



Mechanical Valve Series VM

Model	VM1000	VM100	VM200
Dimensions (mm)	Side piping 11 X 36 X 16 Bottom piping 11 X 28 X 25	Side piping 17 X 44 X 25 Bottom piping 17 X 44 X 30	25 X 40 X 52
Basic			
Roller Lever		●	●
One Way Roller Lever		●	●
Straight Plunger		●	●
Roller Plunger		●	●
Cross Roller Plunger		●	●
Toggle Lever		●	●
Push Button (Mushroom)		●	●
Push Button (Extended)		●	●
Push Button (Flush)		●	●
Twist Selector (2 position)		●	●
Key Selector (2 position)		●	●
Twist Selector (3 position)		●	●
Foot Pedal		●	●
Push-Pull		●	●
Effective Area (Cv)	1 (0.055)	2.5 (0.14)	19 (1)
Number of Ports	2, 3	2, 3	2, 3
Function	Poppet 	Poppet 	Poppet

Mechanical Valve

S□A

V□A

S□A

V□A

VM/R

VH

VM400

21 X 35 X 53

VZM500

18 X 28 X 87

VZM400

18 X 30 X 91

VFM300

26 X 35 X 94

VFM200

23 X 40 X 115

VM800

30 X 40 X 57



Roller Lever



Adjustable Roller Lever



Adjustable Rod Lever



P3.5-25

7 (0.38)

3

Balanced Poppet

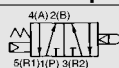


P3.5-40

10.8 (0.6)

5

Rubber Spool



P3.5-34.

9.9 (0.55)

5

Metal Spool

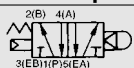


P3.5-47

18 (1)

5

Rubber Spool

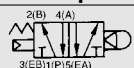


P3.5-53

18 (1)

5

Metal Spool

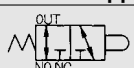


P3.5-31

6 (0.33)

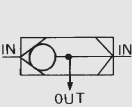
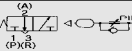
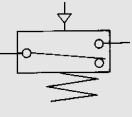
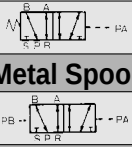
3

Balanced Poppet



* Dual pressure available only on external pilot.

Related Products

			Effective Area (mm ²) (Cv)	No.of Ports	Function
Shuttle Valve Dimensions (mm) VR1210: 17.2 X 38 X 29 VR1220: 21.2 X 50 X 38	VR1210		7 (0.38)	3	
	VR1220		15 (0.81)	3	
Time Delay Valve Dimensions (mm) 70 X 68 X 66	VR2110		2.5 (0.14)	3	
Pneumatic Indicator Dimensions (mm) ø26 X 66	VR3100		-	-	
Miniature Pneumatic Indicator Dimensions (mm) ø12 X 17	VR3110		-	-	
Pneumatic-Electric Relay Dimensions (mm) VR3200: 17X 49 X 71 VR3201: 25 X 86 X 89	VR3200		-	-	
	VR3201		-	-	
Relay Valve Dimensions (mm) Side piping: 30 X 53 X 91 Bottom piping: 30 X 48 X 91	VR4151		7 (0.38)	5	 Metal Spool
	VR4152				

INDEX

Mechanical valve	Page	Related Products	Page
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Series VM100	P.3.5-11	Shuttle Valve	P.3.5-62
Series VM200	P.3.5-19	Time Delay Valve	P.3.5-61
Series VM400	P.3.5-25	Pneumatic-Electric Relay	P.3.5-63
Series VZM500	P.3.5-40	Pneumatic Indicator	P.3.5-64
Series VZM400	P.3.5-34		
Series VFM300	P.3.5-47		
Series VFM200	P.3.5-53		
Series VM800	P.3.5-31		

⚠ Precautions

Be sure to read before handling. Refer to p.0-33 to 0-36 for Safety Instructions and common precautions.

Mounting

⚠ Warning

① Conditions for mechanical operation

Do not move the mechanical operation beyond the operating limit position, as this could damage the mechanical valve itself and lead to equipment malfunction.

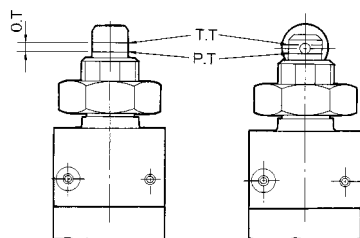
• Actuator Stroke

Operate the mechanism within the stroke range that has been obtained through the formula given below. (Do not move beyond the operating limit position.)

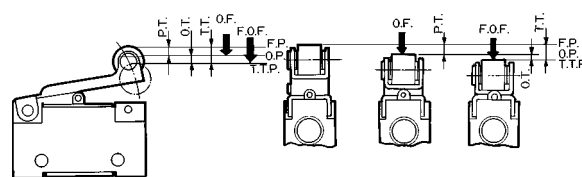
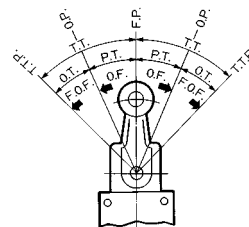
Operating stroke: P.T. + 0.5 X O.T.

Series	Actuator		Actuator Stroke (mm)
VM1000	Basic	T.T.=4.8mm (T.T.=2.5mm)	3.7 to 4.7 (2.2 to 2.4)
	Roller lever		3.5 to 4.4
	One way roller lever		3.5 to 4.4
VM100	Basic		2.2 to 2.9
	Roller lever		4.3 to 5.3
	One way roller lever		4.3 to 5.3
	Straight plunger		2.7 to 3.4
	Roller plunger		2.7 to 3.4
	Cross roller plunger		2.7 to 3.4
VM200	Basic		4.0 to 4.9
	Roller lever		8.7 to 10.7
	One way roller lever		9.5 to 11.7
	Straight plunger		4.5 to 5.4
	Roller plunger		4.5 to 5.4
VM400	Basic		2.5 to 3.4
	Roller lever		6.2 to 8.2
	One way roller lever		6.5 to 8.7
	Straight plunger		4.5 to 5.4
	Roller plunger		4.5 to 5.4
VZM500 VZM400 VFM300 VFM200	Basic		2.0 to 2.9
	Roller lever		4.2 to 6.0
	One way roller lever		4.7 to 6.7
	Straight plunger		2.5 to 3.4
	Roller plunger		2.5 to 3.4

For straight and roller plunger styles, there is a groove indicating P.T. and T.T. for stroke adjustment.



Definition of Symbols



- F.P. (Free Position)No external force applied.
O.P. (Operating Position)Internal valve opening position.
T.T.P. (Total Travel Position)Includes over travel.
O.F. (Operating Force)Operating force required to initial valve opening position.
F.O.F. (Full Operating Force)Required force to total travel position.
P.T. (Pre-Travel)From free position to initial valve operating position.
O.T. (Over Travel)From initial valve operating position to total travel position.
T.T. (Total Travel)From free position to total travel position.

Air Flow Calculation

Refer to the p.0-36 for air flow calculations.

$$Q = 22.2S \sqrt{P_L(P_H - P_L)} \sqrt{\frac{273}{\theta + 273}} \dots\dots\dots(1 \text{ formula})$$

Cautions

This product cannot be used for applications in which the pressure must be sealed because there will be a slight leakage. Consult SMC for this type of application.

How To Order

VM1

0

0

0

4N

00

R

• Applicable tube (Material/Size)

4N	Nylon $\varnothing 4/2.5$ (T0425)
	Nylon $\varnothing 4/3$ (T0403)
4NU	Soft Nylon $\varnothing 4/2.5$ (TS0425)
	Polyurethane $\varnothing 2.5$ (TU0425)

• Total travel/Basic (T.T.)

0	4.8mm
1	2.5mm (Option)*

• Piping

0	Side
1	Bottom

• Number of ports

0	3 ports
1	2 ports

• Actuator

00	Basic
01	Roller lever
02	One way roller lever
08	Toggle lever
32	Push button

• Color of push button

R	Red
G	Green
B	Black

*Basic only.

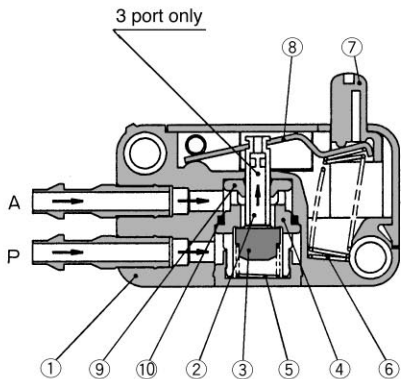
S□A
V□A

S□A
V□A

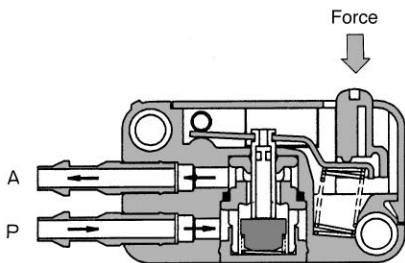
VM/VR
VH

Construction

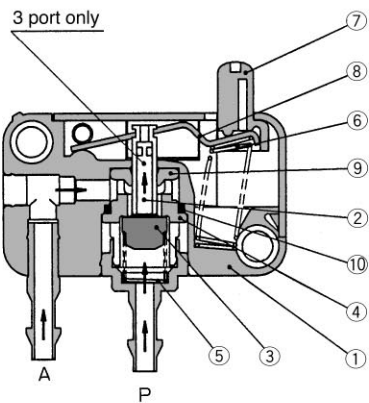
Side Piping/Non-actuated



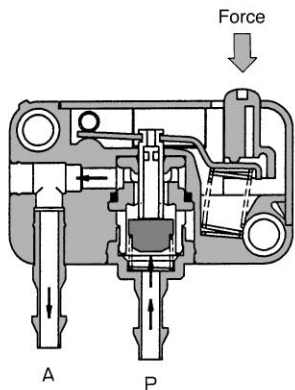
Side Piping/Actuated



Bottom Piping



Bottom Piping/Actuated



Component Parts

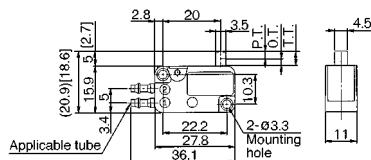
No.	Description	Material	Notes
①	Body	PBT	
②	Valve rod	Polyacetal	
③	Valve	NBR	
④	Retainer	Polyacetal	
⑤	Spring	Stainless steel	

No.	Description	Material	Notes
⑥	Spring	Stainless steel	
⑦	Plunger	Polyacetal	T.T.=2.5mm only, w/threads
⑧	Lever	Stainless steel	
⑨	Packing	NBR	
⑩	O ring	NBR	

VM1000

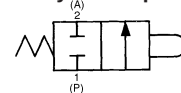
Series VM1000/Side Piping

Basic/VM1000-4N-00, VM1000-4NU-00
VM1100-4N-00, VM1100-4NU-00

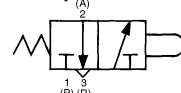


[]: T.T.=2.5mm

JIS Symbol/2 port



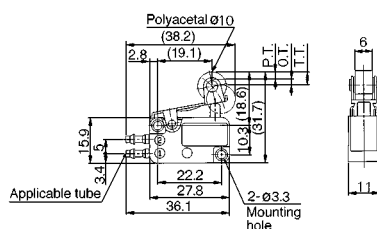
3 port



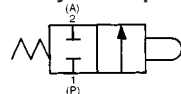
* 0.5MPa supply

		Applicable tube	
		T0425	TU0425, T0403, TS0425
Side piping	3 ports	VM1000-4N-00	VM1000-4NU-00
	2 ports	VM1100-4N-00	VM1100-4NU-00
F.O.F.*		6N	
P.T.		2.5mm[2mm]	
O.T.		2.3mm[0.5mm]	
T.T.		4.8mm[2.5mm]	

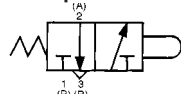
Roller Lever/VM1000-4N-01, VM1000-4NU-01
VM1100-4N-01, VM1100-4NU-01



JIS Symbol/2 port



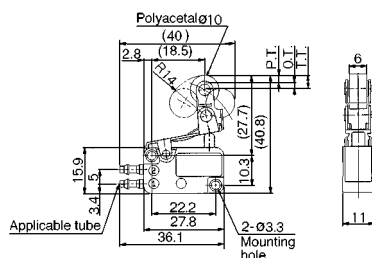
3 port



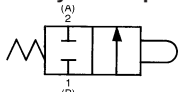
* 0.5MPa supply

		Applicable tube	
		T0425	TU0425, T0403, TS0425
Side piping	3 ports	VM1000-4N-01	VM1000-4NU-01
	2 ports	VM1100-4N-01	VM1100-4NU-01
F.O.F.*		6N	
P.T.		2.5mm	
O.T.		2mm	
T.T.		4.5mm	

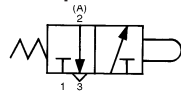
One Way Roller Lever/VM1000-4N-02, VM1000-4NU-02
VM1100-4N-02, VM1100-4NU-02



JIS Symbol/2 port



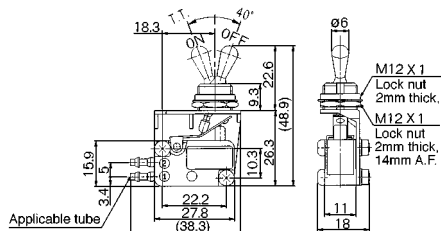
3 port



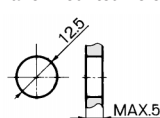
* 0.5MPa supply

		Applicable tube	
		T0425	TU0425, T0403, TS0425
Side piping	3 ports	VM1000-4N-02	VM1000-4NU-02
	2 ports	VM1100-4N-02	VM1100-4NU-02
F.O.F.*		6N	
P.T.		2.5mm	
O.T.		2mm	
T.T.		4.5mm	

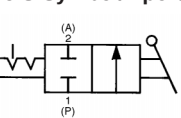
Toggle Lever/VM1000-4N-08, VM1000-4NU-08
VM1100-4N-08, VM1100-4NU-08



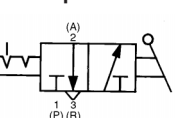
Panel mounted hole



JIS Symbol/2 port



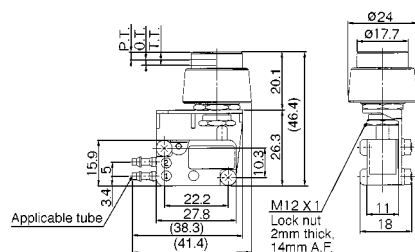
3 port



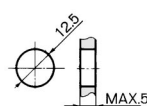
* 0.5MPa supply

		Applicable tube	
		T0425	TU0425, T0403, TS0425
Side piping	3 ports	VM1000-4N-08	VM1000-4NU-08
	2 ports	VM1100-4N-08	VM1100-4NU-08
F.O.F.*		4N	
P.T.		40°	

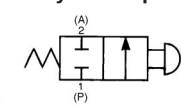
Push Button/VM1000-4N-32, VM1000-4NU-32
VM1100-4N-32, VM1100-4NU-32



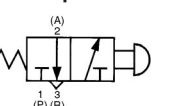
Panel mounted hole



JIS Symbol/2 port



3 port

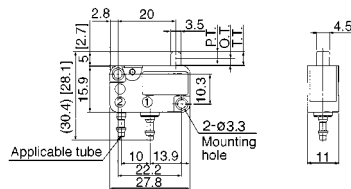


* 0.5MPa supply

		Applicable tube	
		T0425	TU0425, T0403, TS0425
Side piping	3 ports	VM1000-4N-32	VM1000-4NU-32
	2 ports	VM1100-4N-32	VM1100-4NU-32
F.O.F.*		6N	
P.T.		2.5mm	
O.T.		2mm	
T.T.		4.5mm	

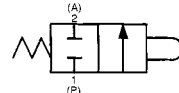
Series VM1000/Bottom Piping

Basic/VM1010-4N-00, VM1010-4NU-00
VM1110-4N-00, VM1110-4NU-00

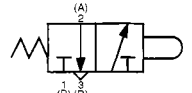


[]: T.T.=2.5mm

JIS Symbol/2 port



3 port



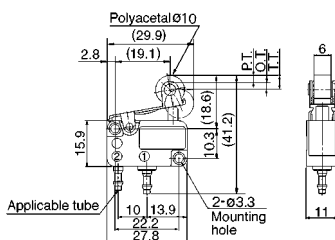
* 0.5MPa supply

		Applicable tube	
		T0425	TU0425, T0403, TS0425
Bottom piping	3 ports	VM1010-4N-00	VM1010-4NU-00
	2 ports	VM1110-4N-00	VM1110-4NU-00
F.O.F.*		6N	
P.T.		2.5mm	
O.T.		2.3mm[0.5mm]	
T.T.		4.8mm[2.5mm]	

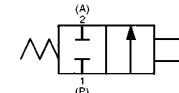
S□A

V□A

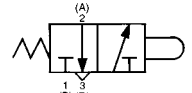
Roller Lever/VM1010-4N-01, VM1010-4NU-01
VM1110-4N-01, VM1110-4NU-01



JIS Symbol/2 port



3 port



* 0.5MPa supply

		Applicable tube	
		T0425	TU0425, T0403, TS0425
Bottom piping	3 ports	VM1010-4N-01	VM1010-4NU-01
	2 ports	VM1110-4N-01	VM1110-4NU-01
F.O.F.*		6N	
P.T.		2.5mm	
O.T.		2mm	
T.T.		4.5mm	

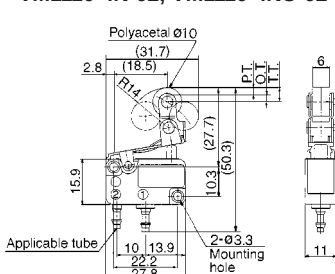
S□A

V□A

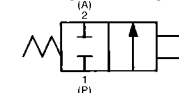
VM/VR

VH

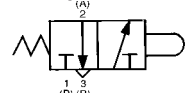
One Way Roller Lever/VM1010-4N-02, VM1010-4NU-02
VM1110-4N-02, VM1110-4NU-02



JIS Symbol/2 port



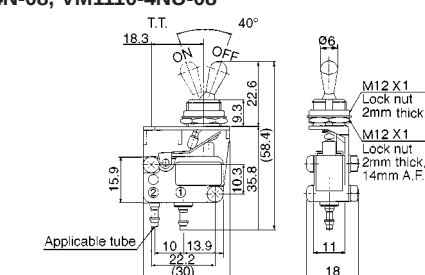
3 port



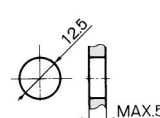
* 0.5MPa supply

		Applicable tube	
		T0425	TU0425, T0403, TS0425
Bottom piping	3 ports	VM1010-4N-02	VM1010-4NU-02
	2 ports	VM1110-4N-02	VM1110-4NU-02
F.O.F.*		6N	
P.T.		2.5mm	
O.T.		2mm	
T.T.		4.5mm	

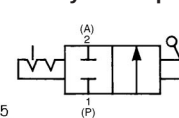
Toggle Lever/VM1010-4N-08, VM1010-4NU-08
VM1110-4N-08, VM1110-4NU-08



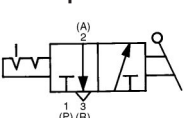
Panel mounted hole



JIS Symbol/2 port



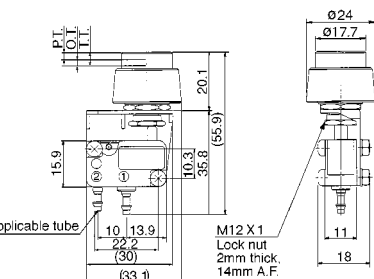
3 port



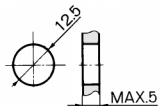
* 0.5MPa supply

		Applicable tube	
		T0425	TU0425, T0403, TS0425
Bottom piping	3 ports	VM1010-4N-08	VM1010-4NU-08
	2 ports	VM1110-4N-08	VM1110-4NU-08
F.O.F.*		4N	
T.T.		40°	

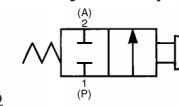
Push Button/VM1010-4N-32, VM1010-4NU-32
VM1110-4N-32, VM1110-4NU-32



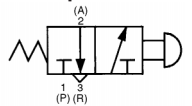
Panel mounted hole



JIS Symbol/2 port



3 port



* 0.5MPa supply

		Applicable tube	
		T0425	TU0425, T0403, TS0425
Bottom piping	3 ports	VM1010-4N-32	VM1010-4NU-32
	2 ports	VM1110-4N-32	VM1110-4NU-32
F.O.F.*		6N	
P.T.		2.5mm	
O.T.		2mm	
T.T.		4.5mm	

2/3 Port Mechanical Valve

Series VM100

Compact size.

Porting options: Side porting

Bottom porting

A variety of actuator styles.



Specifications

Piping	Side piping	Bottom piping
Fluid	Air	
Operating pressure	-100kPa to 1.0MPa	
Ambient and fluid temperature	-5 to 60°C (No freezing)	
Effective area (Cv)	2.5mm ² (0.14)	
Recommended lubricant	Not required/Turbine oil #1 (ISO VG32)	
Port size (Nominal size)	Rc(PT) 1/8 (6A)	M5 X 0.8
Weight (Basic)	95g	110g

Model

		Side piping		Bottom piping		Part No.	Application
		2 port	3 port	2 port	3 port		
Mechanical operation	Basic	VM120-01-00	VM130-01-00	VM122-M5-00	VM132-M5-00	—	
		VM121-01-00	VM131-01-00	VM123-M5-00	VM133-M5-00		
	Roller lever	VM121-01-01	VM130-01-01	VM123-M5-01	VM133-M5-01	—	Polyacetal roller
		VM121-01-01S	VM131-01-01S	VM123-M5-01S	VM133-M5-01S	—	Hard steel roller
	One way roller lever	VM121-01-02	VM131-01-02	VM123-M5-02	VM133-M5-02	—	Polyacetal roller
		VM121-01-02S	VM131-01-02S	VM123-M5-02S	VM133-M5-02S	—	Hard steel roller
	Straight plunger	VM120-01-05	VM130-01-05	VM122-M5-05	VM132-M5-05	VM-05B	—
		VM120-01-06	VM130-01-06	VM122-M5-06	VM132-M5-06	VM-06B	Polyacetal roller
	Roller plunger	VM120-01-06S	VM130-01-06S	VM122-M5-06S	VM132-M5-06S	VM-06BS	Hard steel roller
		VM120-01-07	VM130-01-07	VM122-M5-07	VM132-M5-07	VM-07B	Polyacetal roller
Manual operation	Cross roller plunger	VM120-01-07S	VM130-01-07S	VM122-M5-07S	VM132-M5-07S	VM-07BS	Hard steel roller
		VM120-01-08	VM130-01-08	VM122-M5-08	VM132-M5-08	VM-08B	—
	Toggle lever	VM120-01-30R	VM130-01-30R	VM122-M5-30R	VM132-M5-30R	VM-30AR	Red
		VM120-01-30B	VM130-01-30B	VM122-M5-30B	VM132-M5-30B	VM-30AB	Black
		VM120-01-30G	VM130-01-30G	VM122-M5-30G	VM132-M5-30G	VM-30AG	Green
		VM120-01-30Y	VM130-01-30Y	VM122-M5-30Y	VM132-M5-30Y	VM-30AY	Yellow
	Push button (Mushroom)	VM120-01-32R	VM130-01-32R	VM122-M5-32R	VM132-M5-32R	VM-32AR	Red
		VM120-01-32B	VM130-01-32B	VM122-M5-32B	VM132-M5-32B	VM-32AB	Black
		VM120-01-32G	VM130-01-32G	VM122-M5-32G	VM132-M5-32G	VM-32AG	Green
		VM120-01-32Y	VM130-01-32Y	VM122-M5-32Y	VM132-M5-32Y	VM-32AY	Yellow
	Push button (Extended)	VM120-01-33	VM130-01-33	VM122-M5-33	VM132-M5-33	VM-33A	With a set of red, black, green, yellow
		VM120-01-34R	VM130-01-34R	VM122-M5-34R	VM132-M5-34R	VM-34AR	Red
		VM120-01-34B	VM130-01-34B	VM122-M5-34B	VM132-M5-34B	VM-34AB	Black
		VM120-01-34G	VM130-01-34G	VM122-M5-34G	VM132-M5-34G	VM-34AG	Green
	Push button (Flush)	VM120-01-34Y	VM130-01-34Y	VM122-M5-34Y	VM132-M5-34Y	VM-34AY	Yellow
		VM120-01-36	VM130-01-36	VM122-M5-36	VM132-M5-36	VM-36A	—
	Twist selector (2 position)	VM131-01-35R	VM151-01-35R	VM133-M5-35R	VM153-M5-35R	—	Red
		VM131-01-35B	VM151-01-35B	VM133-M5-35B	VM153-M5-35B	—	Black
		VM131-01-35G	VM151-01-35G	VM133-M5-35G	VM153-M5-35G	—	Green
		VM131-01-35Y	VM151-01-35Y	VM133-M5-35Y	VM153-M5-35Y	—	Yellow
	Twist selector (3 position)	(3 port)	(5 port)	(3 port)	(5 port)		



Note) Actuator replacement is available for all styles except for roller lever, one way roller lever, and 3 position selector.

How To Order

VM1 **3** **1** **01** **01** **S**

Port size		Actuator		Suffix of actuator		Indicator	
01	Rc(PT) 1/8	00	Basic	S	Hard steel roller	Z	W/ miniature indicator (Bottom piping only.)
M5	M5 X 0.8 (Female thread)	01	Roller lever	R	Red		
Piping direction and plunger length		02	One way roller lever	B	Black	Color of push button	
		05	Straight plunger	G	Green		
		06	Roller plunger	Y	Yellow		
		07	Cross roller plunger				
0	Long	08	Toggle lever				
1	Short	30	Push button (Mushroom)				
2	Long	32	Push button (Extended)				
3	Short	33	Push button (Flash)				
Number of ports		34	Twist selector (2 position)				
		36	Key selector (2 position)				
		35	Twist selector (3 position)				

Possible combination: ○, Impossible combination: ×

Plunger length		Side		Bottom	
		Long	Short	Long	Short
Actuator		0	1	0	1
Basic	00	○	○	○	○
Roller lever	01	×	○	×	○
One way roller lever	02	×	○	×	○
Straight plunger	05	○	×	○	×
Roller plunger	06	○	×	○	×
Cross roller plunger	07	○	×	○	×
Toggle lever	08	○	×	○	×
Push button (Mushroom)	30	○	×	○	×
Push button (Extended)	32	○	×	○	×
Push button (Flush)	33	○	×	○	×
Twist selector (2 position)	34	○	×	○	×
Key selector (2 position)	36	○	×	○	×
Twist selector (3 position)	35	×	○	×	○

S□A

V□A

S□A

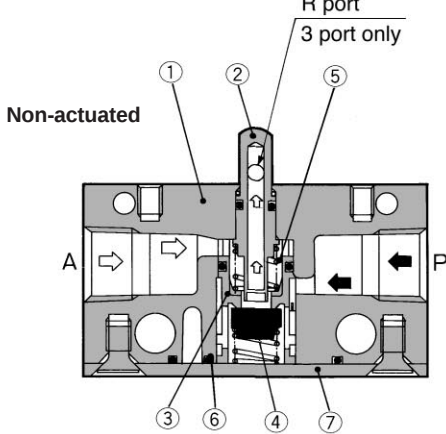
V□A

VM/VR

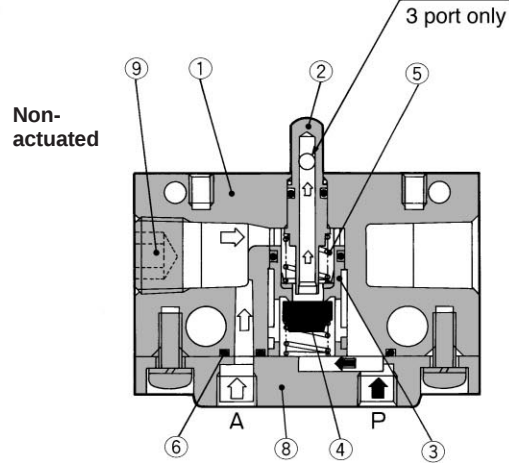
VH

Construction

Side piping



Bottom piping



Component Parts

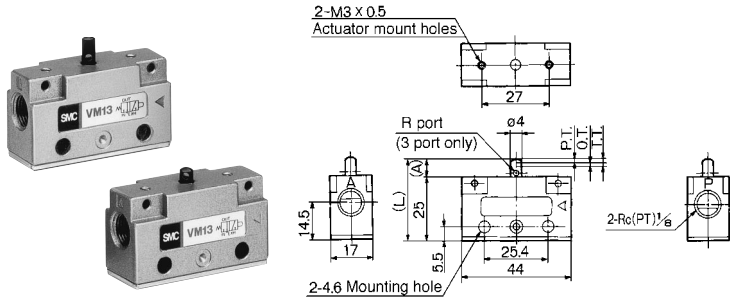
No.	Description	Material	Notes
①	Body	Zinc alloy	Metallic plated
②	Plunger	Polyacetal	
③	Valve seat	Polyacetal	
④	Valve	NBR	
⑤	Spring	Stainless steel	

No.	Description	Material	Notes
⑥	Gasket	NBR	
⑦	Cover	Rolled steel	
⑧	Subplate	Zinc alloy	Metallic plated
⑨	Hexagon socket head plug	Rolled steel	

VM100

Series VM100/Side Piping

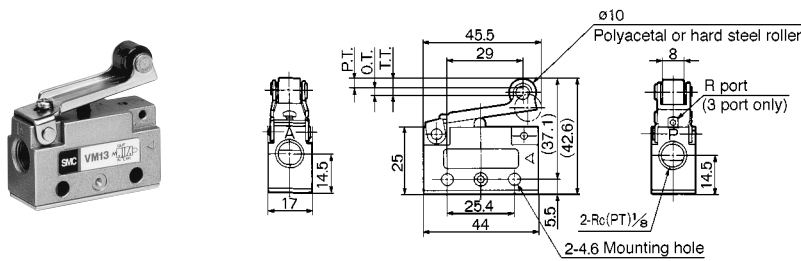
Basic/VM120-01-00, VM130-01-00 VM121-01-00, VM131-01-00



Model	L	A
VM120-01-00 VM130-01-00	32.5	7.5
VM121-01-00 VM131-01-00	28.5	3.5

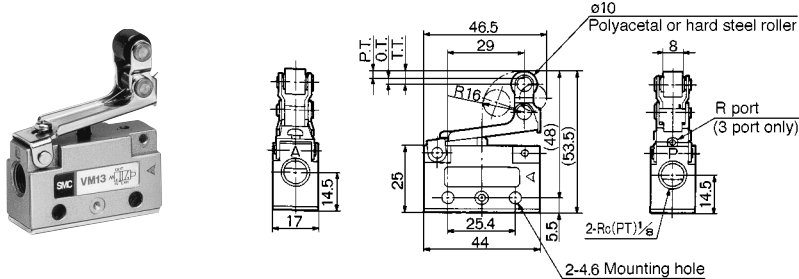
JIS Symbol	
2 port	
3 port	
* 0.5MPa supply	
F.O.F.*	20N
P.T.	1.5mm
O.T.	1.5mm
T.T.	3mm

Roller Lever/VM121-01-01, VM131-01-01 VM121-01-01S, VM131-01-01S



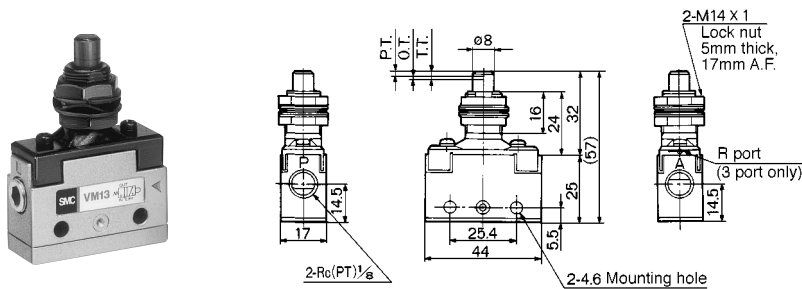
JIS Symbol	
2 port	
3 port	
* 0.5MPa supply	
F.O.F.*	10N
P.T.	3.2mm
O.T.	2.3mm
T.T.	5.5mm

One Way Roller Lever/VM121-01-02, VM131-01-02 VM121-01-02S, VM131-01-02S



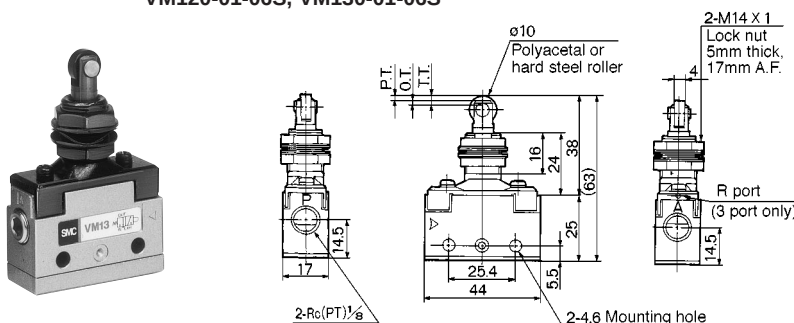
JIS Symbol	
2 port	
3 port	
* 0.5MPa supply	
F.O.F.*	10N
P.T.	3.2mm
O.T.	2.3mm
T.T.	5.5mm

Straight Plunger/VM120-01-05, VM130-01-05



JIS Symbol	
2 port	
3 port	
* 0.5MPa supply	
F.O.F.*	23N
P.T.	2mm
O.T.	1.5mm
T.T.	3.5mm

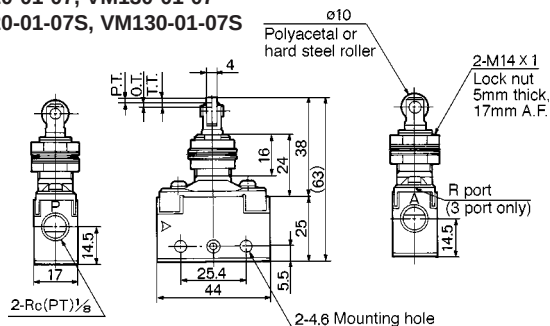
Roller Plunger/VM120-01-06, VM130-01-06 VM120-01-06S, VM130-01-06S



JIS Symbol	
2 port	
3 port	
* 0.5MPa supply	
F.O.F.*	23N
P.T.	2mm
O.T.	1.5mm
T.T.	3.5mm

Series VM100/Side Piping

Cross Roller Plunger/VM120-01-07, VM130-01-07 VM120-01-07S, VM130-01-07S



Panel mounted hole $\phi 10$ Polyacetal or hard steel roller

JIS Symbol 2 port 2(A) 1(P)

3 port 2(A) 1(P) 3(R)

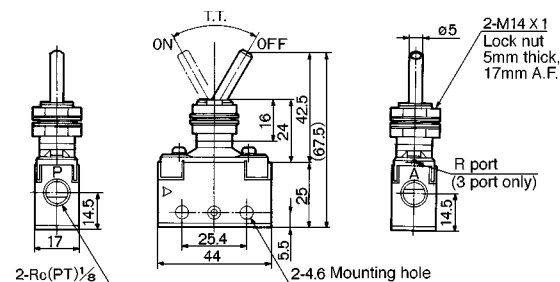
* 0.5MPa supply

F.O.F.*	23N
P.T.	2mm
O.T.	1.5mm
T.T.	3.5mm

S□A

V□A

Toggle Lever/VM120-01-08, VM130-01-08



Panel mounted hole $\phi 10$ Polyacetal or hard steel roller

JIS Symbol 2 port 2(A) 1(P)

3 port 2(A) 1(P) 3(R)

* 0.5MPa supply

F.O.F.*	10N
T.T.	60°

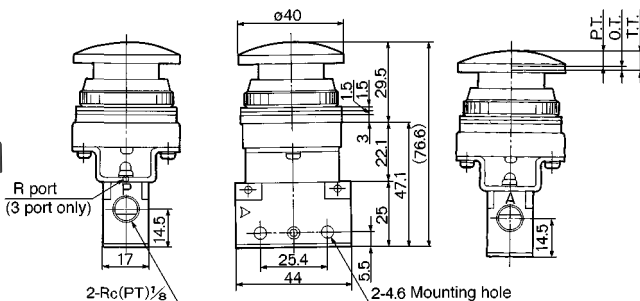
S□A

V□A

VMVR

VH

Push Button (Mushroom)/VM120-01-30R, B, G, Y/VM130-01-30R, B, G, Y



Panel mounted hole $\phi 30.5$

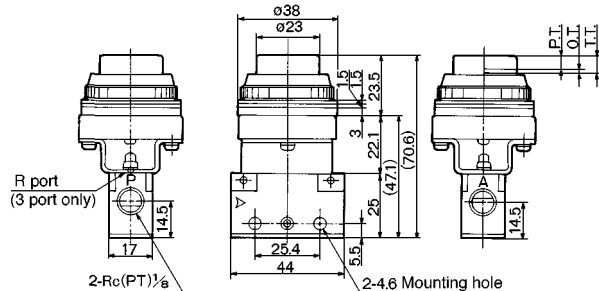
JIS Symbol 2 port 2(A) 1(P)

3 port 2(A) 1(P) 3(R)

* 0.5MPa supply

F.O.F.*	21N
P.T.	4.9mm
O.T.	1.6mm
T.T.	6.5mm

Push Button (Extended)/VM120-01-32R, B, G, Y/VM130-01-32R, B, G, Y



Panel mounted hole $\phi 30.5$

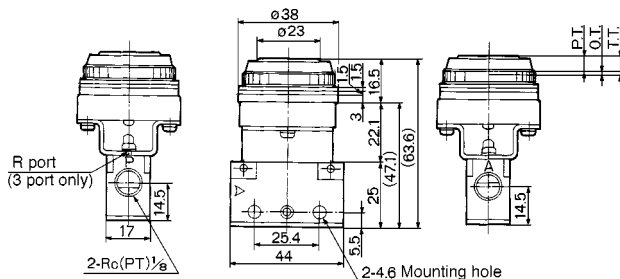
JIS Symbol 2 port 2(A) 1(P)

3 port 2(A) 1(P) 3(R)

* 0.5MPa supply

F.O.F.*	21N
P.T.	4.9mm
O.T.	1.6mm
T.T.	6.5mm

Push Button (Flush)/VM120-01-33, VM130-01-33



Panel mounted hole $\phi 30.5$

JIS Symbol 2 port 2(A) 1(P)

3 port 2(A) 1(P) 3(R)

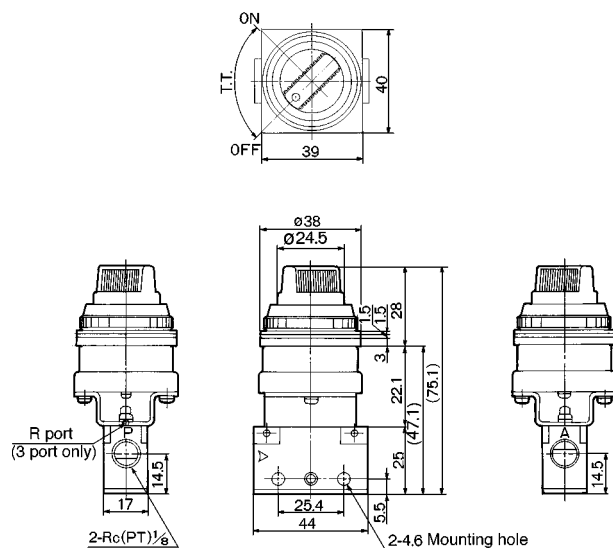
* 0.5MPa supply

F.O.F.*	21N
P.T.	4.9mm
O.T.	1.6mm
T.T.	6.5mm

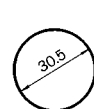
VM100

Series VM100/Side Piping

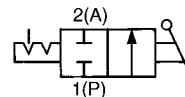
Twist Selector (2 position)/VM120-01-34R, B, G, Y/VM130-01-34R, B, G, Y



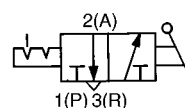
Panel mounted hole



JIS Symbol
2 port



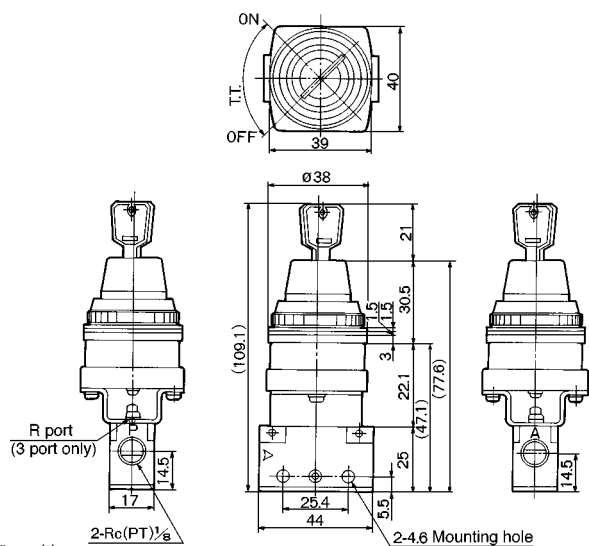
3 port



* 0.5MPa supply

F.O.F.*	15N
T.T.	90°

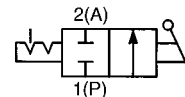
Key Selector (2 position)/VM120-01-36, VM130-01-36



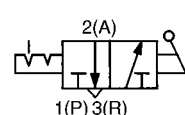
Panel mounted hole



JIS Symbol
2 port



3 port

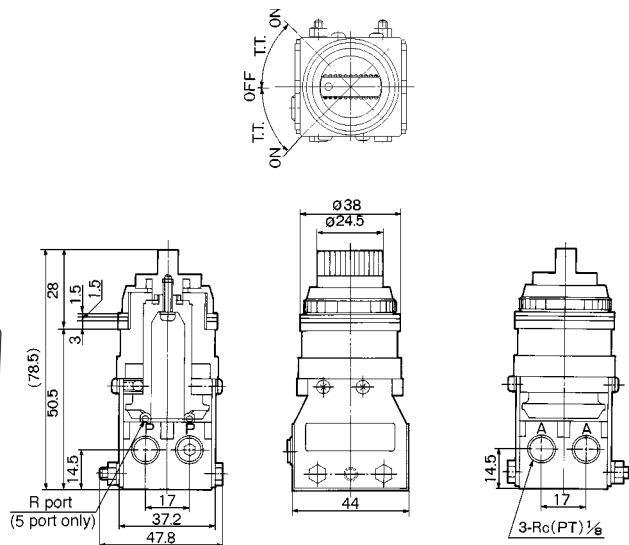


* 0.5MPa supply

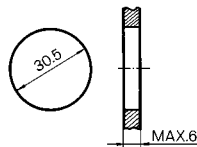
F.O.F.*	15N
T.T.	90°

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

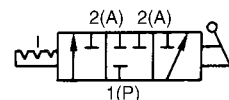
Twist Selector (3 position)/VM131-01-35R, B, G, Y/VM151-01-35R, B, G, Y



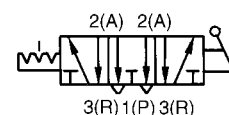
Panel mounted hole



JIS Symbol
2 port



3 port

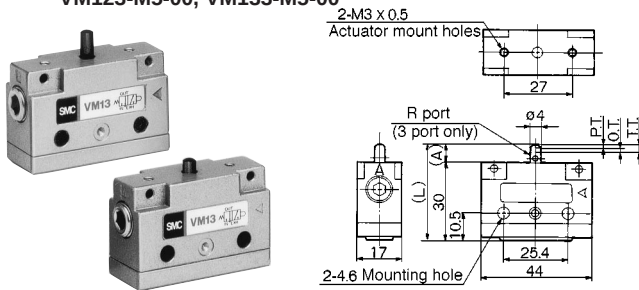


* 0.5MPa supply

F.O.F.*	15N
T.T.	45°

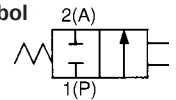
Series VM100/Bottom Piping

Basic/VM122-M5-00, VM132-M5-00 VM123-M5-00, VM133-M5-00

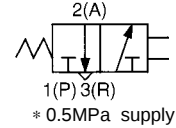


Model	L	A
VM122-M5-00 VM132-M5-00	37.5	7.5
VM123-M5-00 VM133-M5-00	33.5	3.5

JIS Symbol 2 port



3 port

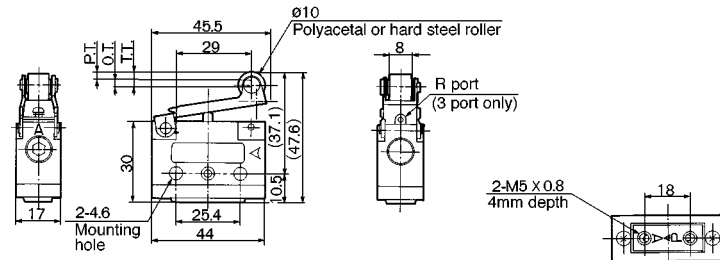


F.O.F.*	20N
P.T.	1.5mm
O.T.	1.5mm
T.T.	3mm

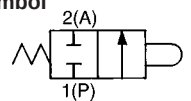
S□A

V□A

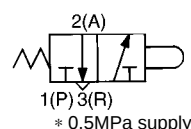
Roller Lever/VM123-M5-01, VM133-M5-01 VM123-M5-01S, VM133-M5-01S



JIS Symbol 2 port



3 port



F.O.F.*	10N
P.T.	3.2mm
O.T.	2.3mm
T.T.	5.5mm

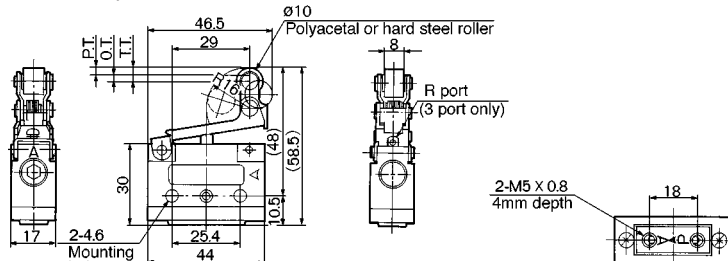
S□A

V□A

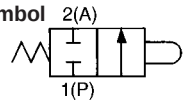
VMVR

VH

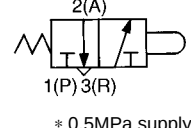
One Way Roller Lever/VM123-M5-02, VM133-M5-02 VM123-M5-02S, VM133-M5-02S



JIS Symbol 2 port

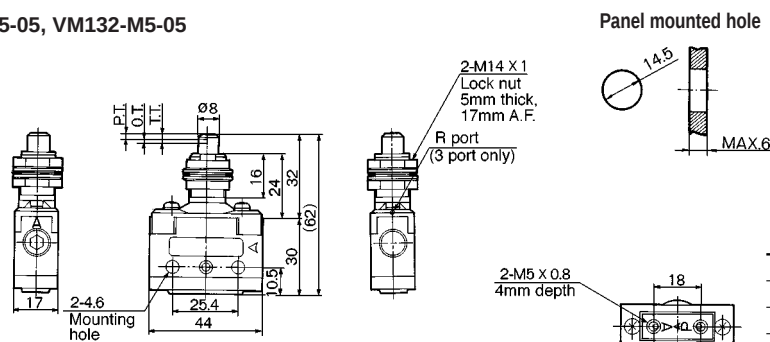


3 port

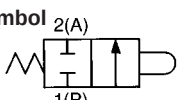


F.O.F.*	10N
P.T.	3.2mm
O.T.	2.3mm
T.T.	5.5mm

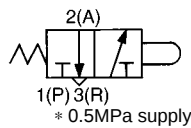
Straight Plunger/VM122-M5-05, VM132-M5-05



JIS Symbol 2 port

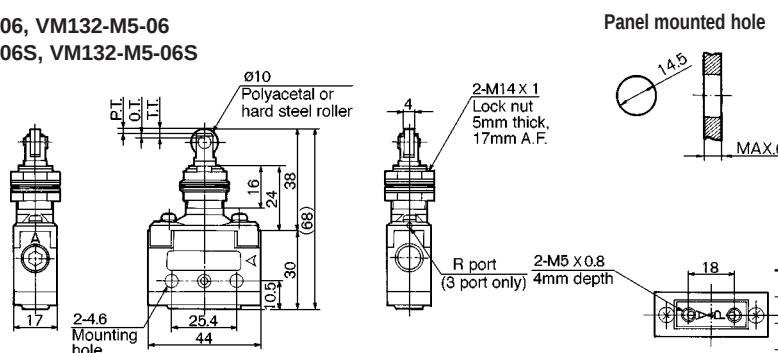


3 port

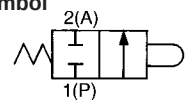


F.O.F.*	23N
P.T.	2mm
O.T.	1.5mm
T.T.	3.5mm

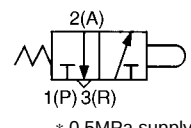
Roller Plunger/VM122-M5-06, VM132-M5-06 VM122-M5-06S, VM132-M5-06S



JIS Symbol 2 port



3 port

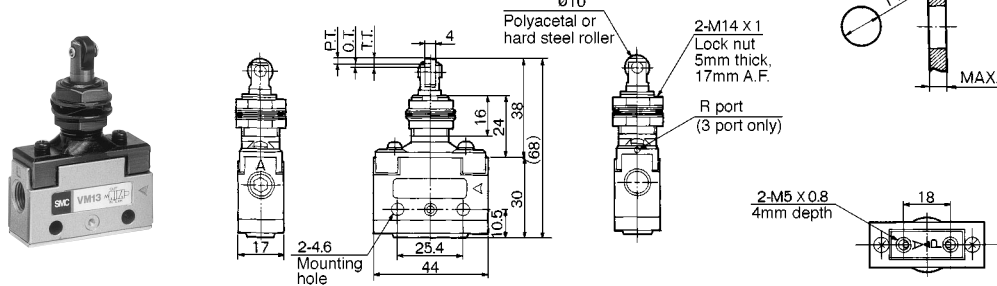


F.O.F.*	23N
P.T.	2mm
O.T.	1.5mm
T.T.	3.5mm

VM100

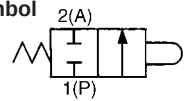
Series VM100/Bottom Piping

Cross Roller Plunger/VM122-M5-07, VM132-M5-07 VM122-M5-07S, VM132-M5-07S

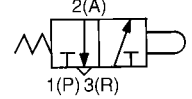


Panel mounted hole

JIS Symbol
2 port



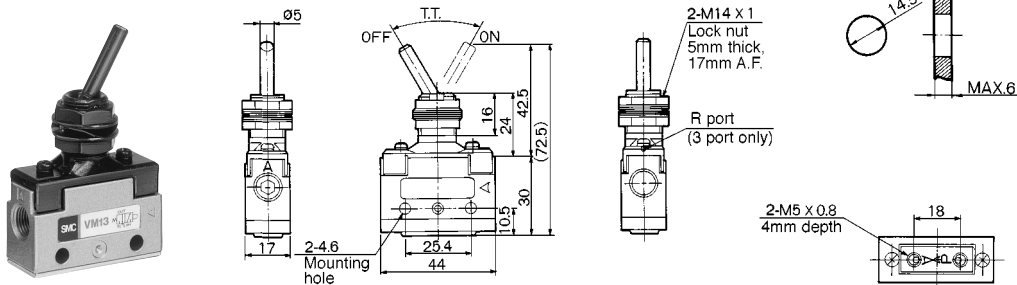
3 port



* 0.5MPa supply

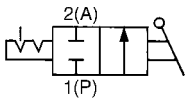
F.O.F.*	23N
P.T.	2mm
O.T.	1.5mm
T.T.	3.5mm

Toggle Lever/VM122-M5-08, VM132-M5-08

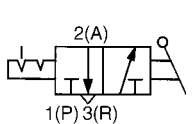


Panel mounted hole

JIS Symbol
2 port



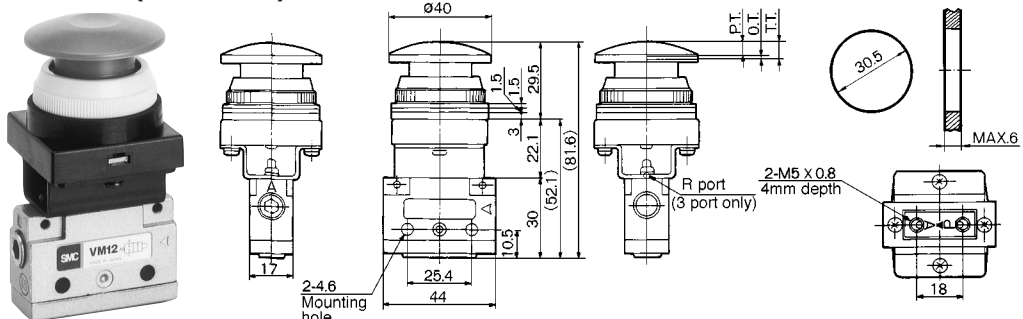
3 port



* 0.5MPa supply

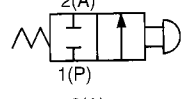
F.O.F.*	10N
P.T.	60°

Push Button (Mushroom)/VM122-M5-30R, B, G, Y/VM132-M5-30R, B, G, Y

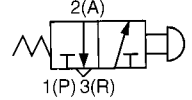


Panel mounted hole

JIS Symbol
2 port



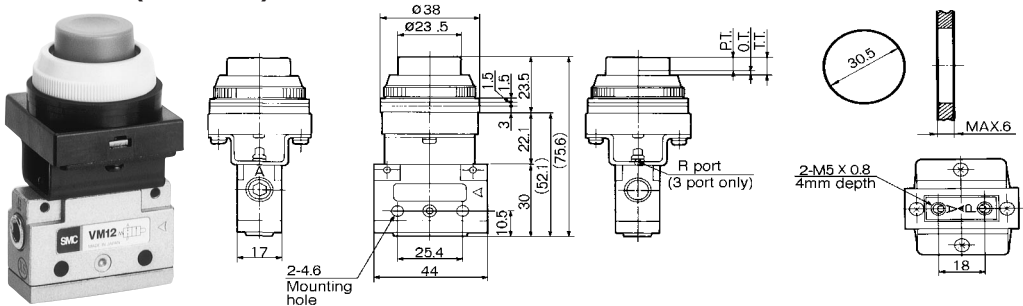
3 port



* 0.5MPa supply

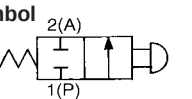
F.O.F.*	21N
P.T.	4.9mm
O.T.	1.6mm
T.T.	6.5mm

Push Button (Extended)/VM122-M5-32R, B, G, Y/VM132-M5-32R, B, G, Y

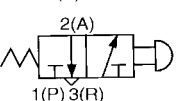


Panel mounted hole

JIS Symbol
2 port



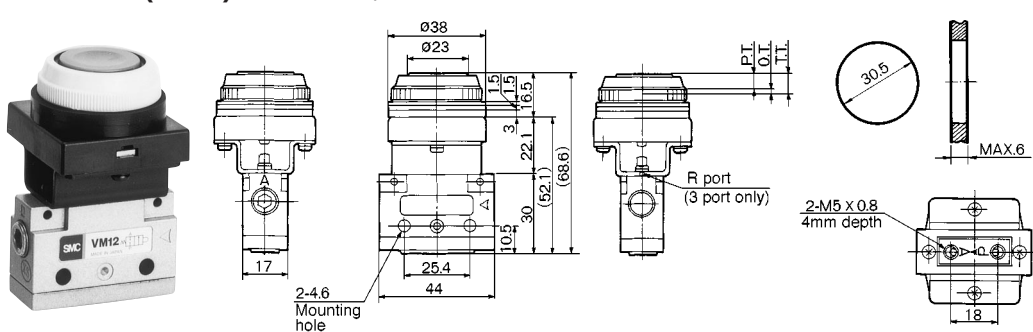
3 port



* 0.5MPa supply

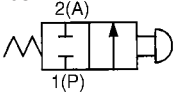
F.O.F.*	21N
P.T.	4.9mm
O.T.	1.6mm
T.T.	6.5mm

Push Button (Flush)/VM122-M5-33, VM132-M5-33

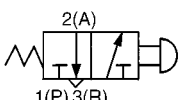


Panel mounted hole

JIS Symbol
2 port



3 port

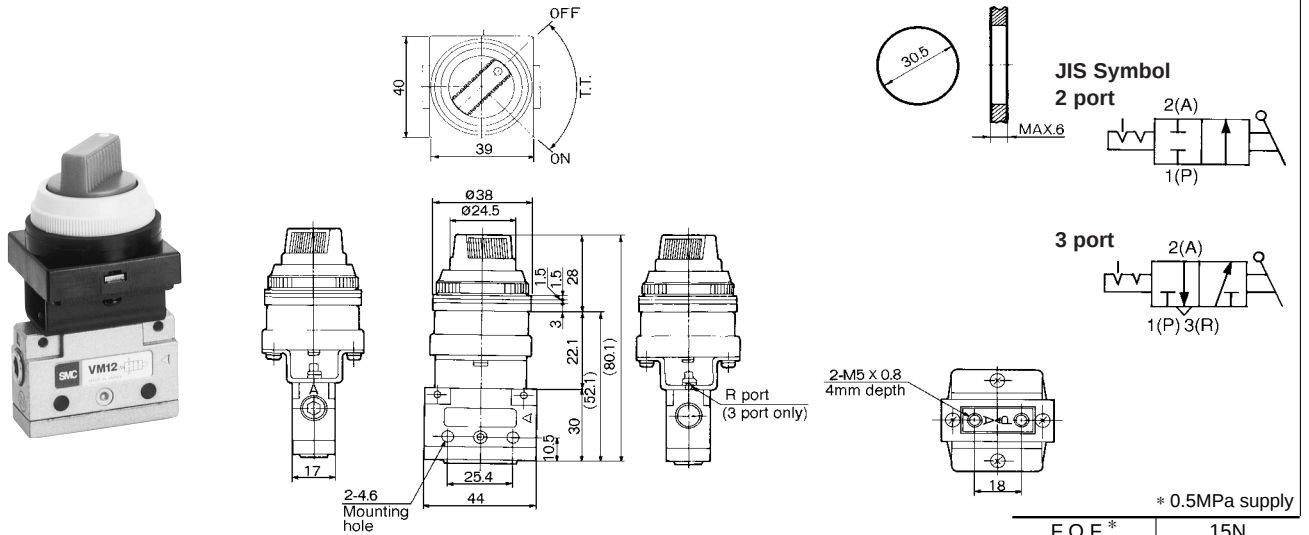


* 0.5MPa supply

F.O.F.*	21N
P.T.	4.9mm
O.T.	1.6mm
T.T.	6.5mm

Series VM100/Bottom Piping

Twist Selector (2 position)/VM122-M5-34R, B, G, Y/VM132-M5-34R, B, G, Y



S□A

V□A

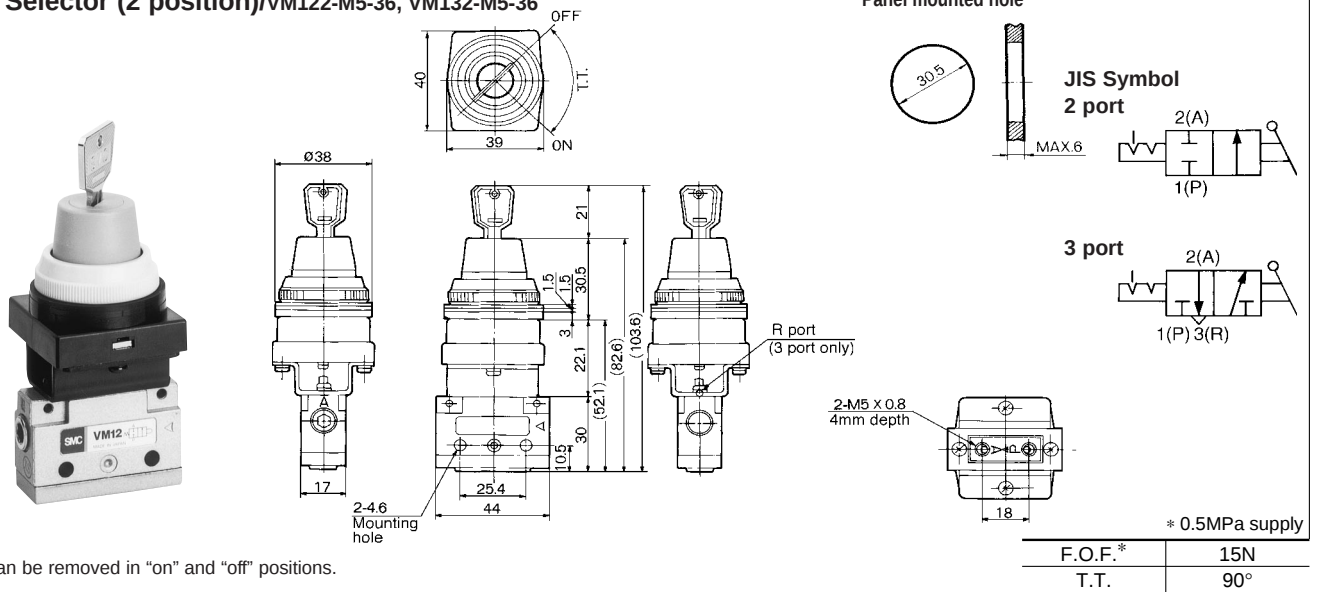
S□A

V□A

VMVR

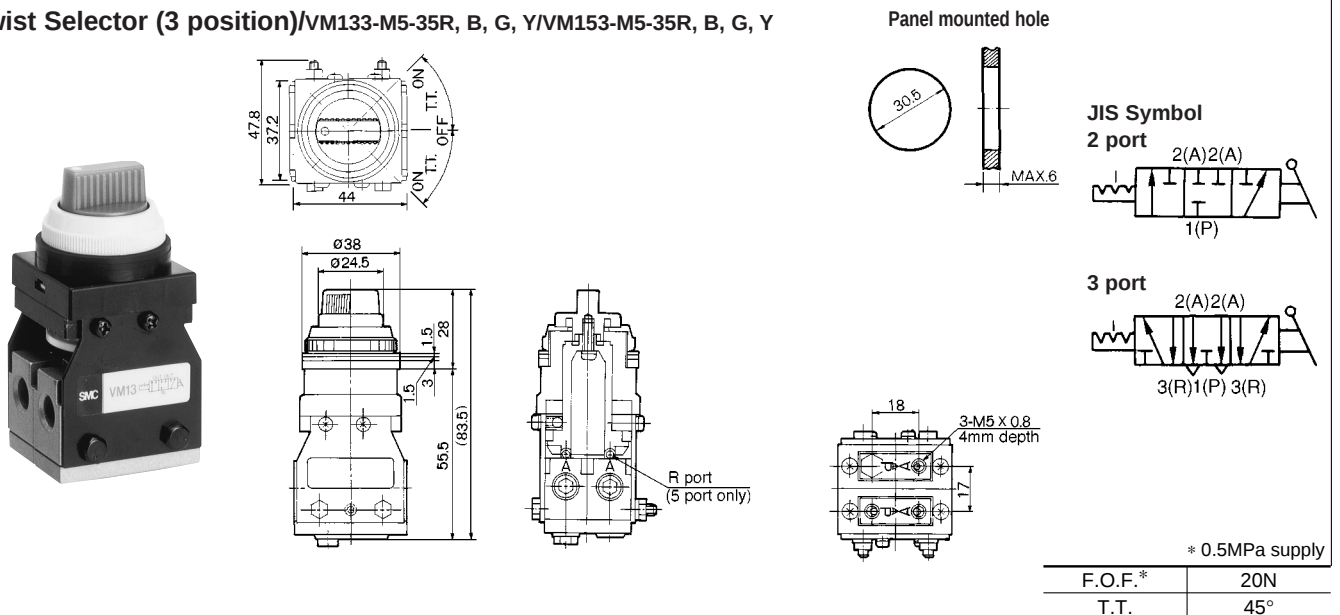
VH

Key Selector (2 position)/VM122-M5-36, VM132-M5-36



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

Twist Selector (3 position)/VM133-M5-35R, B, G, Y/VM153-M5-35R, B, G, Y



2/3 Port Mechanical Valve

Series VM200

Large flow capacity.

A variety of actuator styles.



Specifications

Fluid	Air
Operating pressure	0 to 1.0MPa
Fluid temperature	-5 to 60°C (No freezing)
Effective area (Cv)	19mm ² (1.0)
Recommended lubricant	No required/Turbine oil #1 (ISO VG32)
Port size (Nominal size)	Rc(PT) 1/4 (8A)
Weight (Basic)	111g

Model

	No. of ports	2 port	3 port	Actuator part No.	Application
Mechanical operation	Actuator				
	Basic	VM220-02-00	VM230-02-00	—	—
	Roller lever	VM220-02-01	VM230-02-01	VM-01A	Polyacetal roller
		VM220-02-01S	VM230-02-01S	VM-01AS	Hard steel roller
	One way roller lever	VM220-02-02	VM230-02-02	VM-02A	Polyacetal roller
		VM220-02-02S	VM230-02-02S	VM-02AS	Hard steel roller
	Straight plunger	VM220-02-05	VM230-02-05	VM-05A	—
	Roller plunger	VM220-02-06	VM230-02-06	VM-06A	Polyacetal roller
		VM220-02-06S	VM230-02-06S	VM-06AS	Hard steel roller
	Cross roller plunger	VM220-02-07	VM230-02-07	VM-07A	Polyacetal roller
		VM220-02-07S	VM230-02-07S	VM-07AS	Hard steel roller
Manual operation	Toggle lever	VM220-02-08	VM230-02-08	VM-08A	—
	Push button (Mushroom)	VM220-02-30R	VM230-02-30R	VM-30AR	Red
		VM220-02-30B	VM230-02-30B	VM-30AB	Black
		VM220-02-30G	VM230-02-30G	VM-30AG	Green
		VM220-02-30Y	VM230-02-30Y	VM-30AY	Yellow
	Push button (Extended)	VM220-02-32R	VM230-02-32R	VM-32AR	Red
		VM220-02-32B	VM230-02-32B	VM-32AB	Black
		VM220-02-32G	VM230-02-32G	VM-32AG	Green
		VM220-02-32Y	VM230-02-32Y	VM-32AY	Yellow
	Push button (Flush)	VM220-02-33	VM230-02-33	VM-33A	With a set of red, black, green, yellow
	Twist Selector (2 position)	VM220-02-34R	VM230-02-34R	VM-34AR	Red
		VM220-02-34B	VM230-02-34B	VM-34AB	Black
		VM220-02-34G	VM230-02-34G	VM-34AG	Green
		VM220-02-34Y	VM230-02-34Y	VM-34AY	Yellow
	Key selector (2 position)	VM220-02-36	VM230-02-36	VM-36A	—
	Twist Selector (3 position)	VM230-02-35R	VM250-02-35R	—	Red
		VM230-02-35B	VM250-02-35B	—	Black
		VM230-02-35G	VM250-02-35G	—	Green
		VM230-02-35Y	VM250-02-35Y	—	Yellow
		(3 port)	(5 port)	—	—
	Foot pedal	VM220-02-40	VM230-02-40	—	—



Note) Actuator replacement is available for all styles except twist selector (3 position) and foot pedal.

How To Order

VM2 3 0 - 02 - 01 S

Number of ports

2	2 ports
3	3 ports

Port size

02	Rc(PT) 1/4
----	------------

Actuator

00	Basic
01	Roller lever
02	One way roller lever
05	Straight plunger
06	Roller plunger
07	Cross 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)
35	Twist selector (3 position)
40	Foot pedal

Suffix of actuator

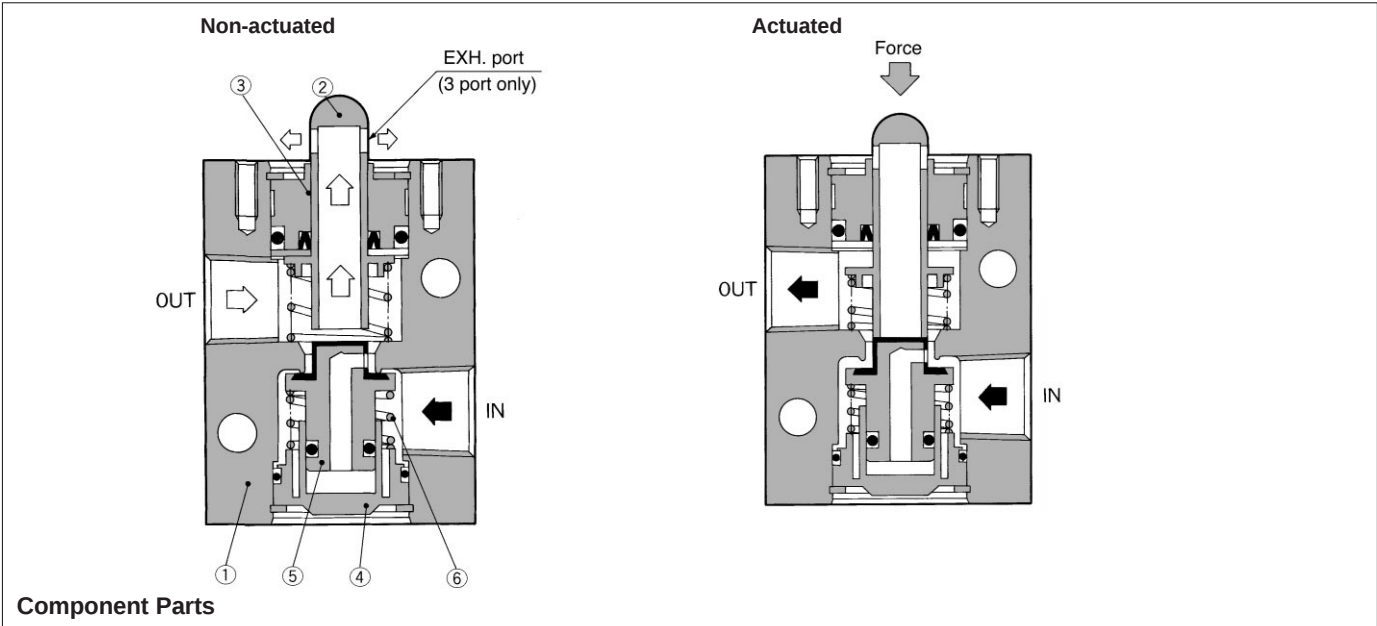
S	Hard steel roller
R	Red
B	Black
G	Green
Y	Yellow

Color of push button

S□A
V□A

S□A
V□A

Construction



VM/VR
VH

Component Parts

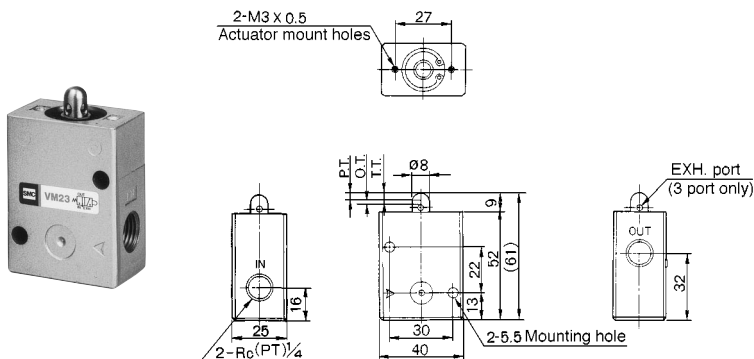
No.	Description	Material	Notes
①	Body	Aluminum alloy	Metallic plated
②	Plunger	Polyacetal	
③	Plunger retainer	PBT	

No.	Description	Material	Notes
④	Cover	Polyacetal	
⑤	Valve	Brass, NBR	
⑥	Spring	Steel wire	

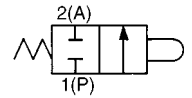
VM200

Series VM200

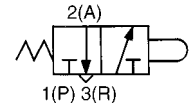
Basic/VM220-02-00, VM230-02-00



JIS Symbol 2 port



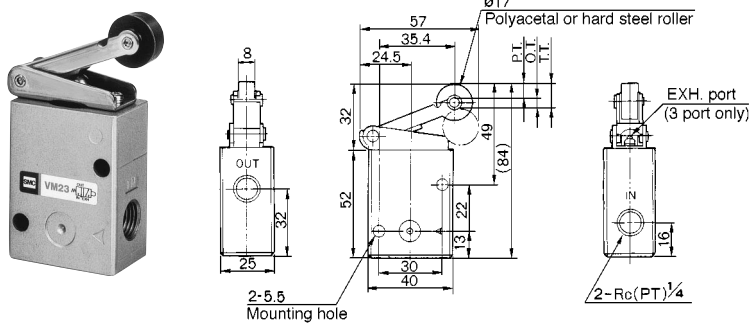
3 port



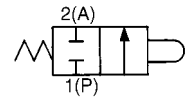
* 0.5MPa supply

F.O.F.*	52N
P.T.	3mm
O.T.	2mm
T.T.	5mm

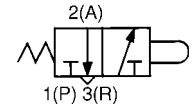
Roller Lever/VM220-02-01, VM230-02-01 VM220-02-01S, VM230-02-01S



JIS Symbol 2 port



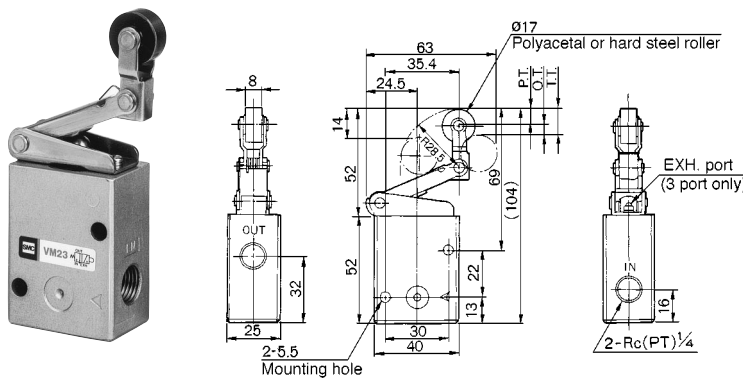
3 port



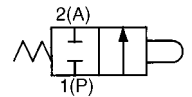
* 0.5MPa supply

F.O.F.*	24N
P.T.	6.5mm
O.T.	4.5mm
T.T.	11mm

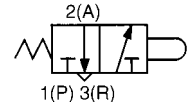
One Way Roller Lever/VM220-02-02, VM230-02-02 VM220-02-02S, VM230-02-02S



JIS Symbol 2 port



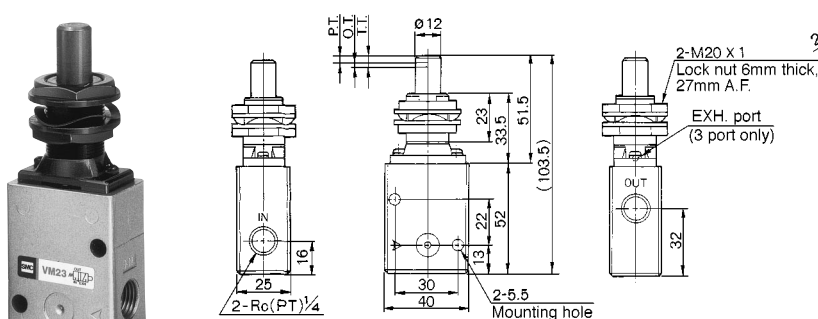
3 port



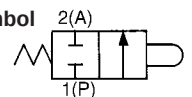
* 0.5MPa supply

F.O.F.*	22N
P.T.	7mm
O.T.	5mm
T.T.	12mm

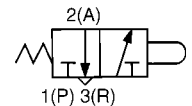
Straight Plunger/VM220-02-05, VM230-02-05



Panel mounted hole JIS Symbol 2 port



3 port

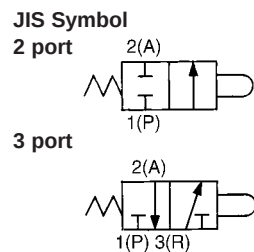
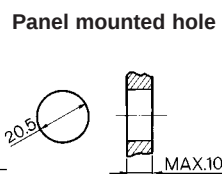
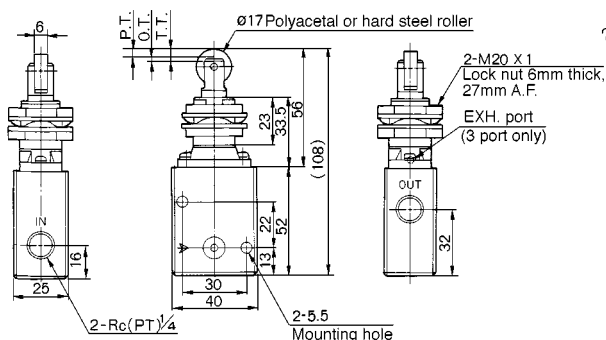


* 0.5MPa supply

F.O.F.*	56N
P.T.	3.5mm
O.T.	2mm
T.T.	5.5mm

Series VM200

Roller Plunger/VM220-02-06, VM230-02-06 VM220-02-06S, VM230-02-06S



* 0.5MPa supply

F.O.F.*	56N
P.T.	3.5mm
O.T.	2mm
T.T.	5.5mm

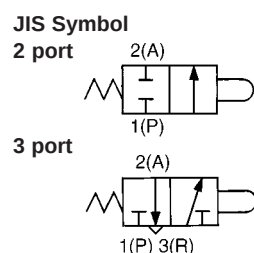
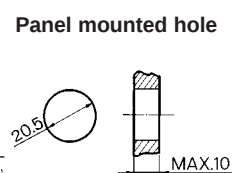
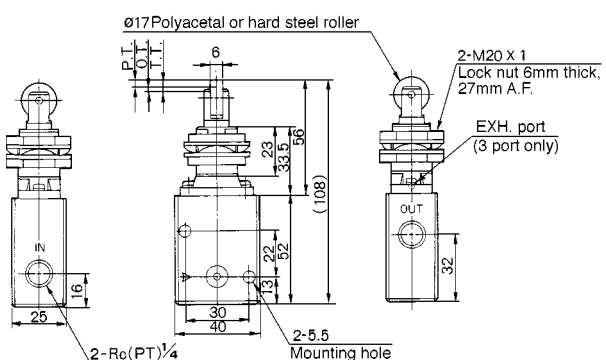
S□A

V□A

S□A

V□A

Cross Roller Plunger/VM220-02-07, VM230-02-07 VM220-02-07S, VM230-02-07S



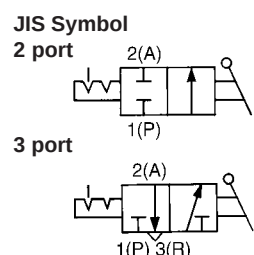
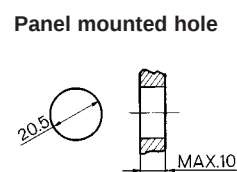
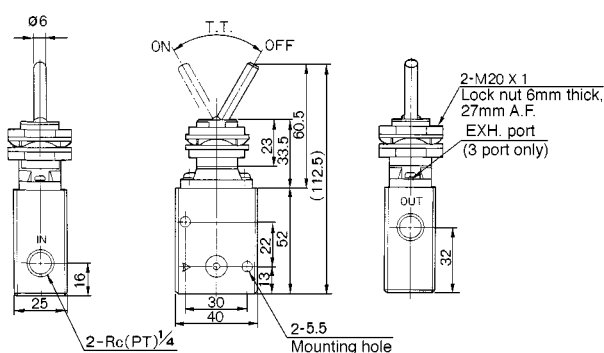
* 0.5MPa supply

F.O.F.*	56N
P.T.	3.5mm
O.T.	2mm
T.T.	5.5mm

VMVR

VH

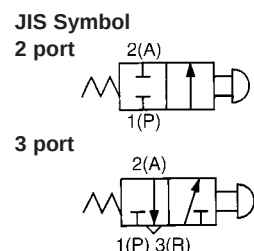
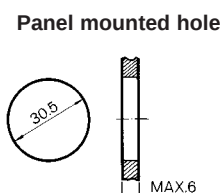
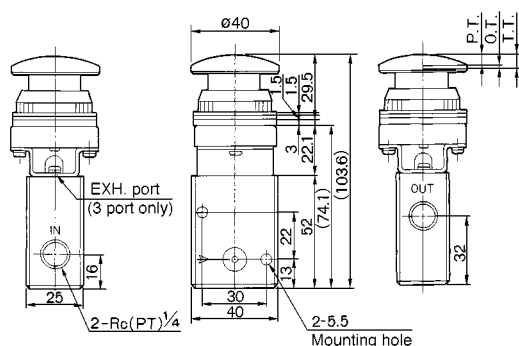
Toggle Lever/VM220-02-08, VM230-02-08



* 0.5MPa supply

F.O.F.*	12N
T.T.	60°

Push Button (Mushroom)/VM220-02-30R, B, G, Y/VM230-02-30R, B, G, Y



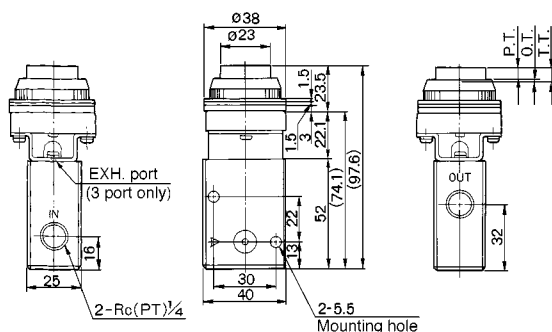
* 0.5MPa supply

F.O.F.*	52N
P.T.	4.9mm
O.T.	1.6mm
T.T.	6.5mm

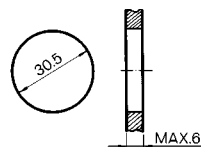
VM200

Series VM200

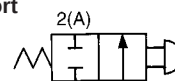
Push Button (Extended)/VM220-02-32R, B, G, Y/VM230-02-32R, B, G, Y



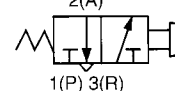
Panel mounted hole



JIS Symbol 2 port



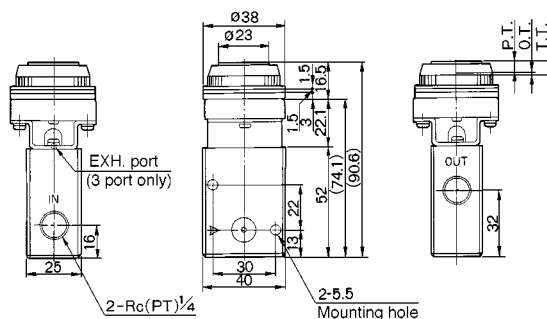
3 port



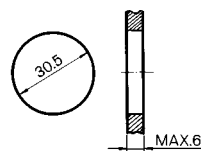
* 0.5MPa supply

F.O.F.*	52N
P.T.	4.9mm
O.T.	1.6mm
T.T.	6.5mm

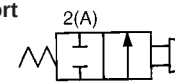
Push Button (Flush)/VM220-02-33, VM230-02-33



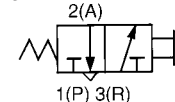
Panel mounted hole



JIS Symbol 2 port



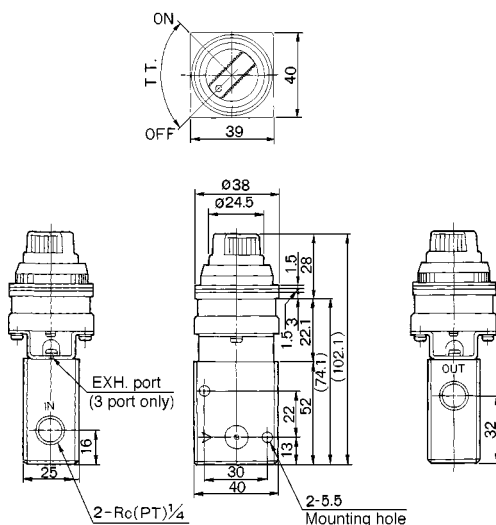
3 port



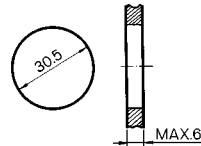
* 0.5MPa supply

F.O.F.*	52N
P.T.	4.9mm
O.T.	1.6mm
T.T.	6.5mm

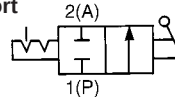
Twist Selector (2 position)/VM220-02-34R, B, G, Y/VM230-02-34R, B, G, Y



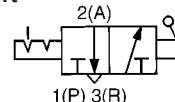
Panel mounted hole



JIS Symbol 2 port



3 port

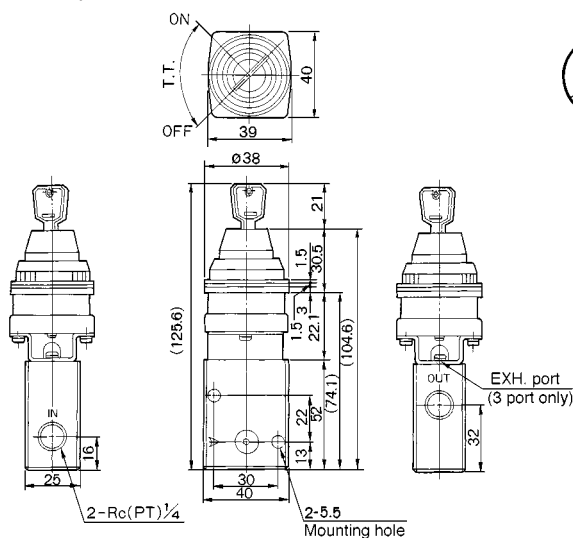


* 0.5MPa supply

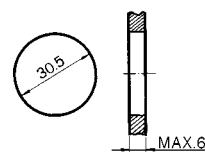
F.O.F.*	32N
T.T.	90°

Series VM200

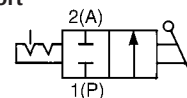
Key Selector (2 position)/VM220-02-36, VM230-02-36



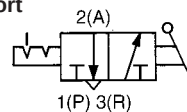
Panel mounted hole



JIS Symbol 2 port



3 port

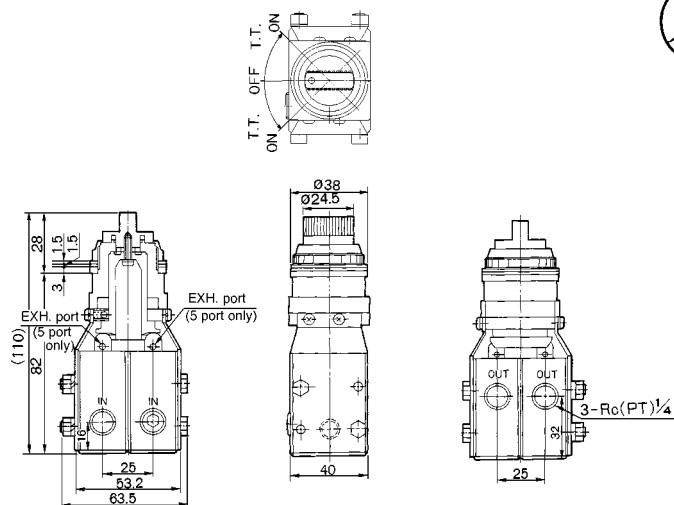


* 0.5MPa supply

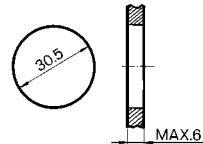
F.O.F.*	32N
T.T.	90°

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

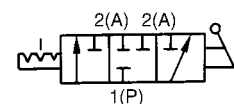
Twist Selector (3 position)/VM230-02-35R, B, G, Y/VM250-02-35R, B, G, Y



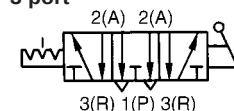
Panel mounted hole



JIS Symbol 2 port



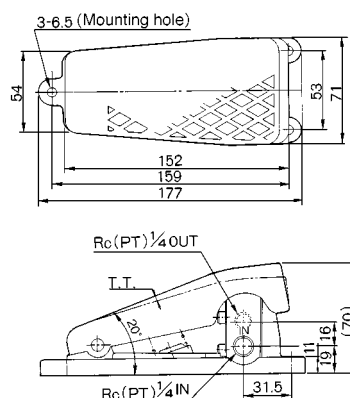
3 port



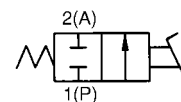
* 0.5MPa supply

F.O.F.*	40N
T.T.	45°

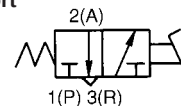
Foot Pedal/VM220-02-40, VM230-02-40



JIS Symbol 2 port



3 port



* 0.5MPa supply

F.O.F.*	65N
T.T.	1.2°

S□A

V□A

S□A

V□A

VMVR

VH

3 Port Mechanical Valve

Series VM400

NC or NO models available.

Piping possible to any port.

Proper countermeasures can be taken for applications in which the noise of the exhaust could cause problems to the surroundings.



Specifications

Fluid	Air
Operating pressure	–100kPa to 1.0MPa
Ambient and fluid temperature	–5 to 60°C (No freezing)
Effective area (Cv)	7mm ² (0.38)
Lubrication	Not required/Turbine oil #1 (ISO VG32)
Port size (Nominal size)	Rc(PT)1/8 (6A)
Weight (Basic)	110g

Model

	Actuator	Model	Actuator part No.	Application
Mechanical operation	Basic	VM430-01-00	—	—
	Roller lever	VM430-01-01	VM-01A	Polyacetal roller
		VM430-01-01S	VM-01AS	Hard steel roller
	One way roller lever	VM430-01-02	VM-02A	Polyacetal roller
		VM430-01-02S	VM-02AS	Hard steel roller
	Straight plunger	VM430-01-05	VM-05A	—
	Roller plunger	VM430-01-06	VM-06A	Polyacetal roller
		VM430-01-06S	VM-06AS	Hard steel roller
Cross roller plunger	VM430-01-07	VM-07A	Polyacetal roller	
	VM430-01-07S	VM-07AS	Hard steel roller	
Manual operation	Toggle lever	VM430-01-08	VM-08A	—
	Push button (Mushroom)	VM430-01-30R	VM-30AR	Red
		VM430-01-30B	VM-30AB	Black
		VM430-01-30G	VM-30AG	Green
		VM430-01-30Y	VM-30AY	Yellow
	Push button (Extended)	VM430-01-32R	VM-32AR	Red
		VM430-01-32B	VM-32AB	Black
		VM430-01-32G	VM-32AG	Green
		VM430-01-32Y	VM-32AY	Yellow
	Push button (Flush)	VM430-01-33	VM-33A	With a set of red, black, green, yellow
	Twist selector (2 position)	VM430-01-34R	VM-34AR	Red
		VM430-01-34B	VM-34AB	Black
		VM430-01-34G	VM-34AG	Green
VM430-01-34Y		VM-34AY	Yellow	
Key selector (2 position)	VM430-01-36	VM-36A	—	



Note) Actuator replacement is available for all styles.

How To Order

VM4 3 0 - 01 - 01 S

Number of ports		Port size		Actuator		Suffix of actuator	
3	3 ports	01	Rc(PT) 1/8	00	Basic	S	Hard steel roller
				01	Roller lever	R	Red
				02	One way roller lever	B	Black
				05	Straight plunger	G	Green
				06	Roller plunger	Y	Yellow
				07	Cross 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)		

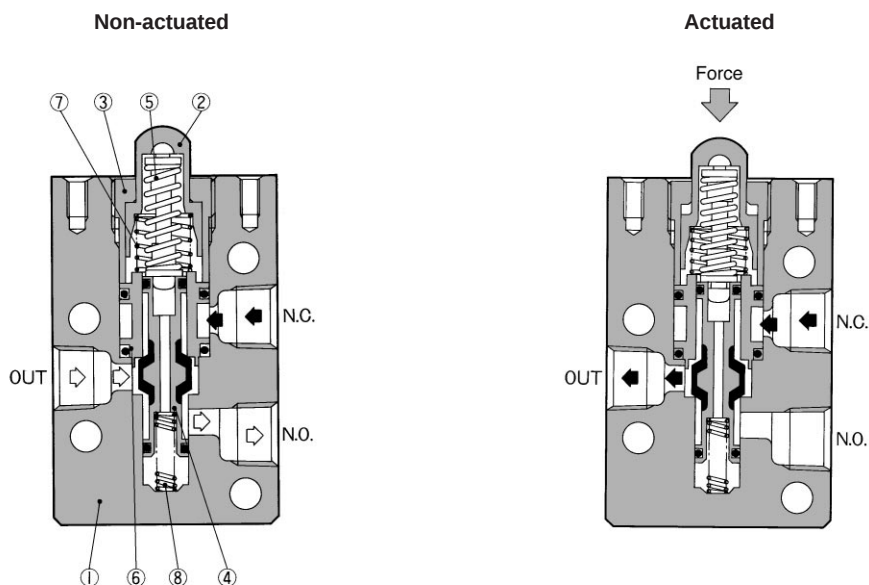
S□A

V□A

S□A

V□A

Construction



VM/R

VH

Component Parts

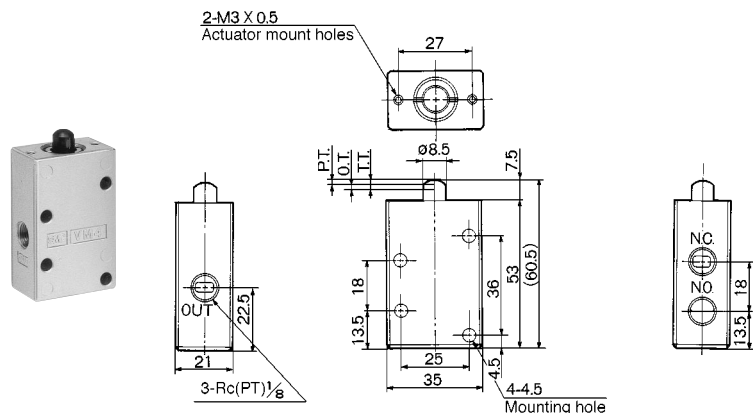
No.	Description	Material	Notes
①	Body	Aluminum alloy	Metallic plated
②	Plunger	Polyacetal	
③	Plunger retainer	Brass	Black zinc chromate treated
④	Spool valve	Aluminum alloy	Rubber lined

No.	Description	Material	Notes
⑤	Over travel spring	Stainless steel	
⑥	Retainer	Brass	
⑦	Spring	Stainless steel	
⑧	Spring	Stainless steel	

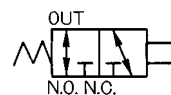
VM400

Series VM400

Basic/VM430-01-00

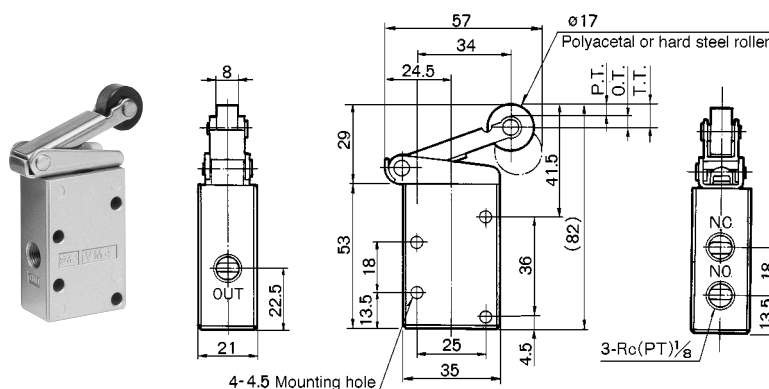


JIS Symbol



F.O.F.	26N
P.T.	1.5mm
O.T.	2mm
T.T.	3.5mm

Roller Lever/VM430-01-01, VM430-01-01S

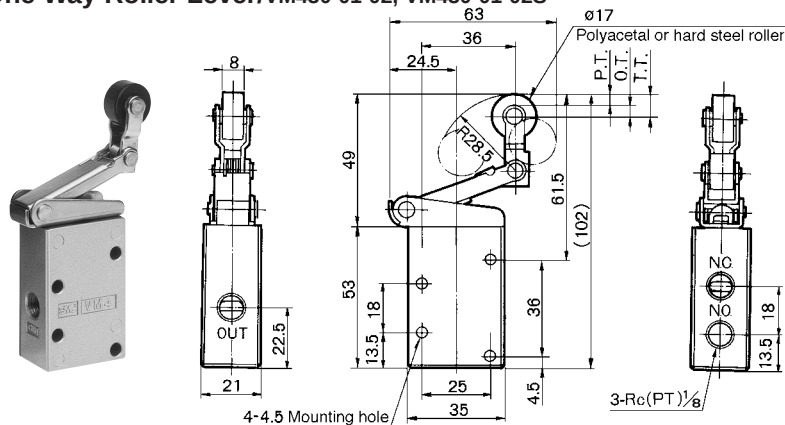


JIS Symbol



F.O.F.	12N
P.T.	4mm
O.T.	4.5mm
T.T.	8.5mm

One Way Roller Lever/VM430-01-02, VM430-01-02S

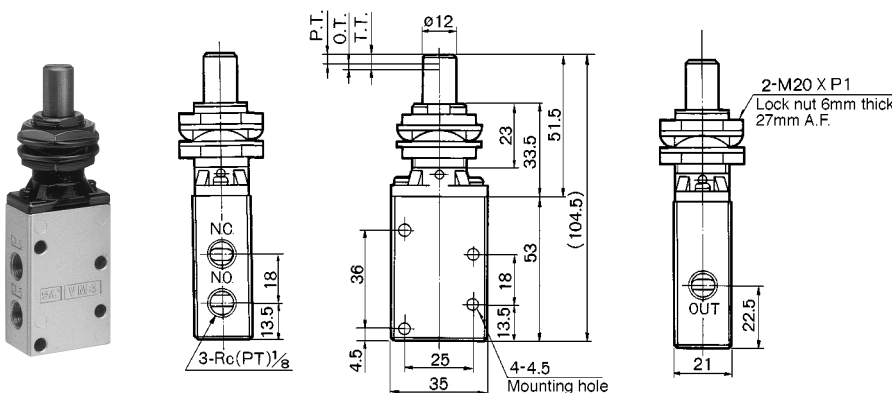


JIS Symbol

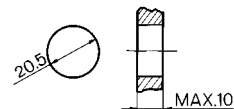


F.O.F.	11N
P.T.	4mm
O.T.	5mm
T.T.	9mm

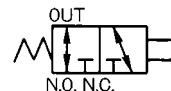
Straight Plunger/VM430-01-05



Panel mounted hole



JIS Symbol

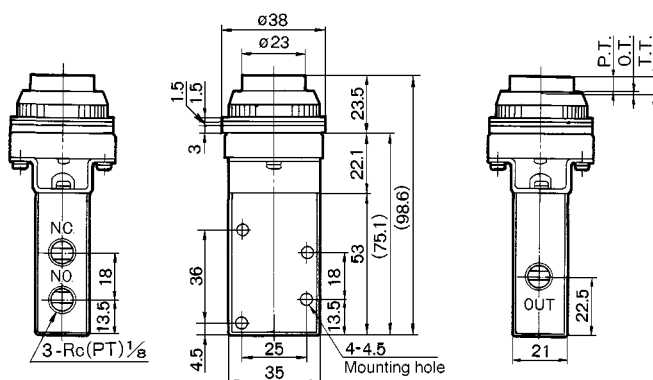


F.O.F.	30N
P.T.	3.5mm
O.T.	2mm
T.T.	5.5mm

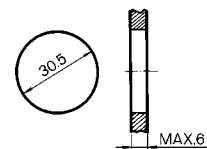
VM400

Series VM400

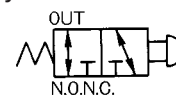
Push Button (Extended)/VM430-01-32R, B, G, Y



Panel mounted hole

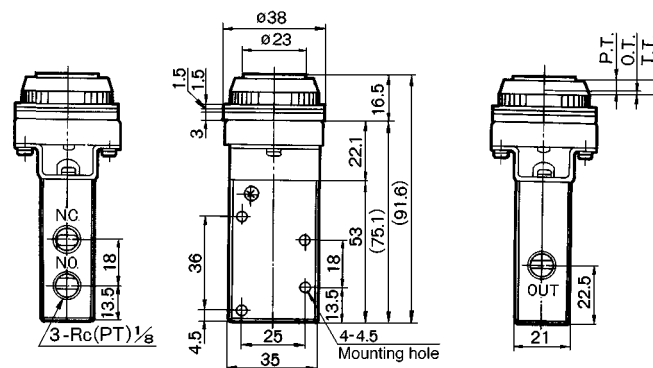


JIS Symbol

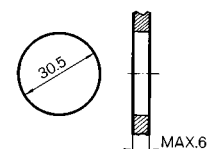


F.O.F.	26N
P.T.	5.4mm
O.T.	1.6mm
T.T.	6.5mm

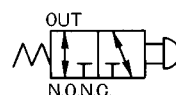
Push Button (Flush)/VM430-01-33



Panel mounted hole

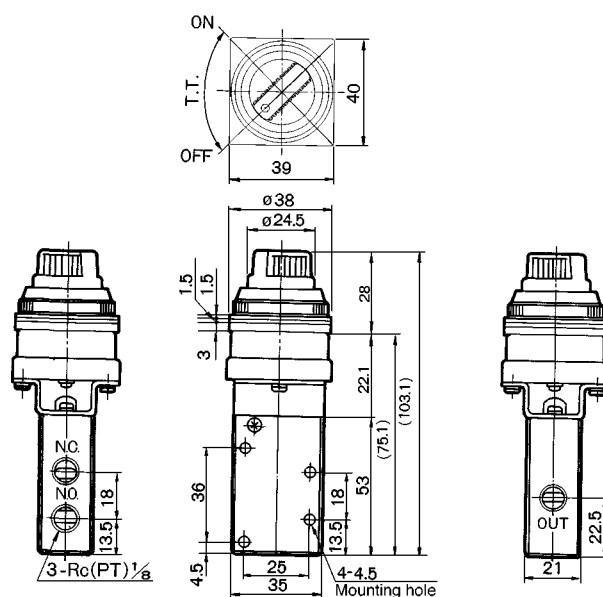


JIS Symbol

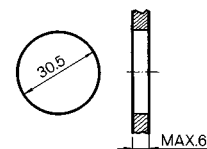


F.O.F.	26N
P.T.	4.9mm
O.T.	1.6mm
T.T.	6.5mm

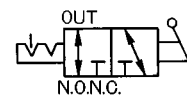
Twist Selector (2 position)/VM430-01-34R, B, G, Y



Panel mounted hole



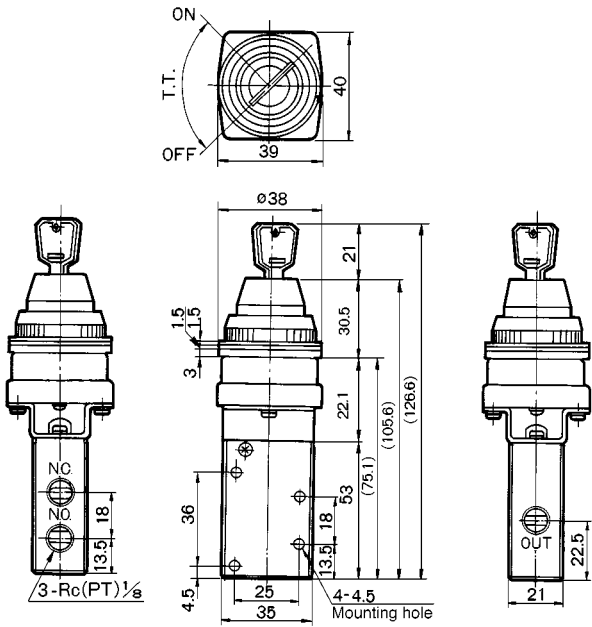
JIS Symbol



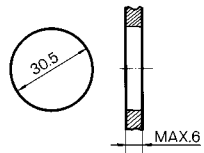
F.O.F.	20N
T.T.	90°

Series VM400

Key Selector (2 position)/VM430-01-36



Panel mounted hole



JIS Symbol



F.O.F.	20N
T.T.	90°

S□A

V□A

S□A

V□A

VMVR

VH

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

3 Port Mechanical Valve/Heavy Duty Style

Series VM800

Sturdy Construction.

NC and NO models available.

Piping possible to any port.

Many actuator positions and orientation options.



Specifications

Fluid	Air
Operating pressure	-100kPa to 1.0MPa
Ambient and fluid temperature	-5 to 60°C (No freezing)
Effective area (Cv)	6mm ² (0.33)
Lubrication	Not required/Turbine oil #1 (ISO VG32)
Port size (Nominal size)	Rc(PT) 1/8 (6A)
Weight (Basic)	180g

Model

Actuator	Model	Actuator part No.
Basic	VM830-01-00	—
Roller lever	VM830-01-01	VM-01F
Adjustable roller lever	VM830-01-13	VM-13F
Adjustable rod lever	VM830-01-14	VM-14F



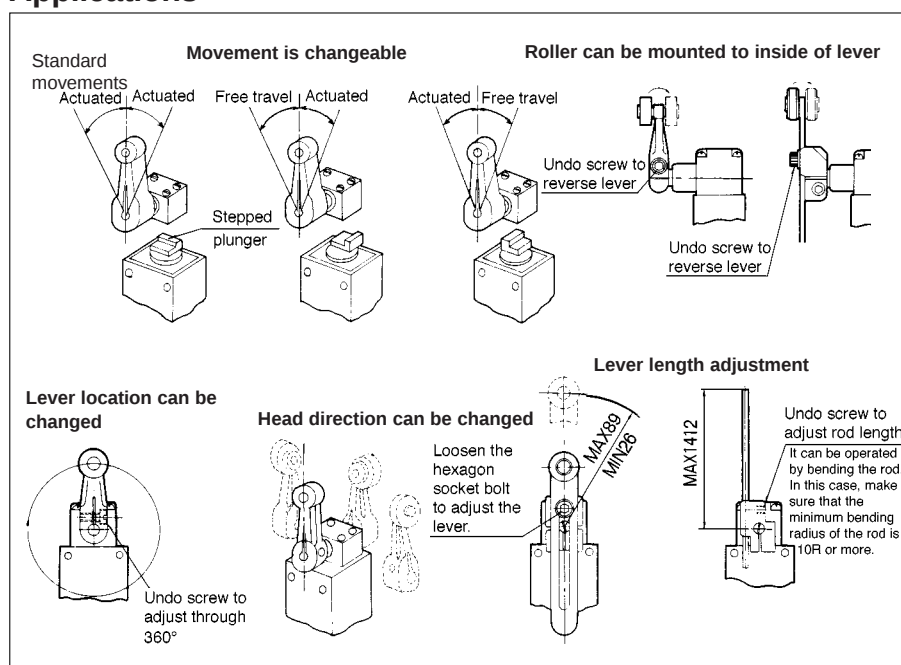
Actuator replacement is available.

How to Order

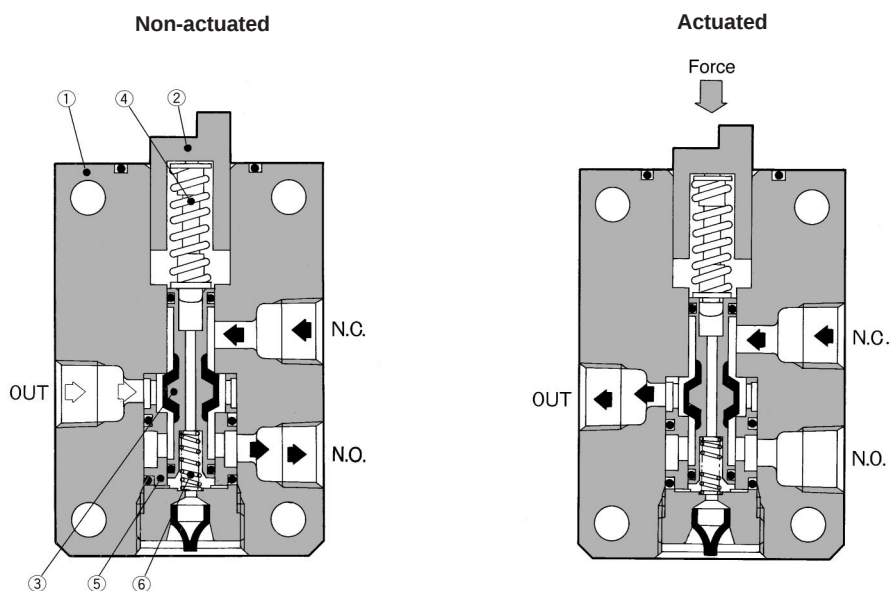
VM8 3 0 - 01 - 01

Number of ports	3	3 ports
	01	Rc(PT) 1/8
Actuator	00	Basic
	01	Roller lever
	13	Adjustable roller lever
	14	Adjustable rod lever

Applications



Construction



S□A

V□A

S□A

V□A

VMVR

VH

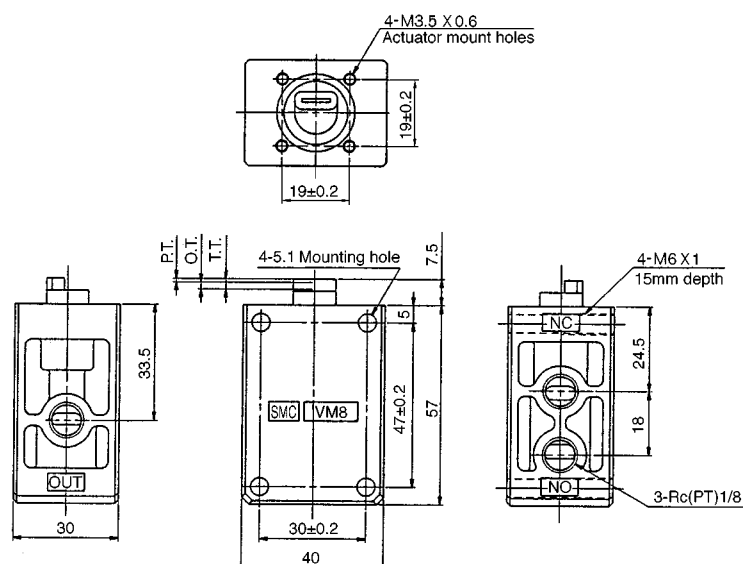
Component Parts

No.	Description	Material	Notes
①	Body	Aluminum alloy	Metallic plated
②	Plunger	Polyacetal	
③	Spool valve	Aluminum alloy, NBR	Rubber lined

No.	Description	Material	Notes
④	Over travel spring	Stainless steel	
⑤	Retainer	Brass	
⑥	Spring	Steel	Zinc chromate

Series VM800

Basic/VM830-01-00



JIS Symbol



F.O.F.	23N
P.T.	1mm
O.T.	2mm
T.T.	3mm

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 ⁽¹⁾
Ambient and fluid temperature	-5 to 60°C (No freezing)
Effective area (Cv)	9.9mm ² (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 ⁽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
	Toggle lever	VZM450-01-08	VM-08C	—
		VZM450-01-30R	VM-30CR	Red
Manual operation	Push button (Mushroom)	VZM450-01-30B	VM-30CB	Black
		VZM450-01-30G	VM-30CG	Green
		VZM450-01-30Y	VM-30CY	Yellow
		VZM450-01-32R	VM-32CR	Red
	Push button (Extended)	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
		VZM450-01-34R	VM-34CR	Red
	Twist selector (2 position)	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) 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

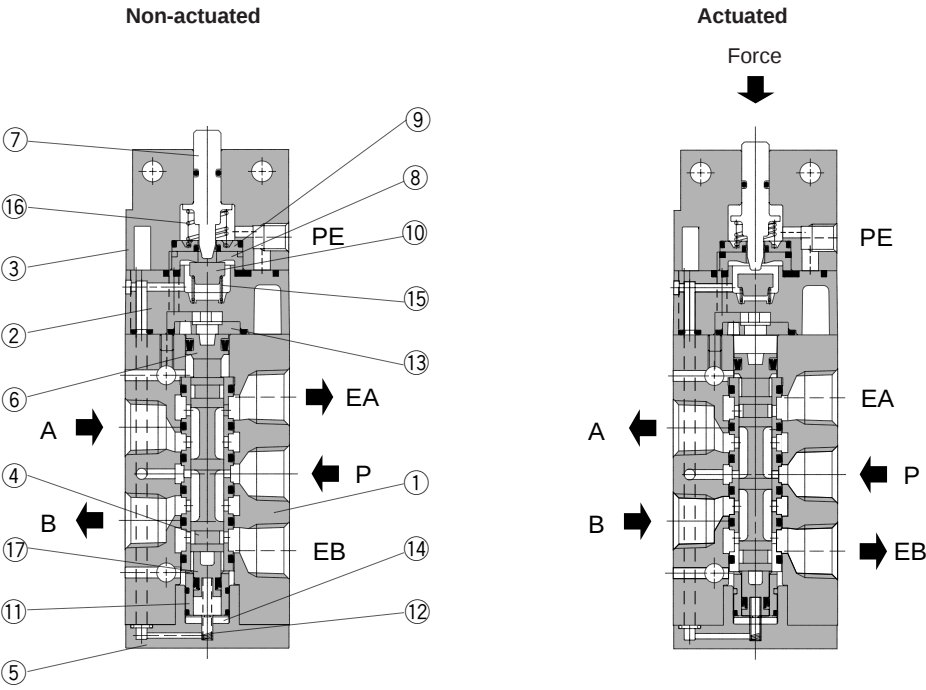
Color of push button

Option

F

Foot bracket (Only internal pilot)

Construction



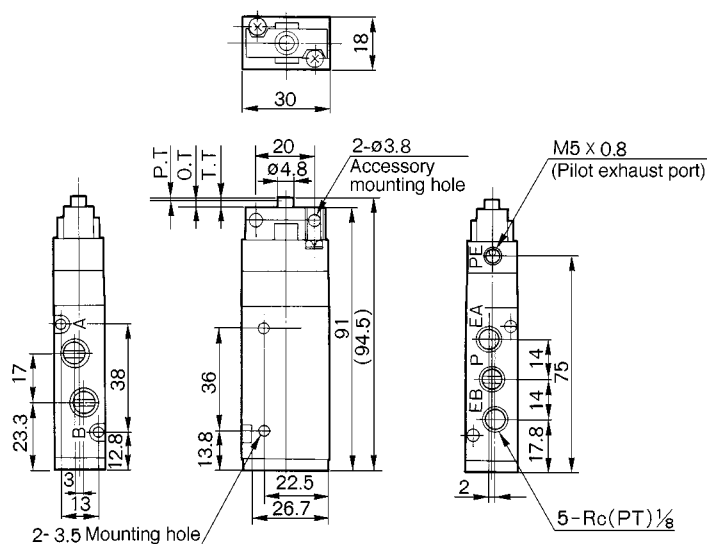
Componet Parts

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	

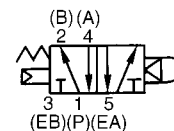
No.	Description	Material	Notes
⑩	Valve	NBR	
⑪	Piston guide B	Aluminum alloy	
⑫	Return spring	Stainless steel	
⑬	Cushion	Rubber	
⑭	Cushion	Rubber	
⑮	Valve spring	Stainless steel	
⑯	Return spring	Stainless steel	
⑰	Piston B	POM	

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

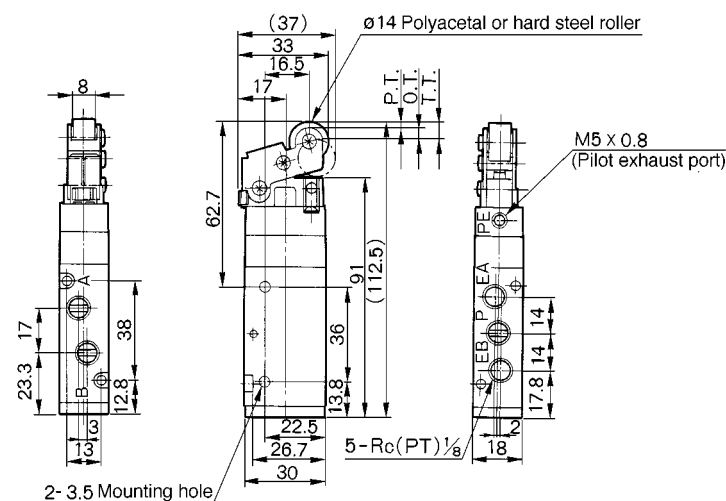
S□A

V□A

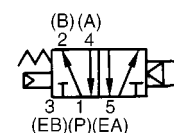
VMVR

VH

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



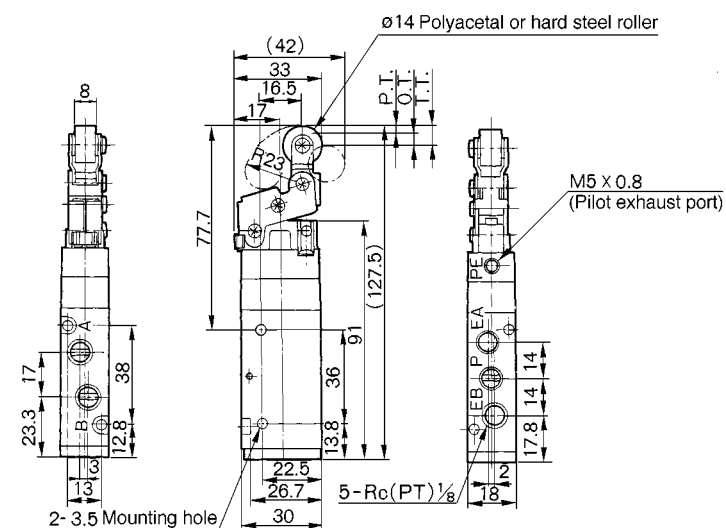
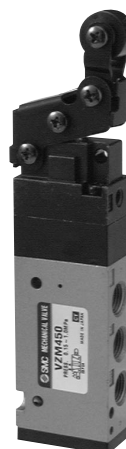
JIS Symbol



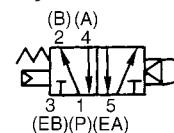
* 0.5MPa supply

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



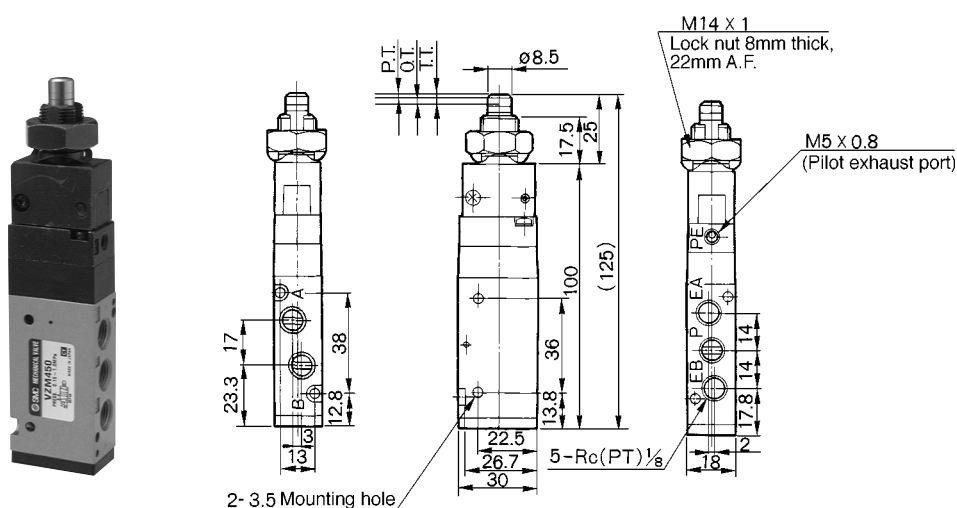
* 0.5MPa supply

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

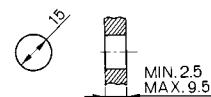
VZM400

Series VZM400

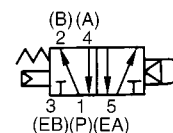
Straight Plunger/VZM450-01-05



Panel mounted hole



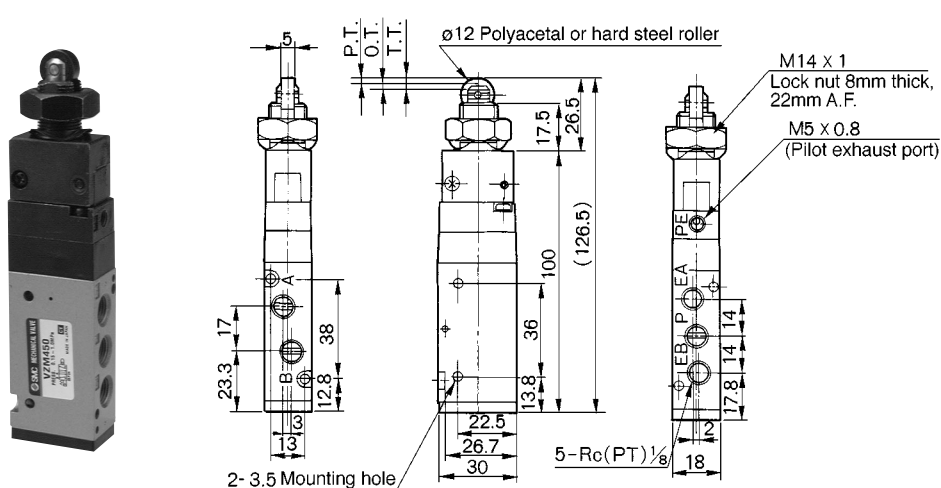
JIS Symbol



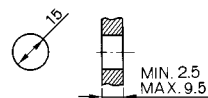
* 0.5MPa supply

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

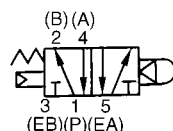
Roller Plunger/VZM450-01-06, VZM450-01-06S



Panel mounted hole



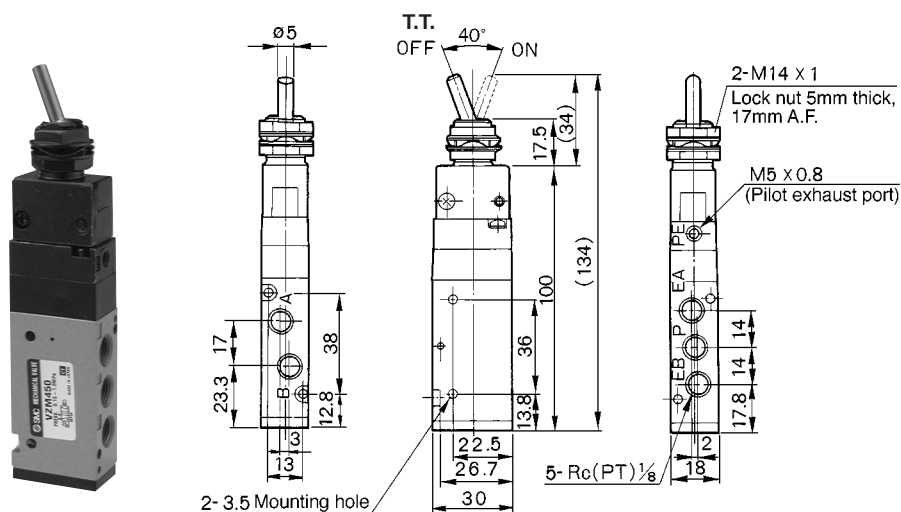
JIS Symbol



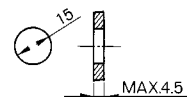
* 0.5MPa supply

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

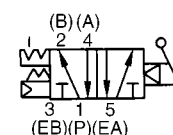
Toggle Lever/VZM450-01-08



Panel mounted hole



JIS Symbol

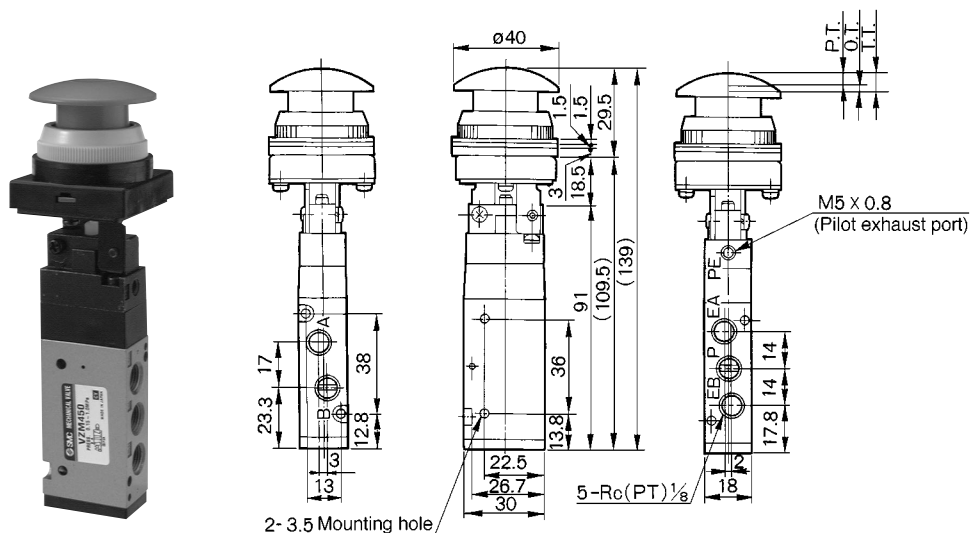


* 0.5MPa supply

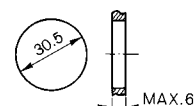
F.O.F.*	15N
T.T.	40°

Series VZM400

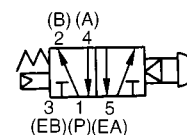
Push Button (Mushroom)/VZM450-01-30R, B, G, Y



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

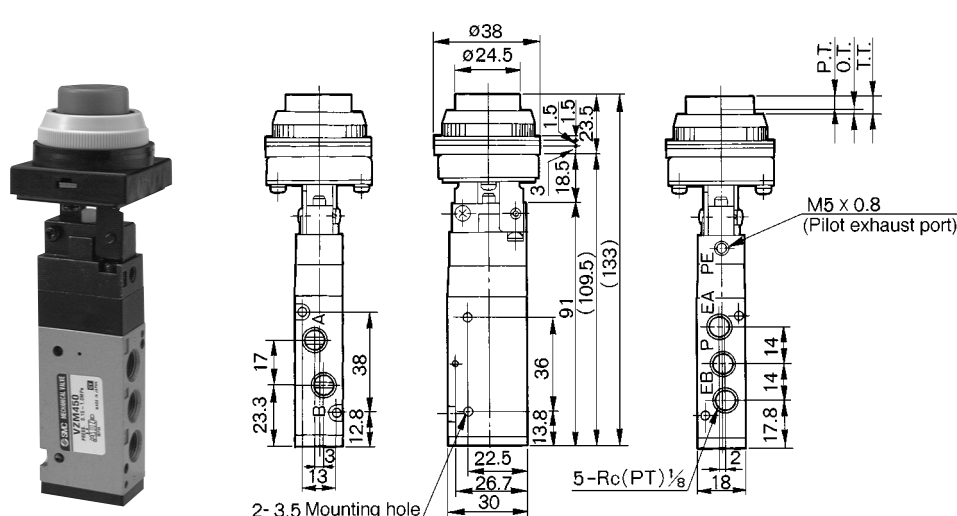
S□A

V□A

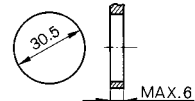
VMVR

VH

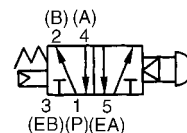
Push Button (Extended)/VZM450-01-32R, B, G, Y



Panel mounted hole



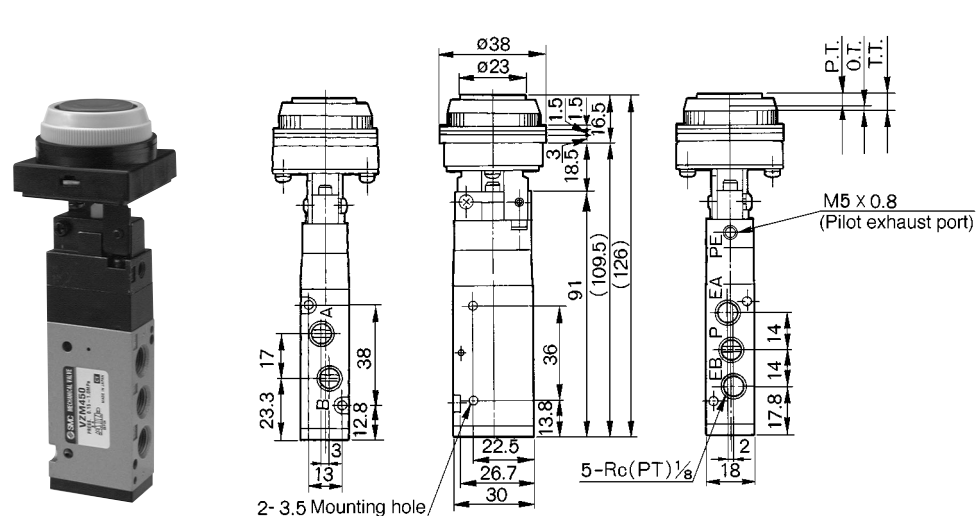
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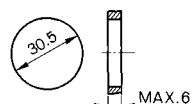
* 0.5MPa supply

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

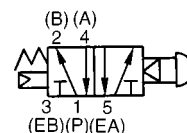
Push Button (Flush)/VZM450-01-33



Panel mounted hole



JIS Symbol



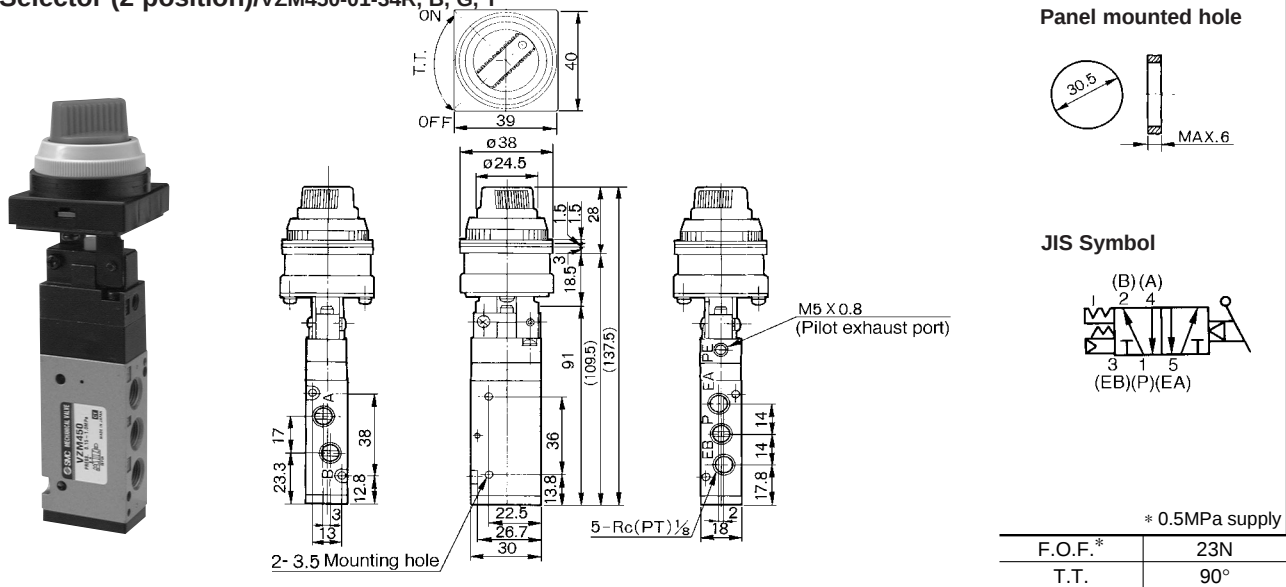
* 0.5MPa supply

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

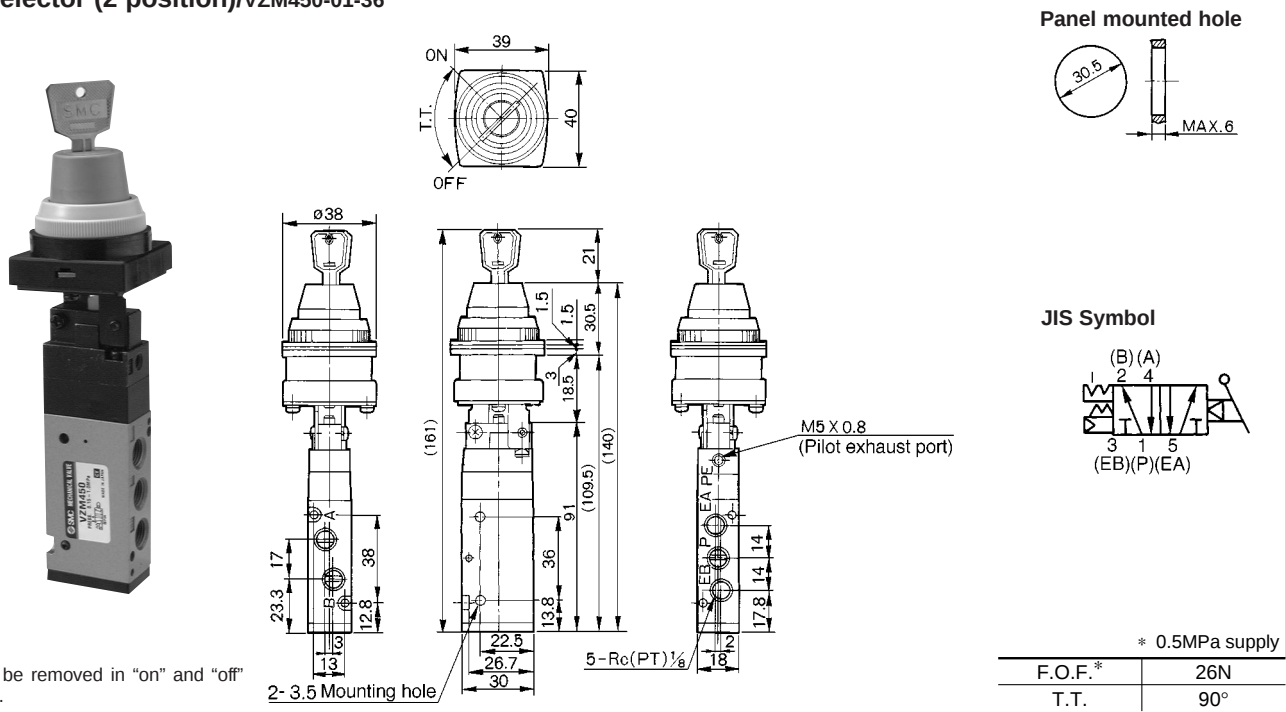
VZM400

Series VZM400

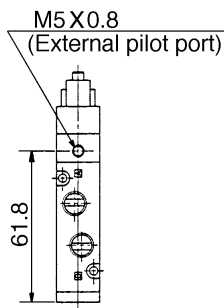
Twist Selector (2 position)/VZM450-01-34R, B, G, Y



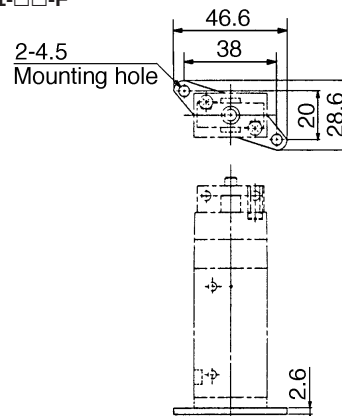
Key Selector (2 position)/VZM450-01-36



External Pilot Style VZM451 Type



With Foot Bracket VZM450-01-□□-F



5 Port Mechanical Valve

Series VZM500

**Compact design,
Large flow capacity/Cv.0.6**

**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 (Cv)	10.8mm ² (0.6)
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 ⁽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
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) Actuator replacement is available for all styles. (Except for push-pull)

VZM500

How to Order

VZM55

0

01

01

S

Port size

01

Rc(PT) 1/8

Body option

0

Standard

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 (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

Color of push button

Option

F

Foot bracket

* Except for

VZM550-01-37

Construction

Non-actuated

Actuated

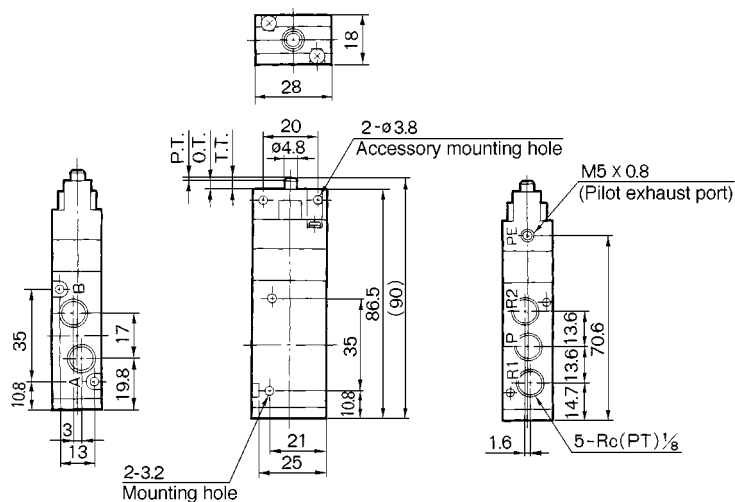
Component Parts

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	

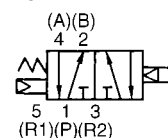
No.	Description	Material	Notes
⑧	Valve seat (A)	Brass	
⑨	Valve seat (B)	Brass	
⑩	Valve assembly	Brass, NBR	
⑪	Valve spring	Stainless steel	
⑫	Return spring	Stainless steel	
⑬	Spool spring	Stainless steel	

Series VZM500

Basic/vZM550-01-00



JIS Symbol



S□A

V□A

S□A

V□A

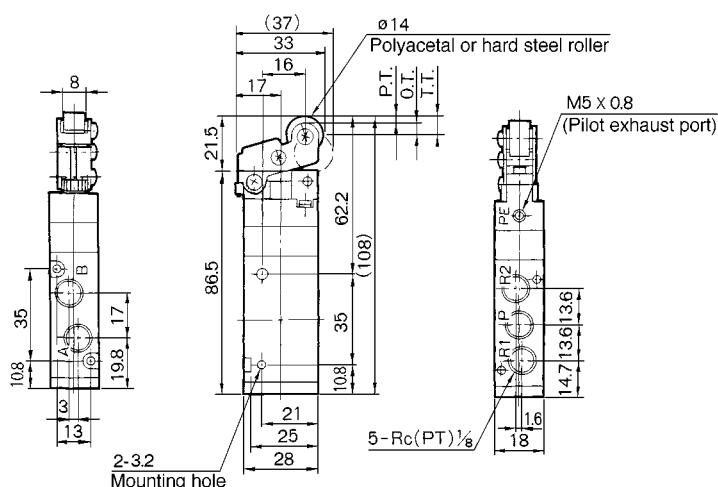
* 0.5MPa supply

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

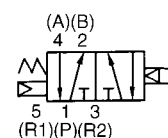
VM/VR

VH

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



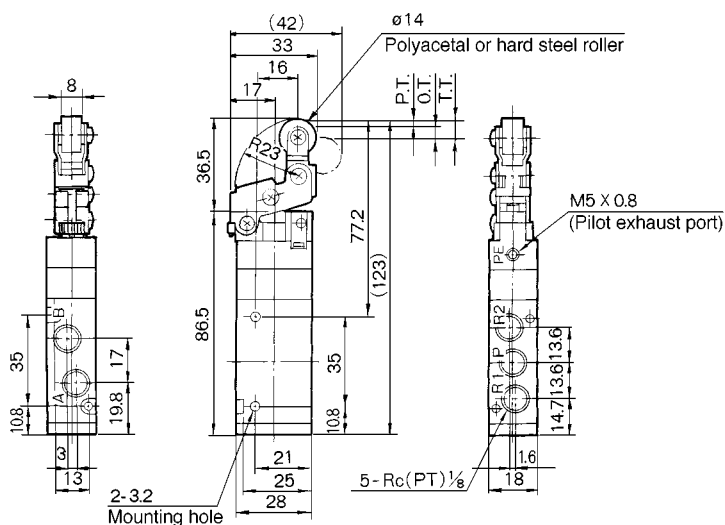
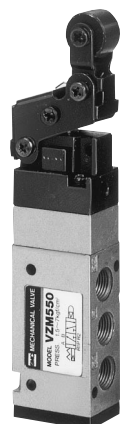
JIS Symbol



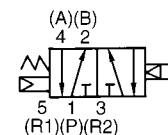
* 0.5MPa supply

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

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



JIS Symbol



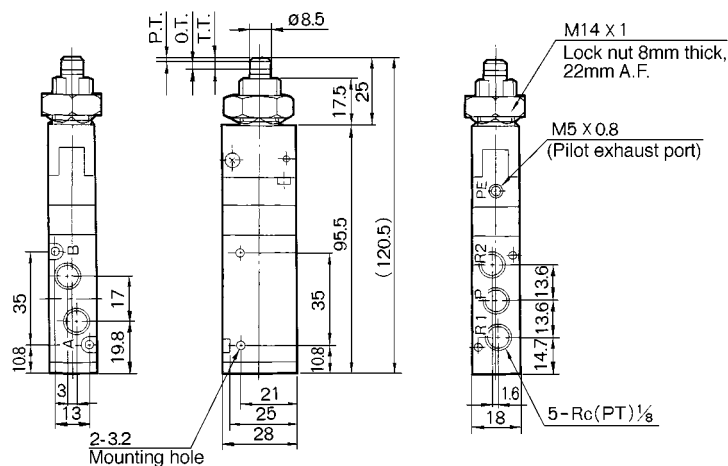
* 0.5MPa supply

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

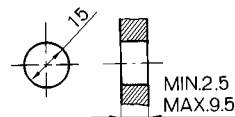
VZM500

Series VZM500

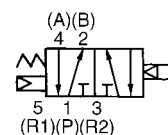
Straight Plunger/VZM550-01-05



Panel mounted hole



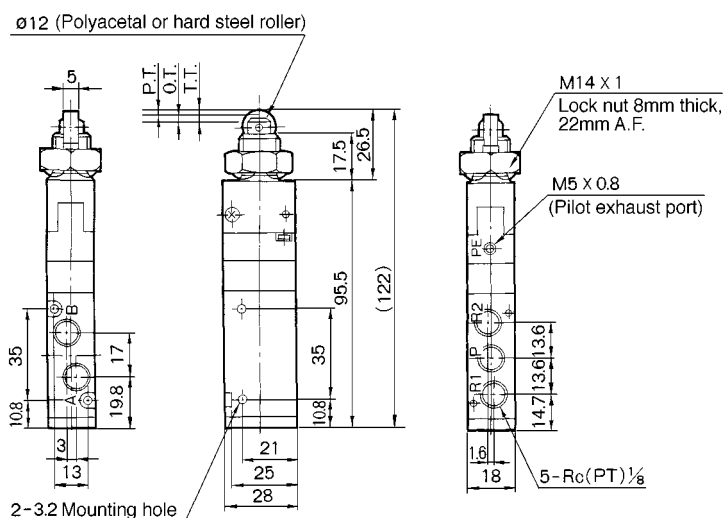
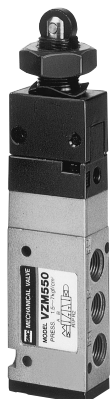
JIS Symbol



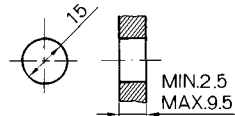
* 0.5MPa supply

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

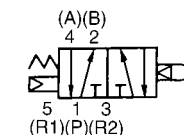
Roller Plunger/VZM550-01-06, VZM550-01-06S



Panel mounted hole



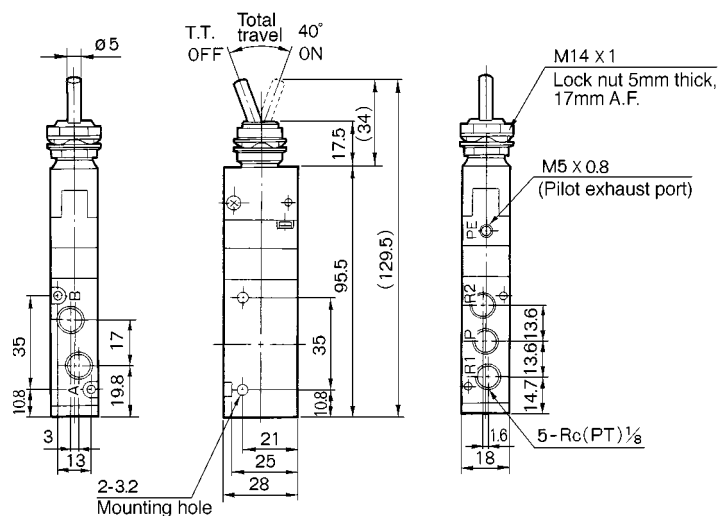
JIS Symbol



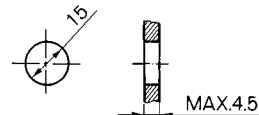
* 0.5MPa supply

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

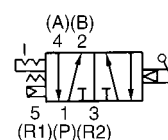
Toggle Lever/VZM550-01-08



Panel mounted hole



JIS Symbol

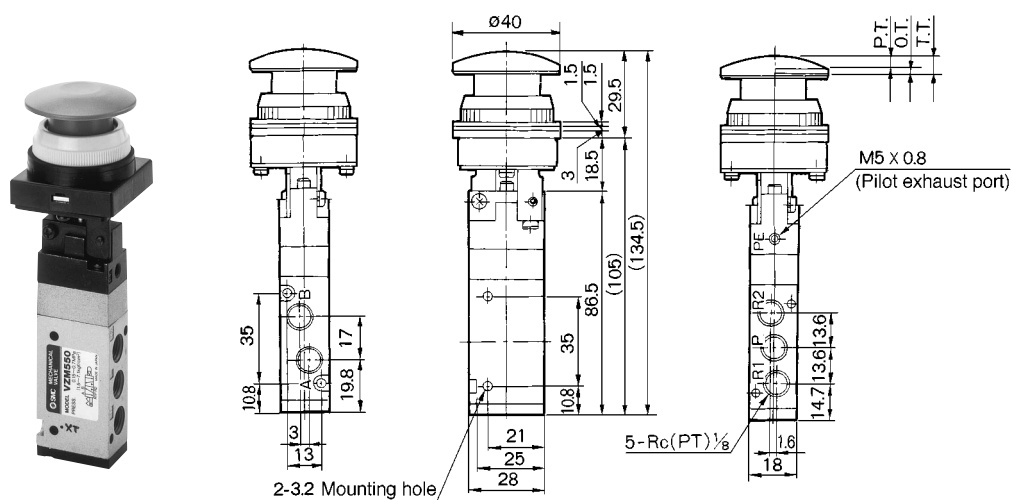


* 0.5MPa supply

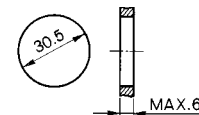
F.O.F.*	15N
T.T.	40°

Series VZM500

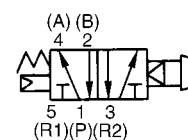
Push Button (Mushroom)/VZM550-01-30R, B, G, Y



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

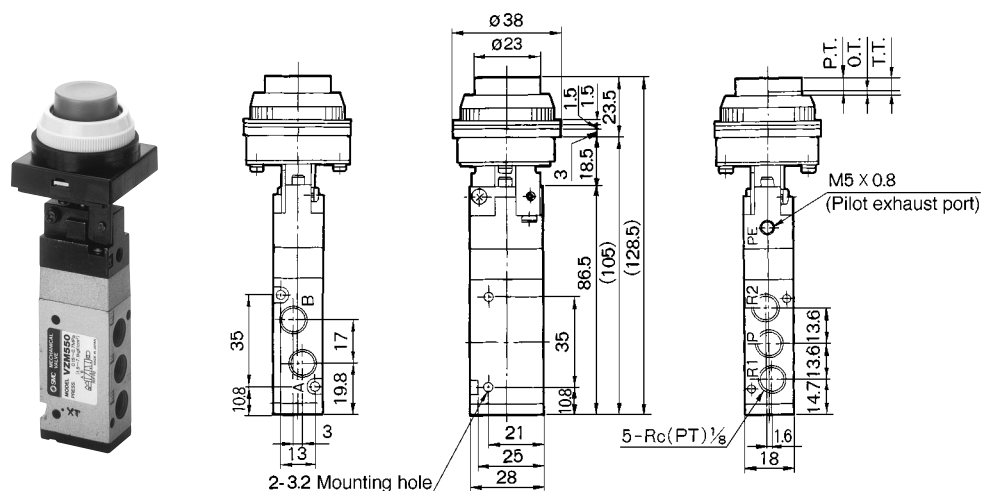
S□A

V□A

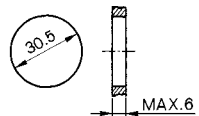
VMVR

VH

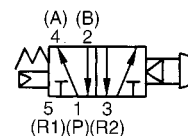
Push Button (Extended)/VZM550-01-32R, B, G, Y



Panel mounted hole



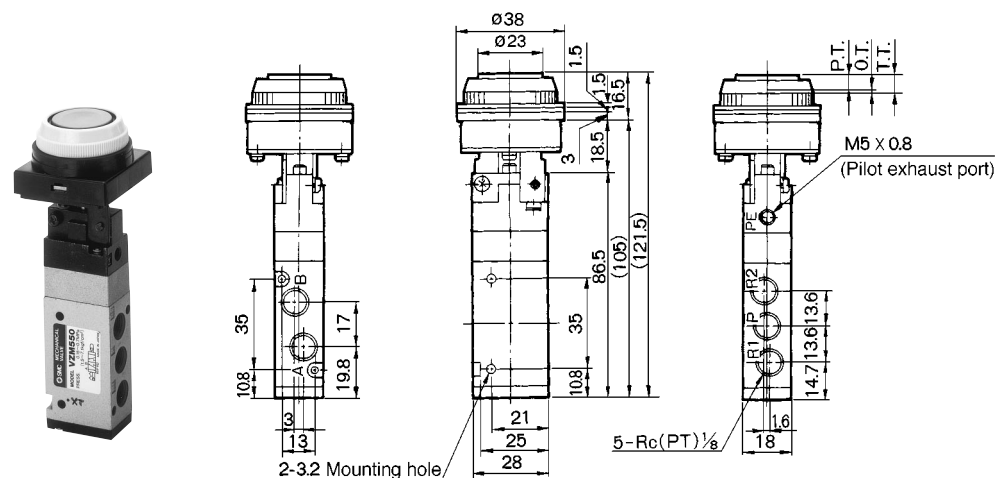
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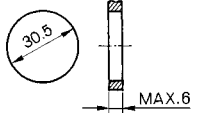
* 0.5MPa supply

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

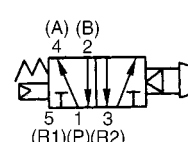
Push Button (Flush)/VZM550-01-33



Panel mounted hole



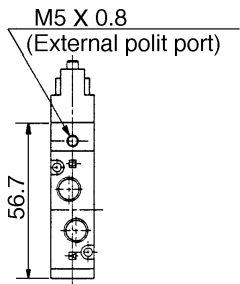
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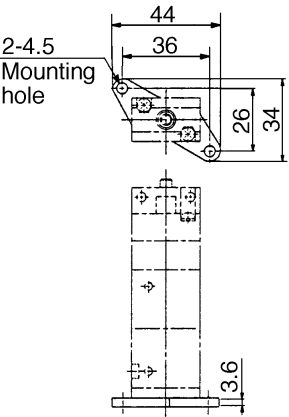
* 0.5MPa supply

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

External Pilot Style
VZM551 Type



With Foot Bracket
VZM55□-01-□□-F



S□A

V□A

S□A

V□A

VM/VR

VH

5 Port Mechanical Valve/Rubber Seal

Series VFM300

**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 fouling or 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 0.9MPa ⁽¹⁾
Ambient and fluid temperature	-5 to 60°C (No freezing)
Effective area (Cv)	18mm ² (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-SUP, CYL port Rc(PT) 1/4 (8A), EXH port Rc(PT) 1/8 (6A) Pilot valve (EXH)/M5 X 0.8
Option	Foot bracket ⁽²⁾
Weight (Basic)	260g



* Contact SMC for manifold mounting style.

Note 1) External pilot style Main valve: 0 to 0.9MPa

Pilot valve: 0.15 to 0.9MPa

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

Model

	Actuator	Model	Actuator part No.	Application
Mechanical operation	Basic	VFM350-02-00	—	—
	Roller lever	VFM350-02-01	VM-01C	Polyacetal roller
		VFM350-02-01S	VM-01CS	Hard steel roller
	One way roller lever	VFM350-02-02	VM-02C	Polyacetal roller
		VFM350-02-02S	VM-02CS	Hard steel roller
	Straight plunger	VFM350-02-05	VM-05D	—
Manual operation	Roller plunger	VFM350-02-06	VM-06D	Polyacetal roller
		VFM350-02-06S	VM-06DS	Hard steel roller
	Toggle lever	VFM350-02-08	VM-08D	—
	Push button (Mushroom)	VFM350-02-30R	VM-30CR	Red
		VFM350-02-30B	VM-30CB	Black
		VFM350-02-30G	VM-30CG	Green
		VFM350-02-30Y	VM-30CY	Yellow
	Push button (Extended)	VFM350-02-32R	VM-32CR	Red
		VFM350-02-32B	VM-32CB	Black
		VFM350-02-32G	VM-32CG	Green
		VFM350-02-32Y	VM-32CY	Yellow
	Push button (Flush)	VFM350-02-33	VM-33C	With a set of red, black, green, yellow
	Twist selector (2 position)	VFM350-02-34R	VM-34CR	Red
		VFM350-02-34B	VM-34CB	Black
		VFM350-02-34G	VM-34CG	Green
		VFM350-02-34Y	VM-34CY	Yellow
	Key selector (2 position)	VFM350-02-36	VM-36C	—



Note) Actuator replacement is available for all styles.

How to Order

VFM35

0

02

01

S

Port size

02

Rc(PT) 1/4

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 (Flash)

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)

S□A

V□A

S□A

V□A

VM/VR

VH

Construction

Non-actuated

Actuated

Force

PE

EXH.2

CYL.2

SUP

CYL.1

EXH.1

Component Parts

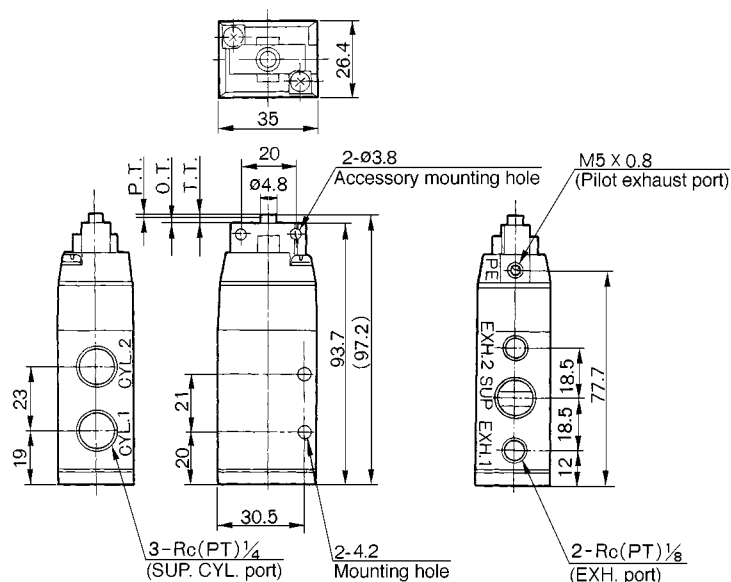
No.	Description	Material	Notes
①	Body	Aluminum alloy	Metallic plated
②	Pilot body	Zinc alloy	Metallic plated
③	Head cover	Zinc alloy	Black zinc chromate
④	Spool valve assembly		
⑤	End cover	Aluminum alloy	Metallic plated
⑥	Piston	Polyacetal	
⑦	Plunger	Stainless steel	

No.	Description	Material	Notes
⑧	Valve seat (A)	Brass	
⑨	Valve seat (B)	Brass	
⑩	Valve	Brass, NBR	
⑪	Valve spring	Stainless steel	
⑫	Return spring	Stainless steel	
⑬	Spool spring	Stainless steel	

VFM300

Series VFM300

Basic/VFM350-02-00



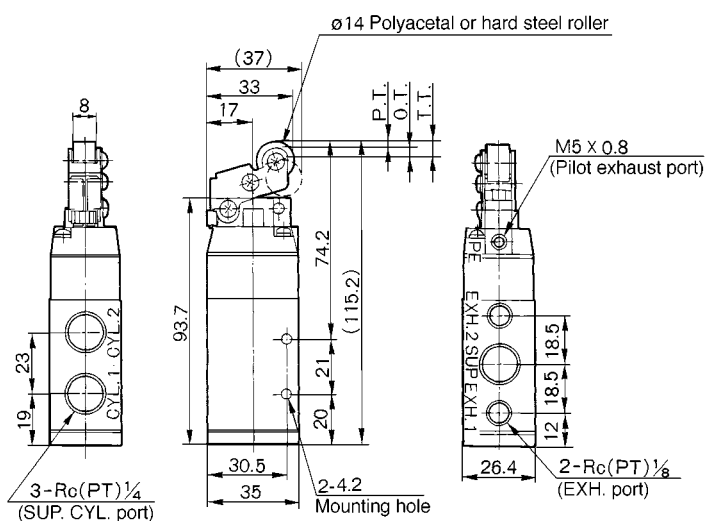
JIS Symbol



* 0.5MPa supply

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

Roller Lever/VFM350-02-01, VFM350-02-01S



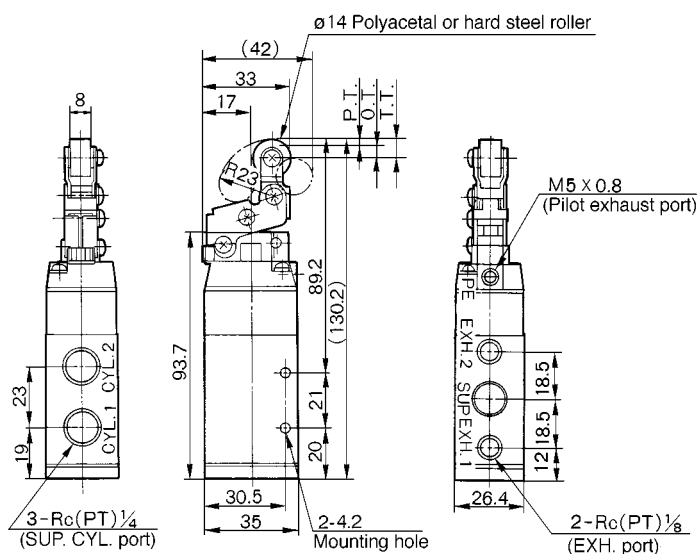
JIS Symbol



* 0.5MPa supply

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

One Way Roller Lever/VFM350-02-02, VFM350-02-02S



JIS Symbol

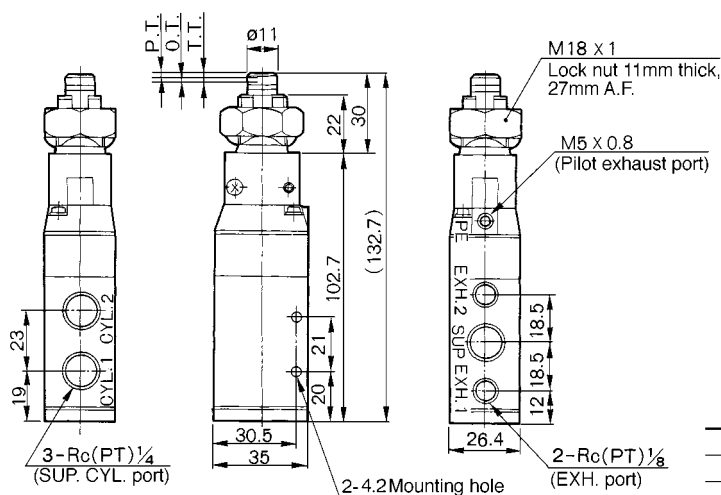


* 0.5MPa supply

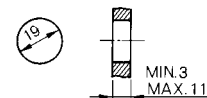
F.O.F.*	7N
P.T.	2.4mm
O.T.	4.6mm
T.T.	7mm

Series VFM300

Straight Plunger/VFM350-02-05



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

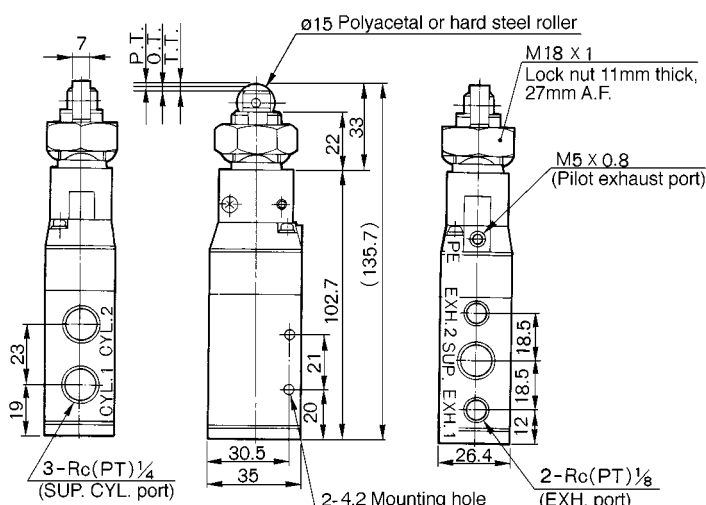
S□A

V□A

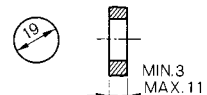
VMVR

VH

Roller Plunger/VFM350-02-06, VFM350-02-06S



Panel mounted hole



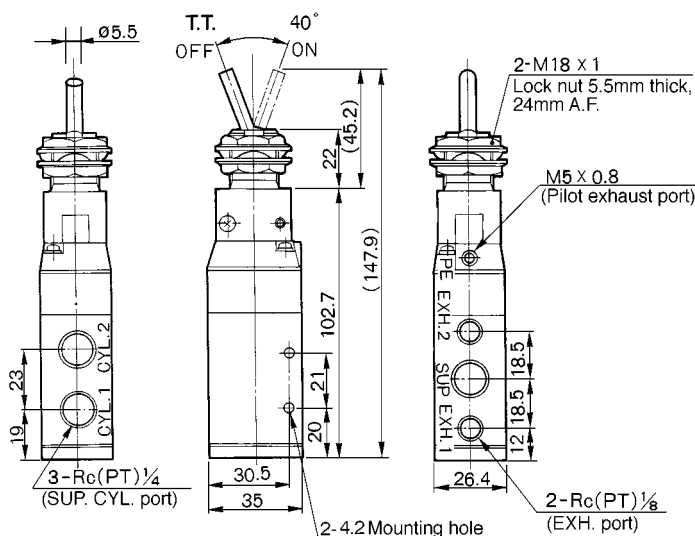
JIS Symbol



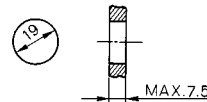
* 0.5MPa supply

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

Toggle Lever/VFM350-02-08



Panel mounted hole



JIS Symbol



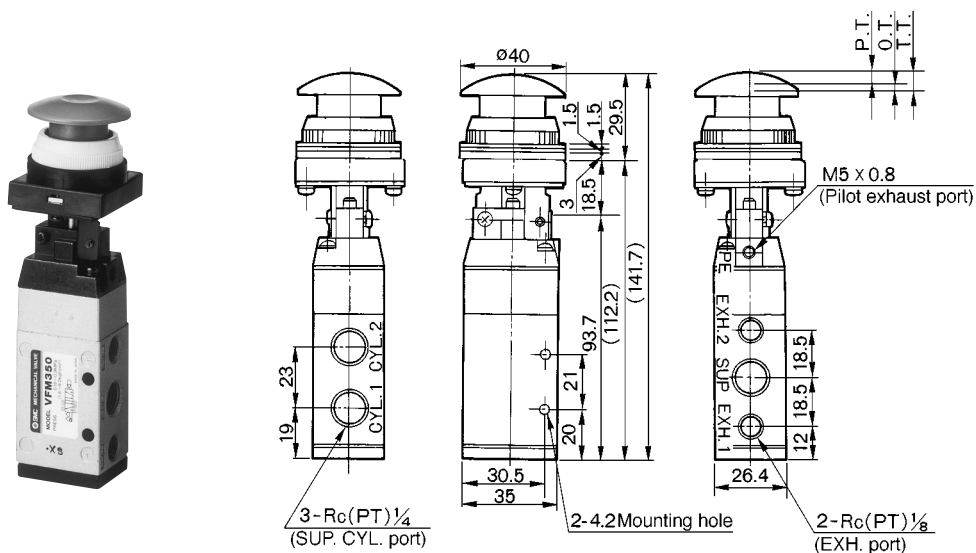
* 0.5MPa supply

F.O.F.*	15N
T.T.	40°

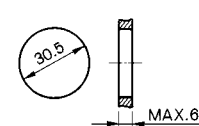
VFM300

Series VFM300

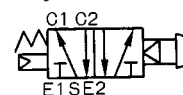
Push Button (Mushroom)/VFM350-02-30R, B, G, Y



Panel mounted hole



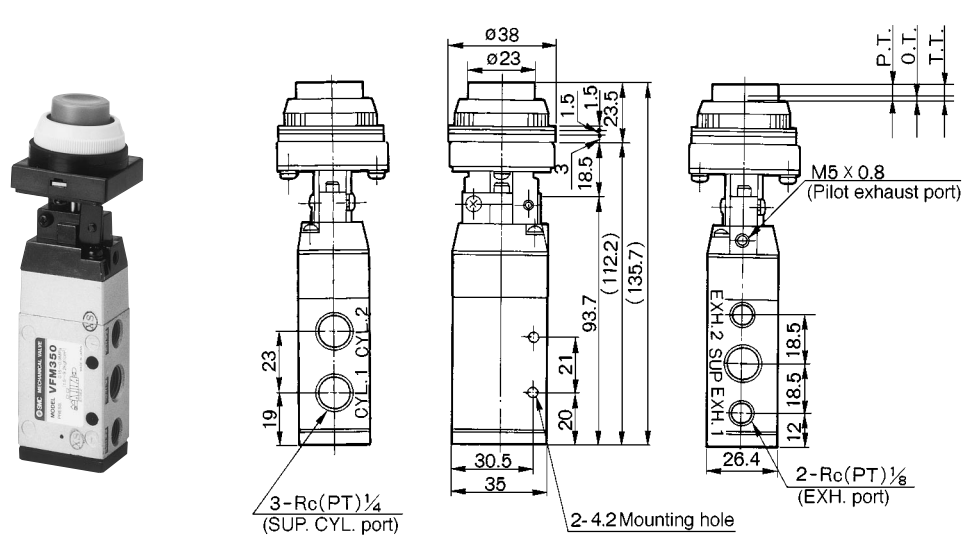
JIS Symbol



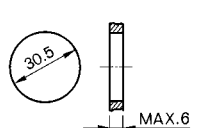
* 0.5MPa supply

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

Push Button (Extended)/VFM350-02-32R, B, G, Y



Panel mounted hole



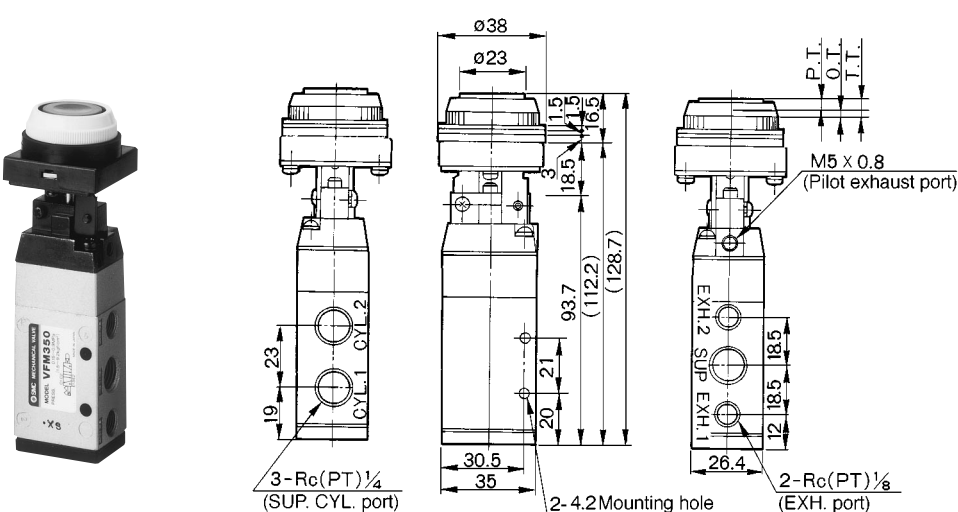
JIS Symbol



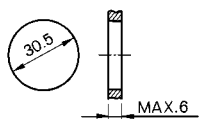
* 0.5MPa supply

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

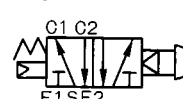
Push Button (Flush)/VFM350-02-33



Panel mounted hole



JIS Symbol

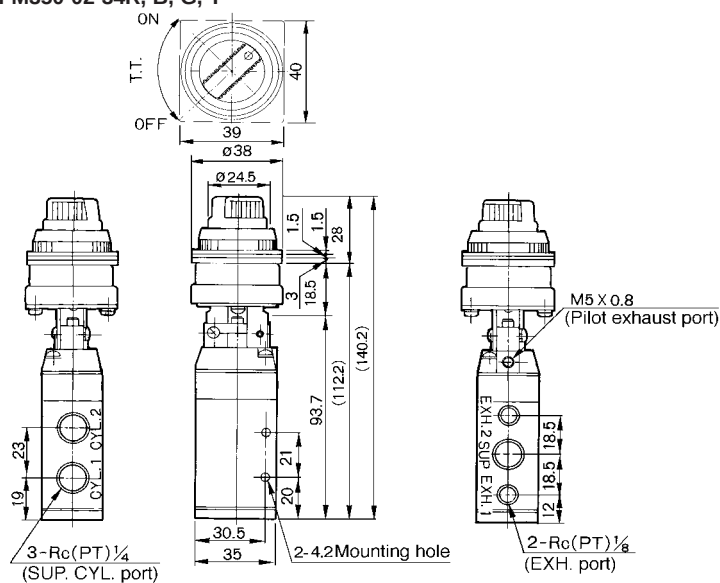
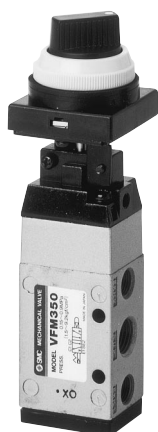


* 0.5MPa supply

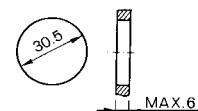
F.O.F.*	21N
P.T.	4.8mm
O.T.	1.7mm
T.T.	6.5mm

Series VFM300

Twist Selector (2 position)/VFM350-02-34R, B, G, Y



Panel mounted hole



JIS Symbol



* 0.5MPa supply

F.O.F.*	23N
T.T.	90°

S□A

V□A

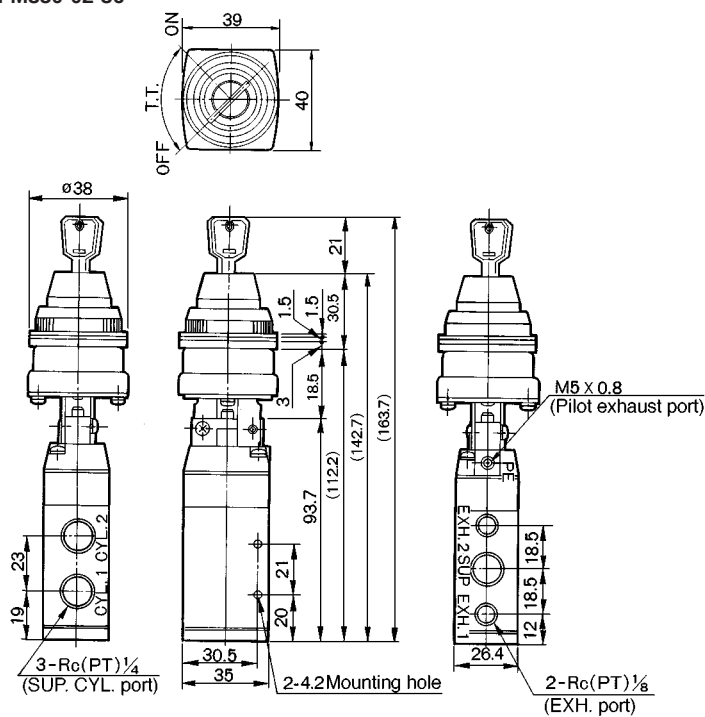
S□A

V□A

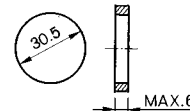
VMVR

VH

Key Selector (2 position)/VFM350-02-36



Panel mounted hole



JIS Symbol

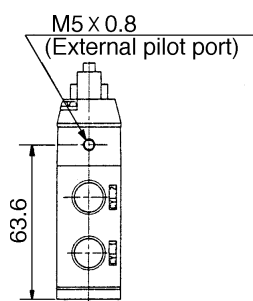


* 0.5MPa supply

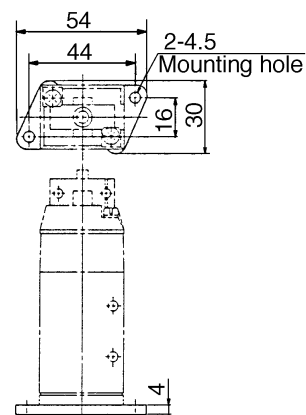
F.O.F.*	26N
T.T.	90°

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

External Pilot Style VFM351 Type



With Foot Bracket VFM350-02-□□-F



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 ⁽¹⁾
Ambient and fluid temperature	-5 to 60°C (No freezing)
Effective area (Cv)	18mm ² (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 ⁽²⁾
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	VFM250-02-00	—	—
	Roller lever	VFM250-02-01	VM-01C	Polyacetal roller
		VFM250-02-01S	VM-01CS	Hard steel roller
	One way roller lever	VFM250-02-02	VM-02C	Polyacetal roller
	Straight plunger	VFM250-02-02S	VM-02CS	Hard steel roller
		VFM250-02-05	VM-05D	—
Manual operation	Roller plunger	VFM250-02-06	VM-06D	Polyacetal roller
		VFM250-02-06S	VM-06DS	Hard steel roller
	Toggle lever	VFM250-02-08	VM-08D	—
	Push button (Mushroom)	VFM250-02-30R	VM-30CR	Red
		VFM250-02-30B	VM-30CB	Black
		VFM250-02-30G	VM-30CG	Green
		VFM250-02-30Y	VM-30CY	Yellow
	Push button (Extended)	VFM250-02-32R	VM-32CR	Red
		VFM250-02-32B	VM-32CB	Black
		VFM250-02-32G	VM-32CG	Green
		VFM250-02-32Y	VM-32CY	Yellow
	Push button (Flush)	VFM250-02-33	VM-33C	With a set of red, black, green, yellow
	Twist selector (2 position)	VFM250-02-34R	VM-34CR	Red
		VFM250-02-34B	VM-34CB	Black
		VFM250-02-34G	VM-34CG	Green
		VFM250-02-34Y	VM-34CY	Yellow
	Key selector (2 position)	VFM250-02-36	VM-36C	—



Note) Actuator replacement is available for all styles.

How to Order

VFM25 0 02 01 S

Port size		Actuator		Suffix of actuator		Option	
02	Rc(PT) 1/4	00	Basic	S	Hard steel roller	F	Foot bracket (Only internal pilot)
Body option		01	Roller lever	R	Red	Color of push button	
		02	One way roller lever	B	Black		
0	Internal pilot style	05	Straight plunger	G	Green		
1	External pilot style	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)				

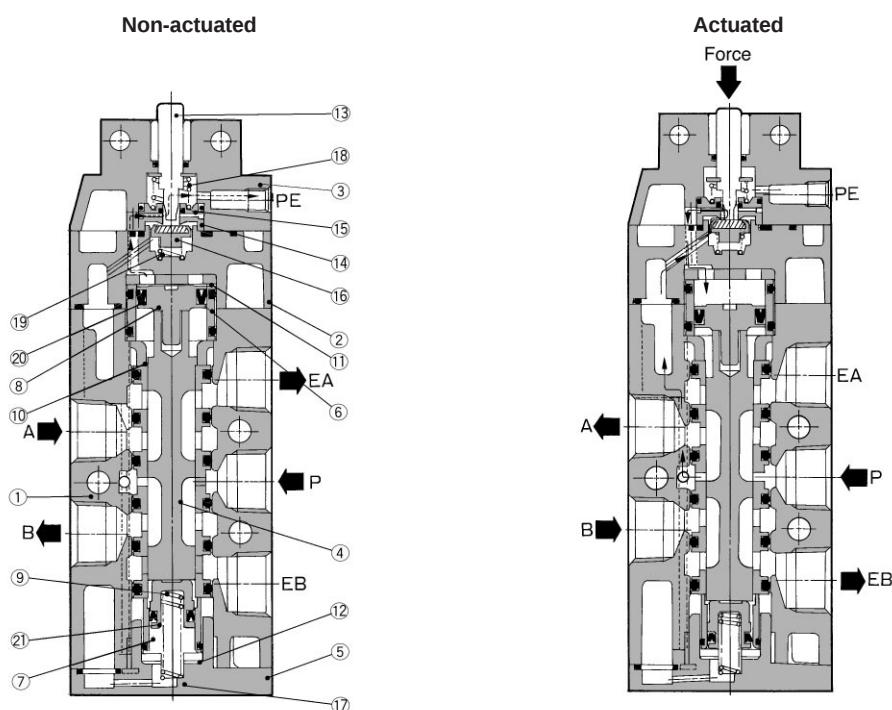
S□A

V□A

S□A

V□A

Construction



VM/R

VH

Component Parts

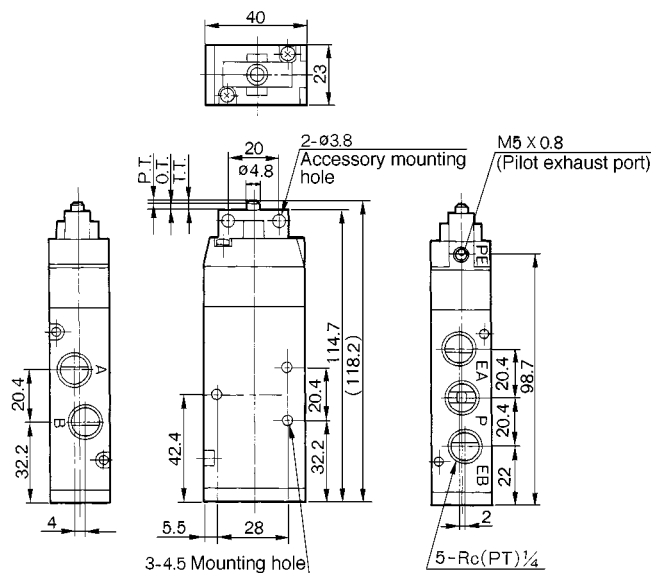
No.	Description	Material	Notes
①	Body	Aluminum alloy	Metallic plated
②	Pilot body	Zinc alloy	Metallic plated
③	Head cover	Zinc alloy	Black zinc chromate
④	Spool/sleeve	Stainless steel	
⑤	End cover	Polyacetal	
⑥	Piston guide	Brass	
⑦	Piston guide for end cover	Brass	
⑧	Piston	Polyacetal	
⑨	Piston for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

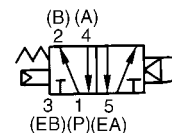
VFM200

Series VFM200

Basic/VFM250-02-00



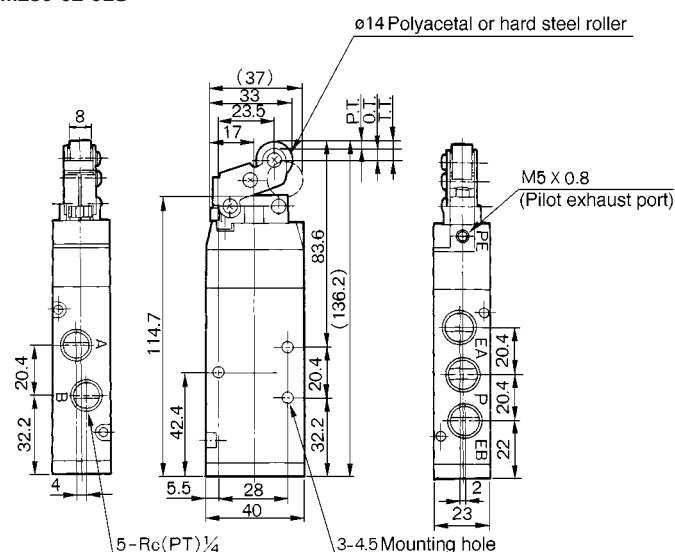
JIS Symbol



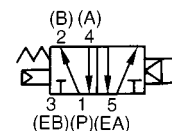
* 0.5MPa supply

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

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



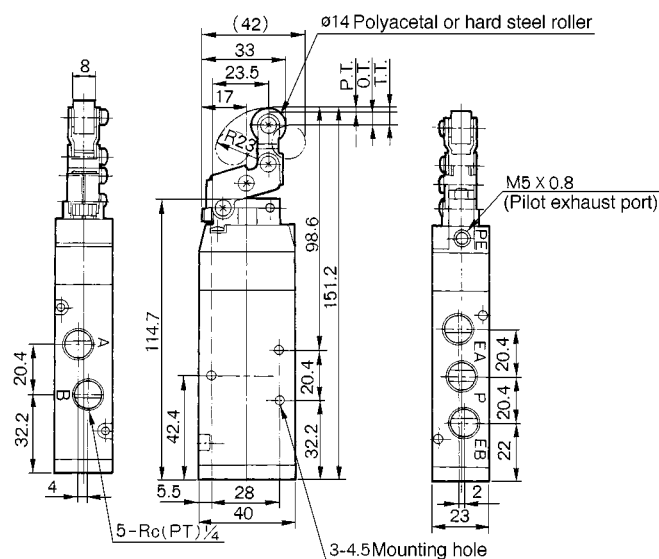
JIS Symbol



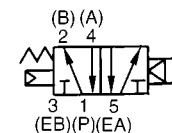
* 0.5MPa supply

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

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



JIS Symbol

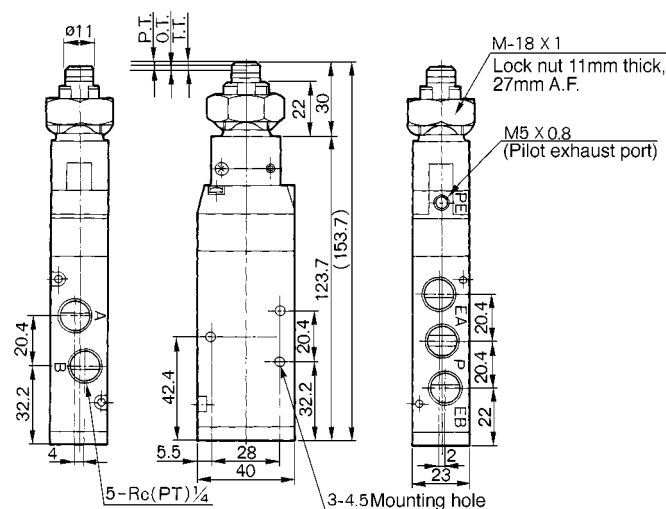


* 0.5MPa supply

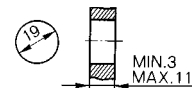
F.O.F.*	7N
P.T.	2.4mm
O.T.	4.6mm
T.T.	7mm

Series VFM200

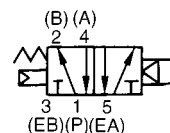
Straight Plunger/VFM250-02-05



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

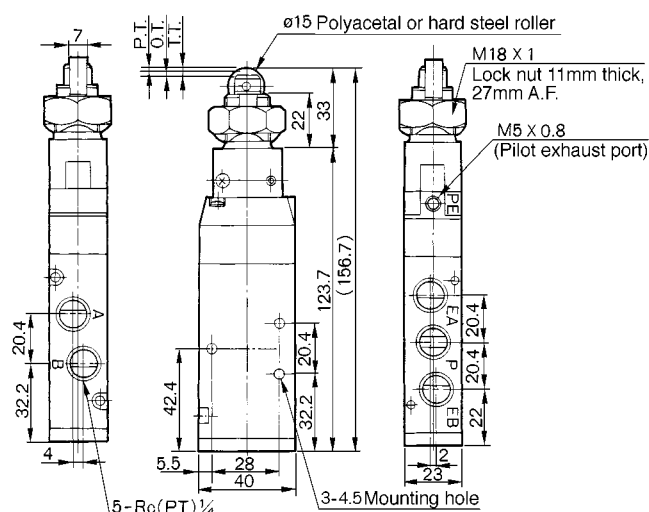
S□A

V□A

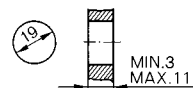
VMVR

VH

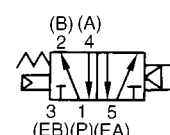
Roller Plunger/VFM250-02-06, VFM250-02-06S



Panel mounted hole



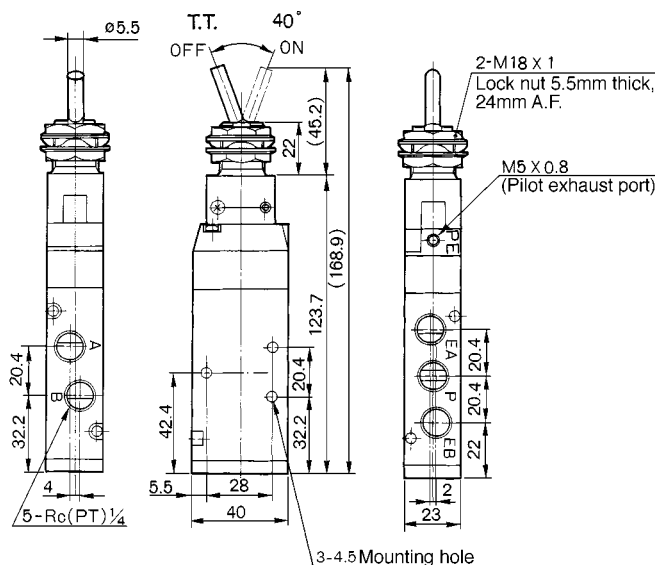
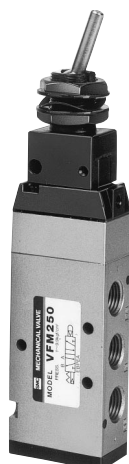
JIS Symbol



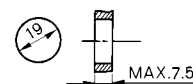
* 0.5MPa supply

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

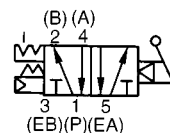
Toggle Lever/VFM250-02-08



Panel mounted hole



JIS Symbol



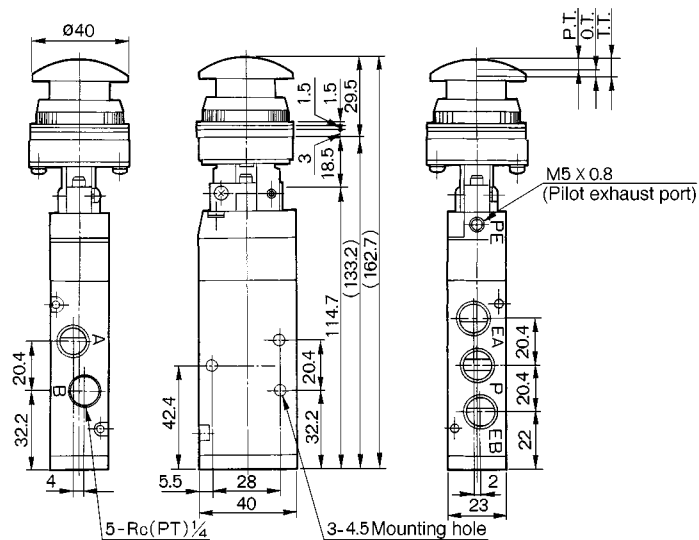
* 0.5MPa supply

F.O.F.*	15N
T.T.	40°

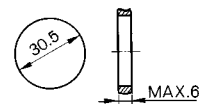
VFM200

Series VFM200

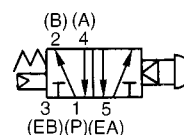
Push Button (Mushroom)/VFM250-02-30R, B, G, Y



Panel mounted hole



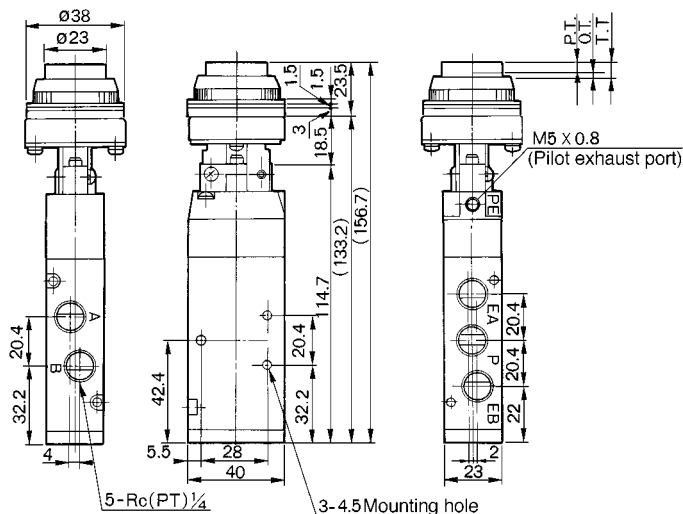
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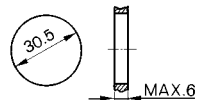
* 0.5MPa supply

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

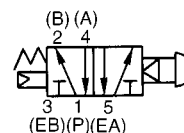
Push Button (Extended)/VFM250-02-32R, B, G, Y



Panel mounted hole



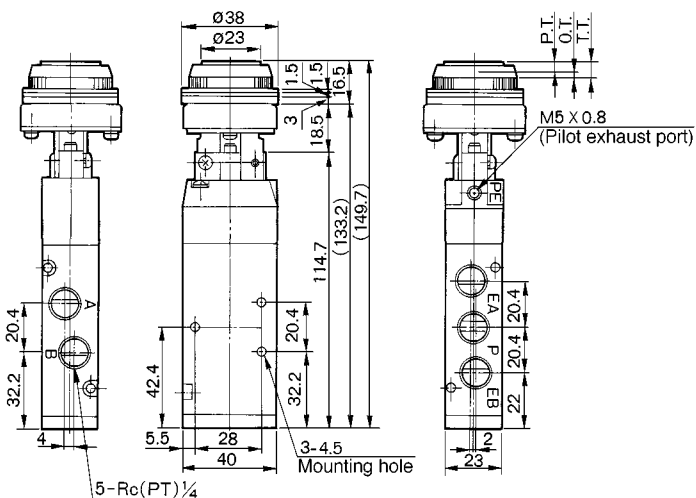
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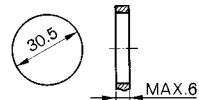
* 0.5MPa supply

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

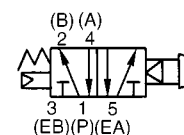
Push Button (Flush)/VFM250-02-33



Panel mounted hole



JIS Symbol

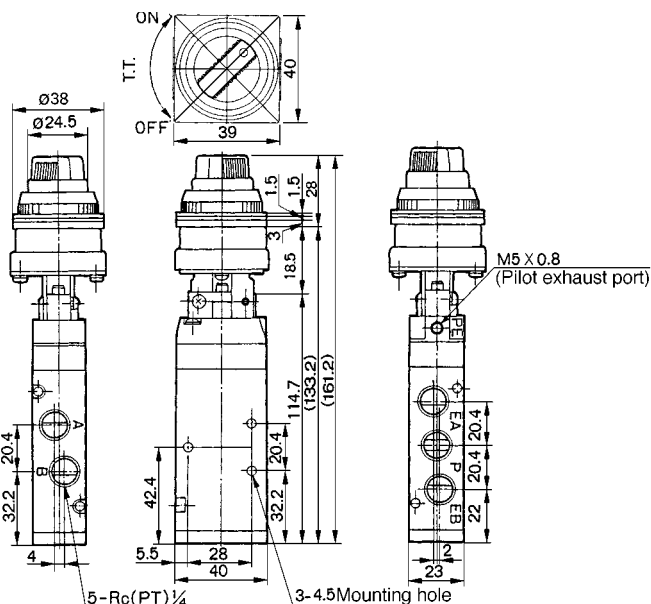


* 0.5MPa supply

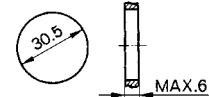
F.O.F.*	21N
P.T.	4.8mm
O.T.	1.7mm
T.T.	6.5mm

Series VFM200

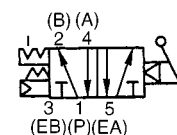
Twist Selector (2 position)/ VFM250-02-34R, B, G, Y



Panel mounted hole



JIS Symbol



* 0.5MPa supply

F.O.F.*	23N
T.T.	90°

S□A

V□A

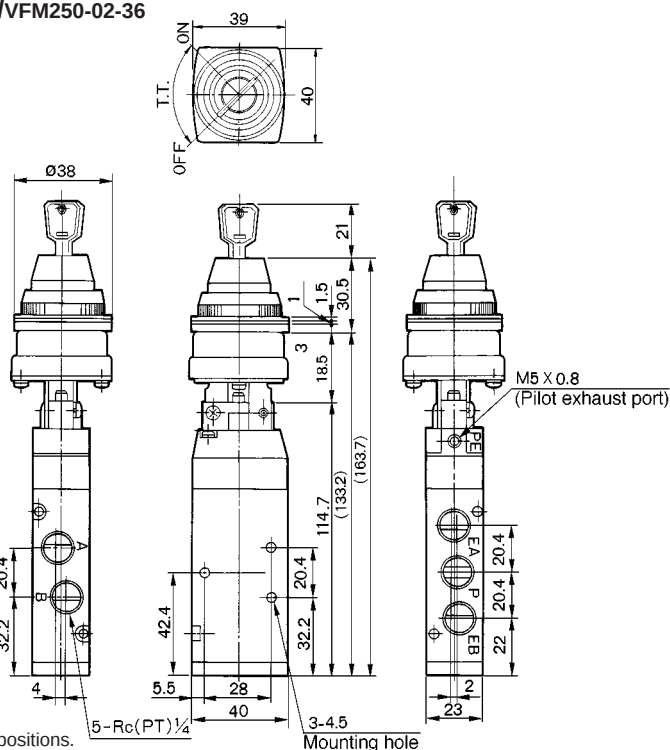
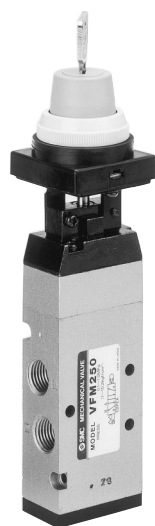
S□A

V□A

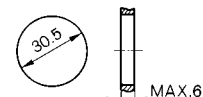
VMVR

VH

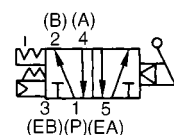
Key Selector (2 position)/VFM250-02-36



Panel mounted hole



JIS Symbol

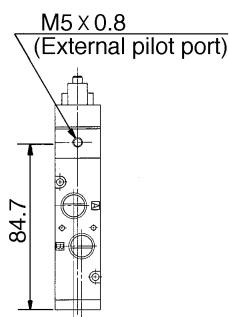


* 0.5MPa supply

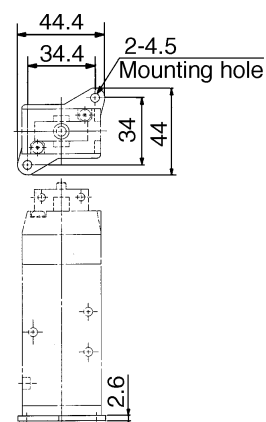
F.O.F.*	26N
T.T.	90°

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

External Pilot Style VFM251 Type



With Foot Bracket VFM250-02-□□-F



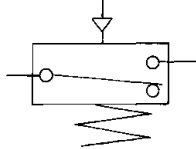
Related Products VR3200/3201

Pneumatic-Electric Relay

Pneumatic-electric relay converts pneumatic signal to electric relay.



JIS Symbol



Precautions

Be sure to read before handling.
Refer to 0-33 to 0-36 for Safety Instructions and common precautions.

Piping

Warning

① When connecting a pipe fitting to the IN port, place the wrench over the hexagon portion of the lid.
If the wrench is placed over the microswitch body, the neck of the microswitch could break.

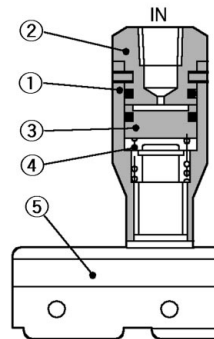
Model/Specifications

	VR3200-01	VR3201-01
Construction	—	Closed terminal (with protect case)
Weight	130g	260g
Operating pressure	0.1 to 1.0MPa	
Ambient and fluid temperature	-5 to 60°C (No freezing)	
Contacts	1ab	
Port size (Nominal size)	Rc(PT)1/8 (6A)	

Micro Switch Rating

Voltage	Non-inductive load (A)				Inductive load (A)			
	Resistance load		Light load		Inductive load		Electric motor load	
	N.C.	N.O.	N.C.	N.O.	N.C.	N.O.	N.C.	N.O.
AC125V	15	15	4	2	10	10	4	2
AC250V	15	15	3	1.5	10	10	3	1.5
DC8V	15	15	3	1.5	15	15	5	2.5
DC14V	15	15	3	1.5	10	10	5	2.5
DC30V	6	6	3	1.5	5	5	5	2.5
DC125V	0.5	0.5	0.3	0.3	0.05	0.05	0.05	0.05
DC250V	0.25	0.25	0.2	0.2	0.03	0.03	0.03	0.03

Construction

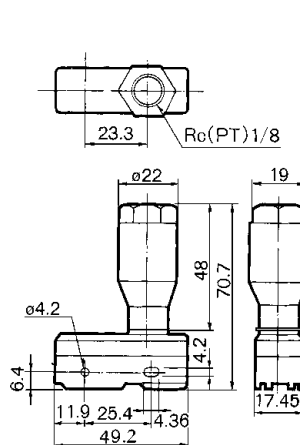


Component Parts

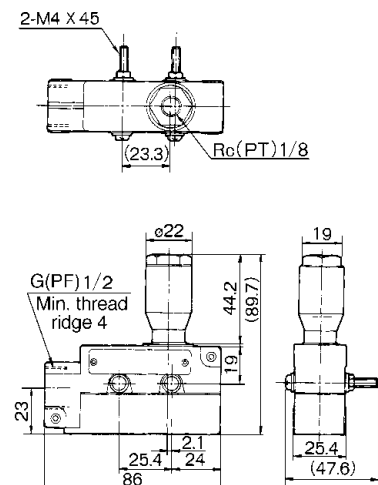
No.	Description	Material	Notes	No.	Description	Material	Notes
①	Body	Brass		④	Spring	Stainless steel	
②	Cap	Brass		⑤	Micro switch		Contacts 1ab
③	Piston	Polyacetal					

Dimensions

VR3200



VR3201



Related Products VR3100

Pneumatic Indicator

Indicates the presence of pneumatic pressure. It is equivalent to the pilot lamp of an electrical system.



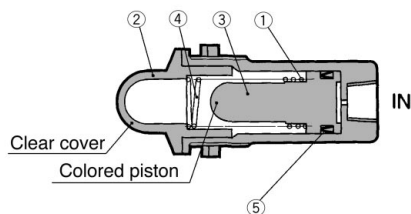
Symbol



Model/Specifications

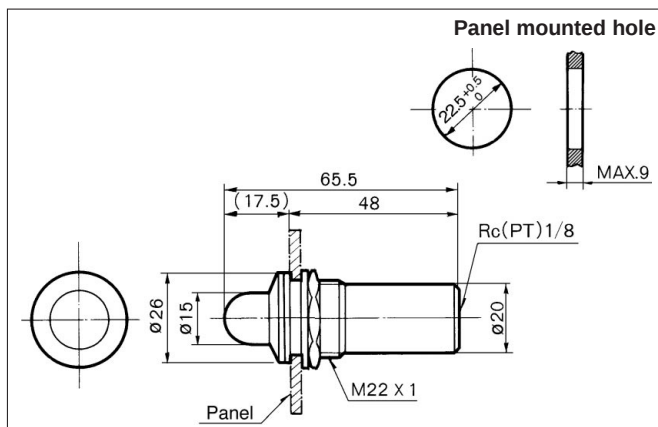
	VR3100-01R	VR3100-01G	VR3100-01O
Operating pressure	0.1 to 0.8MPa		
Ambient and fluid temp.	-5 to 60°C (No freezing)		
Frequency	100 c.p.m or less		
Color of indicator	Red	Green	Orange
Port size (Nominal size)	Rc(PT)1/8 (6A)		
Weight	40g		

Construction/Component Parts



No.	Description	Material	Notes
①	Body	Aluminum alloy	
②	Indicator window	Acrylic	
③	Piston	Polyacetal	
④	Spring	Stainless steel	
⑤	Packing	NBR	

Dimensions



Related Products VR3110

Miniature Pneumatic Indicator

This is an ultra-compact air indicator light to monitor the presence of air pressure. It is equivalent to the pilot lamp of an electrical system.



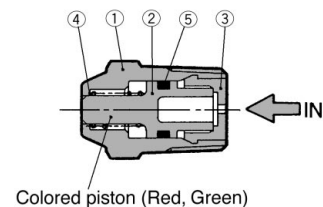
Symbol



Model/Specifications

	VR3110-01R	VR3110-01G
Color of indicator	Red	Green
Operation	Piston style	
Operating pressure	0.15 to 1.0MPa	
Ambient and fluid temp.	-5 to 60°C (No freezing)	
Frequency	300 c.p.m or less	
Port size (Nominal size)	R(PT)1/8 (6A)	
Weight	6g	

Construction/Component Parts



No.	Description	Material	Notes
①	Body	Brass	
②	Piston A	Polyacetal	
③	Plug	Polyethelene	
④	Spring	Stainless steel	
⑤	O ring	NBR	

Dimensions

