

5 Port Mechanical Valve Rubber Seal Series **VFM300**

**Compact design,
large flow capacity 18 mm²**

**High cycle rate,
long life/300 c.p.m. or less**

**Piping possible to any EXH
port.**

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

**External pilot model
available. (Option)**

**Foot bracket and manifold
mounting possible.**



Specifications

Fluid	Air/Inert gas
Operating pressure	0.15 to 0.9 MPa ⁽¹⁾
Ambient and fluid temperature	-5 to 60°C (No freezing)
Effective area	18 mm ²
Maximum frequency (Mechanical operation type)	300 c.p.m. or less
Lubrication	Not required (Use turbine oil Class 1 ISO VG32, if lubricated.)
Port size	Main valve/SUP, CYL port 1/4, EXH port 1/8 Pilot valve (EXH)/M5 x 0.8
Option	Foot bracket ⁽²⁾
Weight (Basic)	260 g



* Please contact SMC for manifold mounting style.

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

Pilot valve: 0.15 to 0.9 MPa

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 1) Actuator replacement is available for all types.

Note 2) For push button (mushroom), push button (extended), push button (flush) and a single unit of fastening ring, refer to pages 5-6-6 to 5-6-7. The other parts are not replaceable.

Note 3) The handle of the selector (2 position) cannot be removed or replaced alone.

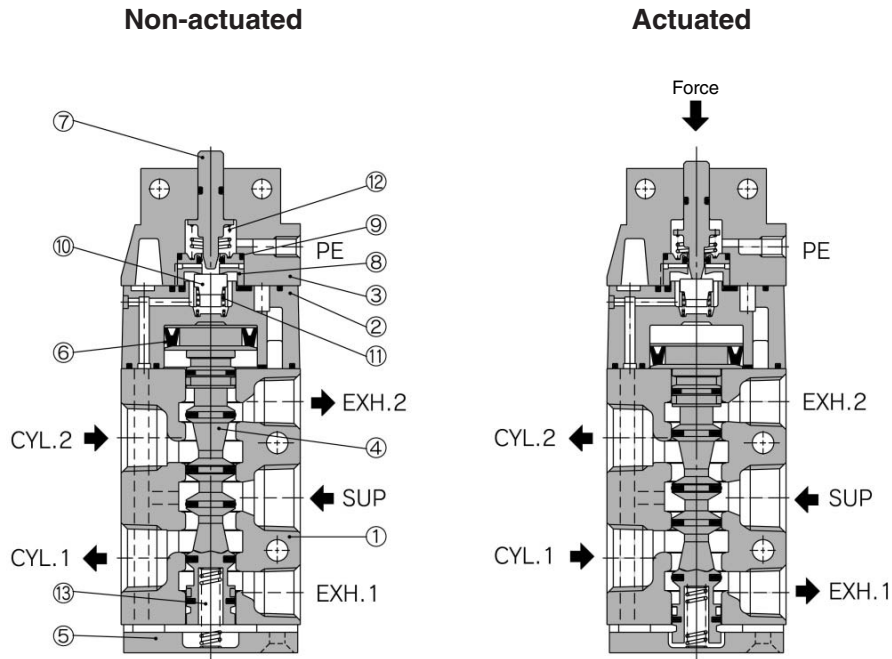
How to Order

VFM35 0 02 01 S

Port size		Actuator type		Suffix for actuator		Option	
02	Rc 1/4	00	Basic	S	Hard steel roller	F	Foot bracket (Only internal pilot)
N02	NPT 1/4	01	Roller lever	R	Red		
F02	G 1/4	02	One way roller lever	B	Black		
		05	Straight plunger	G	Green		
		06	Roller plunger	Y	Yellow		
		08	Toggle lever				
		30	Push button (Mushroom)				
		32	Push button (Extended)				
		33	Push button (Flush)				
		34	Twist selector (2 position)				
		36	Key selector (2 position)				

Body option	
0	Internal pilot type
1	External pilot type

Construction



Component Parts

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

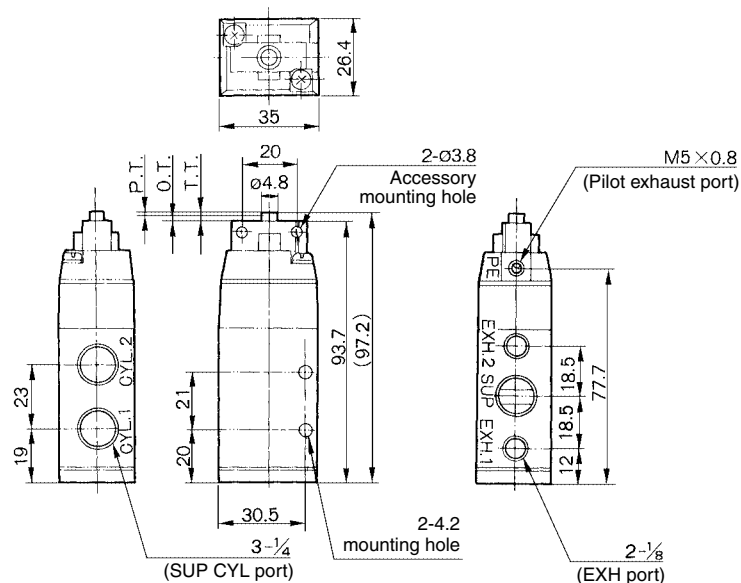
No.	Description	Material	Note
⑧	Valve seat (A)	POM	
⑨	Valve seat (B)	POM	
⑩	Valve	NBR	
⑪	Valve spring	Stainless steel	
⑫	Return spring	Stainless steel	
⑬	Spool spring	Stainless steel	

Series VFM300

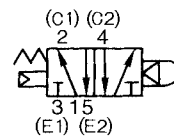
Series VFM300

Basic

VFM350-02-00



JIS Symbol



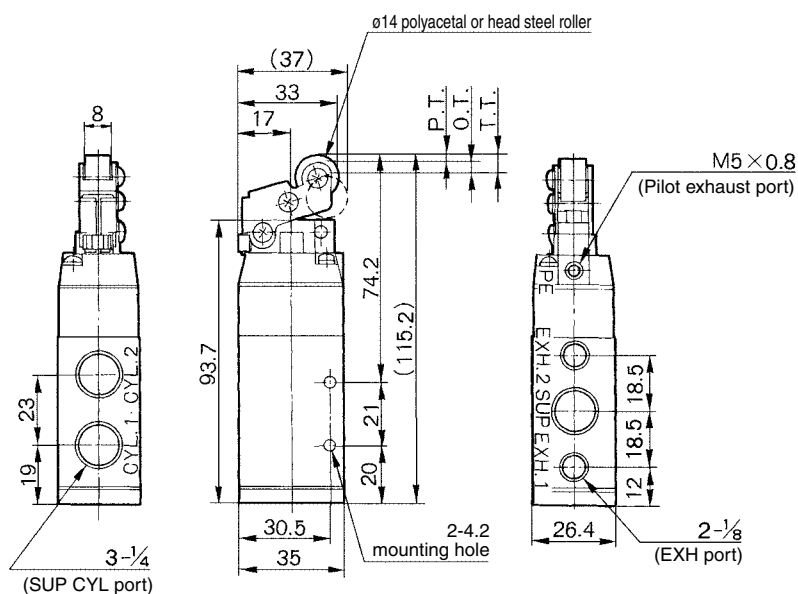
* 0.5 MPa supply

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

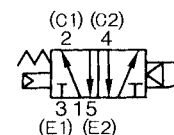
Roller lever

VFM350-02-01

VFM350-02-01S



JIS Symbol



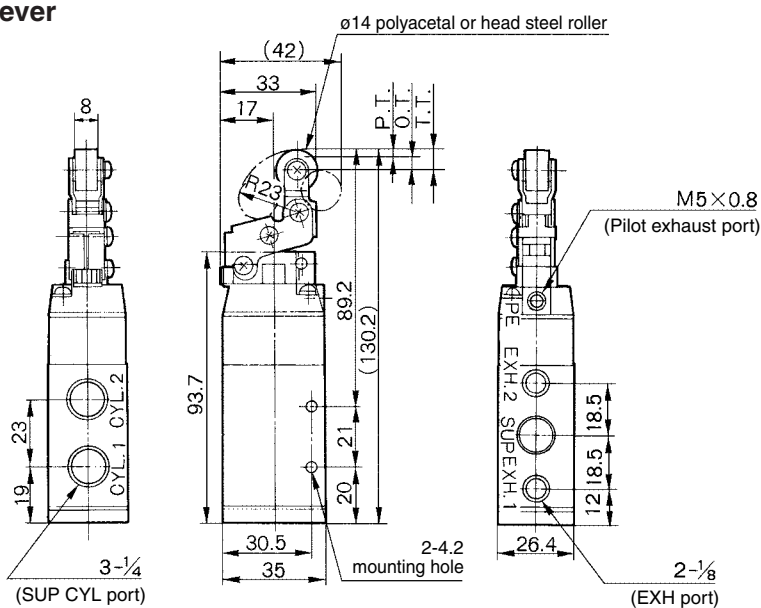
* 0.5 MPa supply

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

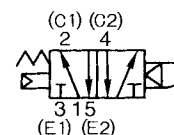
One way roller lever

VFM350-02-02

VFM350-02-02S



JIS Symbol



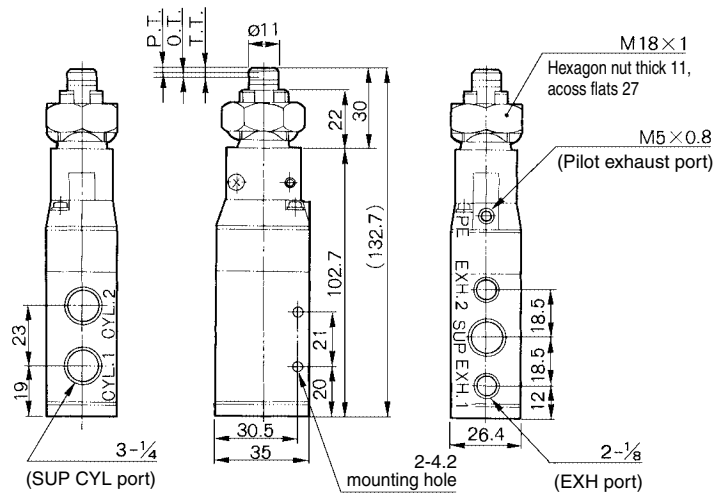
* 0.5 MPa supply

F.O.F. *	7 N
P.T.	2.4 mm
O.T.	4.6 mm
T.T.	7.0 mm

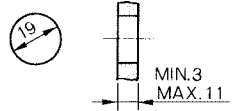
5 Port Mechanical Valve Rubber Seal Series VFM300

Series VFM300

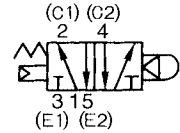
Straight plunger VFM350-02-05



Panel mounting hole



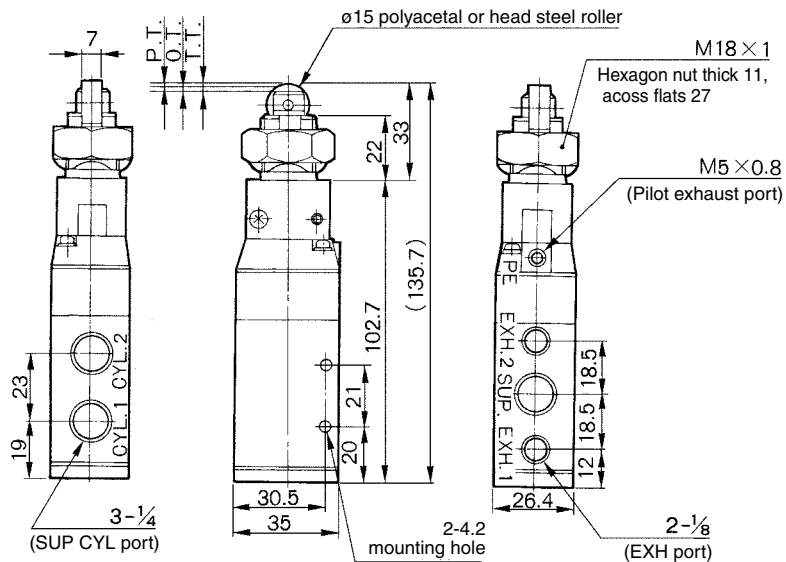
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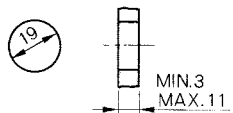
* 0.5 MPa supply

F.O.F. *	20 N
P.T.	1.5 mm
O.T.	2.0 mm
T.T.	3.5 mm

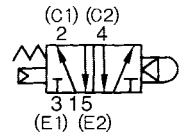
Roller plunger VFM350-02-06 VFM350-02-06S



Panel mounting hole



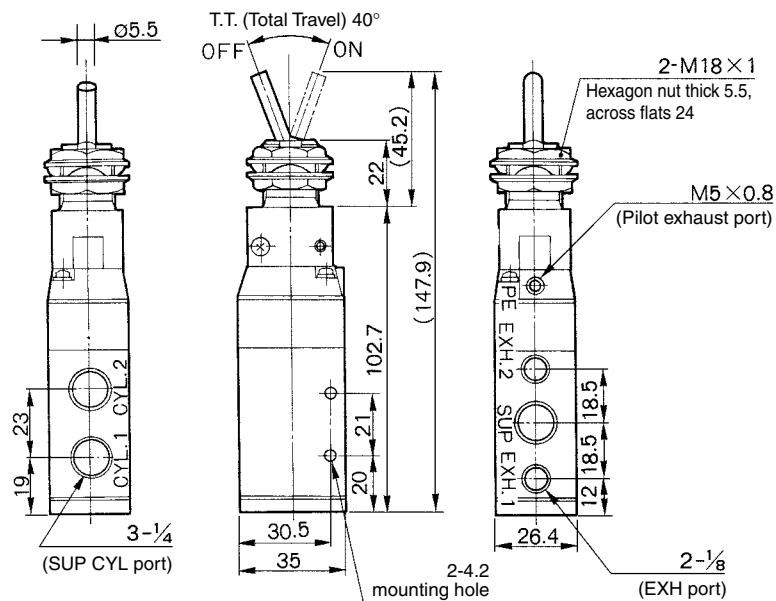
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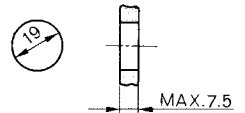
* 0.5 MPa supply

F.O.F. *	20 N
P.T.	1.5 mm
O.T.	2.0 mm
T.T.	3.5 mm

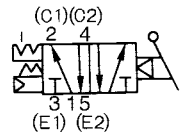
Toggle lever VFM350-02-08



Panel mounting hole



JIS Symbol



* 0.5 MPa supply

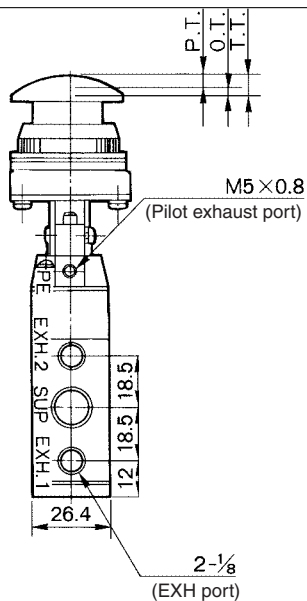
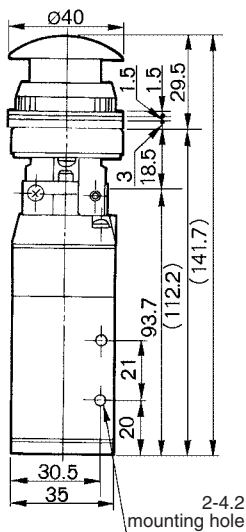
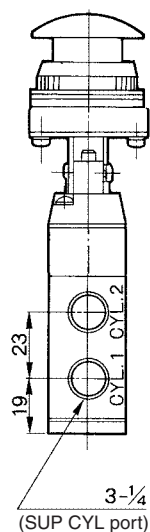
F.O.F. *	15 N
T.T.	40°

Series VFM300

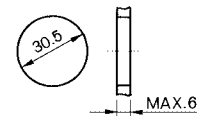
Series VFM300

Push button (Mushroom)

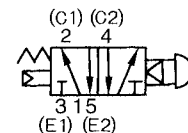
VFM350-02-30R/B/G/Y



Panel mounting hole



JIS Symbol

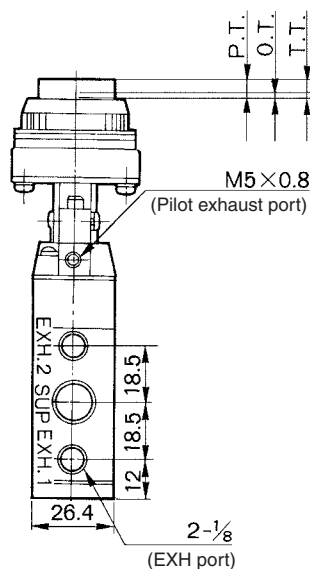
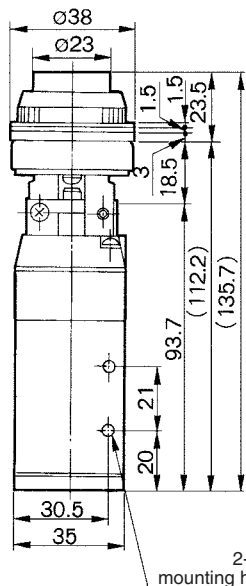
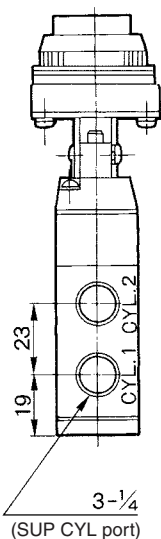


* 0.5 MPa supply

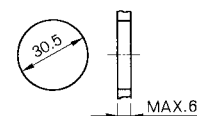
F.O.F. *	21 N
P.T.	4.8 mm
O.T.	1.7 mm
T.T.	6.5 mm

Push button (Extended)

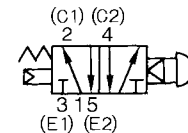
VFM350-02-32R/B/G/Y



Panel mounting hole



JIS Symbol

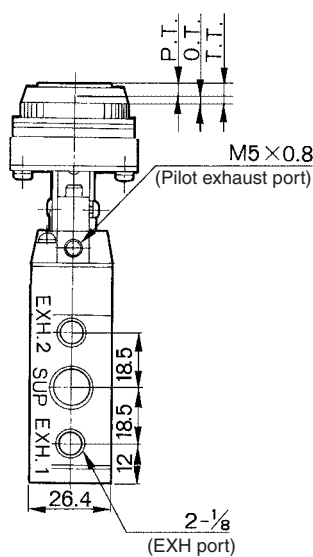
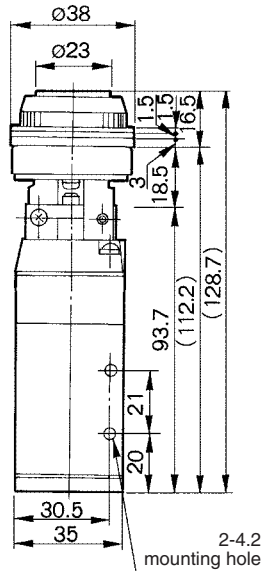
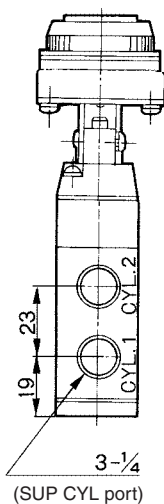


* 0.5 MPa supply

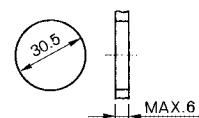
F.O.F. *	21 N
P.T.	4.8 mm
O.T.	1.7 mm
T.T.	6.5 mm

Push button (Flush)

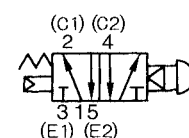
VFM350-02-33



Panel mounting hole



JIS Symbol



* 0.5 MPa supply

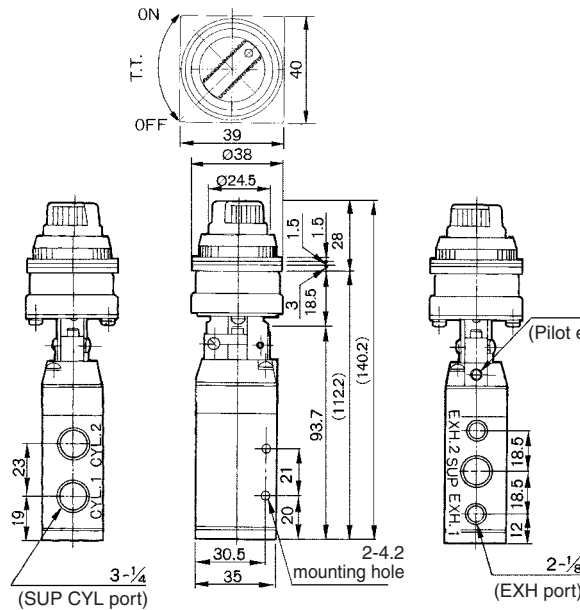
F.O.F. *	21 N
P.T.	4.8 mm
O.T.	1.7 mm
T.T.	6.5 mm

5 Port Mechanical Valve Rubber Seal Series VFM300

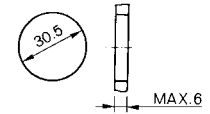
Series VFM300

Twist selector (2 position)

VFM350-02-34R/B/G/Y



Panel mounting hole



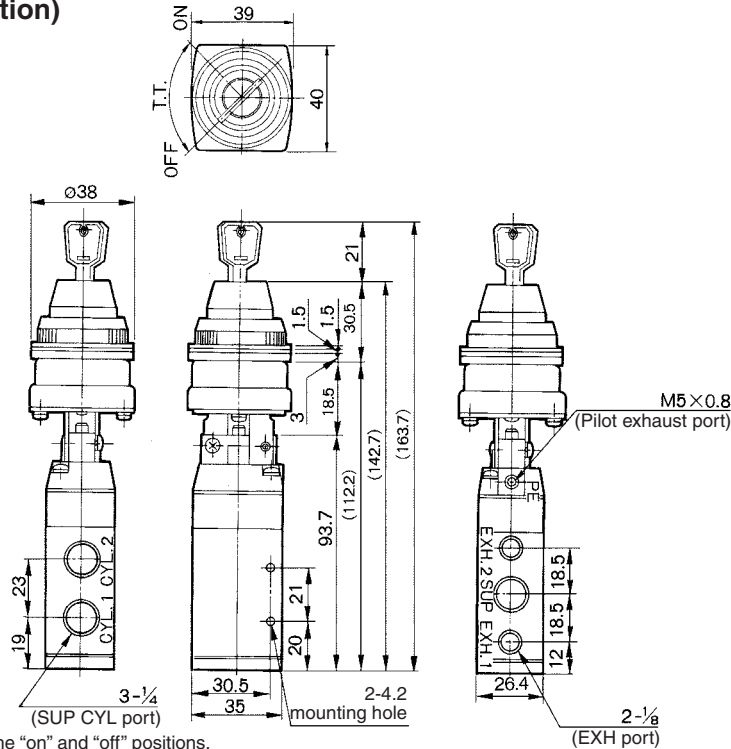
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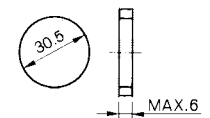
* 0.5 MPa supply	
F.O.F. *	23 N
T.T.	90°

Key selector (2 position)

VFM350-02-36



Panel mounting hole



JIS Symbol



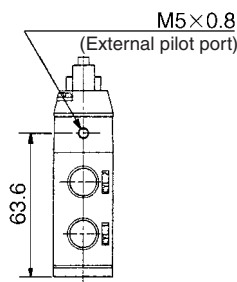
* 0.5 MPa supply	
F.O.F. *	26 N
T.T.	90°



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

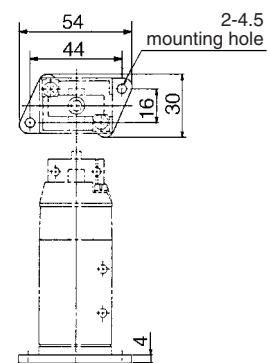
External pilot type

VFM351 type



With foot bracket

VFM350-02-□□-F



5 Port Mechanical Valve Metal Seal Series **VFM200**

**Compact design,
large flow capacity 18 mm²
High cycle rate,
long life/300 c.p.m. or less
Piping possible to any EXH
port.**

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

**External pilot model
available. (Option)**

**Foot bracket and manifold
mounting possible.**



Specifications

Fluid	Air/Inert gas
Operating pressure	0.1 to 1.0 MPa ⁽¹⁾
Ambient and fluid temperature	−5 to 60°C (No freezing)
Effective area	18 mm ²
Maximum frequency (Mechanical operation type)	300 c.p.m. or less
Lubrication	Not required (Use turbine oil Class 1 ISO VG32, if lubricated.)
Port size	Main valve Rc 1/4 Pilot valve (EXH)/M5 x 0.8
Option	Foot bracket ⁽²⁾
Weight (Basic)	300 g

* Please contact SMC for manifold mounting style.
 Note 1) External pilot type Main valve: 0 to 1.0 MPa
 Pilot valve: 0.1 to 1.0 MPa
 Note 2) The standard body can not be retrofitted with a foot bracket.

Model

	Actuator	Model	Actuator part no.	Application
Mechanical operation	Basic	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
		VFM250-02-02S	VM-02CS	Hard steel roller
	Straight plunger	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	—

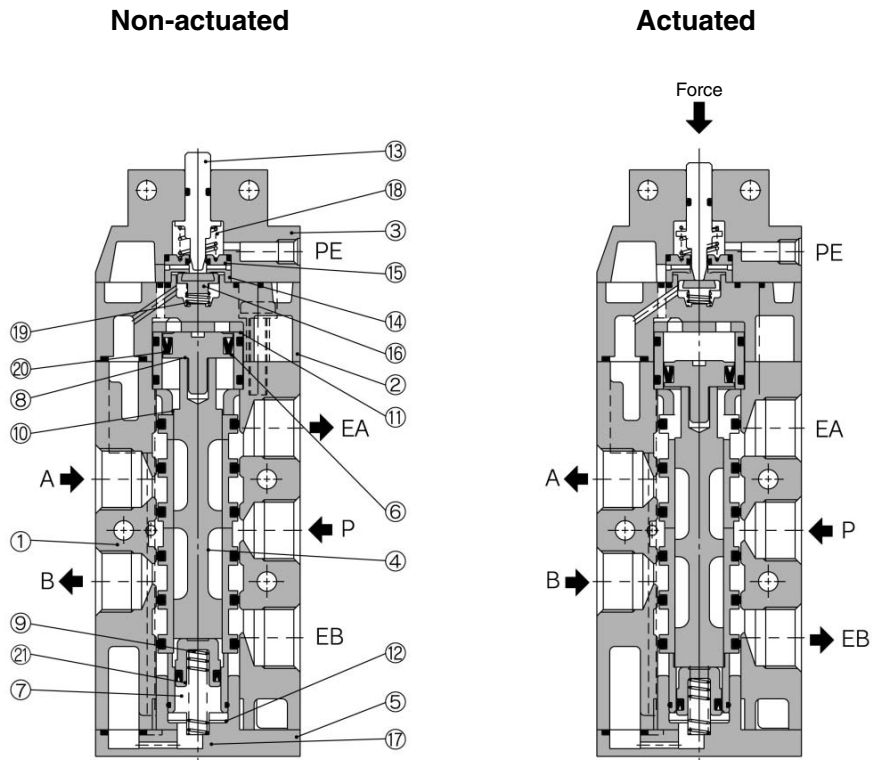
Note 1) Actuator replacement is available for all types.
 Note 2) For push button (mushroom), push button (extended), push button (flush) and a single unit of fastening ring, refer to pages 5-6-6 to 5-6-7. The other parts are not replaceable.
 Note 3) The handle of the selector (2 position) cannot be removed or replaced alone.

How to Order

VFM25 **0** **02** **01** **S**

Port size		Actuator type		Suffix for actuator		Option
02	Rc 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 selector
		02	One way roller lever	B	Black	
		05	Straight plunger	G	Green	
		06	Roller plunger	Y	Yellow	
		08	Toggle lever			
0	Internal pilot type	30	Push button (Mushroom)			
1	External pilot type	32	Push button (Extended)			
		33	Push button (Flush)			
		34	Twist selector (2 position)			
		36	Key selector (2 position)			

Construction



Component Parts

No.	Description	Material	Note
①	Body	ADC	Metallic plated
②	Pilot body	ZDC	Metallic plated
③	Head cover	ZDC	Black zinc chromated
④	Spool/sleeve	Stainless steel	
⑤	End cover	POM	
⑥	Piston guide	Brass	
⑦	Piston guide for end cover	Brass	
⑧	Piston	POM	
⑨	Piston for end cover	POM	
⑩	Guide bushing	POM	
⑪	Cushion	Urethane rubber	

No.	Description	Material	Note
⑫	Cushion for end cover	Urethane rubber	
⑬	Plunger	POM	
⑭	Valve seat (A)	POM	
⑮	Valve seat (B)	POM	
⑯	Valve	NBR	
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	

S□A

V□A

S□A

V□A

VM

VR

VH

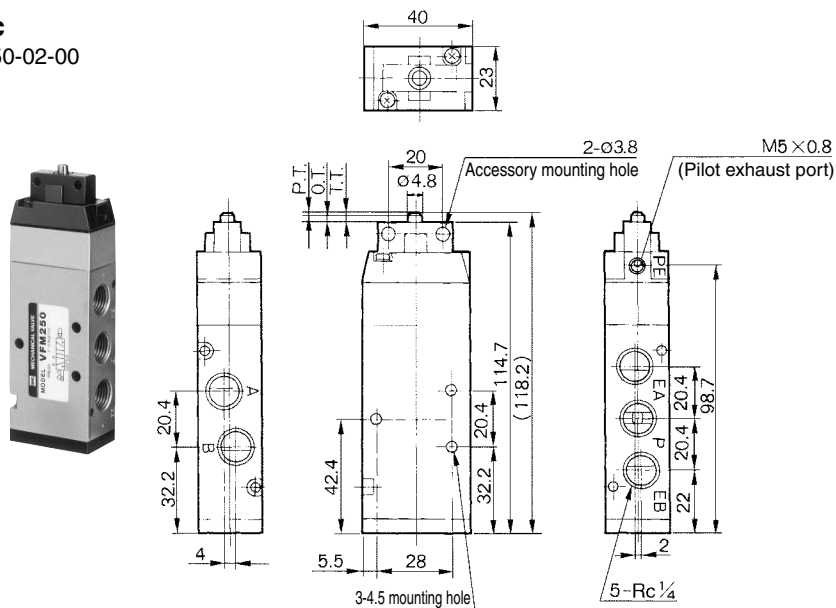
VHS

Series VFM200

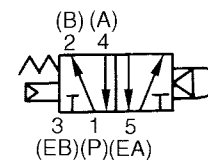
Series VFM200

Basic

VFM250-02-00



JIS Symbol



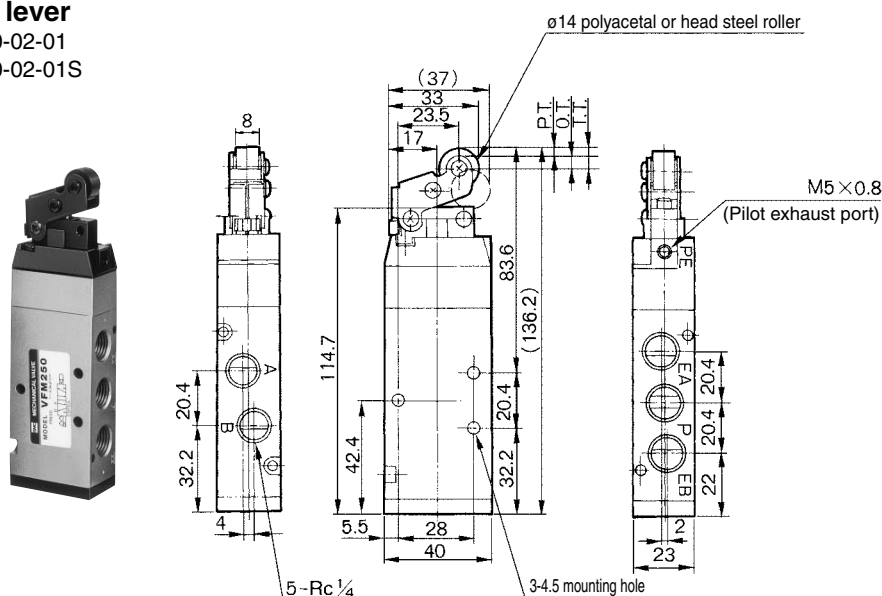
* 0.5 MPa supply

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

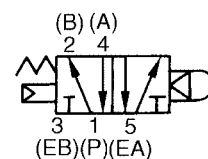
Roller lever

VFM250-02-01

VFM250-02-01S



JIS Symbol



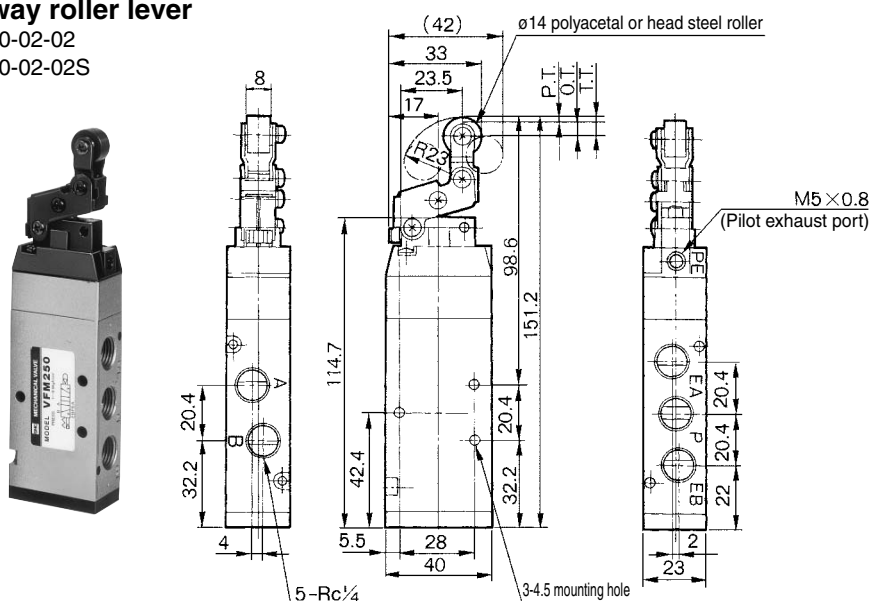
* 0.5 MPa supply

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

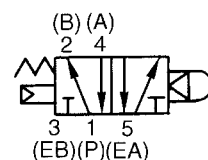
One way roller lever

VFM250-02-02

VFM250-02-02S



JIS Symbol



* 0.5 MPa supply

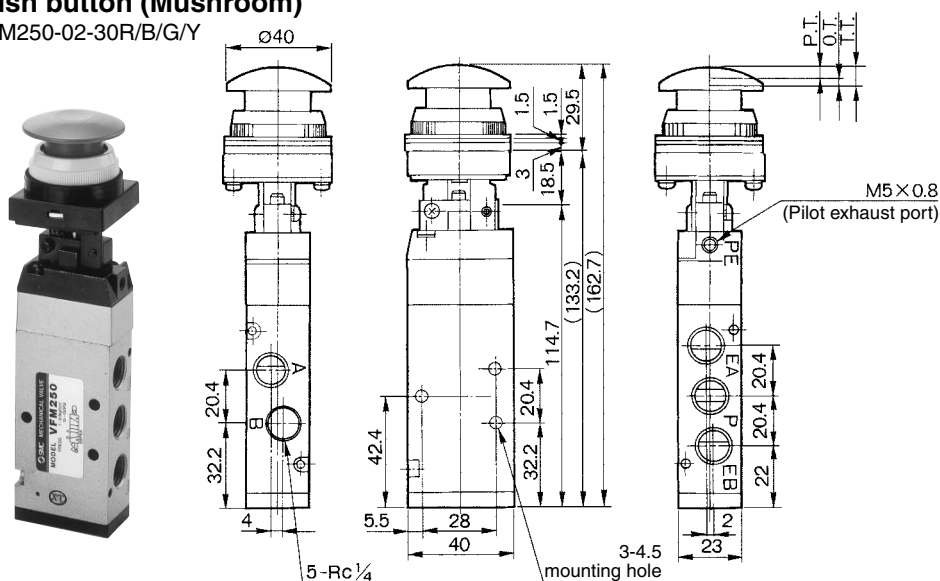
F.O.F. *	7 N
P.T.	2.4 mm
O.T.	4.6 mm
T.T.	7.0 mm

Series VFM200

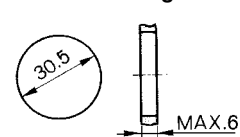
Series VFM200

Push button (Mushroom)

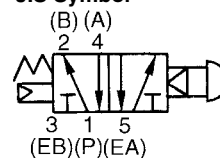
VFM250-02-30R/B/G/Y



Panel mounting hole



JIS Symbol

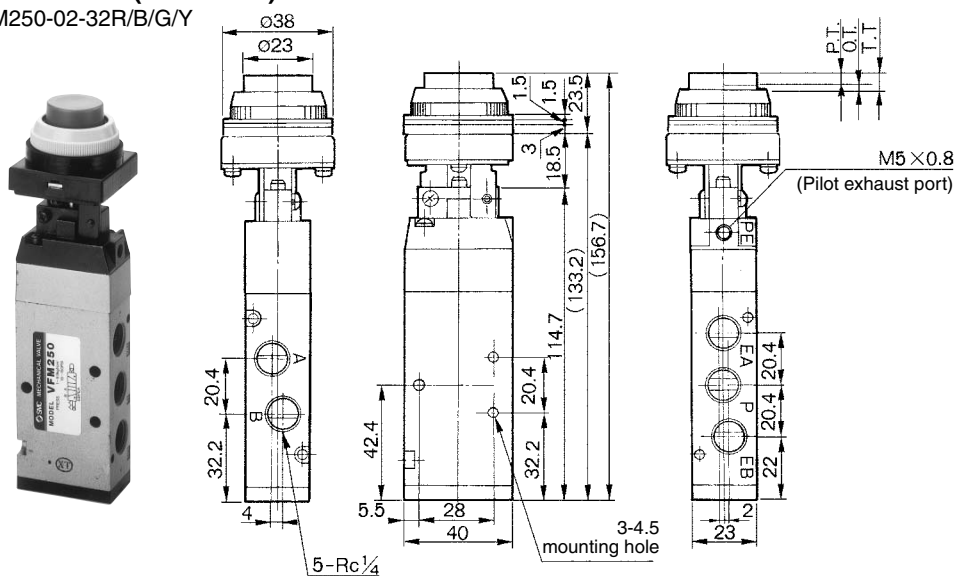


* 0.5 MPa supply

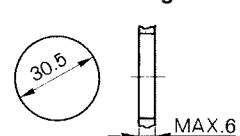
F.O.F. *	21 N
P.T.	4.8 mm
O.T.	1.7 mm
T.T.	6.5 mm

Push button (Extended)

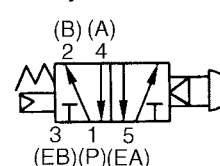
VFM250-02-32R/B/G/Y



Panel mounting hole



JIS Symbol

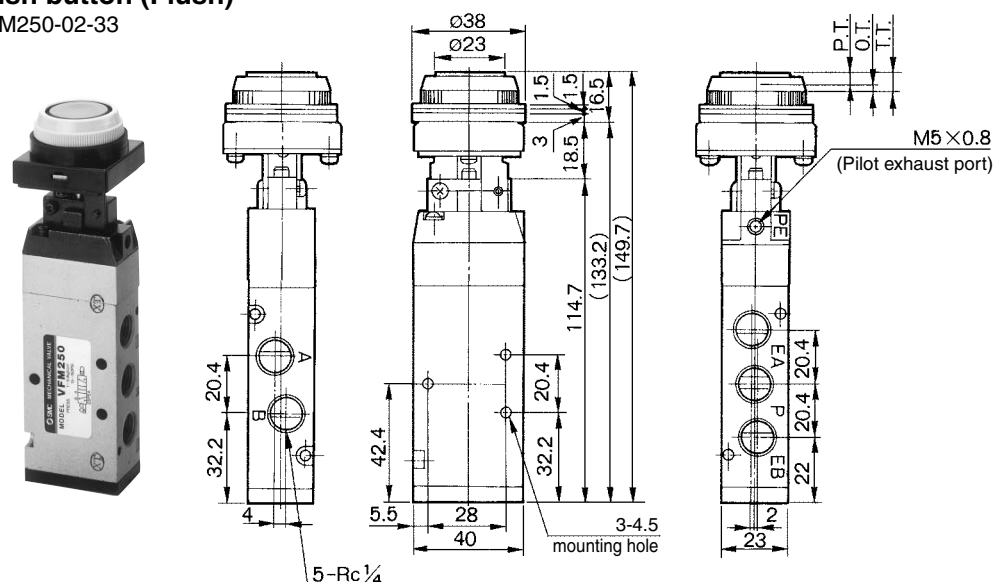


* 0.5 MPa supply

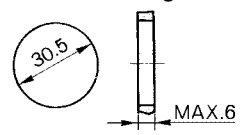
F.O.F. *	21 N
P.T.	4.8 mm
O.T.	1.7 mm
T.T.	6.5 mm

Push button (Flush)

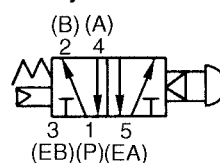
VFM250-02-33



Panel mounting hole



JIS Symbol



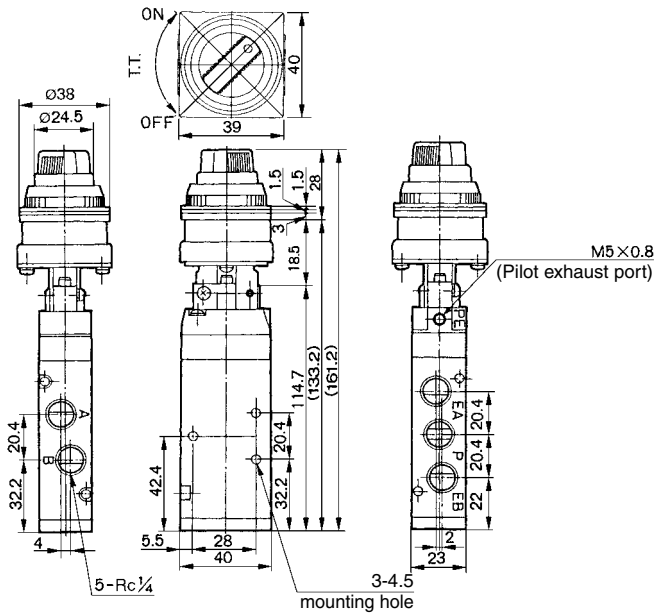
* 0.5 MPa supply

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

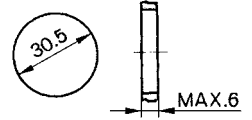
5 Port Mechanical Valve Metal Seal Series VFM200

Series VFM200

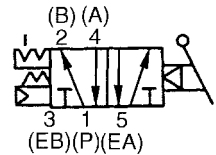
Twist selector (2 position) VFM250-02-34R/B/G/Y



Panel mounting hole



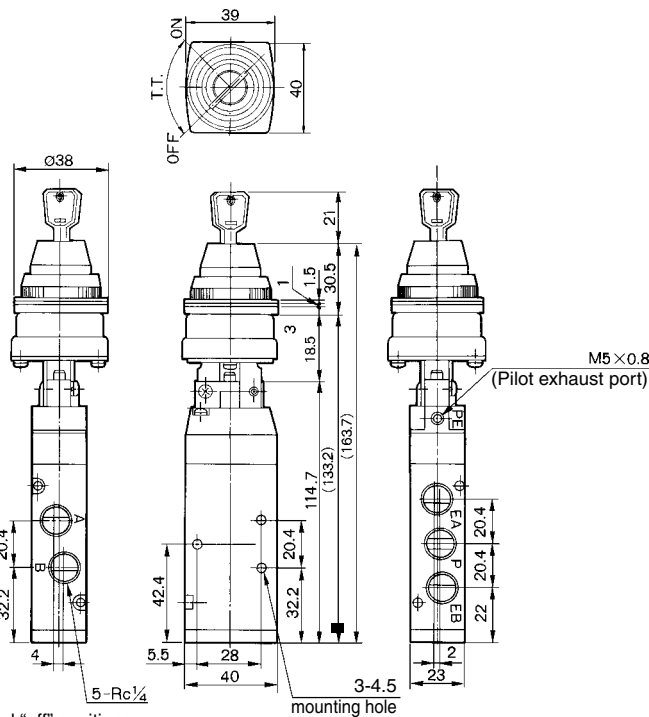
JIS Symbol



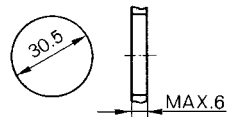
* 0.5 MPa supply

F.O.F. *	23 N
T.T.	90°

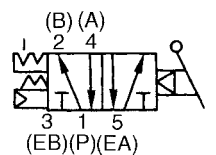
Key selector (2 position) VFM250-02-36



Panel mounting hole



JIS Symbol



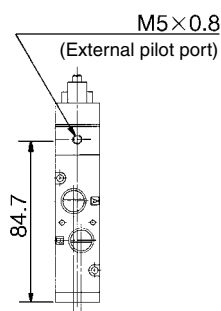
* 0.5 MPa supply

F.O.F. *	26 N
T.T.	90°



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

External pilot type VFM251 type



With foot bracket VFM250-02-□□-F

