

5 Port Mechanical Valve/Metal Seal

Series **VZM400**

**Compact design,
Large flow capacity
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 ⁽¹⁾
Ambient and fluid temperature	-5 to 60°C (No freezing)
Effective area (Nl/min)	9.9mm ² (490.33)
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 ⁽²⁾
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

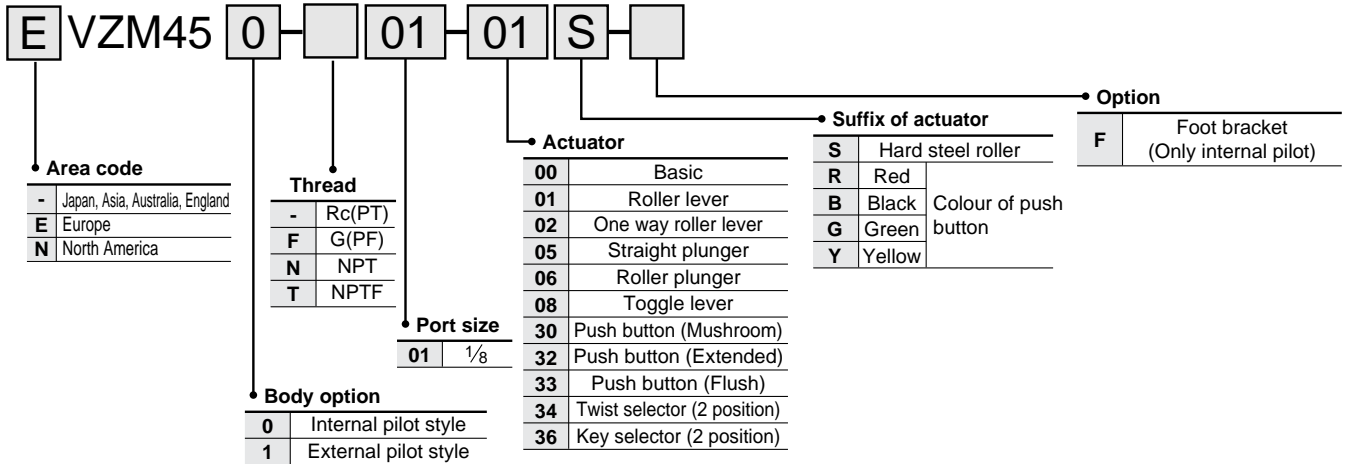
	Actuator	Model	Actuator part No.	Application
Mechanical operation	Basic	VZM450-01-00	-	-
	Roller lever	VZM450-01-01	VM-01C	Polyacetal roller
		VZM450-01-01S	VM-01CS	Hard steel roller
	One way roller lever	VZM450-01-02	VM-02C	Polyacetal roller
		VZM450-01-02S	VM-02CS	Hard steel roller
	Straight plunger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



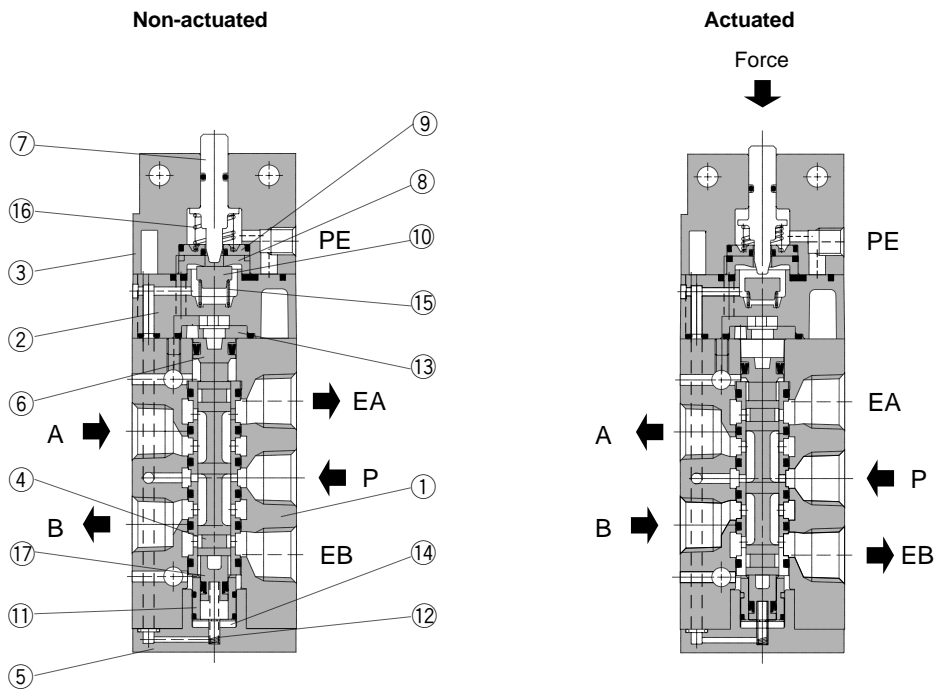
Note) Actuator replacement is available for all styles.

VZM400

How to Order



Construction



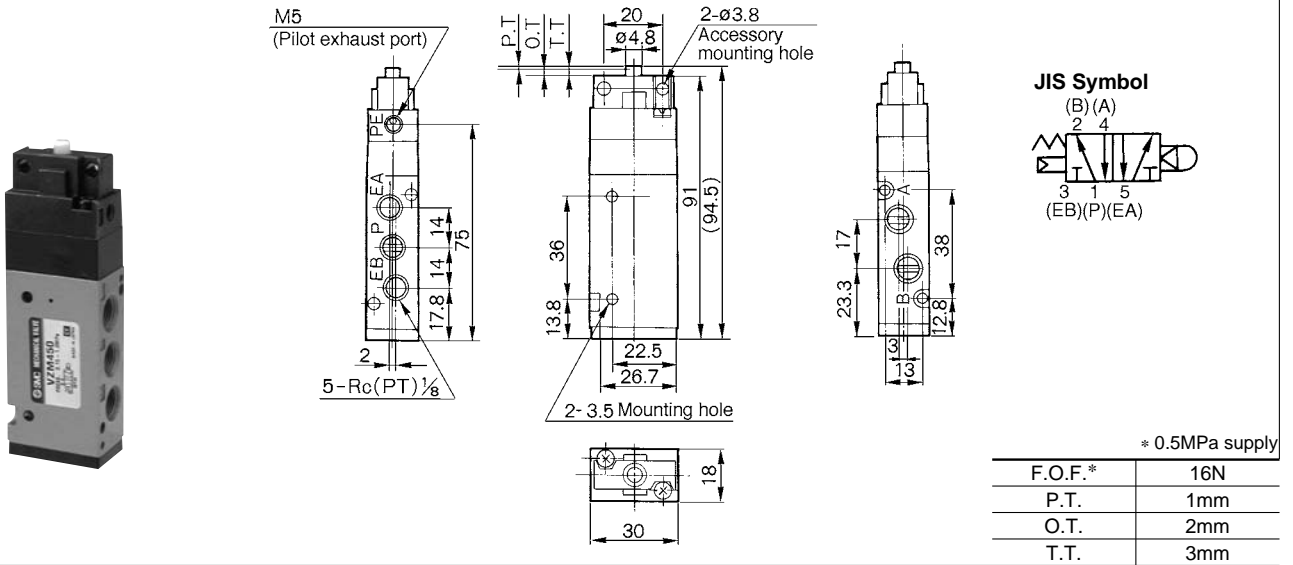
Component Parts

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



S□A

V□A

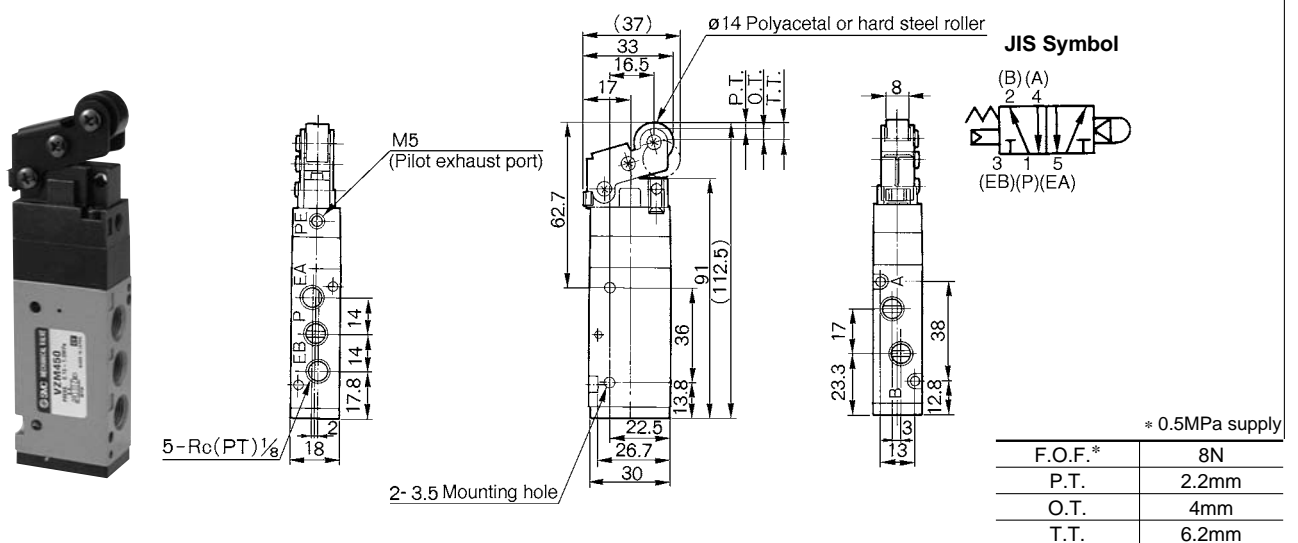
S□A

V□A

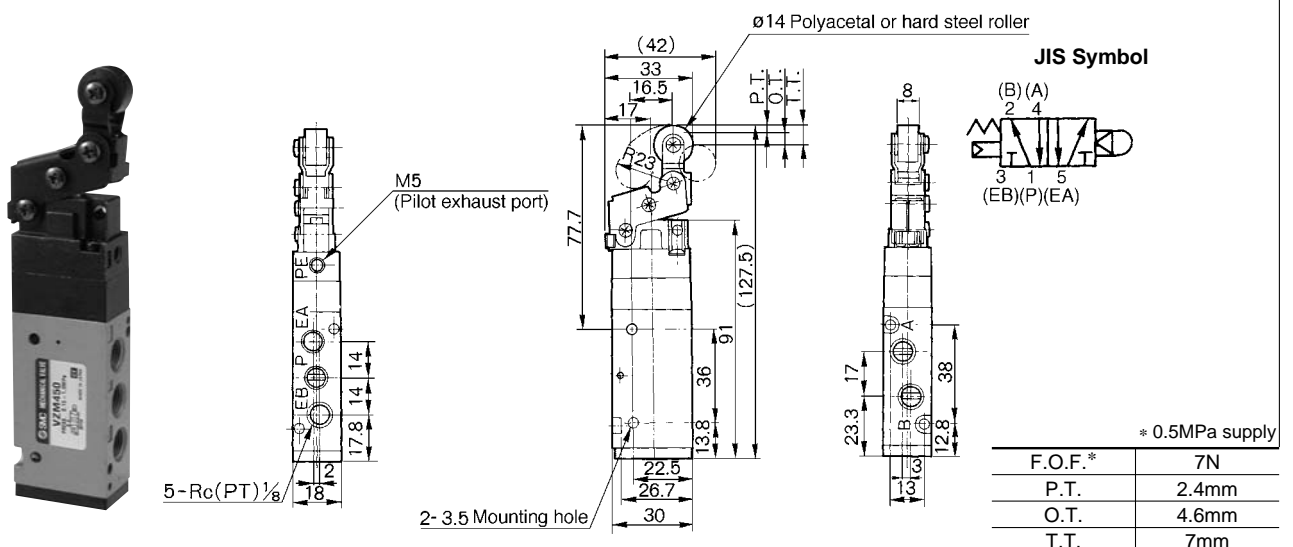
VM/VR

VH

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



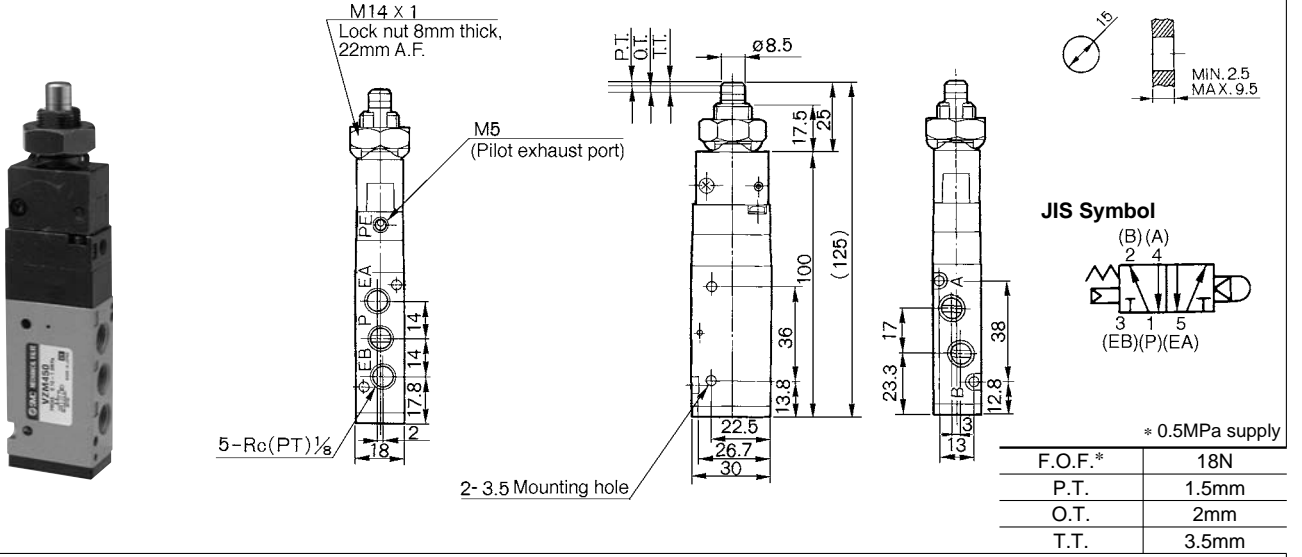
One Way Roller Lever/VZM450-01-02, VZM450-01-02S



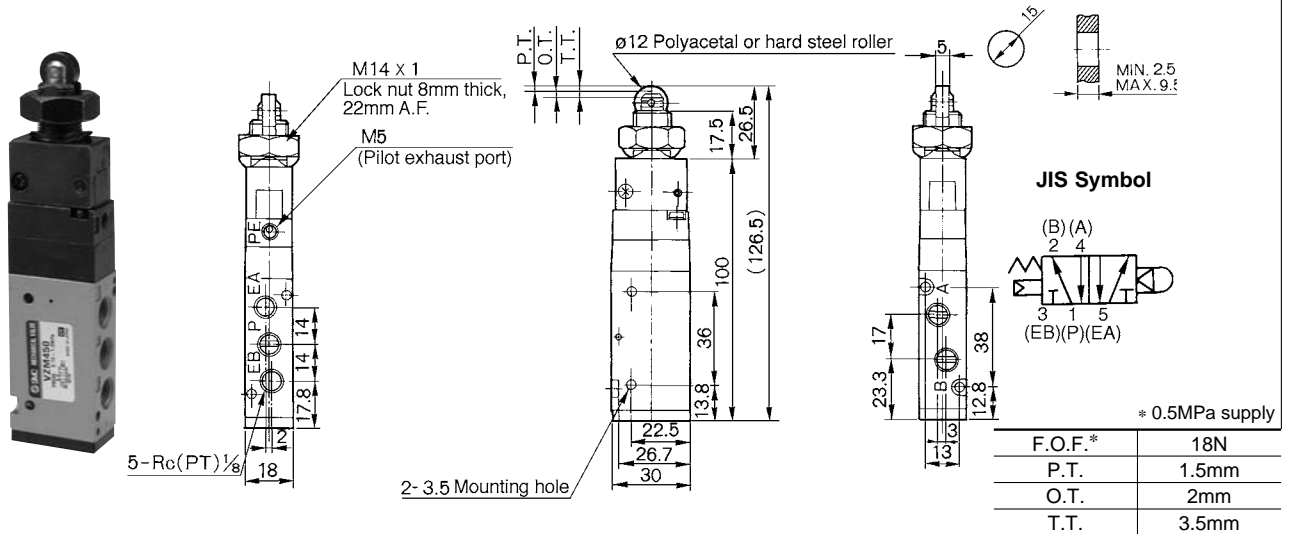
VZM400

Series VZM400

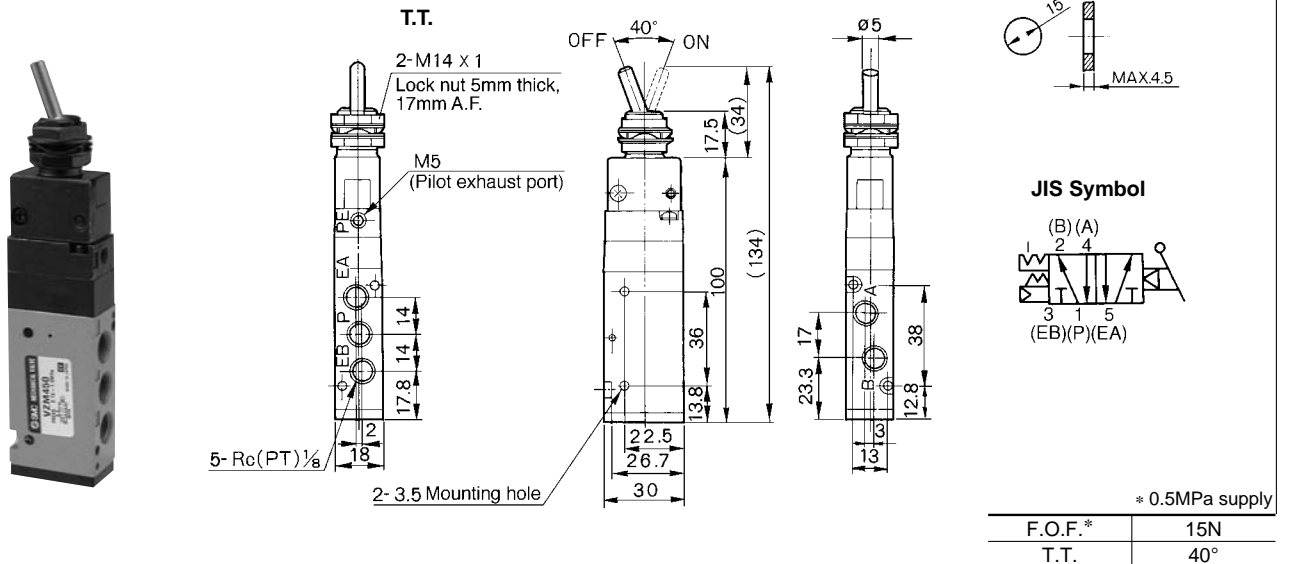
Straight Plunger/VZM450-01-05



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

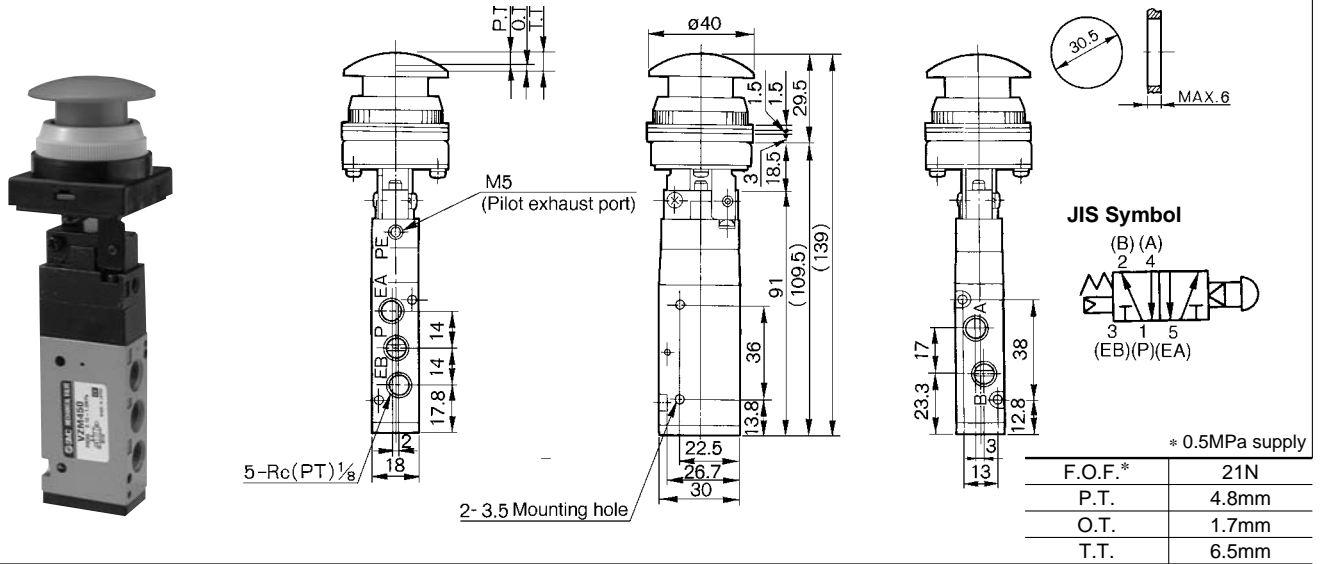


Toggle Lever/VZM450-01-08



Series VZM400

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



S□A

V□A

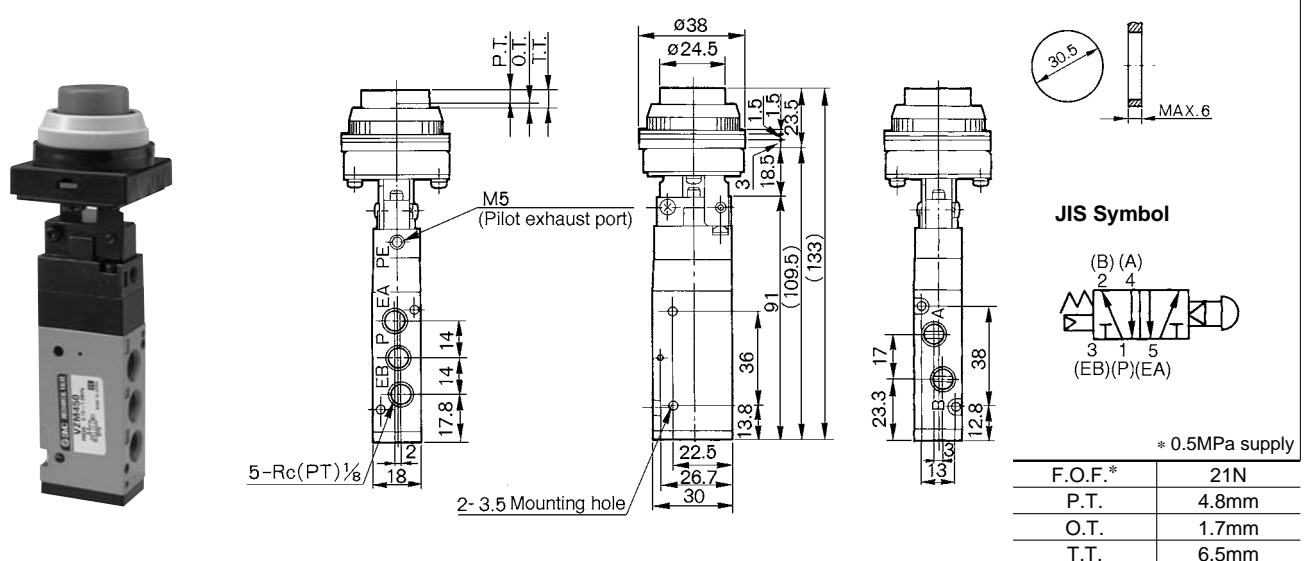
S□A

V□A

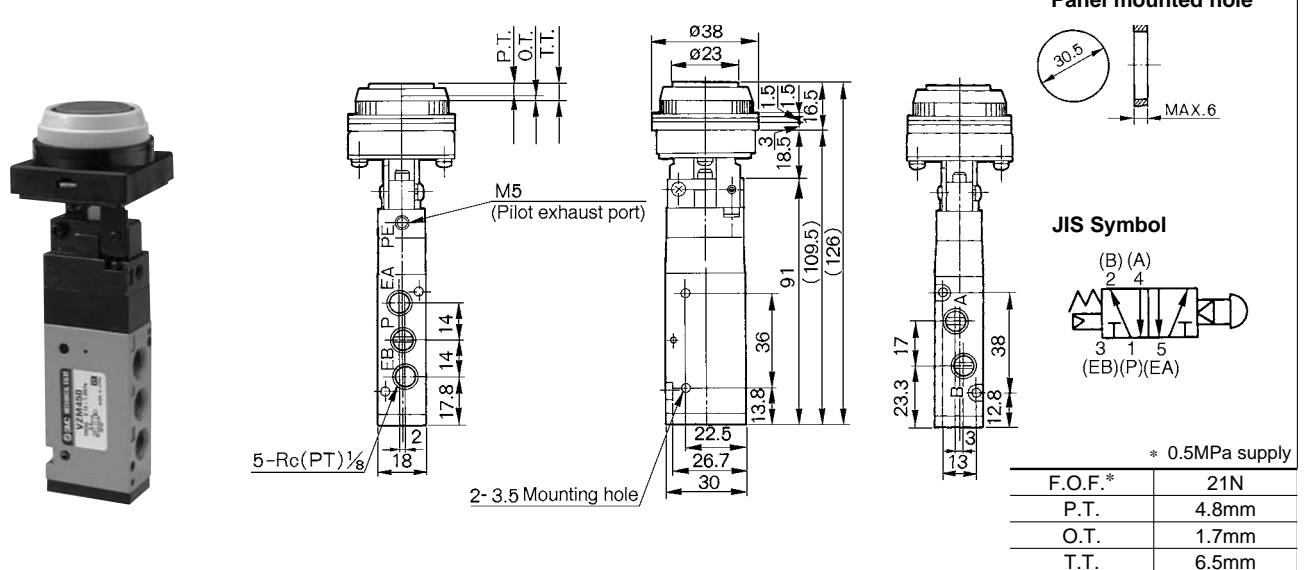
VMVR

VH

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



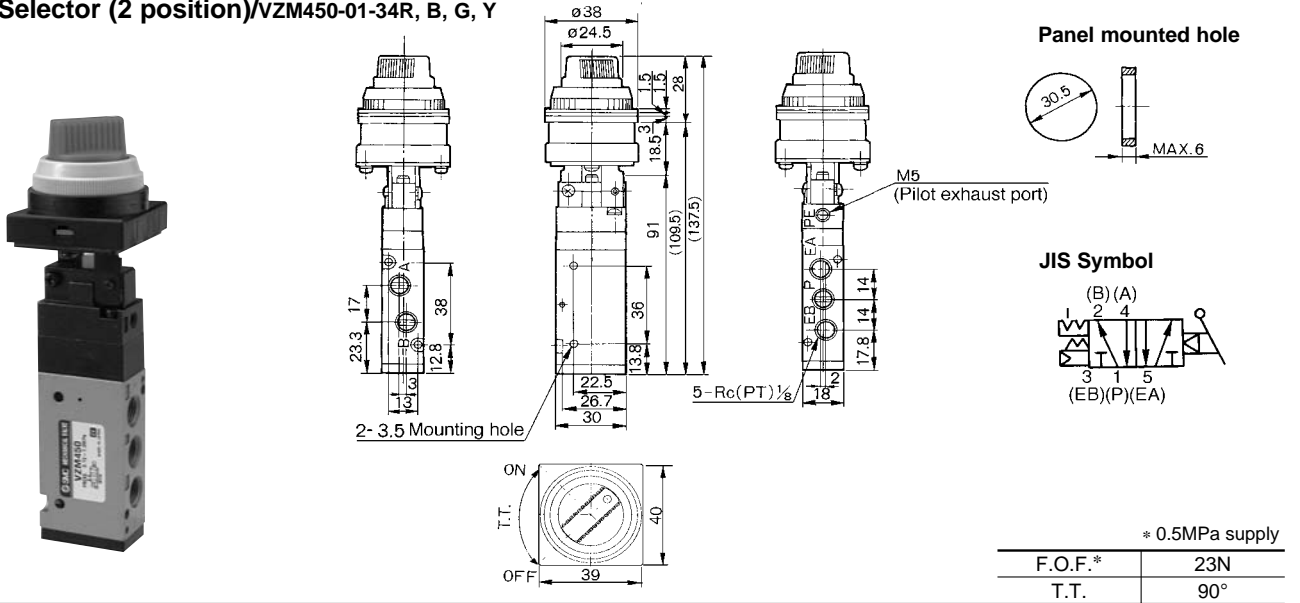
Push Button (Flush)/VZM450-01-33



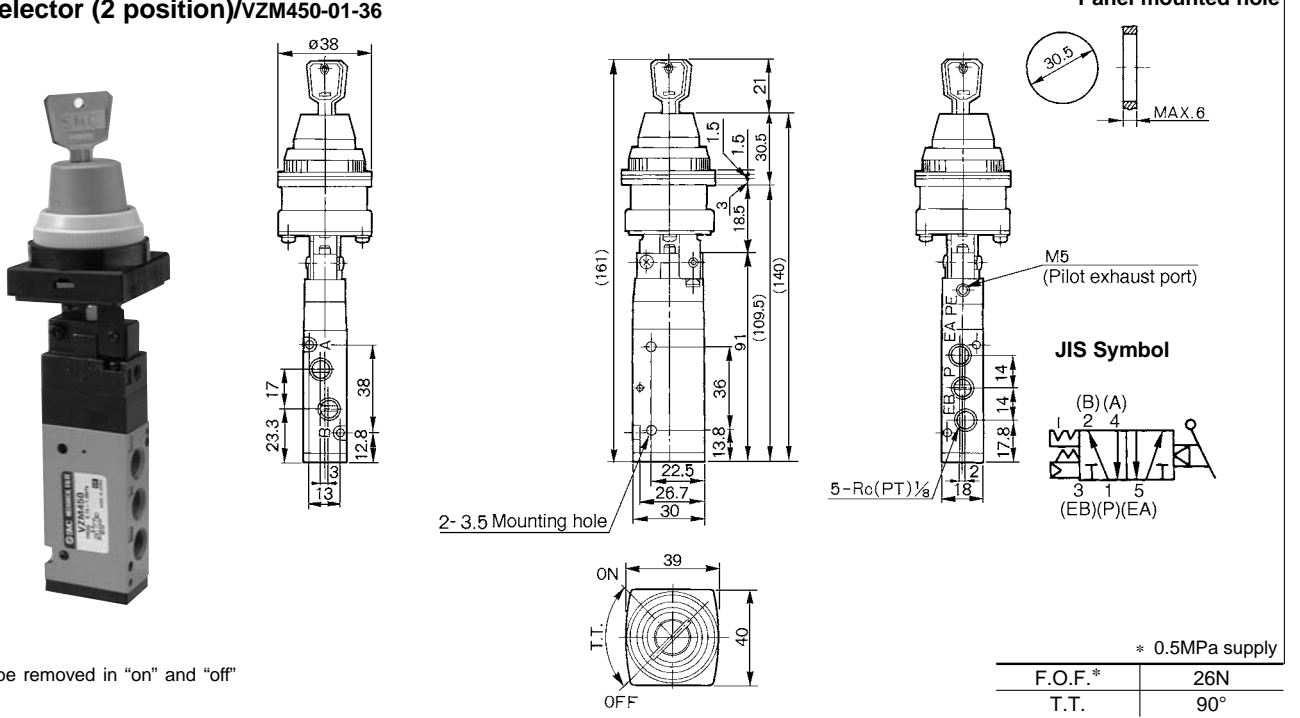
VZM400

Series VZM400

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

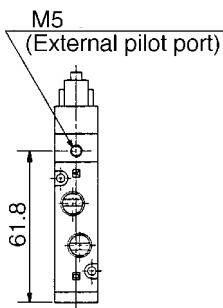


Key Selector (2 position)/VZM450-01-36

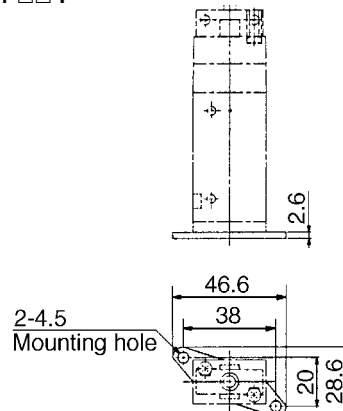


Key can be removed in "on" and "off" positions.

External Pilot Style VZM451 Type



With Foot Bracket VZM450-01-□□-F



5 Port Mechanical Valve

Series **VZM500**

**Compact design,
Large flow capacity/N_d/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 ⁽¹⁾
Ambient and fluid temperature	-5 to 60°C (No freezing)
Effective area (N _d /min)	10.8mm ² (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 ⁽²⁾
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	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
Toggle lever	VZM550-01-08	VM-08C	-	
Manual operation	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
	Push button (Flush)	VZM550-01-32Y	VM-32CY	Yellow
		VZM550-01-33	VM-33C	With a set of red, black, green, yellow
		Twist selector (2 position)	VZM550-01-34R	VM-34CR
	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) 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
E	Europe
N	North America

Thread

-	Rc(PT)
F	G(PF)
N	NPT
T	NPTF

Port size

01	1/8
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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 (Flash)
34	Twist selector (2 position)
36	Key selector (2 position)
37	Push-pull

Suffix of actuator

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

Option

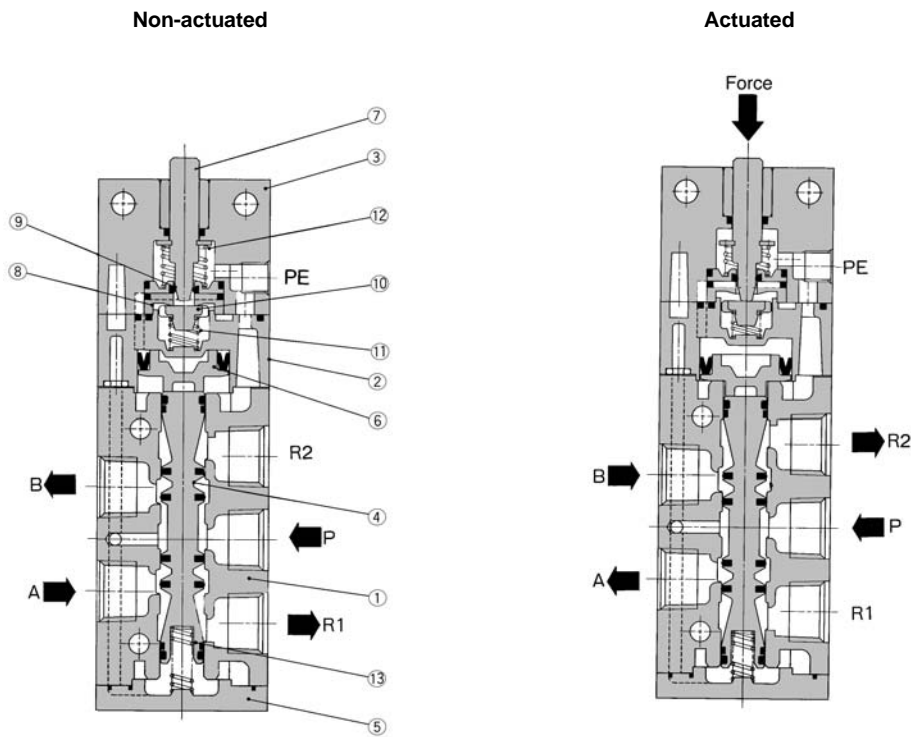
F	Foot bracket
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Body option

0	Standard
1*	External pilot style

* Except for VZM550-01-37

Construction



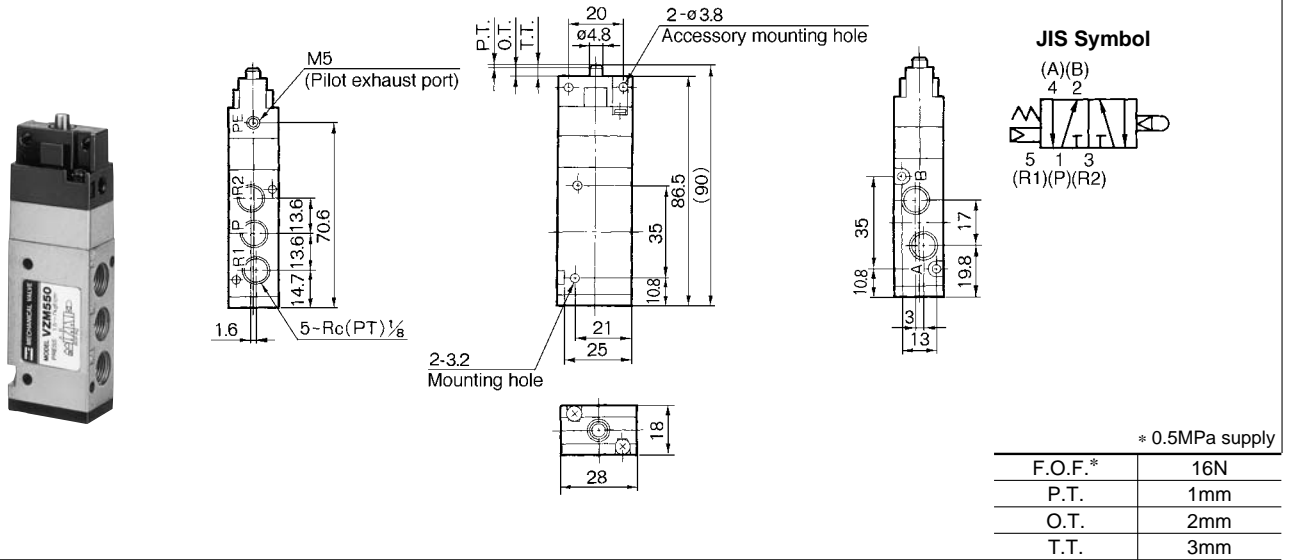
Component Parts

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	

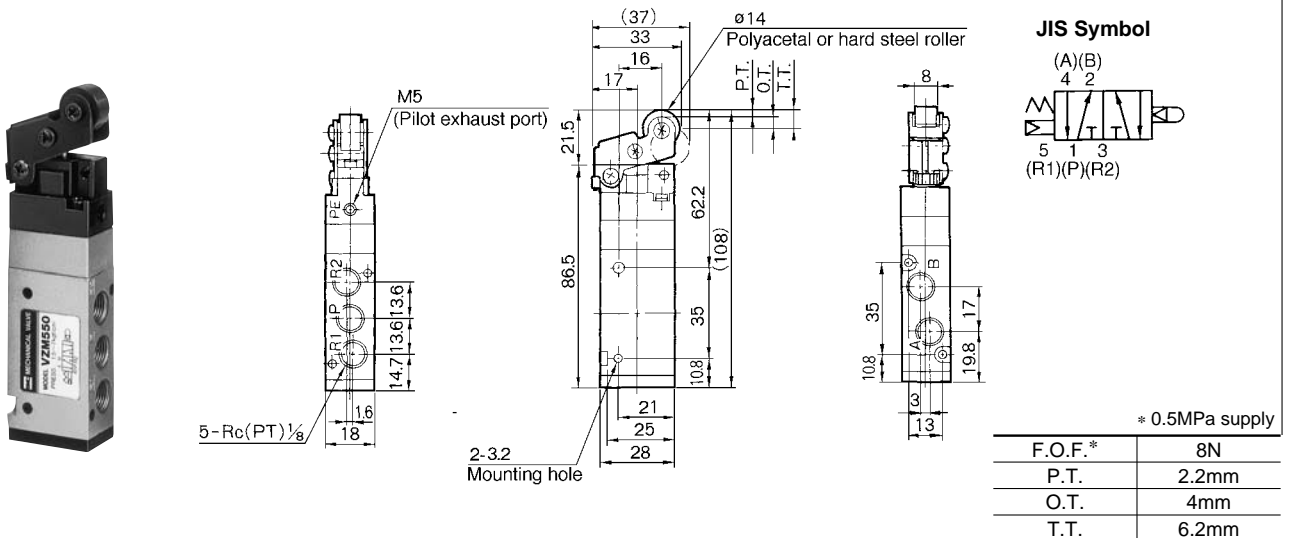
Series VZM500

Basic/VZM550-01-00

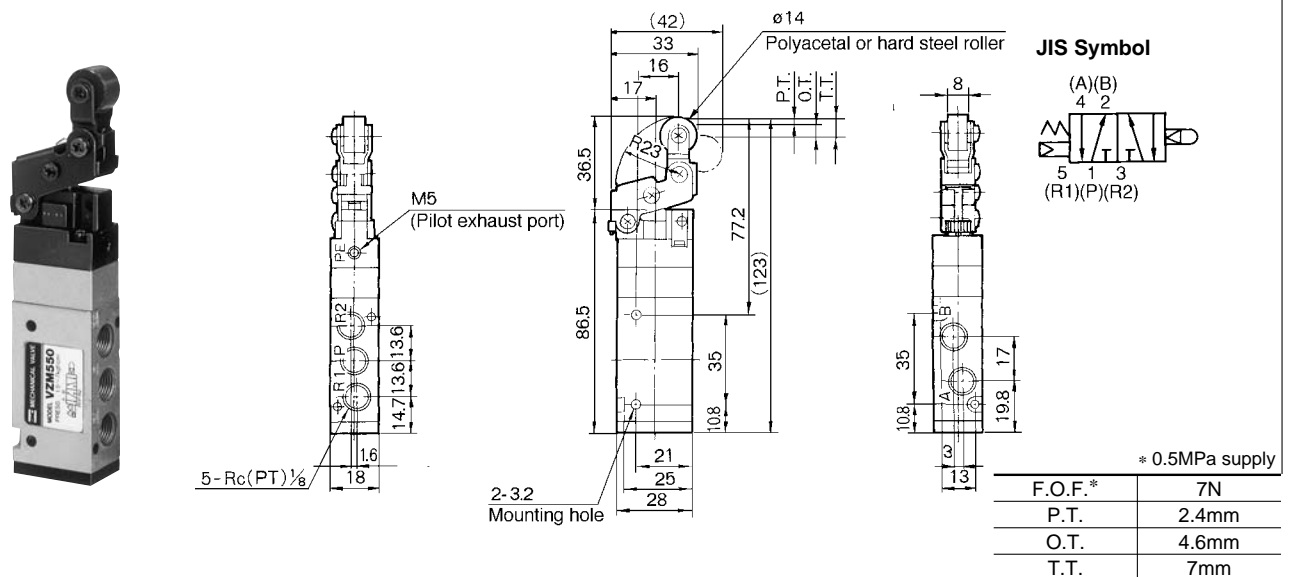


- A
- A
- A
- A
- VM/VR**
- VH**

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



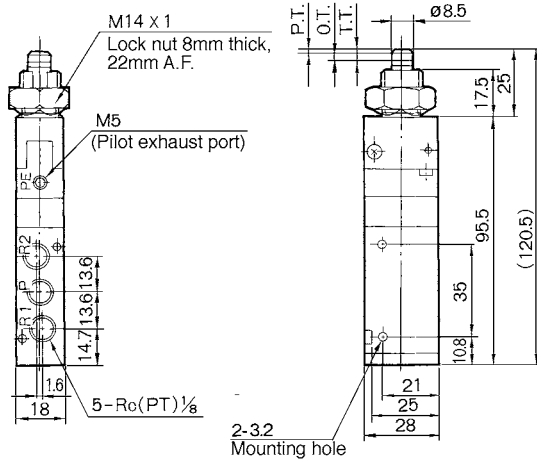
One Way Roller Lever/VZM550-01-02, VZM550-01-02S



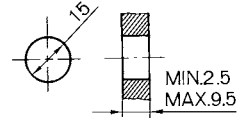
VZM500

Series VZM500

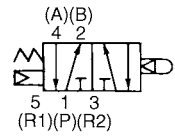
Straight Plunger/VZM550-01-05



Panel mounted hole



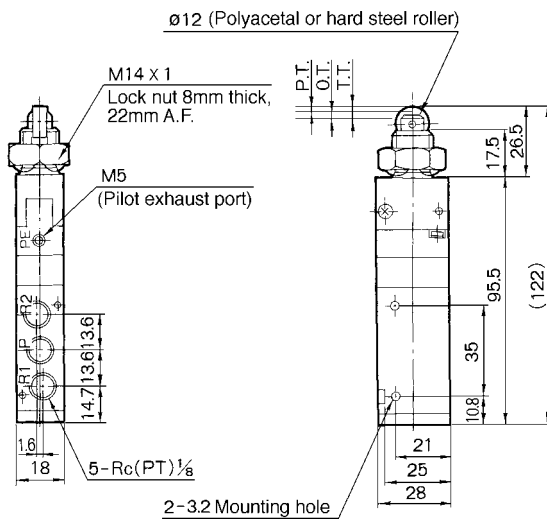
JIS Symbol



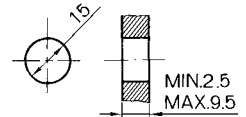
* 0.5MPa supply

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

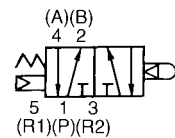
Roller Plunger/VZM550-01-06, VZM550-01-06S



Panel mounted hole



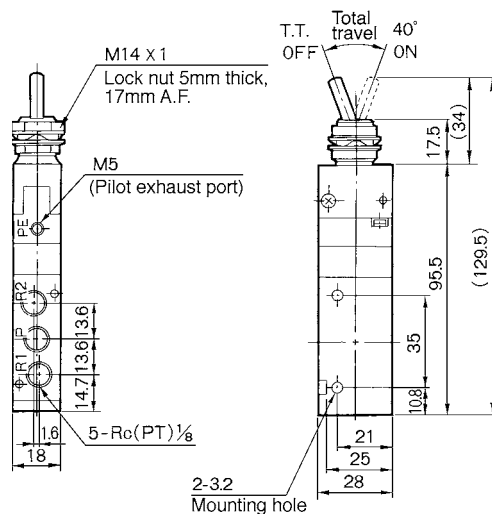
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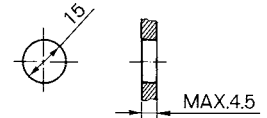
* 0.5MPa supply

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

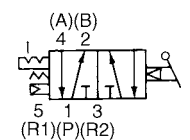
Toggle Lever/VZM550-01-08



Panel mounted hole



JIS Symbol

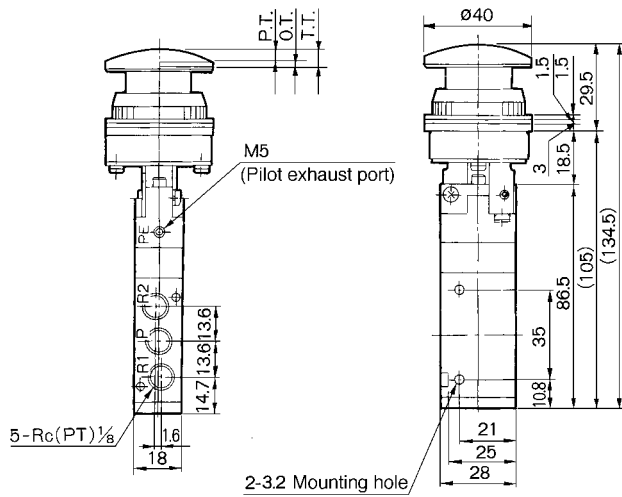


* 0.5MPa supply

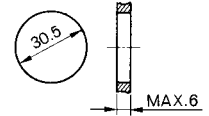
F.O.F.*	15N
T.T.	40°

Series VZM500

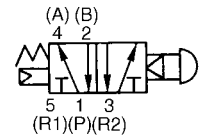
Push Button (Mushroom)/VZM550-01-30R, B, G, Y



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

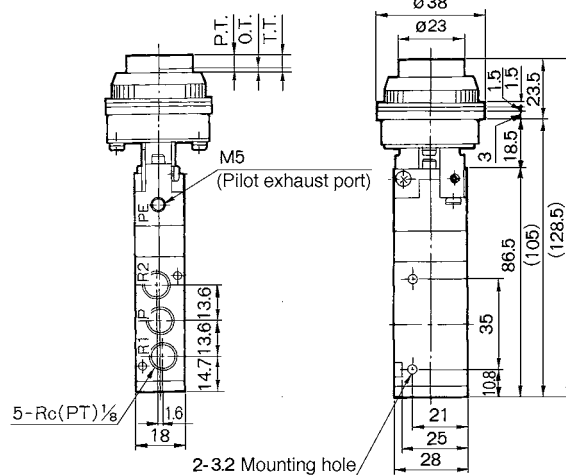
S□A

V□A

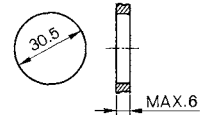
VM/VR

VH

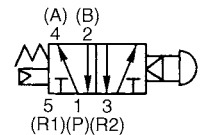
Push Button (Extended)/VZM550-01-32R, B, G, Y



Panel mounted hole



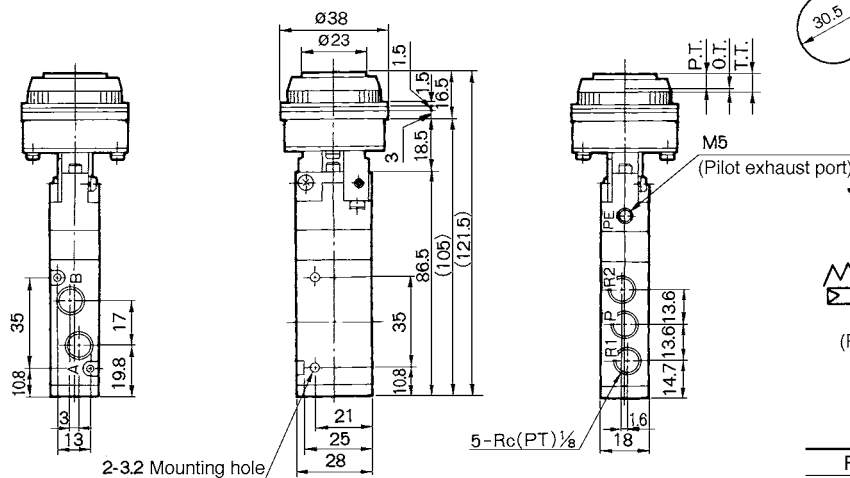
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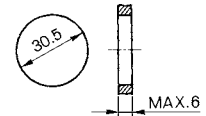
* 0.5MPa supply

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

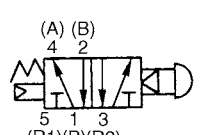
Push Button (Flush)/VZM550-01-33



Panel mounted hole



JIS Symbol



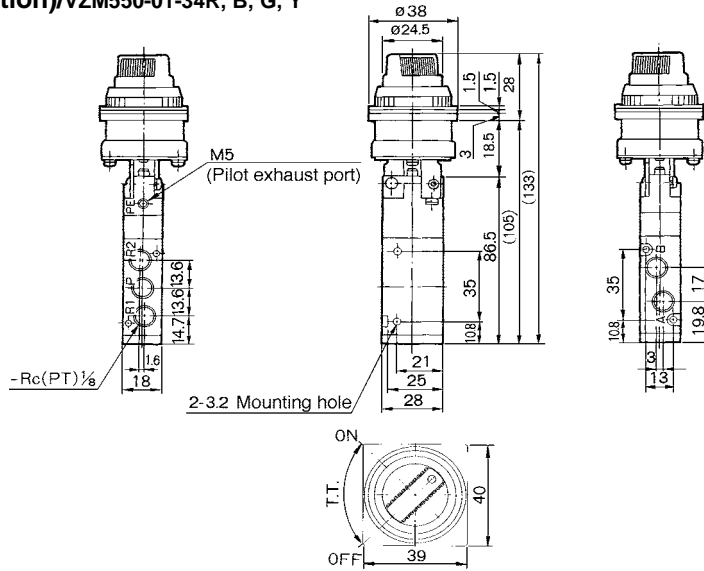
* 0.5MPa supply

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

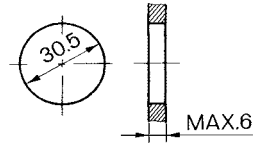
VZM500

Series VZM500

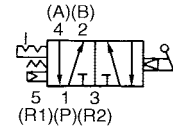
Twist Selector (2 position)/VZM550-01-34R, B, G, Y



Panel mounted hole



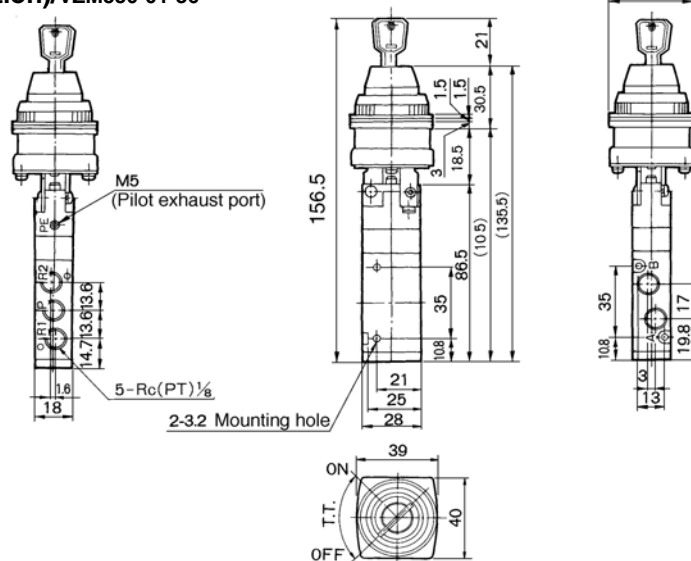
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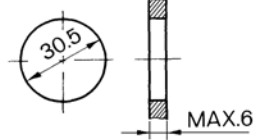
* 0.5MPa supply

F.O.F.*	23N
T.T.	90°

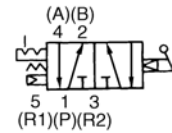
Key Selector (2 position)/VZM550-01-36



Panel mounted hole



JIS Symbol

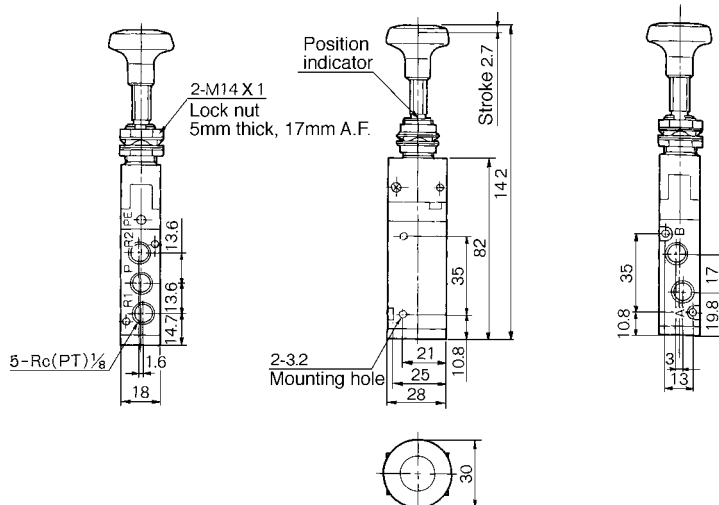


* 0.5MPa supply

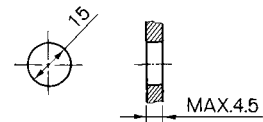
F.O.F.*	26N
T.T.	90°

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

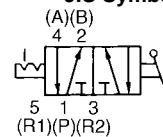
Push-pull/VZM550-01-37



Panel mounted hole

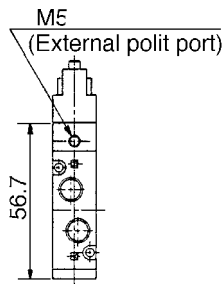


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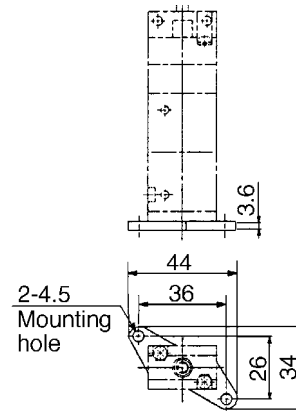


F.O.F.	20N
T.T.	2.7mm

External Pilot Style VZM551 Type



With Foot Bracket VZM55□-01-□□-F



S□A

V□A

S□A

V□A

VM/VR

VH