

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
	Push button (Flush)		VFM350-02-32Y	VM-32CY	Yellow
			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.

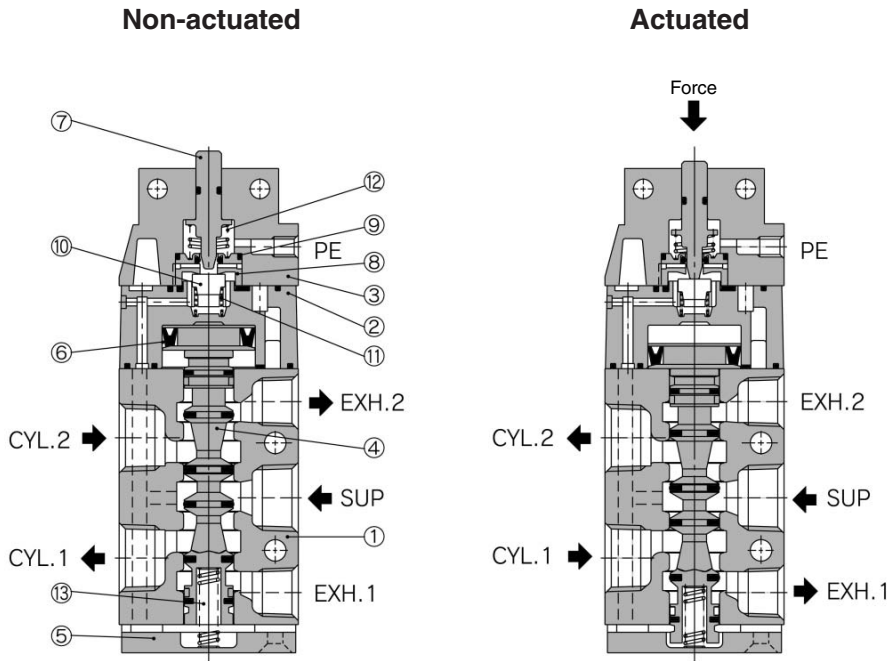
How to Order

VFM35 0 02 01 S

Port size	02 Rc 1/4	N02 NPT 1/4	F02 G 1/4
Body option	0 Internal pilot type	1 External pilot type	
Actuator type	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 for actuator	S Hard steel roller	R Red	Color of push button selector
	B Black	G Green	
	Y Yellow		
Option	F Foot bracket (Only internal pilot)		

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

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	

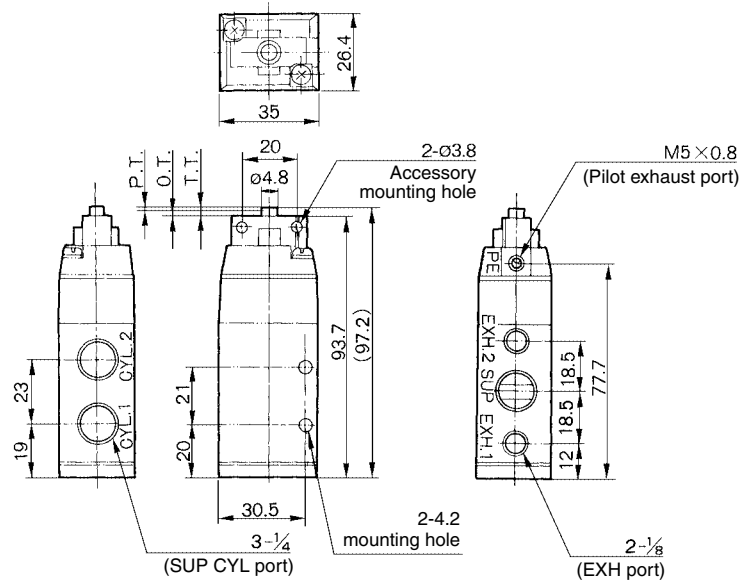
No.	Description	Material	Note
⑧	Valve seat (A)	POM	
⑨	Valve seat (B)	POM	
⑩	Valve	NBR	
⑪	Valve spring	Stainless steel	
⑫	Return spring	Stainless steel	
⑬	Spool spring	Stainless steel	

Series VFM300

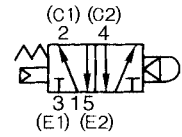
Series VFM300

Basic

VFM350-02-00



JIS Symbol

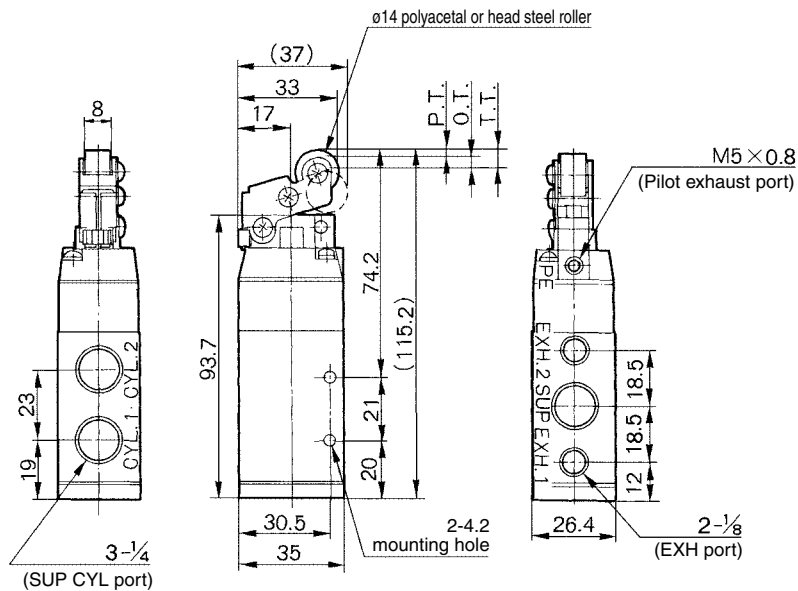


* 0.5 MPa supply

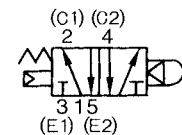
F.O.F. *	16 N
P.T.	1.0 mm
O.T.	2.0 mm
T.T.	3.0 mm

Roller lever

VFM350-02-01
VFM350-02-01S



JIS Symbol

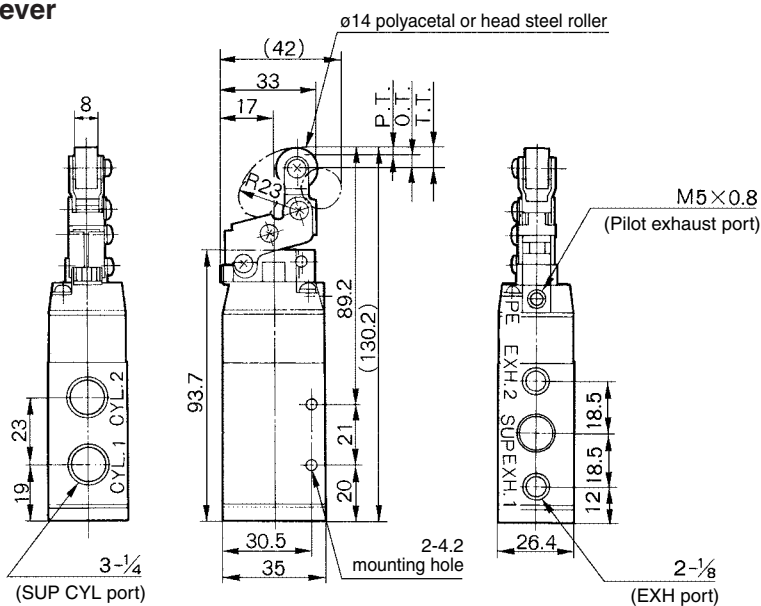


* 0.5 MPa supply

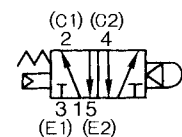
F.O.F. *	8 N
P.T.	2.2 mm
O.T.	4.0 mm
T.T.	6.2 mm

One way roller lever

VFM350-02-02
VFM350-02-02S



JIS Symbol



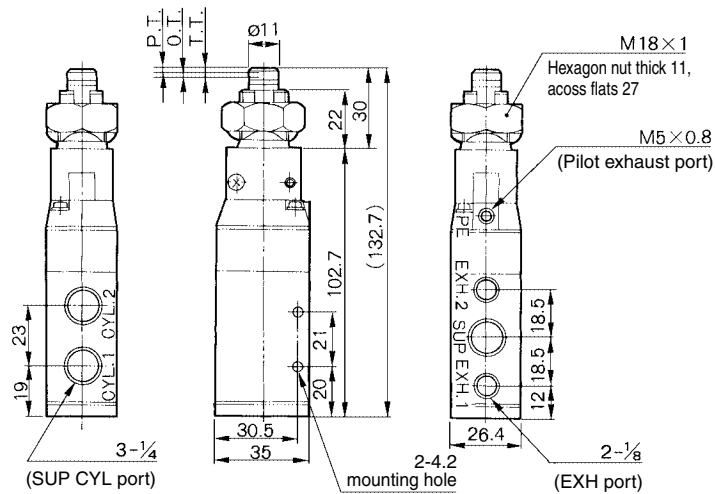
* 0.5 MPa supply

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

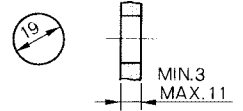
5 Port Mechanical Valve Rubber Seal Series VFM300

Series VFM300

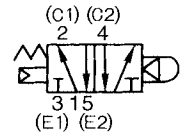
Straight plunger VFM350-02-05



Panel mounting hole



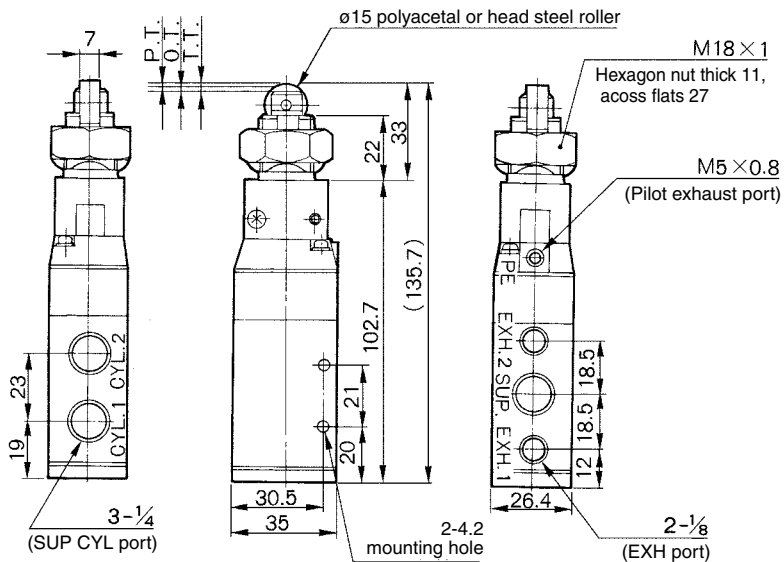
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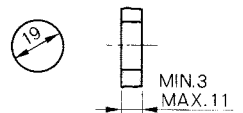
* 0.5 MPa supply

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

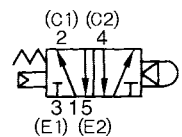
Roller plunger VFM350-02-06 VFM350-02-06S



Panel mounting hole



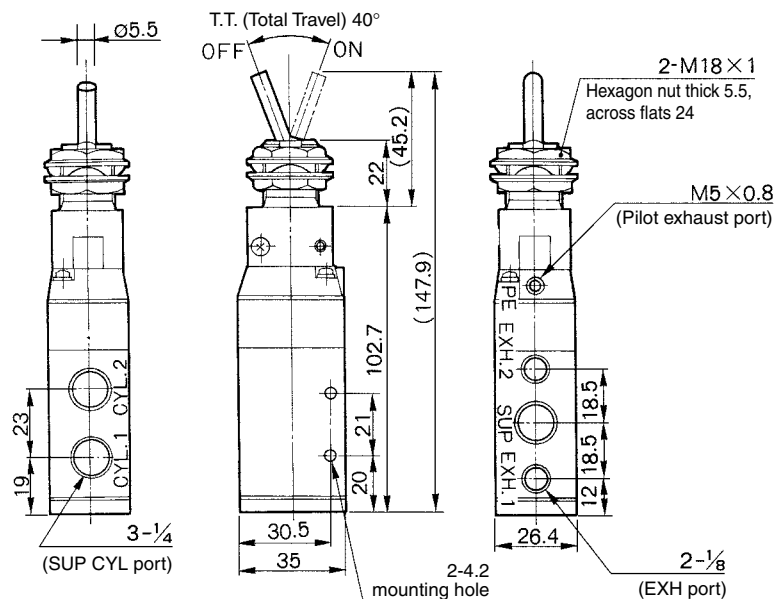
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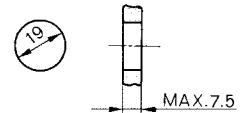
* 0.5 MPa supply

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

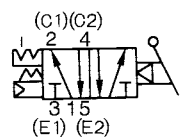
Toggle lever VFM350-02-08



Panel mounting hole



JIS Symbol



* 0.5 MPa supply

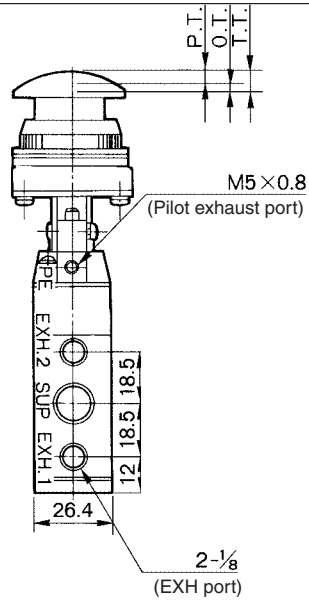
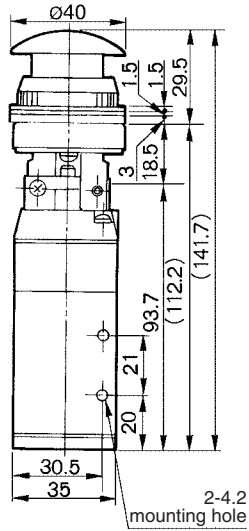
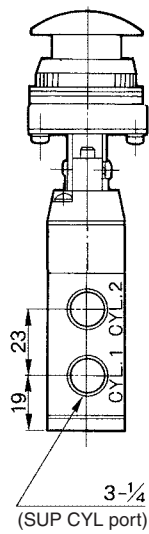
F.O.F. *	15 N
T.T.	40°

Series VFM300

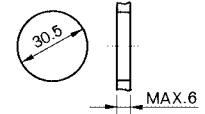
Series VFM300

Push button (Mushroom)

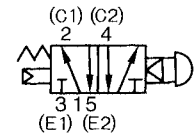
VFM350-02-30R/B/G/Y



Panel mounting hole



JIS Symbol

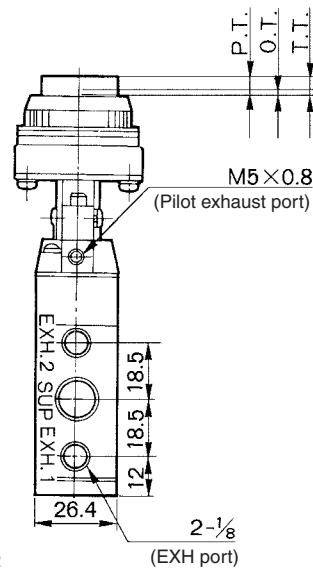
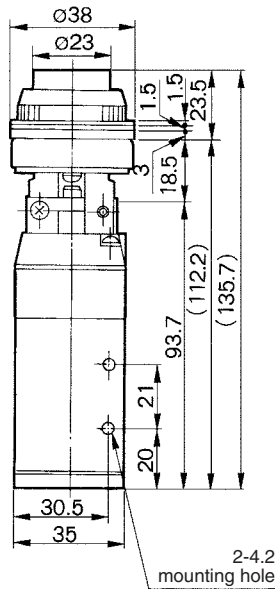
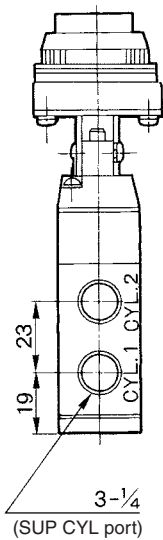


* 0.5 MPa supply

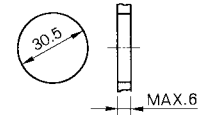
F.O.F. *	21 N
P.T.	4.8 mm
O.T.	1.7 mm
T.T.	6.5 mm

Push button (Extended)

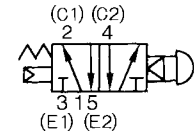
VFM350-02-32R/B/G/Y



Panel mounting hole



JIS Symbol

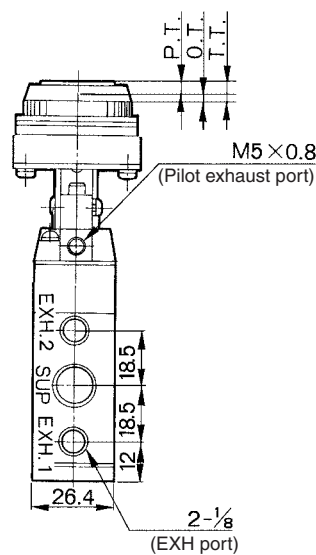
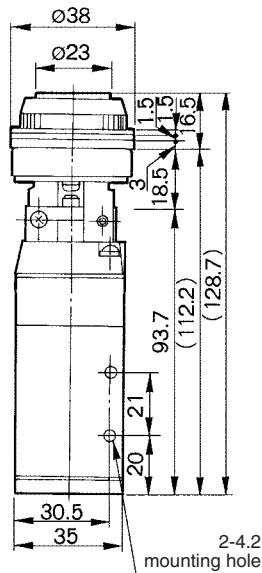
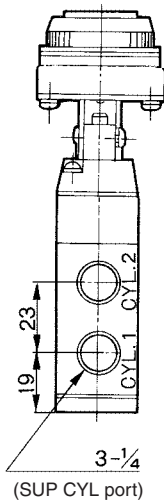


* 0.5 MPa supply

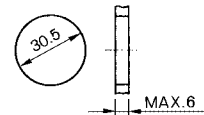
F.O.F. *	21 N
P.T.	4.8 mm
O.T.	1.7 mm
T.T.	6.5 mm

Push button (Flush)

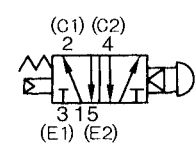
VFM350-02-33



Panel mounting hole



JIS Symbol



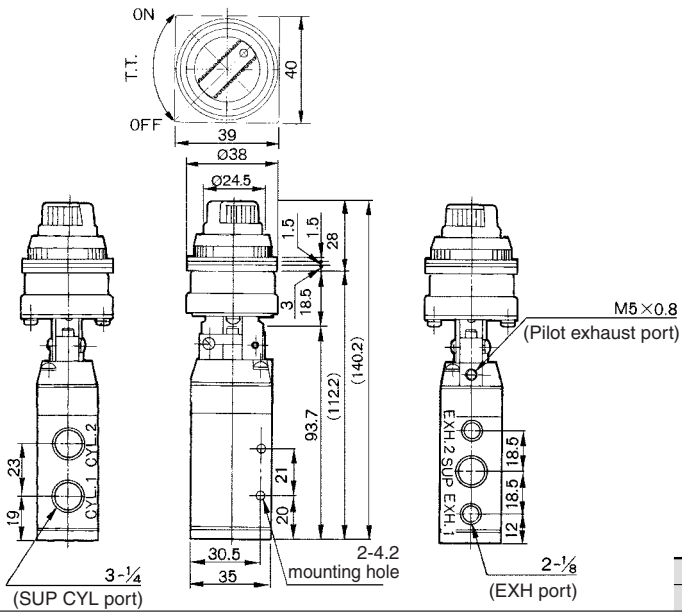
* 0.5 MPa supply

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

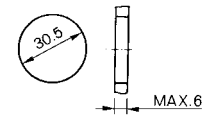
5 Port Mechanical Valve Rubber Seal Series VFM300

Series VFM300

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



Panel mounting hole



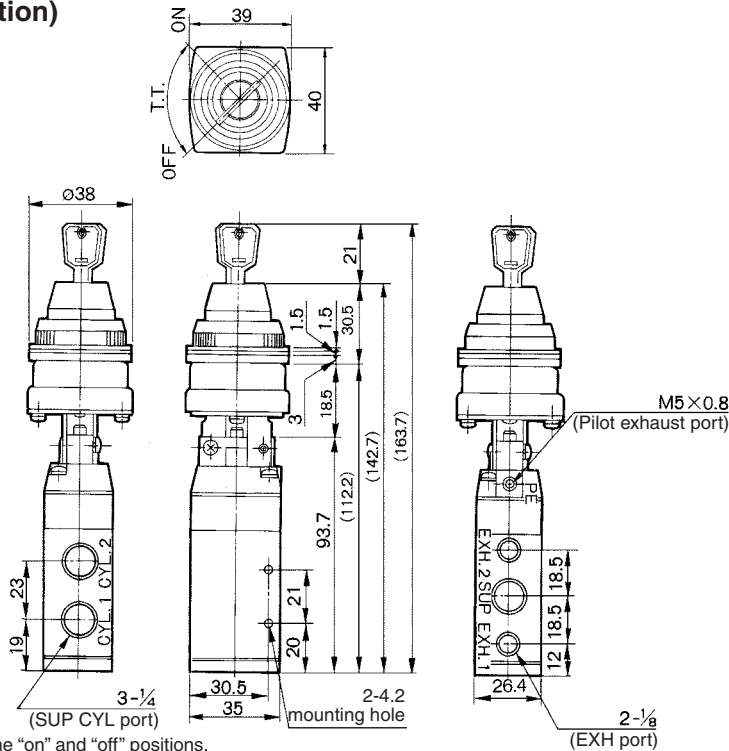
JIS Symbol



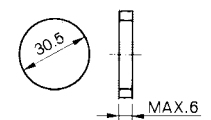
* 0.5 MPa supply

F.O.F. *	23 N
T.T.	90°

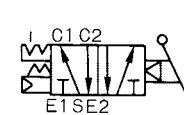
Key selector (2 position) VFM350-02-36



Panel mounting hole



JIS Symbol



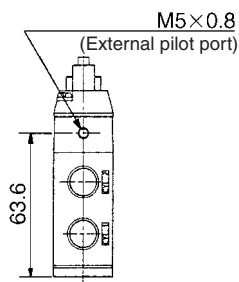
* 0.5 MPa supply

F.O.F. *	26 N
T.T.	90°

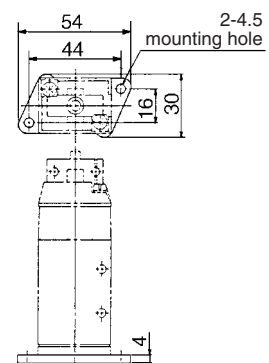


Key can be removed at the "on" and "off" positions.

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	—
Roller plunger	VFM250-02-06	VM-06D	Polyacetal roller	
	VFM250-02-06S	VM-06DS	Hard steel roller	
Manual operation	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.

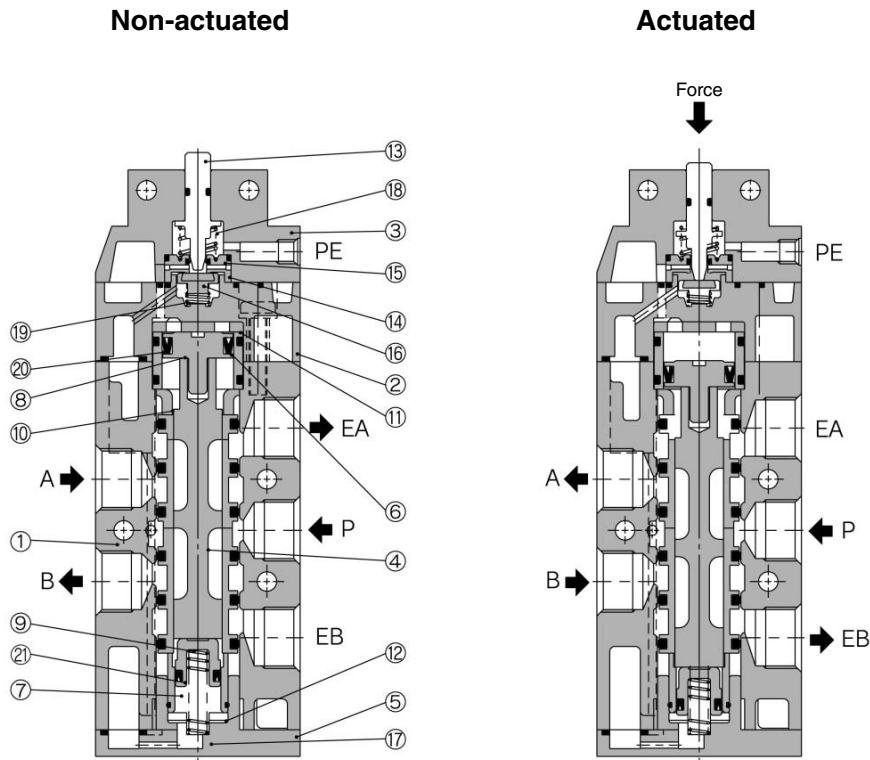
Note 3) The handle of the selector (2 position) cannot be removed or replaced alone.

How to Order

VFM25 0 02 01 S

Body option	Actuator type	Suffix for actuator	Option
0 Internal pilot type	00 Basic	S Hard steel roller	F Foot bracket (Only internal pilot)
1 External pilot type	01 Roller lever	R Red	
	02 One way roller lever	B Black	Color of push button selector
	05 Straight plunger	G Green	
	06 Roller plunger	Y Yellow	
	08 Toggle lever		
	30 Push button (Mushroom)		
	32 Push button (Extended)		
	33 Push button (Flush)		
	34 Twist selector (2 position)		
	36 Key selector (2 position)		

Construction



Component Parts

No.	Description	Material	Note
①	Body	ADC	Metallic plated
②	Pilot body	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	

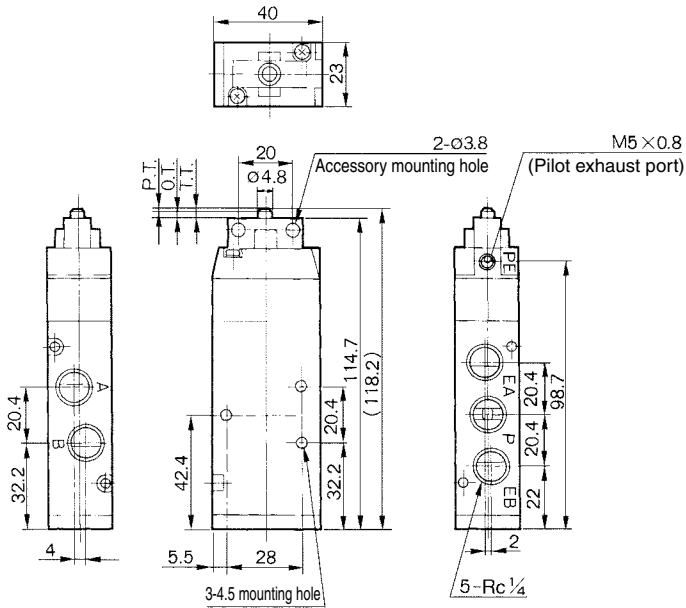
S□A
V□A
S□A
V□A
VM
VR
VH
VHS

Series VFM200

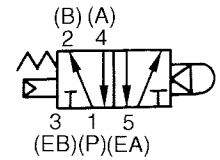
Series VFM200

Basic

VFM250-02-00



JIS Symbol

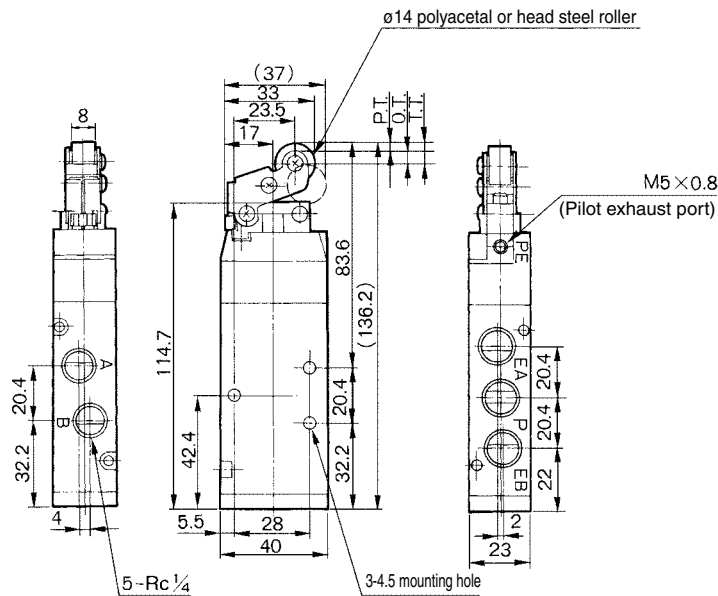


* 0.5 MPa supply

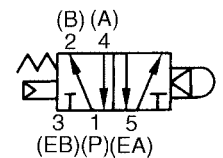
F.O.F. *	16 N
P.T.	1.0 mm
O.T.	2.0 mm
T.T.	3.0 mm

Roller lever

VFM250-02-01
VFM250-02-01S



JIS Symbol

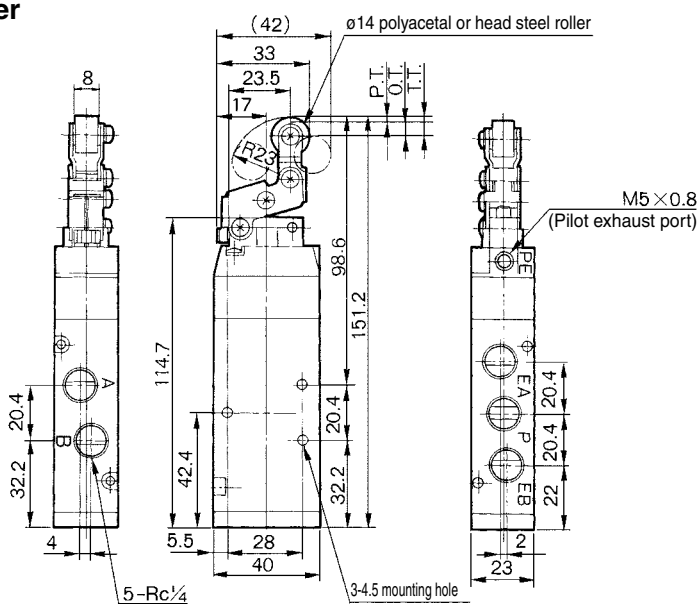


* 0.5 MPa supply

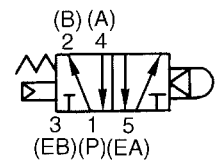
F.O.F. *	8 N
P.T.	2.2 mm
O.T.	4.0 mm
T.T.	6.2 mm

One way roller lever

VFM250-02-02
VFM250-02-02S



JIS Symbol



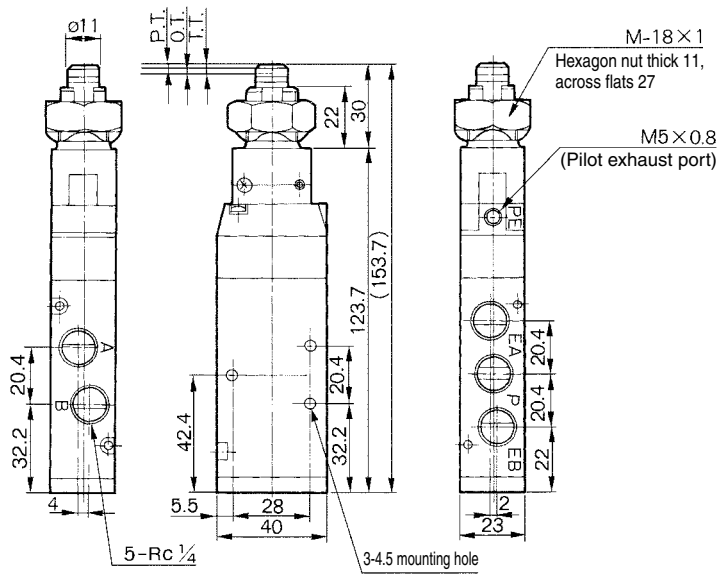
* 0.5 MPa supply

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

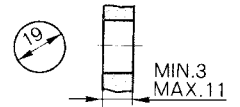
5 Port Mechanical Valve Metal Seal Series VFM200

Series VFM200

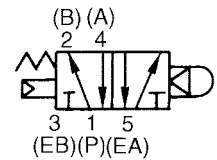
Straight plunger VFM250-02-05



Panel mounting hole



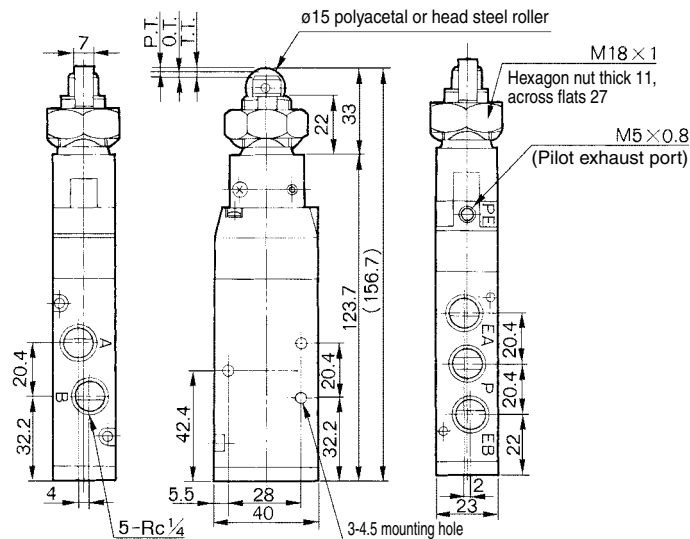
JIS Symbol



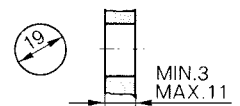
* 0.5 MPa supply

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

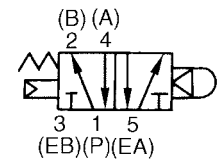
Roller plunger VFM250-02-06 VFM250-02-06S



Panel mounting hole



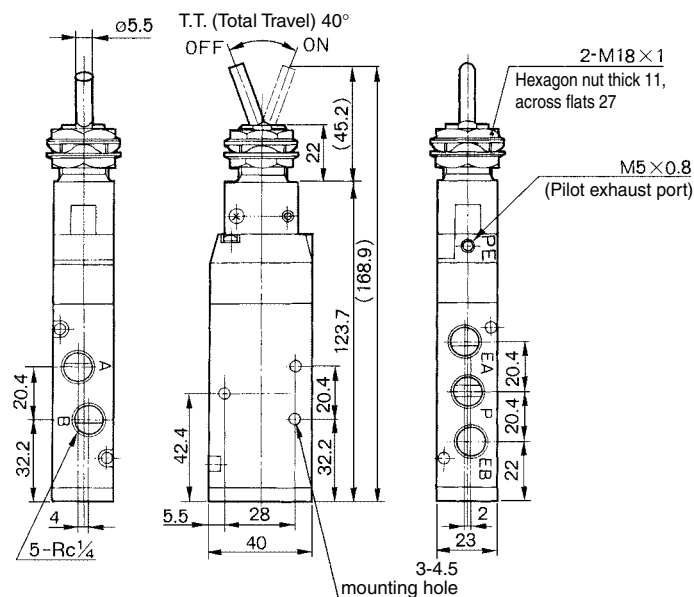
JIS symbol



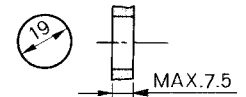
* 0.5 MPa supply

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

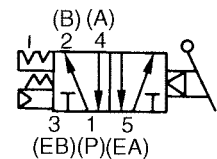
Toggle lever VFM250-02-08



Panel mounting hole



JIS symbol



* 0.5 MPa supply

F.O.F. *	15 N
T.T.	40°

□A

□A

□A

□A

VM

VR

VH

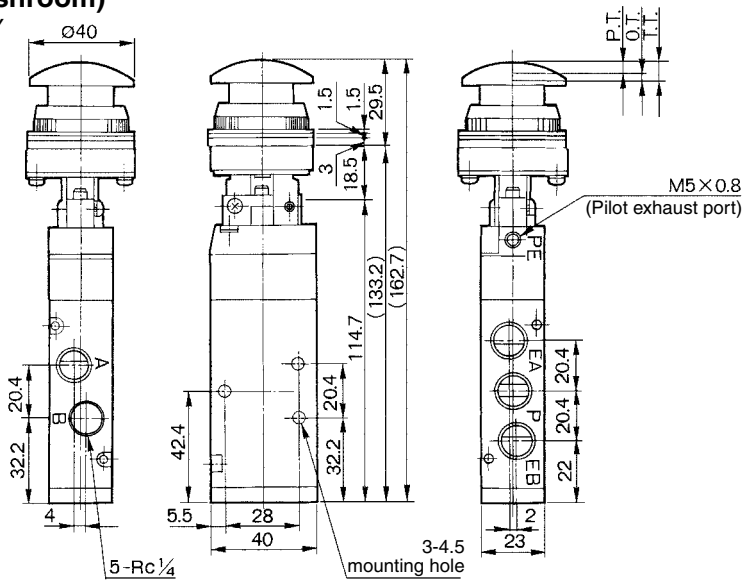
VHS

Series VFM200

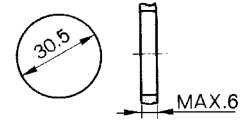
Series VFM200

Push button (Mushroom)

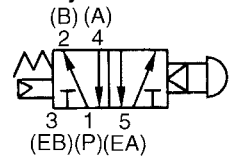
VFM250-02-30R/B/G/Y



Panel mounting hole



JIS Symbol

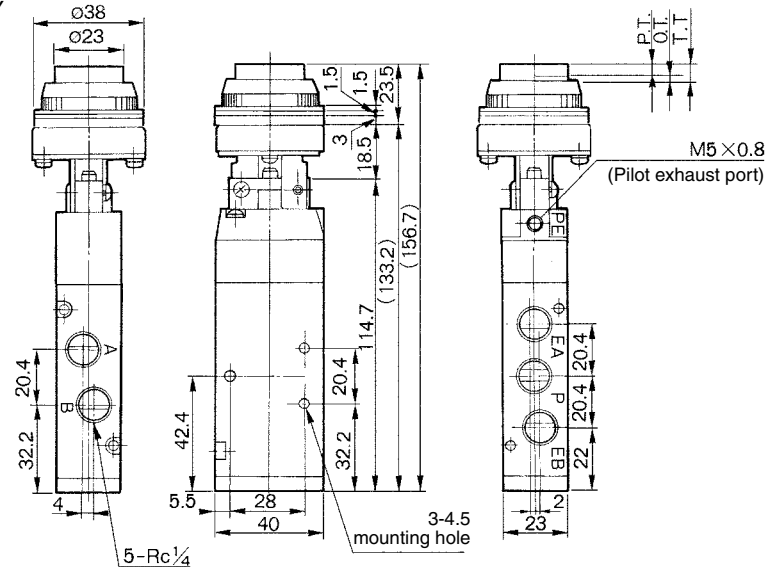


* 0.5 MPa supply

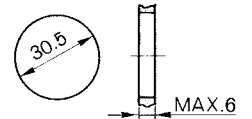
F.O.F. *	21 N
P.T.	4.8 mm
O.T.	1.7 mm
T.T.	6.5 mm

Push button (Extended)

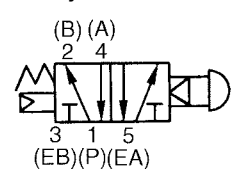
VFM250-02-32R/B/G/Y



Panel mounting hole



JIS Symbol

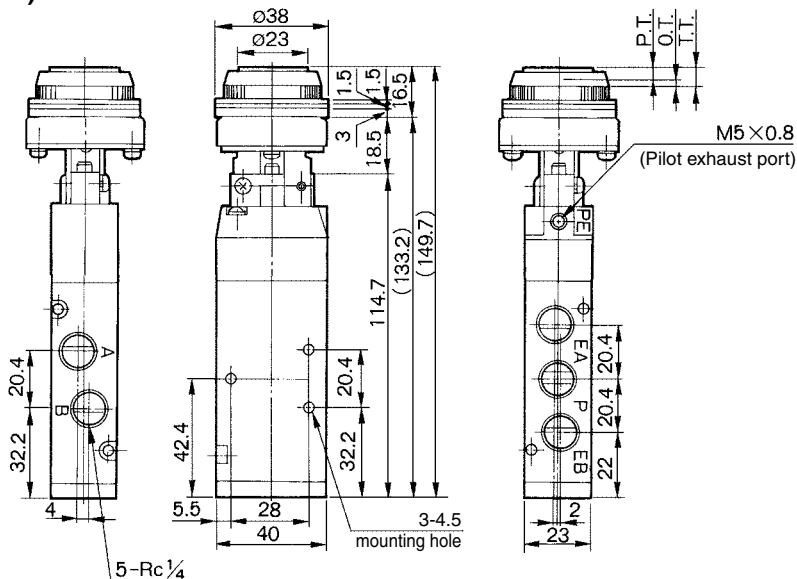


* 0.5 MPa supply

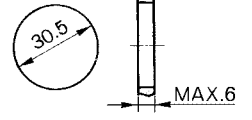
F.O.F. *	21 N
P.T.	4.8 mm
O.T.	1.7 mm
T.T.	6.5 mm

Push button (Flush)

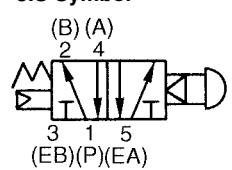
VFM250-02-33



Panel mounting hole



JIS Symbol



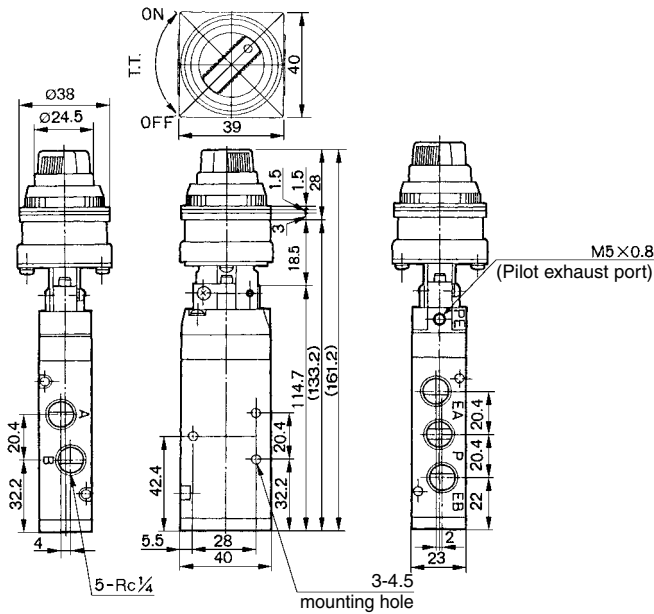
* 0.5 MPa supply

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

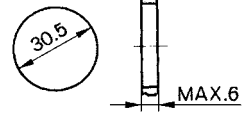
5 Port Mechanical Valve Metal Seal Series VFM200

Series VFM200

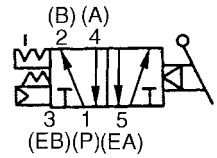
Twist selector (2 position) VFM250-02-34R/B/G/Y



Panel mounting hole



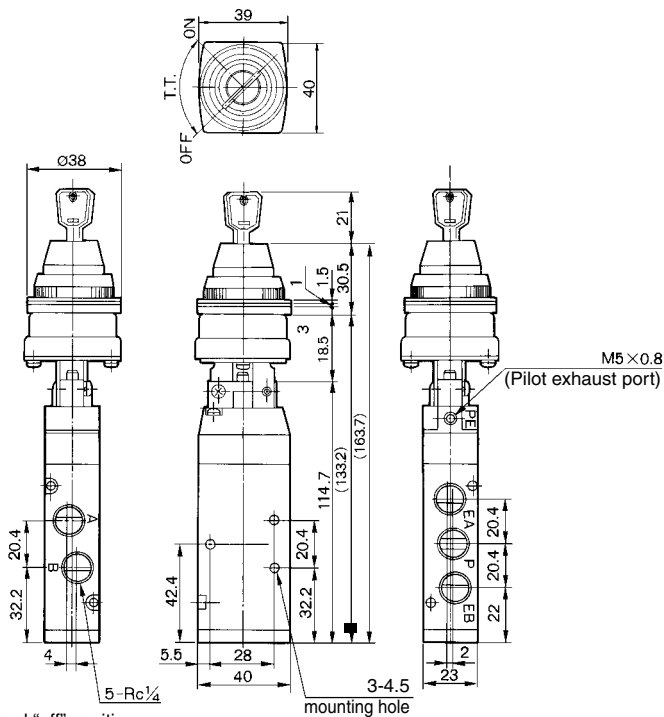
JIS Symbol



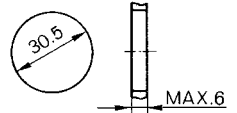
* 0.5 MPa supply

F.O.F. *	23 N
T.T.	90°

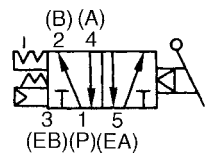
Key selector (2 position) VFM250-02-36



Panel mounting hole



JIS Symbol



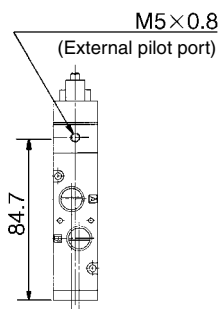
* 0.5 MPa supply

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

