR, Brass	
⑰	Return spring	Stainless steel	
⑱	Return spring	Stainless steel	
⑲	Valve spring	Stainless steel	
⑳	Mini Y packing	NBR	
㉑	Mini Y packing	NBR	

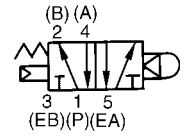
# VFM200

## Series VFM200

### Basic/VFM250-02-00



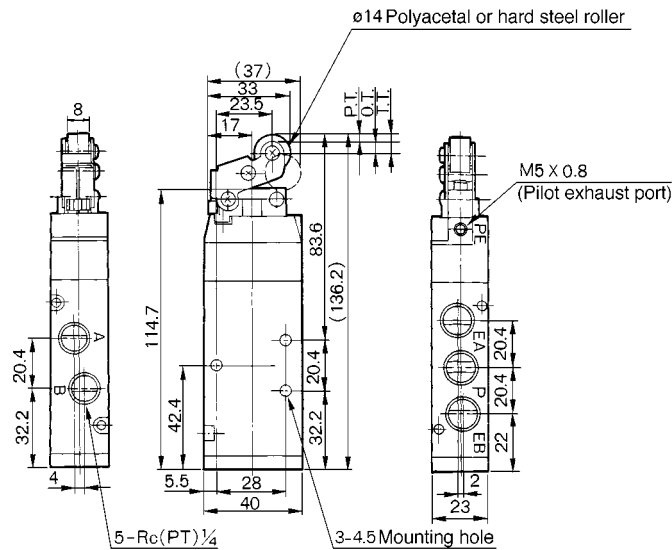
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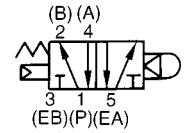
\* 0.5MPa supply

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

### Roller Lever/VFM250-02-01, VFM250-02-01S



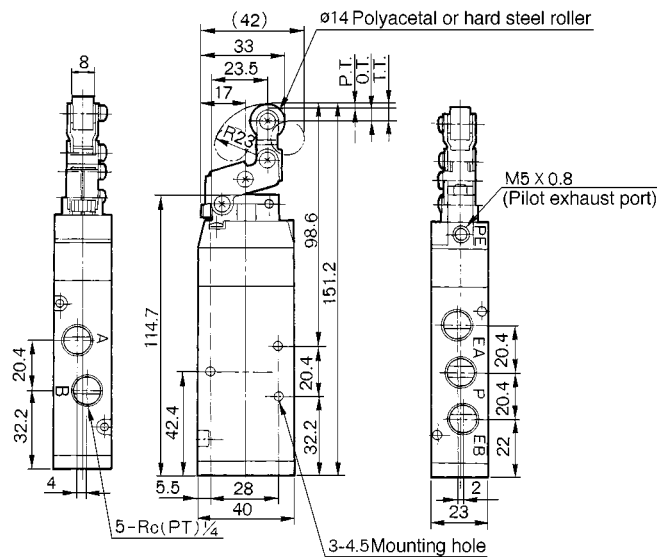
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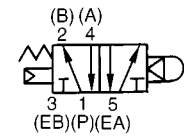
\* 0.5MPa supply

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

### One Way Roller Lever/VFM250-02-02, VFM250-02-02S



#### JIS Symbol

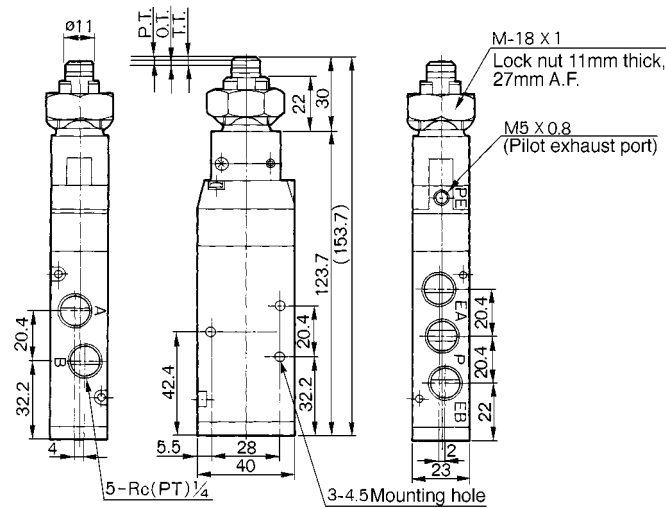


\* 0.5MPa supply

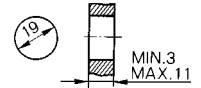
F.O.F.*	7N
P.T.	2.4mm
O.T.	4.6mm
T.T.	7mm

## Series VFM200

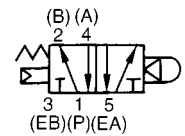
### Straight Plunger/VFM250-02-05



#### Panel mounted hole



#### JIS Symbol



\* 0.5MPa supply

F.O.F.*	20N
P.T.	1.5mm
O.T.	2mm
T.T.	3.5mm

S□A

V□A

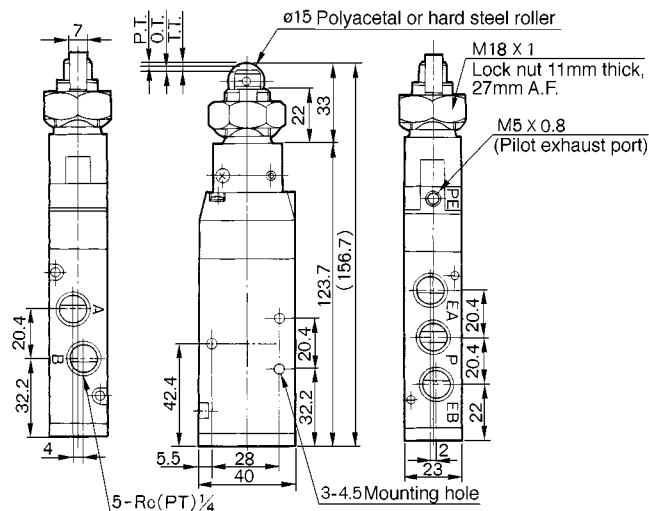
S□A

V□A

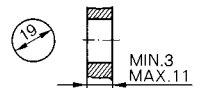
VMVR

VH

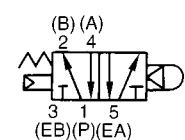
### Roller Plunger/VFM250-02-06, VFM250-02-06S



#### Panel mounted hole



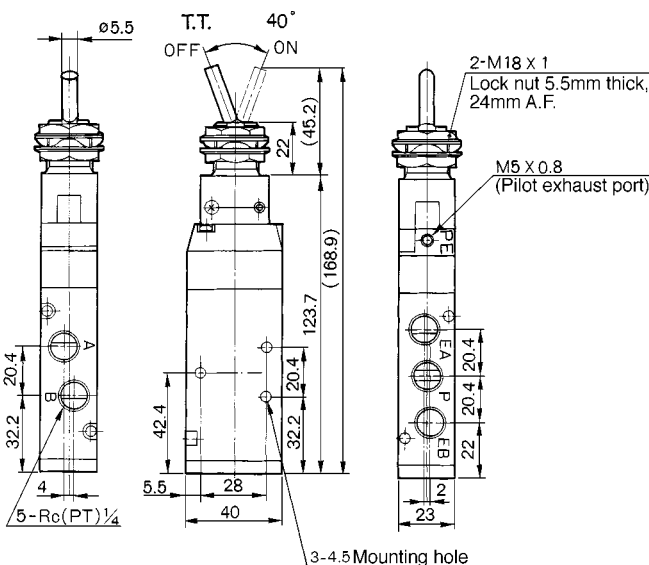
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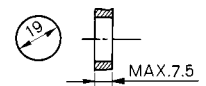
\* 0.5MPa supply

F.O.F.*	20N
P.T.	1.5mm
O.T.	2mm
T.T.	3.5mm

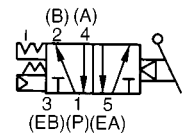
### Toggle Lever/VFM250-02-08



#### Panel mounted hole



#### JIS Symbol



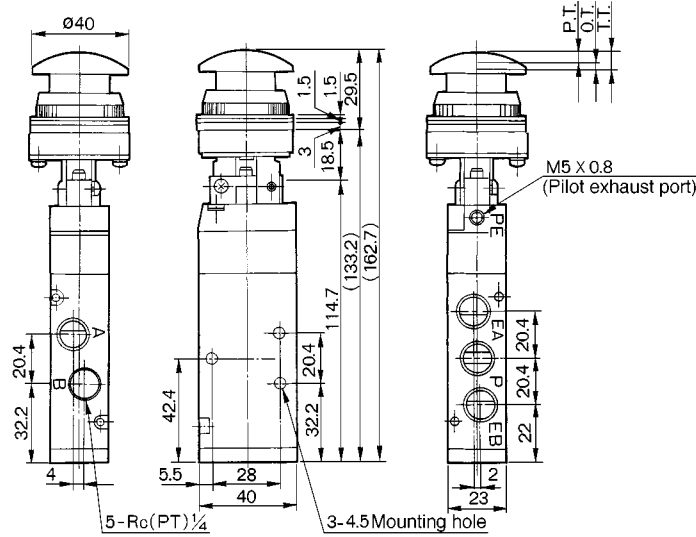
\* 0.5MPa supply

F.O.F.*	15N
T.T.	40°

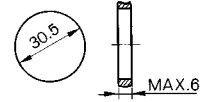
# VFM200

## Series VFM200

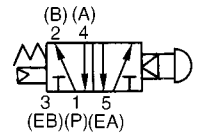
### Push Button (Mushroom)/VFM250-02-30R, B, G, Y



#### Panel mounted hole



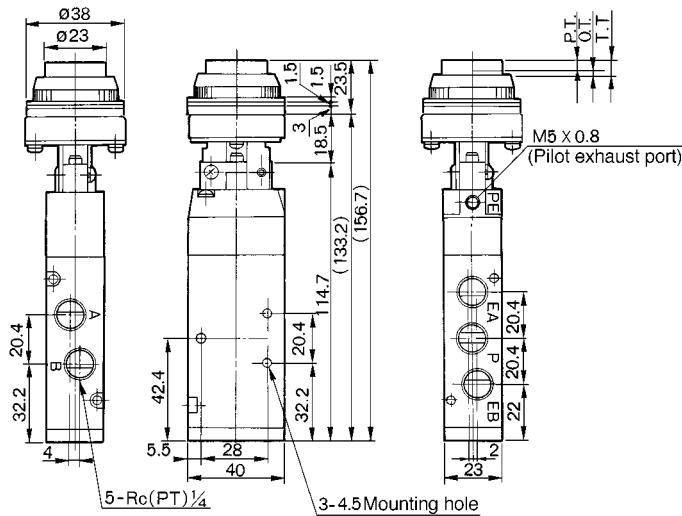
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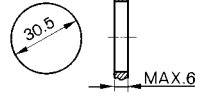
\* 0.5MPa supply

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

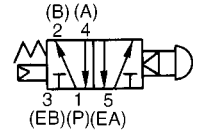
### Push Button (Extended)/VFM250-02-32R, B, G, Y



#### Panel mounted hole



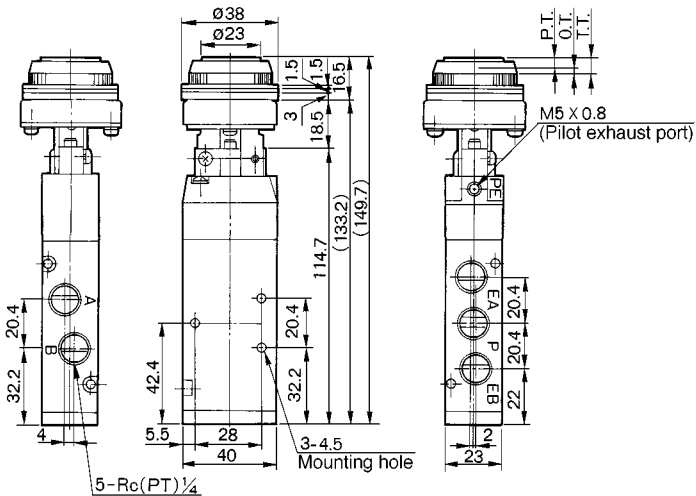
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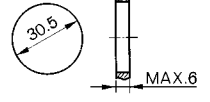
\* 0.5MPa supply

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

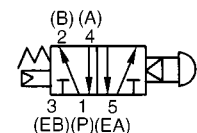
### Push Button (Flush)/VFM250-02-33



#### Panel mounted hole



#### JIS Symbol

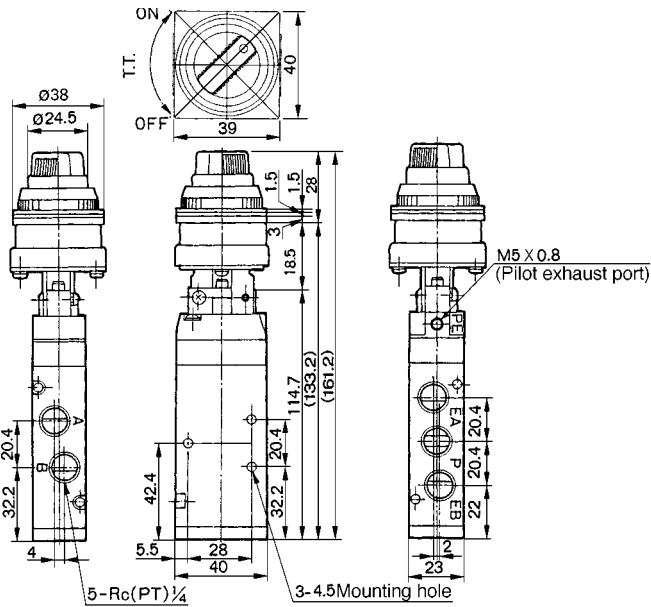


\* 0.5MPa supply

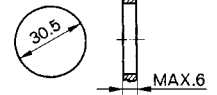
F.O.F.*	21N
P.T.	4.8mm
O.T.	1.7mm
T.T.	6.5mm

## Series VFM200

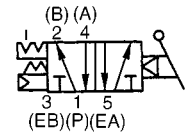
### Twist Selector (2 position)/ VFM250-02-34R, B, G, Y



Panel mounted hole



JIS Symbol



\* 0.5MPa supply

F.O.F.*	23N
T.T.	90°

S□A

V□A

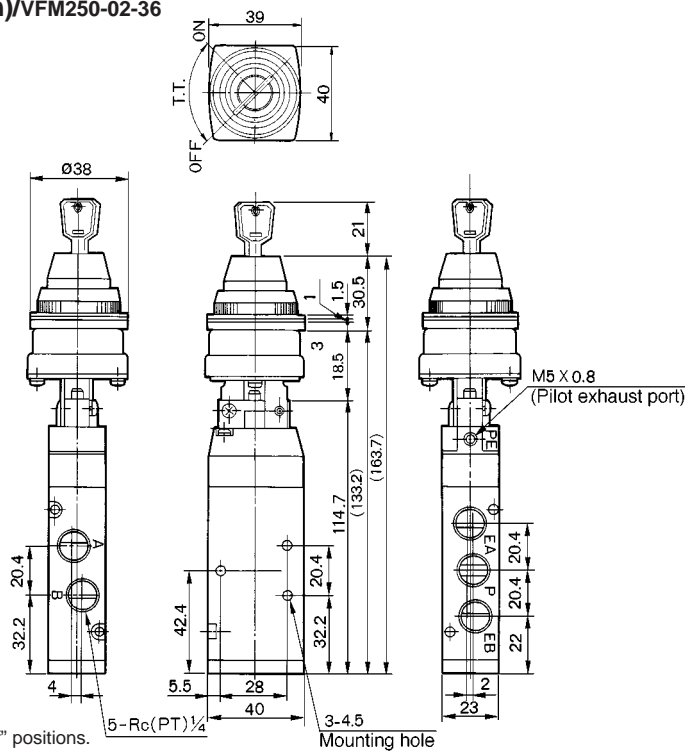
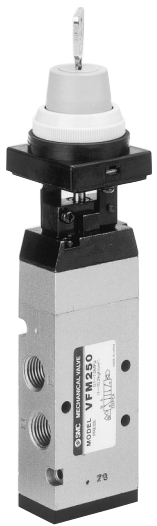
S□A

V□A

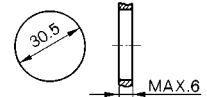
VM/VR

VH

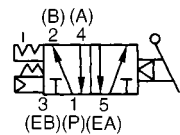
### Key Selector (2 position)/VFM250-02-36



Panel mounted hole



JIS Symbol

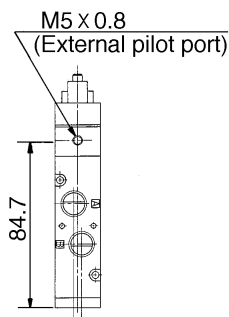


\* 0.5MPa supply

F.O.F.*	26N
T.T.	90°

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

### External Pilot Style VFM251 Type



### With Foot Bracket VFM250-02-□□-F

