

5 Port Mechanical Valve Metal Seal

Series VZM400

**Compact design,
large flow capacity 9.9 mm²
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 ⁽¹⁾
Ambient and fluid temperature	-5 to 60°C (No freezing)
Effective area	9.9 mm ²
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 ⁽²⁾
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

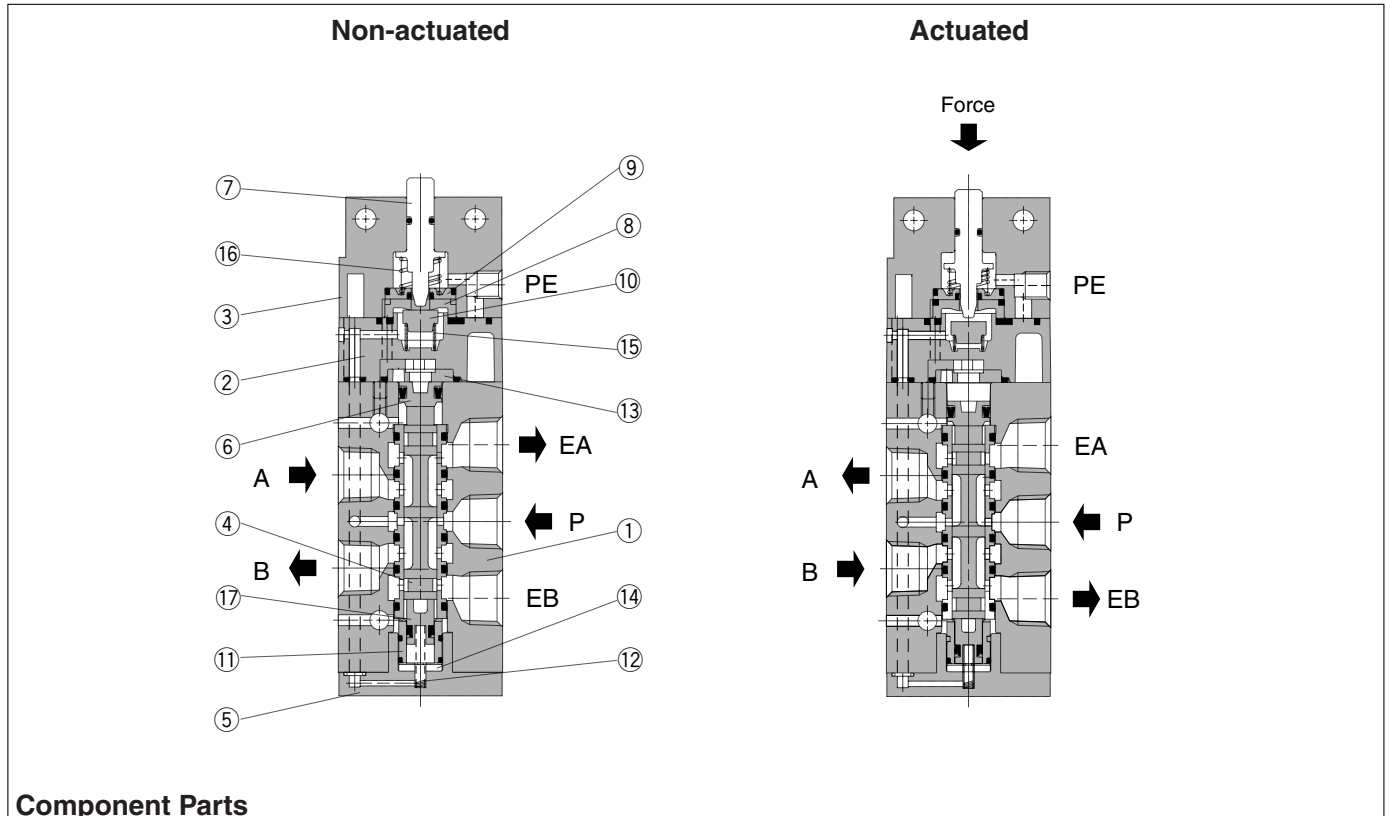
Series VZM400

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		
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	

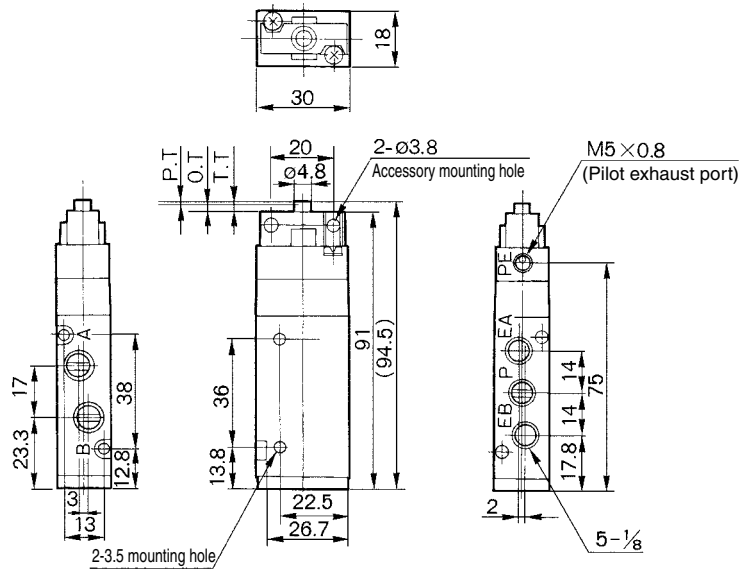
No.	Description	Material	Note
⑩	Valve	NBR	
⑪	Piston guide B	Aluminum alloy	
⑫	Return spring	Stainless steel	
⑬	Cushion	Rubber	
⑭	Cushion	Rubber	
⑮	Valve spring	Stainless steel	
⑯	Return spring	Stainless steel	
⑰	Piston B	POM	

5 Port Mechanical Valve Metal Seal Series VZM400

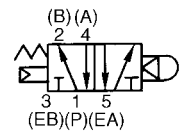
Series VZM400

Basic

VZM450-01-00



JIS Symbol



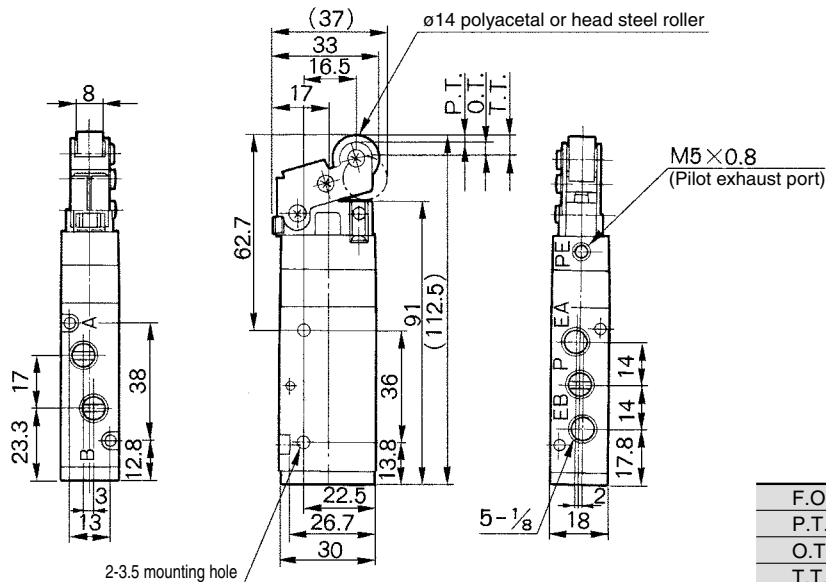
* 0.5 MPa supply

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

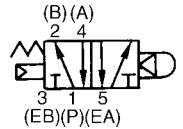
Roller lever

VZM450-01-01

VZM450-01-01S



JIS Symbol



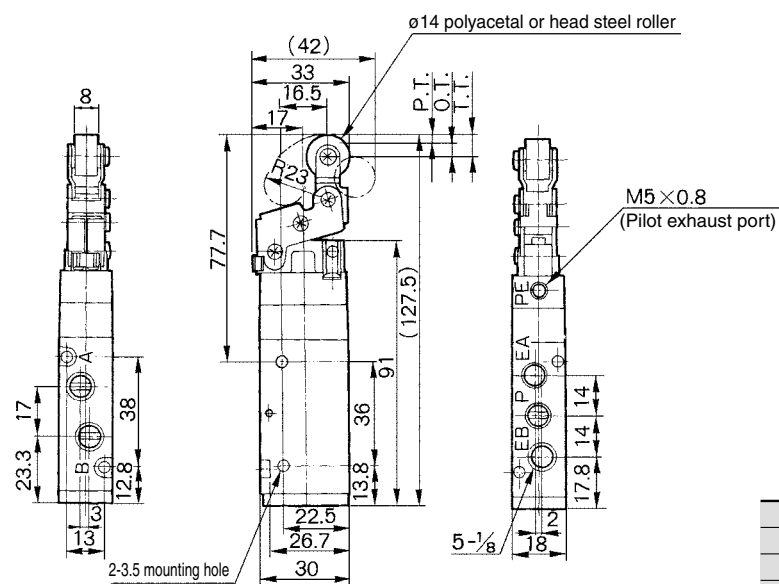
* 0.5 MPa supply

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

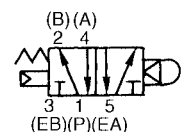
One way roller lever

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

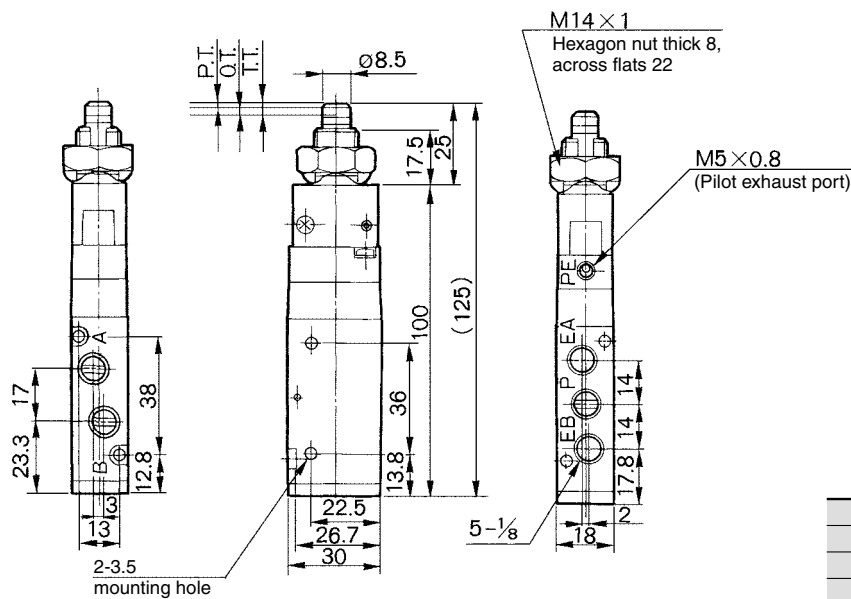
VH

VHS

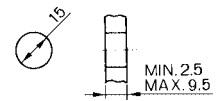
Series VZM400

Series VZM400

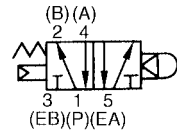
Straight plunger VZM450-01-05



Panel mounting hole



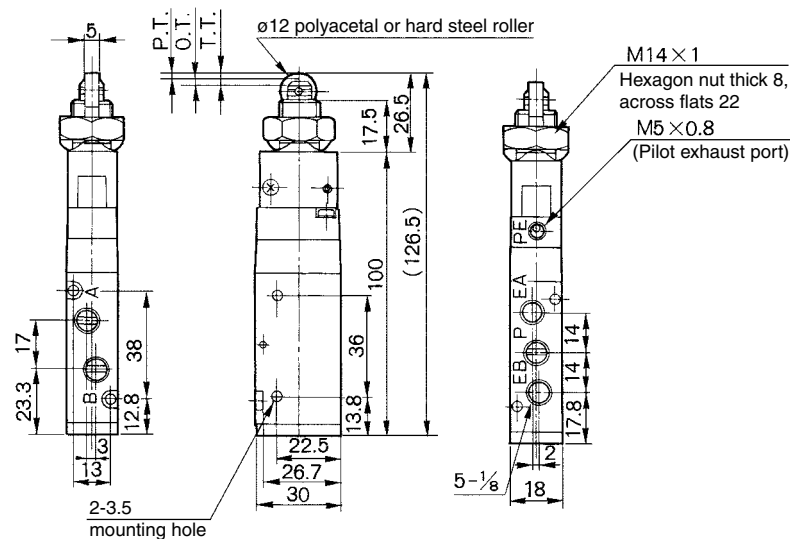
JIS Symbol



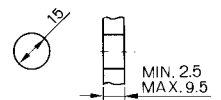
* 0.5 MPa supply

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

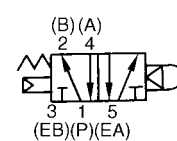
Roller plunger VZM450-01-06 VZM450-01-06S



Panel mounting hole



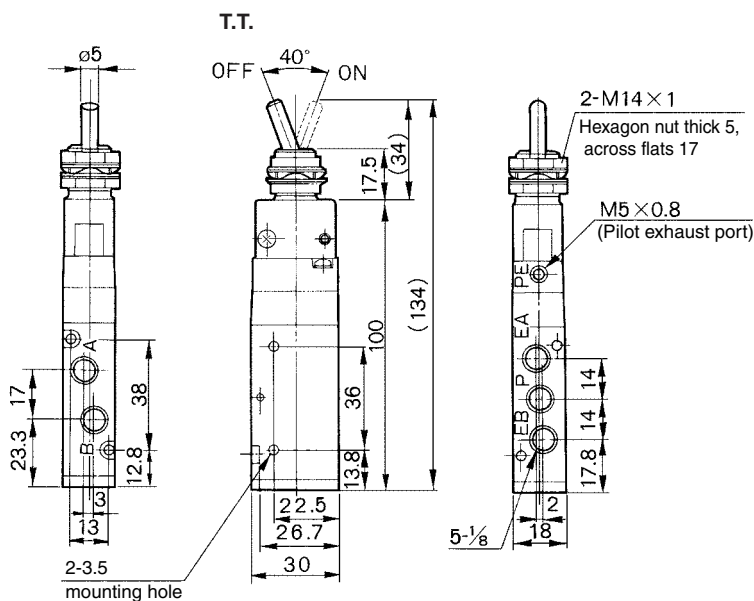
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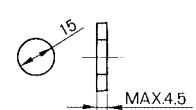
* 0.5 MPa supply

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

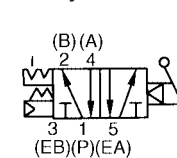
Toggle lever VZM450-01-08



Panel mounting hole



JIS Symbol



* 0.5 MPa supply

F.O.F. *	15 N
T.T.	40°

5 Port Mechanical Valve

Series VZM500

**Compact design,
large flow capacity 10.8 mm²
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.**



PAT. PEND.

Specifications

Fluid	Air/Inert gas
Operating pressure	0.15 to 0.7 MPa ⁽¹⁾
Ambient and fluid temperature	-5 to 60°C (No freezing)
Effective area	10.8 mm ²
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 ⁽²⁾
Weight (Basic)	130 g

* Please contact SMC for manifold mounting style.
Note 1) External pilot type Main valve: 0 to 0.7 MPa
Pilot valve: 0.15 to 0.7 MPa

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

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	
Manual operation	Toggle lever	VZM550-01-08	VM-08C	—
	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
		VZM550-01-32Y	VM-32CY	Yellow
	Push button (Flush)	VZM550-01-33	VM-33C	With a set of red, black, green, yellow
	Twist selector (2 position)	VZM550-01-34R	VM-34CR	Red
		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 1) Actuator replacement is available for all types. (Except push-pull)
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

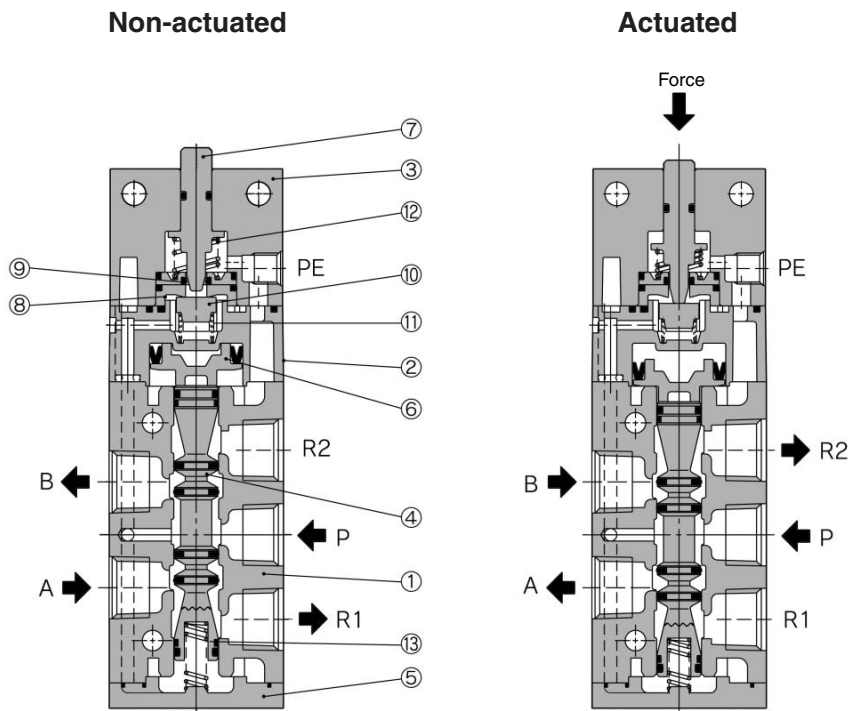
Series VZM500

How to Order

VZM55 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
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		
Body option		08	Toggle lever				
0	Standard	30	Push button (Mushroom)				
1*	External pilot type	32	Push button (Extended)				
* Except VZM550-01-37		33	Push button (Flush)				
		34	Twist selector (2 position)				
		36	Key selector (2 position)				
		37	Push-pull				

Construction



Component Parts

No.	Description	Material	Note
①	Body	ADC	Metallic plated
②	Pilot body	PBT	ZDC only for external pilot
③	Head cover	ZDC	Black zinc chromated
④	Spool valve assembly		
⑤	End cover	ZDC	Metallic plated
⑥	Piston	POM	
⑦	Plunger	POM	

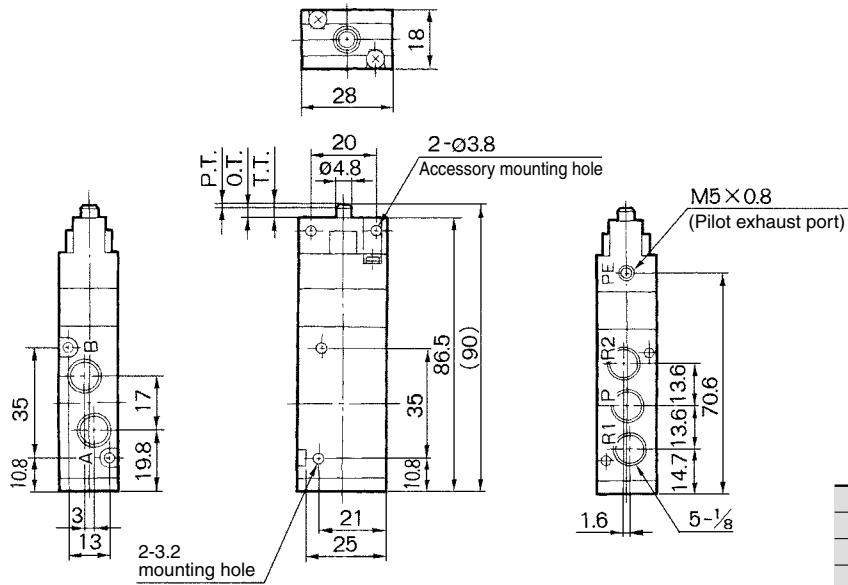
No.	Description	Material	Note
⑧	Valve seat (A)	POM	
⑨	Valve seat (B)	POM	
⑩	Valve assembly	NBR	
⑪	Valve spring	Stainless steel	
⑫	Return spring	Stainless steel	
⑬	Spool spring	Stainless steel	

5 Port Mechanical Valve Series VZM500

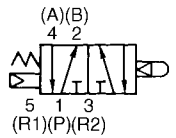
Series VZM500

Basic

VZM550-01-00



JIS Symbol



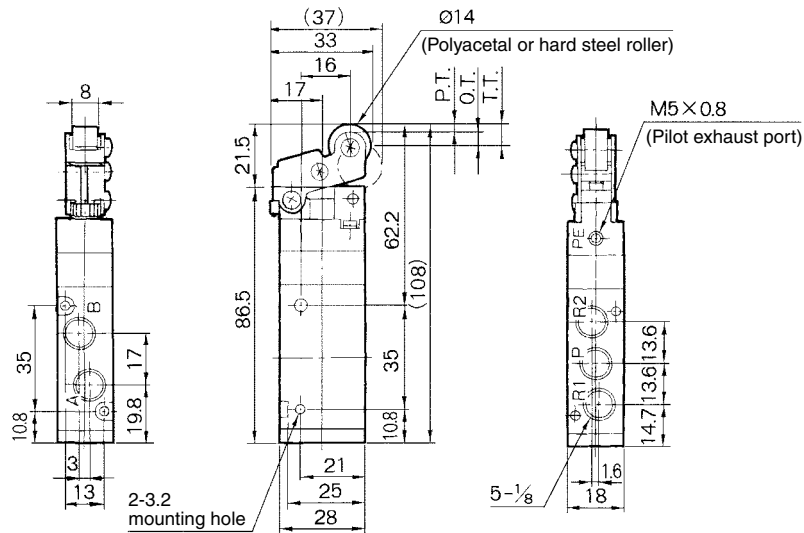
* 0.5 MPa supply

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

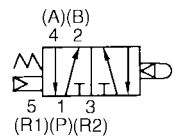
Roller lever

VZM550-01-01

VZM550-01-01S



JIS Symbol



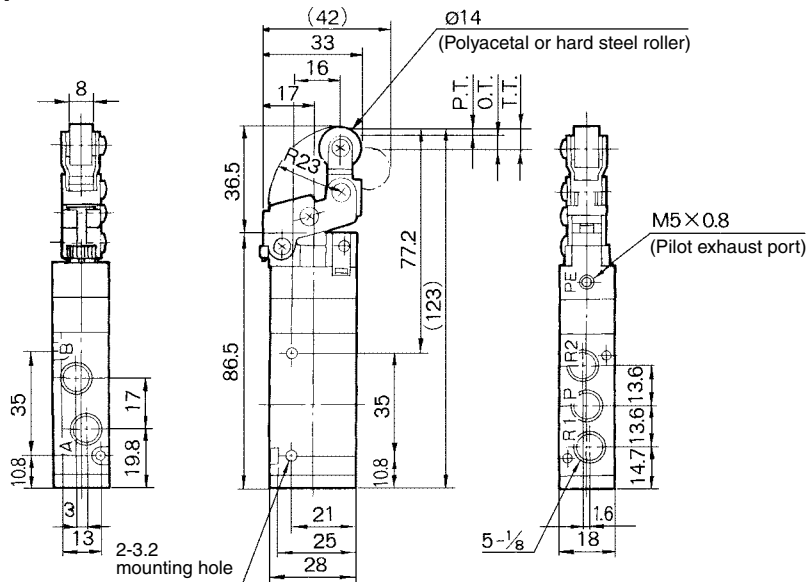
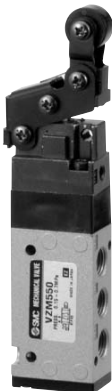
* 0.5 MPa supply

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

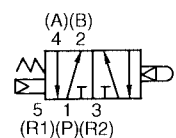
One way roller lever

VZM550-01-02

VZM550-01-02S



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

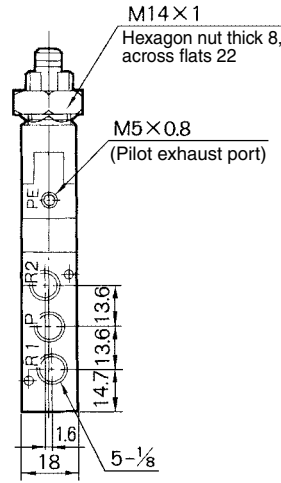
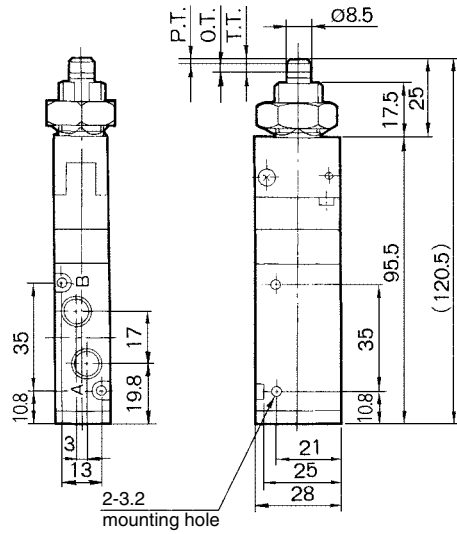
VHS

Series VZM500

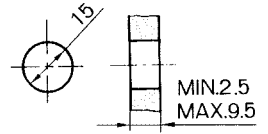
Series VZM500

Straight plunger

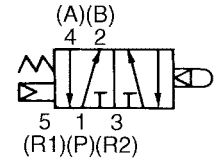
VZM550-01-05



Panel mounting hole



JIS Symbol



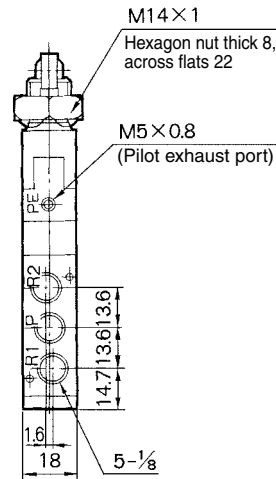
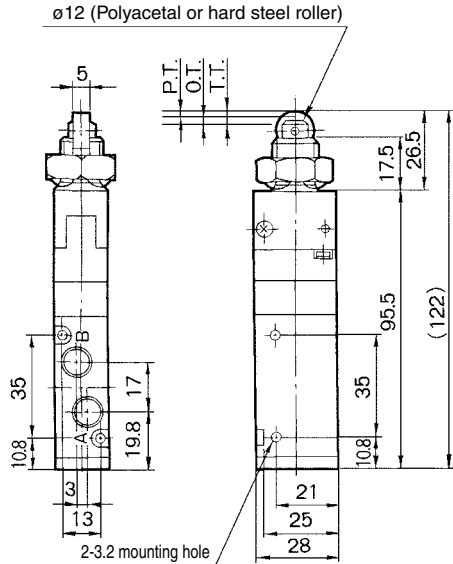
* 0.5 MPa supply

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

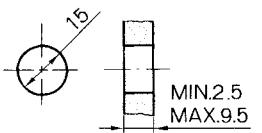
Roller plunger

VZM550-01-06

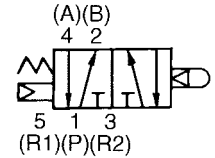
VZM550-01-06S



Panel mounting hole



JIS Symbol

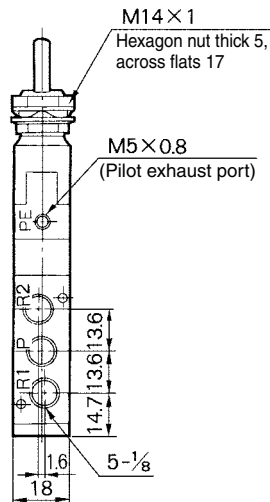
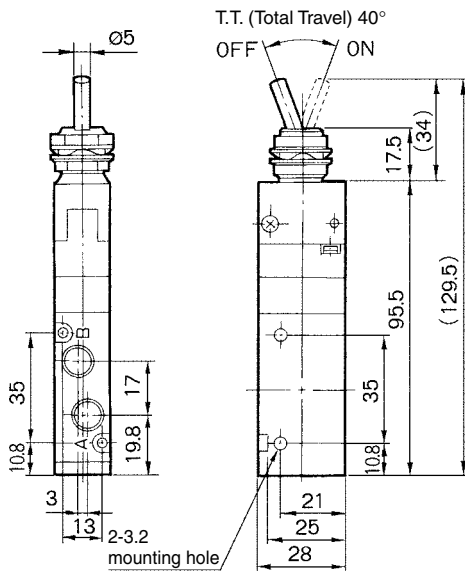


* 0.5 MPa supply

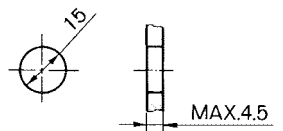
F.O.F. *	18 N
P.T.	1.5 mm
O.T.	2.0 mm
T.T.	3.5 mm

Toggle lever

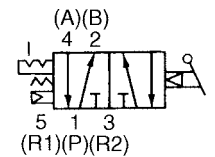
VZM550-01-08



Panel mounting hole



JIS Symbol



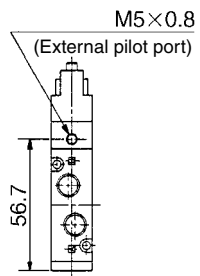
* 0.5 MPa supply

F.O.F. *	15 N
T.T.	40°

5 Port Mechanical Valve Series VZM500

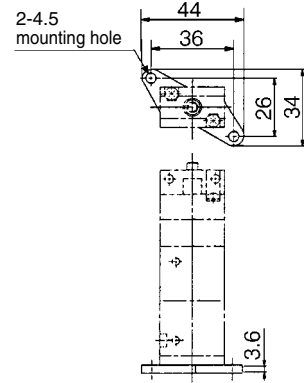
External pilot type

VZM551 type



With foot bracket

VZM55□-01-□□-F



- S□A
- V□A
- S□A
- V□A
- VM**
- VR
- VH
- VHS