

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

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 (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)

S□A

V□A

S□A

V□A

Construction

Non-actuated

Actuated

Force

PE

EA

P

EB

13

18

3

15

14

16

2

11

6

19

20

8

10

A

1

B

9

21

7

12

5

17

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

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

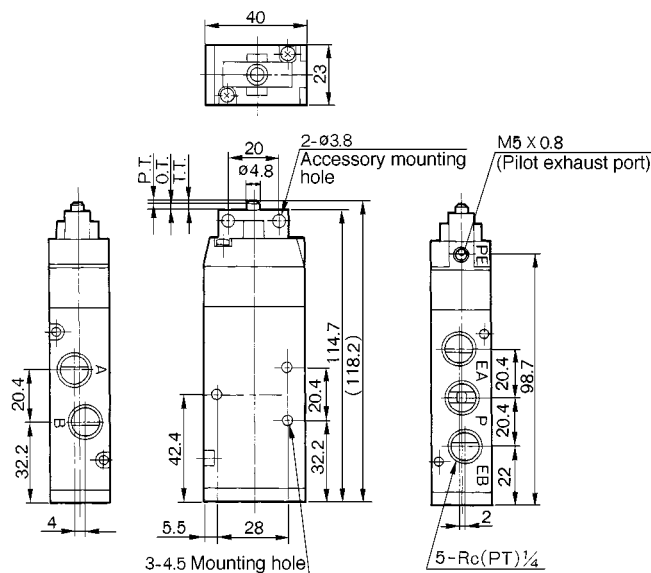
Mini Y packing

NBR

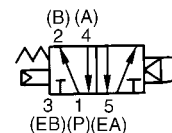
VFM200

Series VFM200

Basic/VFM250-02-00



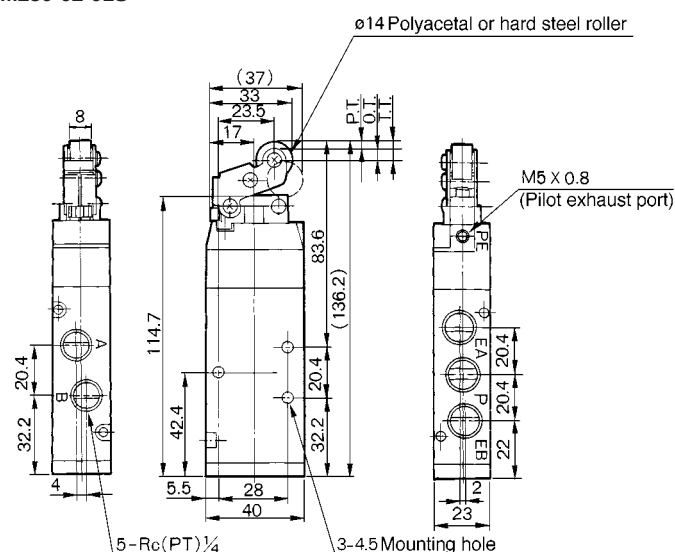
JIS Symbol



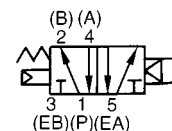
* 0.5MPa supply

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

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



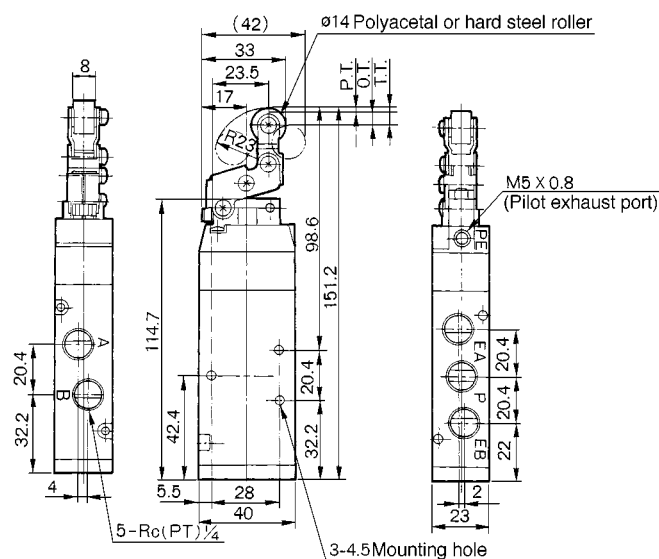
JIS Symbol



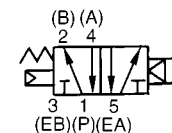
* 0.5MPa supply

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

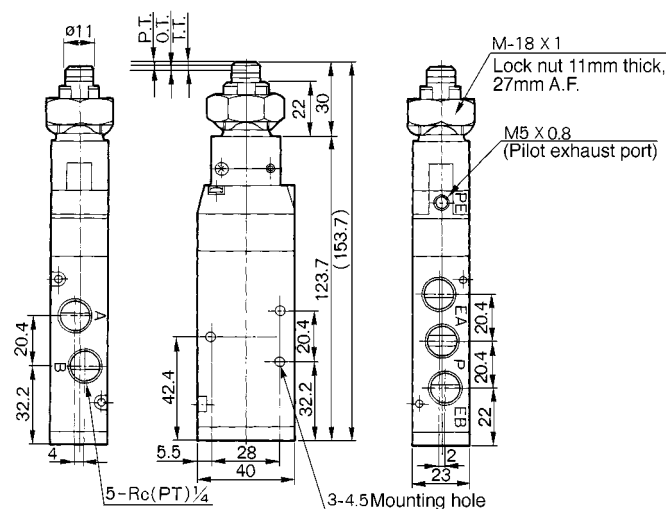


* 0.5MPa supply

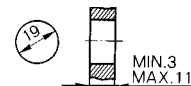
F.O.F.*	7N
P.T.	2.4mm
O.T.	4.6mm
T.T.	7mm

Series VFM200

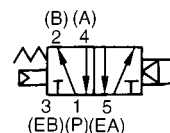
Straight Plunger/VFM250-02-05



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

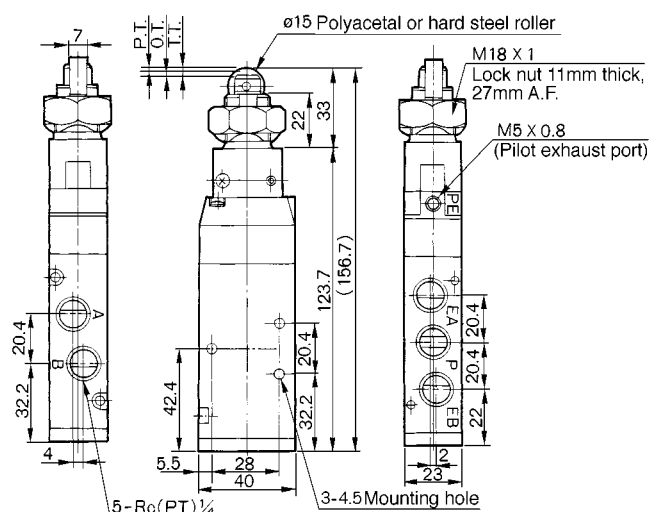
S□A

V□A

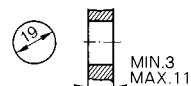
VMVR

VH

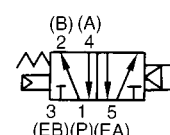
Roller Plunger/VFM250-02-06, VFM250-02-06S



Panel mounted hole



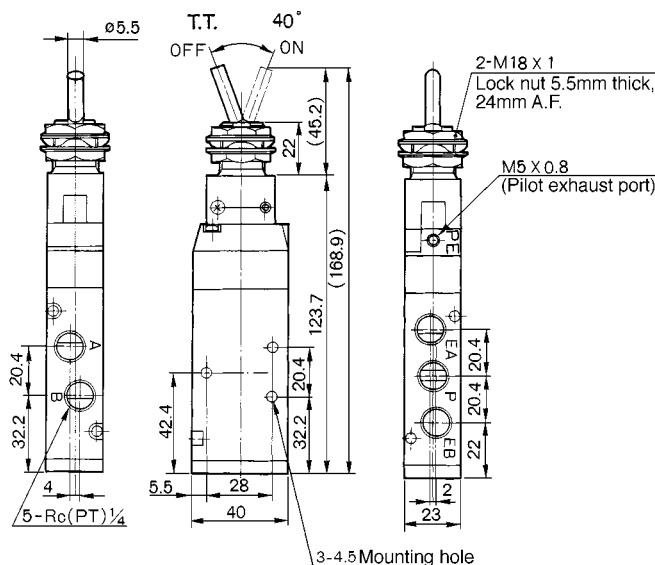
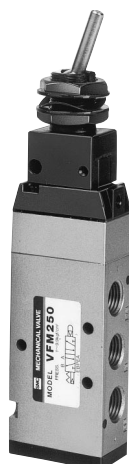
JIS Symbol



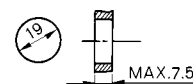
* 0.5MPa supply

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

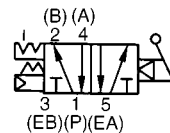
Toggle Lever/VFM250-02-08



Panel mounted hole



JIS Symbol



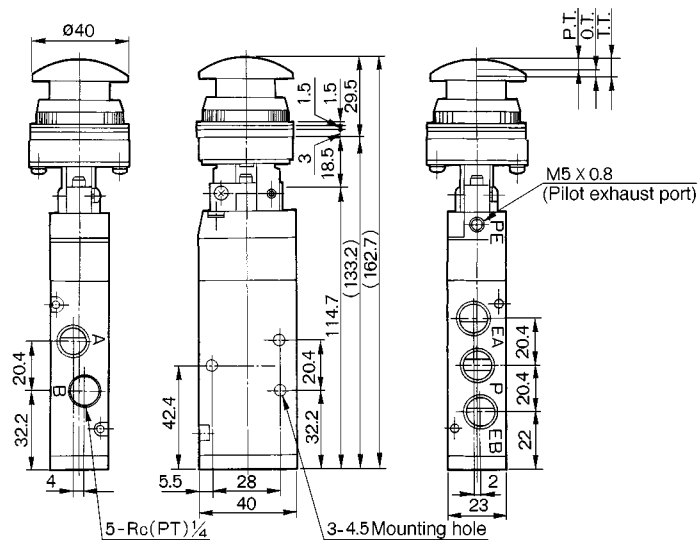
* 0.5MPa supply

F.O.F.*	15N
T.T.	40°

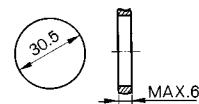
VFM200

Series VFM200

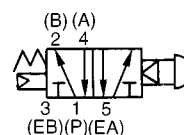
Push Button (Mushroom)/VFM250-02-30R, B, G, Y



Panel mounted hole



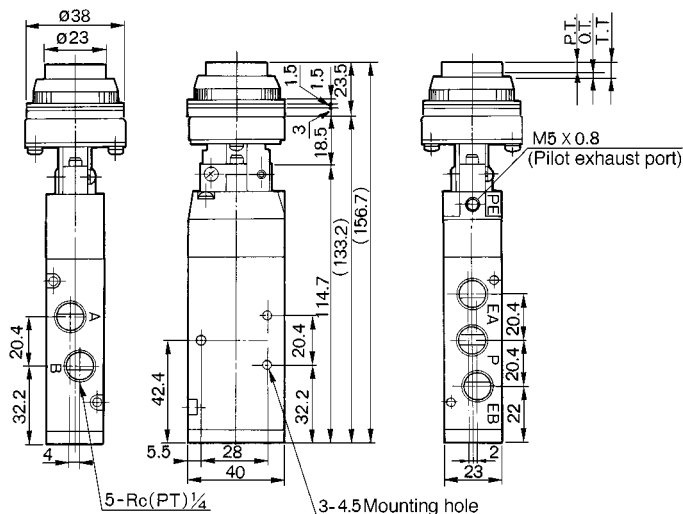
JIS Symbol



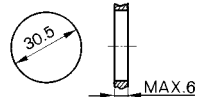
* 0.5MPa supply

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

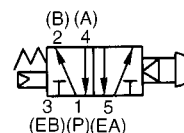
Push Button (Extended)/VFM250-02-32R, B, G, Y



Panel mounted hole



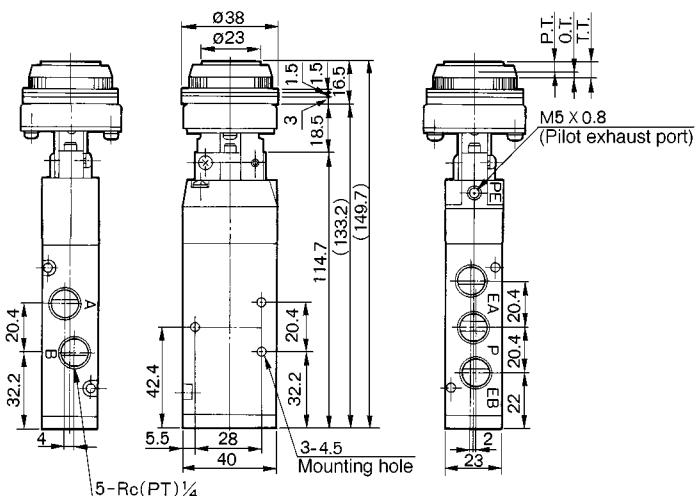
JIS Symbol



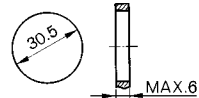
* 0.5MPa supply

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

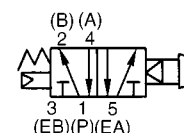
Push Button (Flush)/VFM250-02-33



Panel mounted hole



JIS Symbol

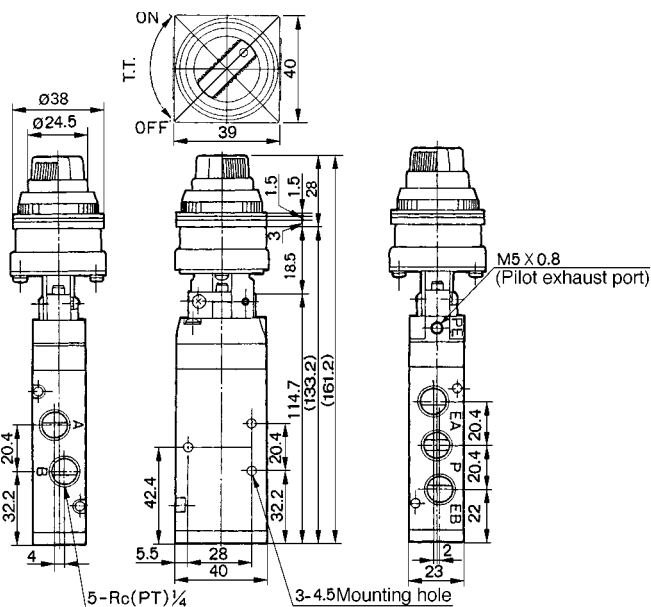


* 0.5MPa supply

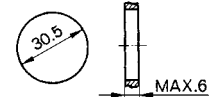
F.O.F.*	21N
P.T.	4.8mm
O.T.	1.7mm
T.T.	6.5mm

Series VFM200

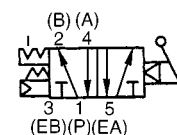
Twist Selector (2 position)/ VFM250-02-34R, B, G, Y



Panel mounted hole



JIS Symbol



* 0.5MPa supply

F.O.F.*	23N
T.T.	90°

S□A

V□A

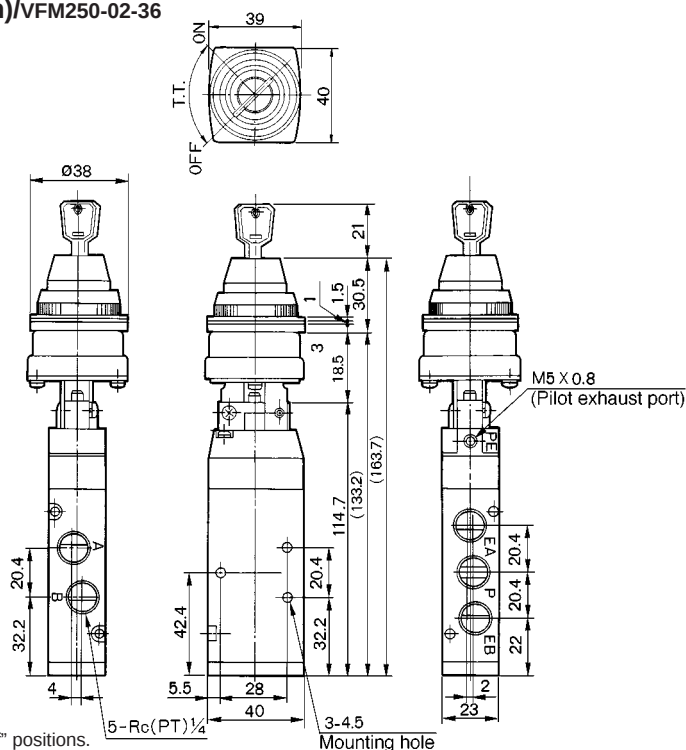
S□A

V□A

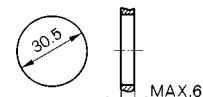
VMVR

VH

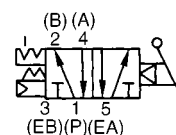
Key Selector (2 position)/VFM250-02-36



Panel mounted hole



JIS Symbol

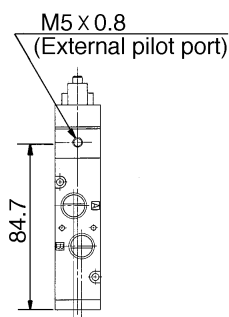


* 0.5MPa supply

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

