

2/3 Port Mechanical Valves

Series **EVM100/200/400***

(VM100/200/400)*

*The product variant for use in Europe is the EVM type, with parallel ports. However, the VM type may also be encountered. This is the product used outside Europe and is identical except for having Rc (taper) port threads.

Features

- ➔ 3 Series, EVM100, EVM200 and EVM400.
- ➔ 2 port and 3 port functions.
- ➔ Wide variety of replaceable operating heads.
- ➔ Compact designs.

How to Order

E VM 1 3 1 - F01 - 01 S

Thread type
E G thread

Valve type
1 EVM100 (M5, 1/8)
2 EVM200 (1/4)
4 EVM400 (1/8)

Port size
M5 M5 (Female thread)
F01 G 1/8
F02 G 1/4
(See details pages for combinations available)

Plunger length (VM100 only)
0 Long
1 Short

Actuator type
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 (Flush)
34 Twist selector (2 position)
36 Key selector (2 position)
35 Twist selector (3 position)
40 Foot Pedal
(See details pages for combinations available)

Suffix for actuator
S Hard steel roller
R Red
B Black
G Green
Y Yellow
Colour of push button selector
(See details pages for combinations available)

Number of ports
2 2 port
3 3 port
5 5 port
VM400 series only available in 3 port.

Specifications

Piping	EVM100 Series	EVM200 Series	EVM400 Series
Fluid	Air/Inert gas		
Operating pressure	-100 kPa to 1.0 MPa	0 to 1.0 MPa	-100 kPa to 1.0 MPa
Ambient and fluid temperature	-5 to 60°C (No freezing)		
Effective area	2.5 mm ²	19 mm ²	7 mm ²
Lubrication	Not required (Use turbine oil Class 1 ISO VG32, if lubricated.)		
Port size	1/8	1/4	1/8
Weight (Basic)	95 g	111 g	110 g
Function	2 port and 3 port	2 port and 3 port	3 port universal porting

Also Available

➔ EVM100 Bottom ported types.



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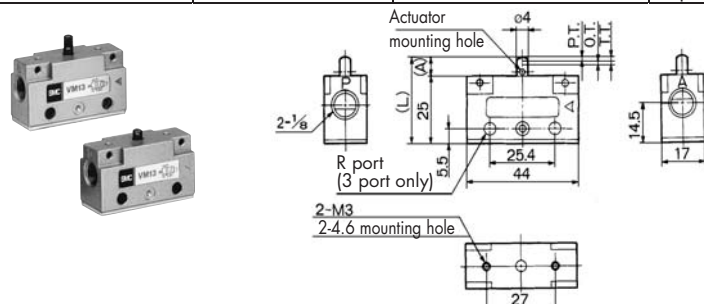
How to order EVM100/200/400 Mechanical valves

For best delivery times, please order the parts highlighted bold in the following pages. The operating heads are supplied with screws for easy fixing to the base valves. Pre-assembled valves and operating heads are also available where shown but may be subject to extended delivery times. Some variants, for example roller lever, are only available as pre-assembled units

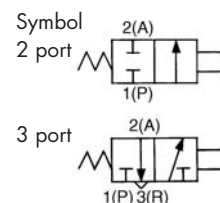
Dimensions: Series EVM100

Basic

Base valve	Operating head	(Pre-Assembled unit)	Note
EVM120-F01-00	N/A	N/A	2 port long plunger
EVM130-F01-00	N/A	N/A	3 port long plunger
EVM121-F01-00	N/A	N/A	2 port short plunger
EVM131-F01-00	N/A	N/A	3 port short plunger

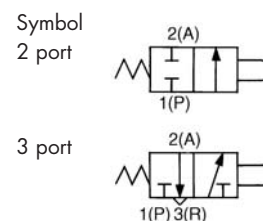
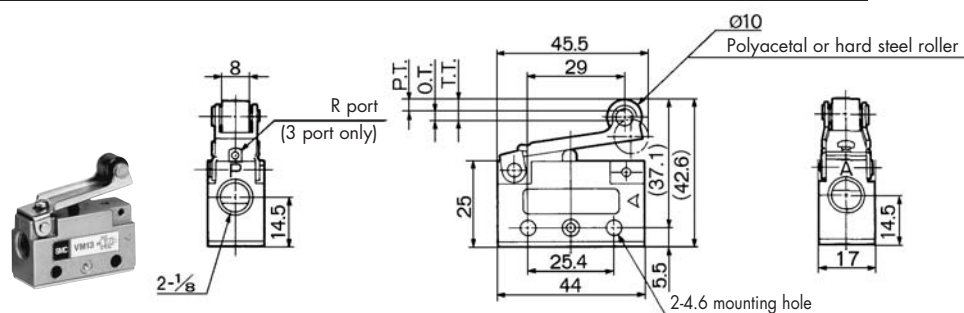


Model	L	A
VM120-01-00 VM130-01-00	32.5	7.5
VM121-01-00 VM131-01-00	28.5	3.5



Roller lever

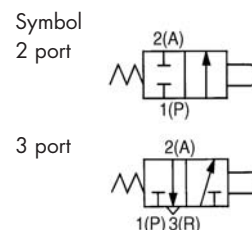
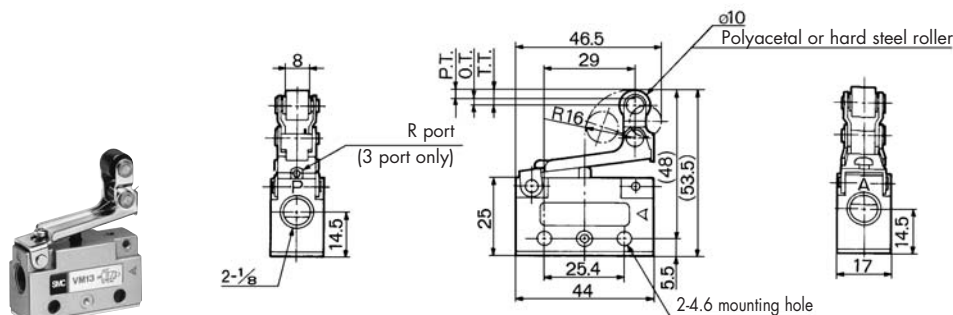
Base valve	Operating head	Pre-Assembled unit	Note
N/A	N/A	EVM121-F01-01	2 port
N/A	N/A	EVM131-F01-01	3 port
N/A	N/A	EVM121-F01-01S	2 port steel roller
N/A	N/A	EVM131-F01-01S	3 port steel roller



P.T.	3.2 mm
O.T.	2.3 mm
T.T.	5.5 mm

One way roller lever

Base valve	Operating head	Pre-Assembled unit	Note
N/A	N/A	EVM121-F01-02	2 port
N/A	N/A	EVM131-F01-02	3 port
N/A	N/A	EVM121-F01-02S	2 port steel roller
N/A	N/A	EVM131-F01-02S	3 port steel roller

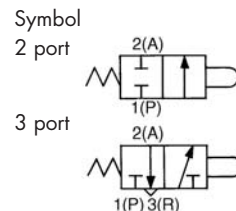
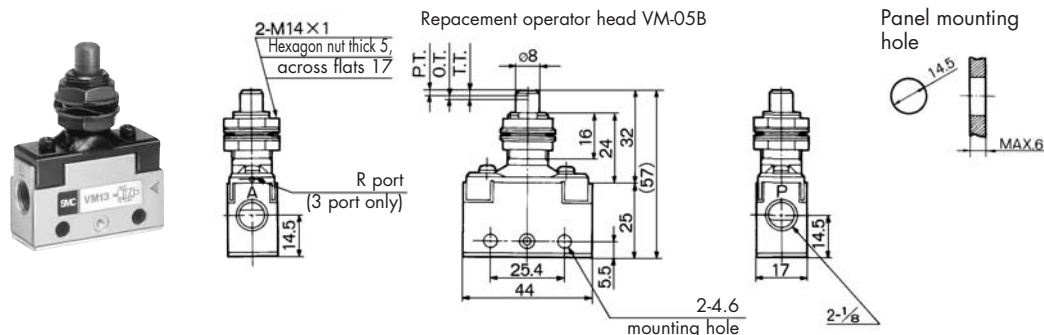


P.T.	3.2 mm
O.T.	2.3 mm
T.T.	5.5 mm

Dimensions: Series EVM100

Straight Plunger

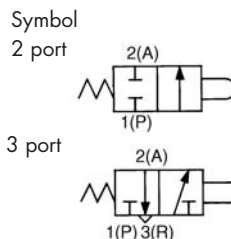
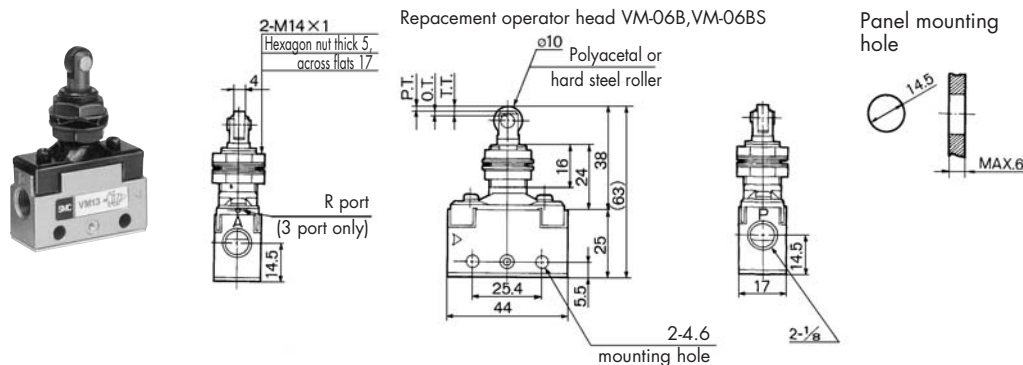
Base valve	Operating head	(Pre-Assembled unit)	Note
EVM120-F01-00	VM-05B	EVM120-F01-05	2 port
EVM130-F01-00	VM-05B	EVM130-F01-05	3 port



P.T.	2.0 mm
O.T.	1.5 mm
T.T.	3.5 mm

Roller Plunger

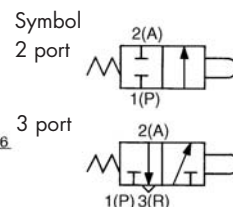
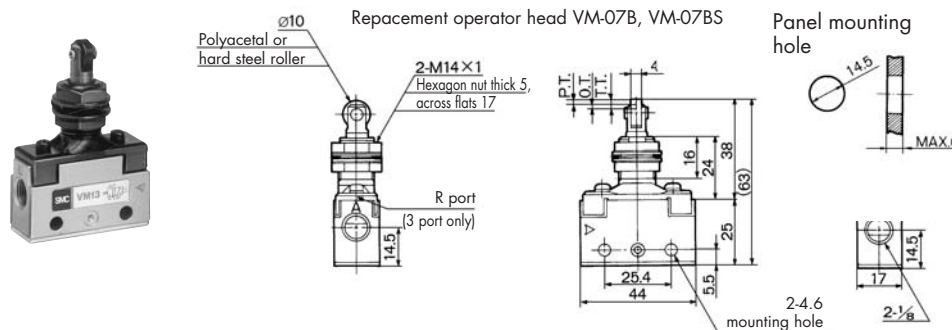
Base valve	Operating head	(Pre-Assembled unit)	Note
EVM120-F01-00	VM-06B	EVM120-F01-06	2 port
EVM130-F01-00	VM-06B	EVM130-F01-06	3 port
EVM120-F01-00	VM-06BS	EVM120-F01-06S	2 port steel roller
EVM130-F01-00	VM-06BS	EVM130-F01-06S	3 port steel roller



P.T.	2.0 mm
O.T.	1.5 mm
T.T.	3.5 mm

Cross roller plunger

Base valve	Operating head	(Pre-Assembled unit)	Note
EVM120-F01-00	VM-07B	EVM120-F01-07	2 port
EVM130-F01-00	VM-07B	EVM130-F01-07	3 port
EVM120-F01-00	VM-07BS	EVM120-F01-07S	2 port steel roller
EVM130-F01-00	VM-07BS	EVM130-F01-07S	3 port steel roller

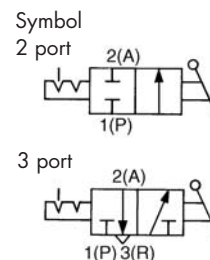
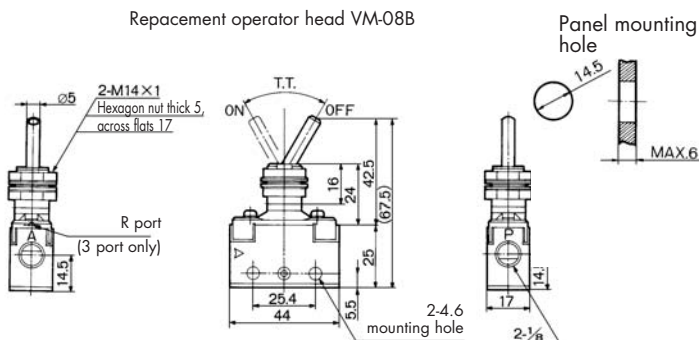


P.T.	2 mm
O.T.	1.5 mm
T.T.	3.5 mm

Dimensions: Series EVM100

Toggle Lever

Base valve	Operating head	(Pre-Assembled unit)	Note
EVM120-F01-00	VM-08B	EVM120-F01-08	2 port
EVM130-F01-00	VM-08B	EVM130-F01-08	3 port

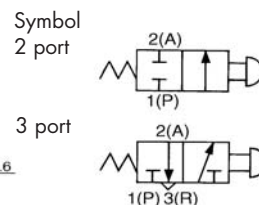
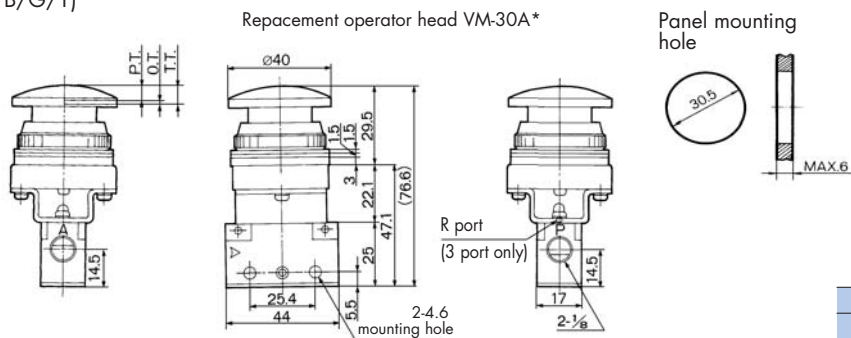


T.T.	60°
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Push button (mushroom)

Base valve	Operating head	(Pre-Assembled unit)	Note
EVM120-F01-00	VM-30A □	EVM120-F01-30 □	2 port
EVM130-F01-00	VM-30A □	EVM130-F01-30 □	3 port

□ = Specify colour (R/B/G/Y)

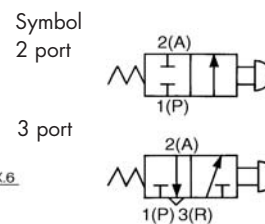
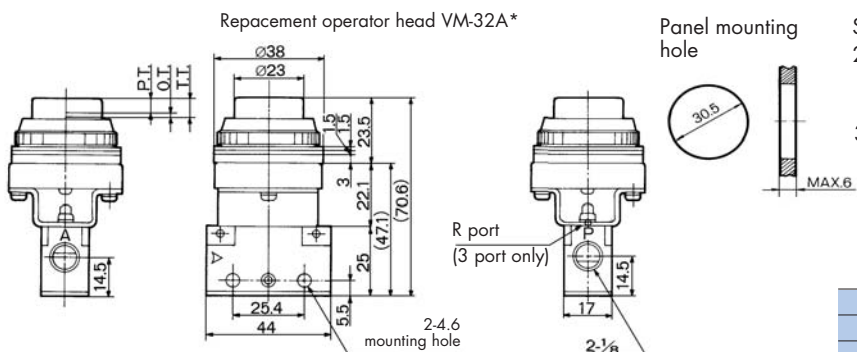


P.T.	4.9 mm
O.T.	1.6 mm
T.T.	6.5 mm

Push button (extended)

Base valve	Operating head	(Pre-Assembled unit)	Note
EVM120-F01-00	VM-32A □	EVM120-F01-32 □	2 port
EVM130-F01-00	VM-32A □	EVM130-F01-32 □	3 port

□ = Specify colour (R/B/G/Y)



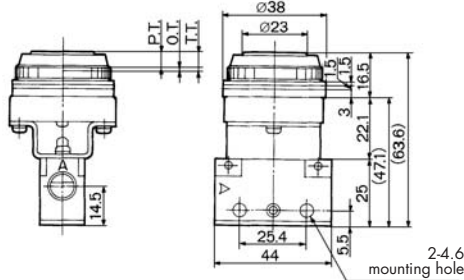
P.T.	4.9 mm
O.T.	1.6 mm
T.T.	6.5 mm

Dimensions: Series EVM100

Push Button (flush)

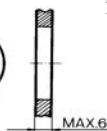
Base valve	Operating head	(Pre-Assembled unit)	Note
EVM120-F01-00	VM-33A	EVM120-F01-33	2 port
EVM130-F01-00	VM-33A	EVM130-F01-33	3 port

Replacement operator head VM-33A



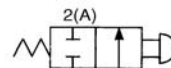
Nota: Supplied with four colour caps.

Panel mounting hole

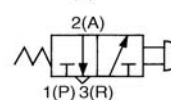


Symbol

2 port



3 port



P.T.	4.9 mm
O.T.	1.6 mm
T.T.	6.5 mm

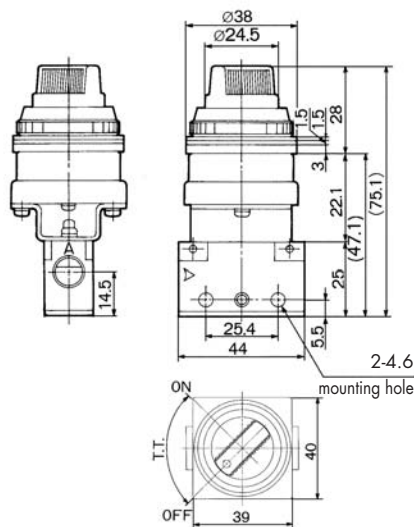
Dimensions: Series EVM100/Side Ported

Twist selector (2 position)

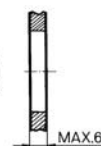
Base valve	Operating head	(Pre-Assembled unit)	Note
EVM120-F01-00	VM-34A □	EVM120-F01-34 □	2 port
EVM130-F01-00	VM-34A □	EVM130-F01-34 □	3 port

□ = Specify colour (R/B/G/Y)

Replacement operator head VM-34A*

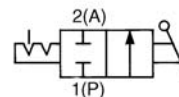


Panel mounting hole

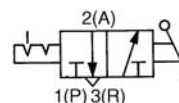


Symbol

2 port



3 port



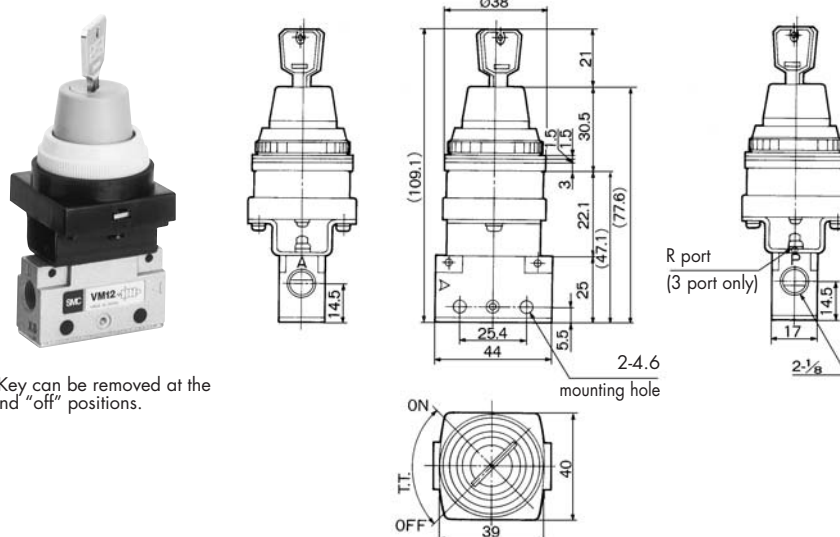
T.T.	90°
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Dimensions: Series EVM100/Side Ported

Key Selector (2 position)

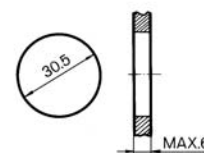
Base valve	Operating head	(Pre-Assembled unit)	Note
EVM120-F01-00	VM-36A	EVM120-F01-36	2 port
EVM130-F01-00	VM-36A	EVM130-F01-36	3 port

Replacement operator head VM-36A

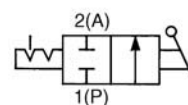


Note: Key can be removed at the "on" and "off" positions.

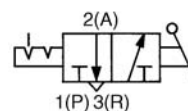
Panel mounting hole



Symbol
2 port



3 port



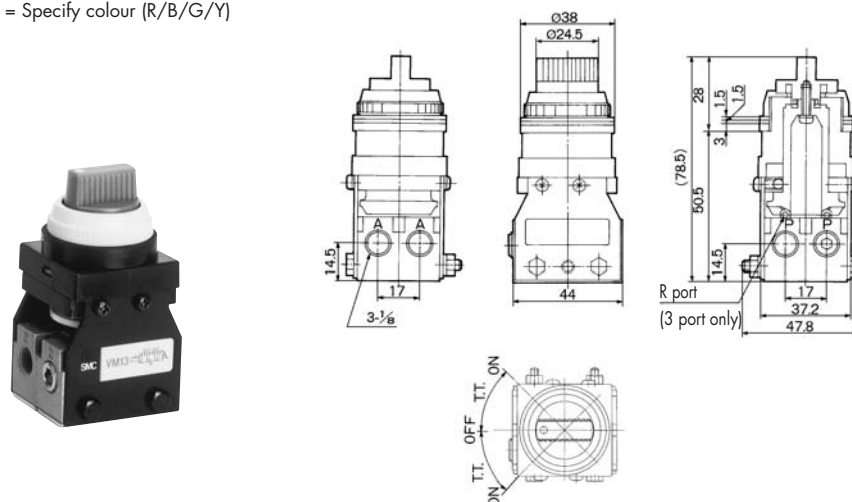
T.T.

90°

Twist Selector (3 position)

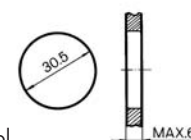
Base valve	Operating head	Pre-Assembled unit	Note
N/A	N/A	EVM131-F01-3 5□	3 port
N/A	N/A	EVM151-F01-3 5□	5 port

□ = Specify colour (R/B/G/Y)

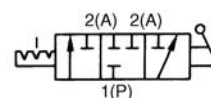


Note: 3 port or 5 port function

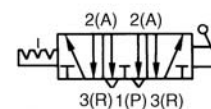
Panel mounting hole



Symbol
3 port



5 port



T.T.

45°

How to order EVM100/200/400 Mechanical valves

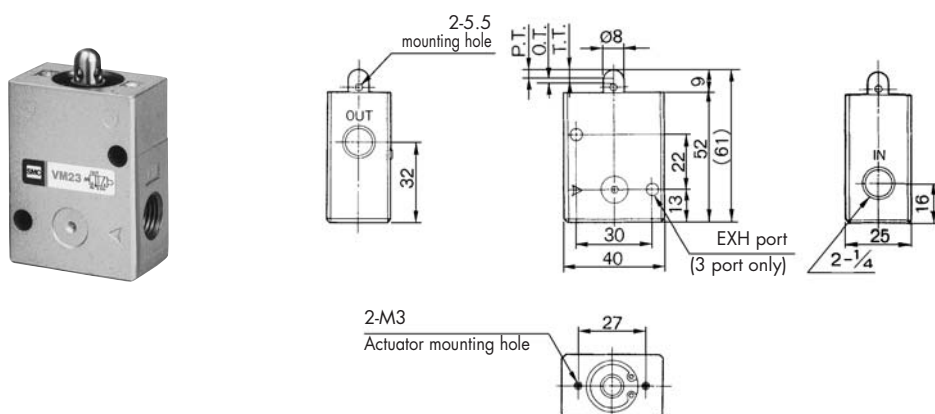
For best delivery times, please order the parts highlighted bold in the following pages.

The operating heads are supplied with screws for easy fixing to the base valves. Pre-assembled valves and operating heads are also available where shown but may be subject to extended delivery times. Some variants, for example roller lever, are only available as pre-assembled units

Dimensions: Series EVM200

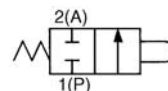
Basic

Base valve	Operating head	(Pre-Assembled unit)	Note
EVM220-F02-00	N/A	N/A	2 port
EVM230-F02-00	N/A	N/A	3 port

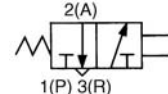


Symbol

2 port



3 port

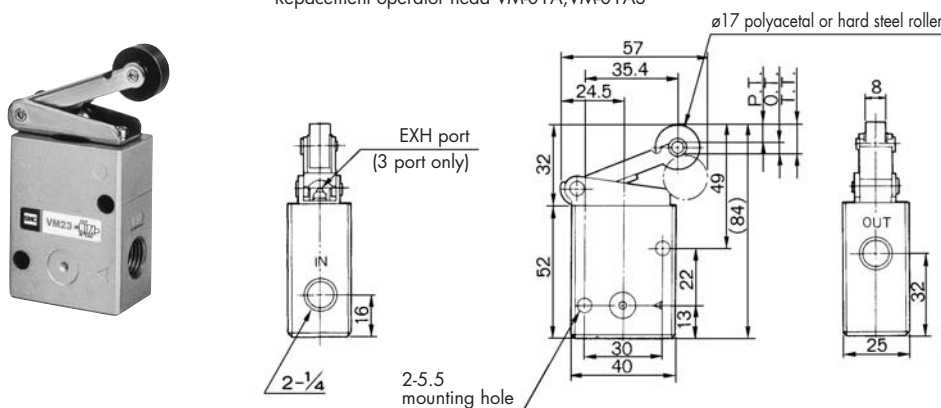


P.T.	3.0 mm
O.T.	2.0 mm
T.T.	5.0 mm

Roller lever

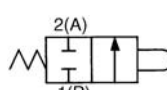
Base valve	Operating head	Pre-Assembled unit	Note
N/A	N/A	EVM220-F02-01	2 port
N/A	N/A	EVM230-F02-01	3 port
N/A	N/A	EVM220-F02-01S	2 port steel roller
N/A	N/A	EVM230-F02-01S	3 port steel roller

Replacement operator head VM-01A, VM-01AS

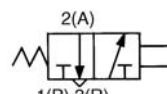


Symbol

2 port



3 port



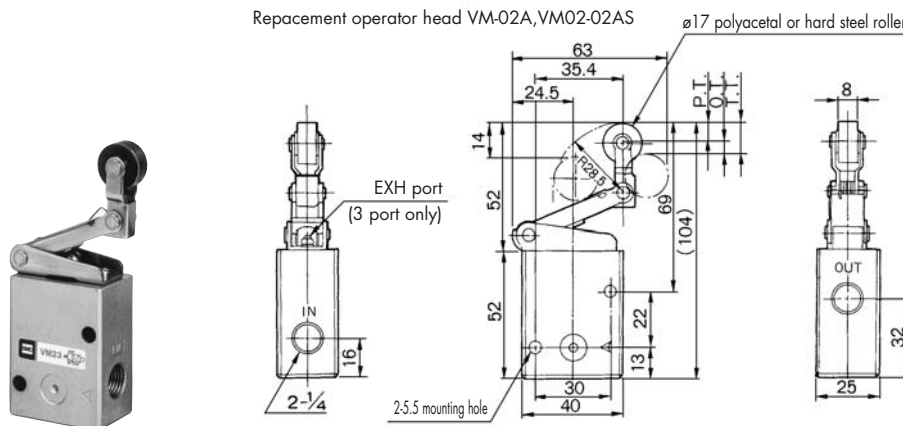
P.T.	6.5 mm
O.T.	4.5 mm
T.T.	11.0 mm

Dimensions: Series EVM200

One way roller lever

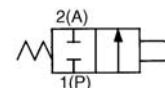
Base valve	Operating head	Pre-Assembled unit	Note
N/A	N/A	EVM220-F02-02	2 port
N/A	N/A	EVM230-F02-02	3 port
N/A	N/A	EVM220-F02-02S	2 port steel roller
N/A	N/A	EVM230-F02-02S	3 port steel roller

Replacement operator head VM-02A, VM02-02AS

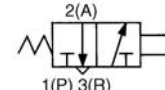


Symbol

2 port



3 port

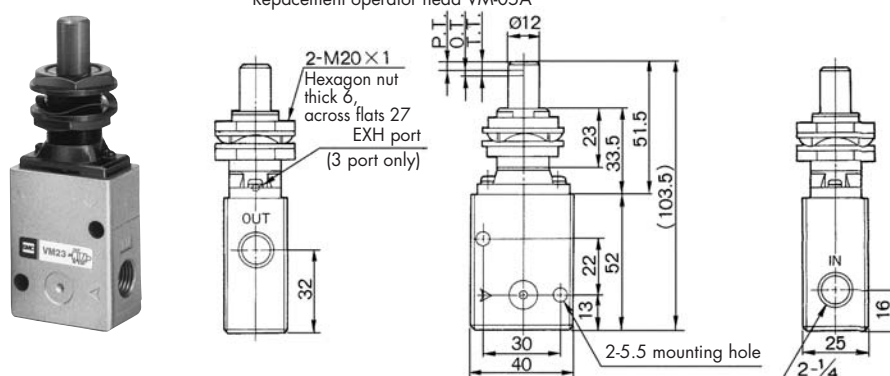


P.T.	7.0 mm
O.T.	5.0 mm
T.T.	12.0 mm

Straight Plunger

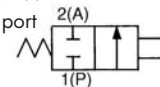
Base valve	Operating head	(Pre-Assembled unit)	Note
EVM220-F02-00	VM-05A	EVM220-F02-05	2 port
EVM230-F02-00	VM-05A	EVM230-F02-05	3 port

Replacement operator head VM-05A

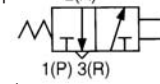


Symbol

2 port



3 port



Panel mount hole

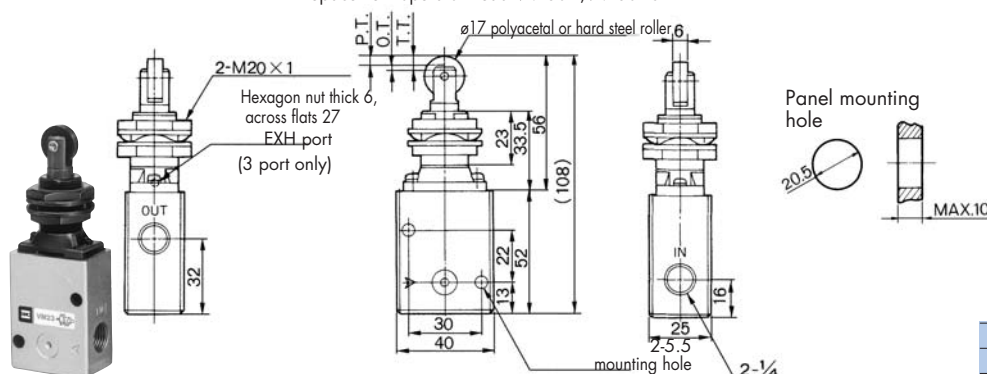


P.T.	3.5 mm
O.T.	2.0 mm
T.T.	5.5 mm

Roller Plunger

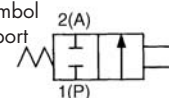
Base valve	Operating head	(Pre-Assembled unit)	Note
EVM220-F02-00	VM-06A	EVM220-F02-06	2 port
EVM230-F02-00	VM-06A	EVM230-F02-06	3 port
EVM220-F02-00	VM-06AS	EVM220-F02-06S	2 port steel roller
EVM230-F02-00	VM-06AS	EVM230-F02-06S	3 port steel roller

Replacement operator head VM-06A, VM-06AS

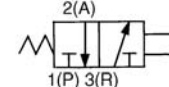


Symbol

2 port



3 port



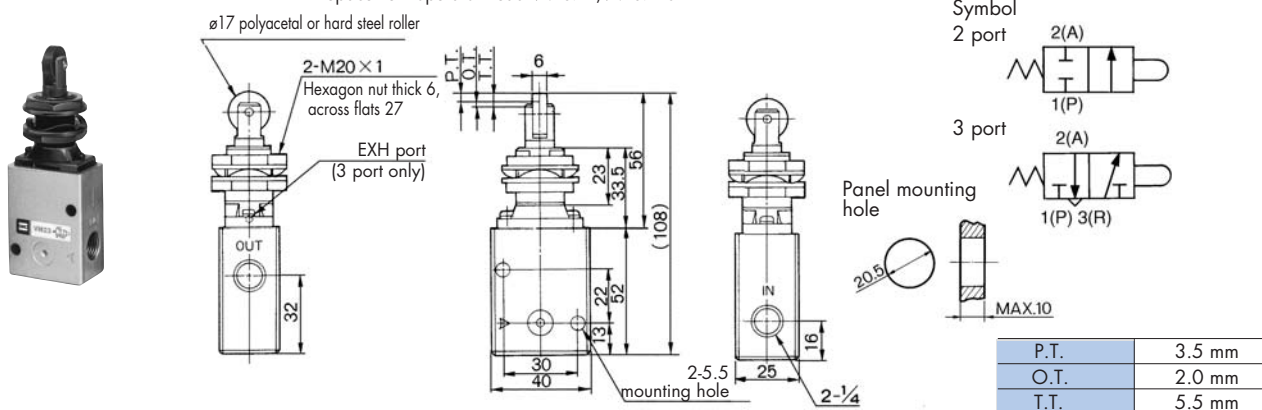
P.T.	3.5 mm
O.T.	2.0 mm
T.T.	5.5 mm

Dimensions: Series EVM200

Cross roller plunger

Base valve	Operating head	(Pre-Assembled unit)	Note
EVM220-F02-00	VM-07A	EVM220-F02-07	2 port
EVM230-F02-00	VM-07A	EVM230-F02-07	3 port
EVM220-F02-00	VM-07AS	EVM220-F02-07S	2 port steel roller
EVM230-F02-00	VM-07AS	EVM230-F02-07S	3 port steel roller

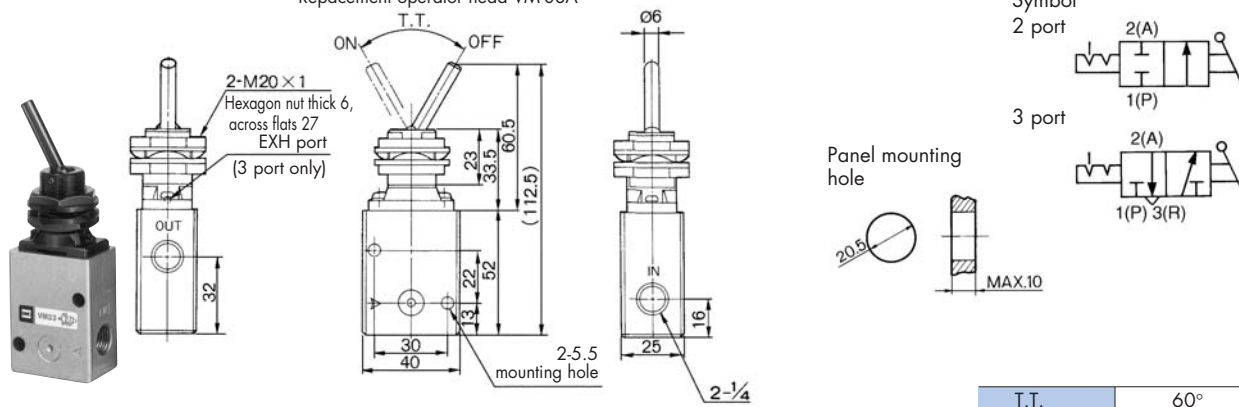
Replacement operator head VM-07A, VM-07AS



Toggle Lever

Base valve	Operating head	(Pre-Assembled unit)	Note
EVM220-F02-00	VM-08A	EVM220-F02-08	2 port
EVM230-F02-00	VM-08A	EVM230-F02-08	3 port

Replacement operator head VM-08A

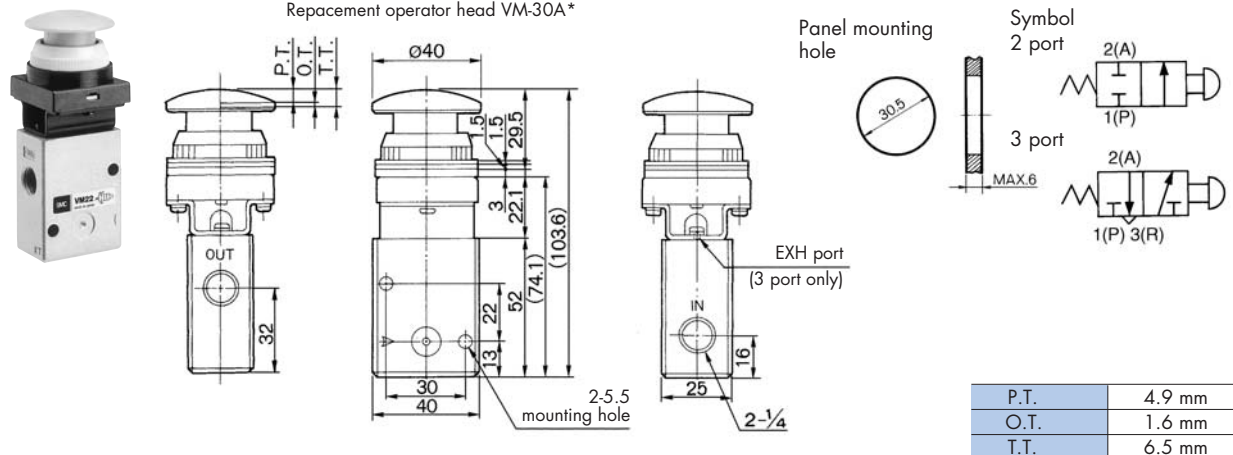


Push button (mushroom)

Base valve	Operating head	(Pre-Assembled unit)	Note
EVM220-F02-00	VM-30A □	EVM220-F02-30 □	2 port
EVM230-F02-00	VM-30A □	EVM230-F02-30 □	3 port

□ = Specify colour (R/B/G/Y)

Replacement operator head VM-30A*



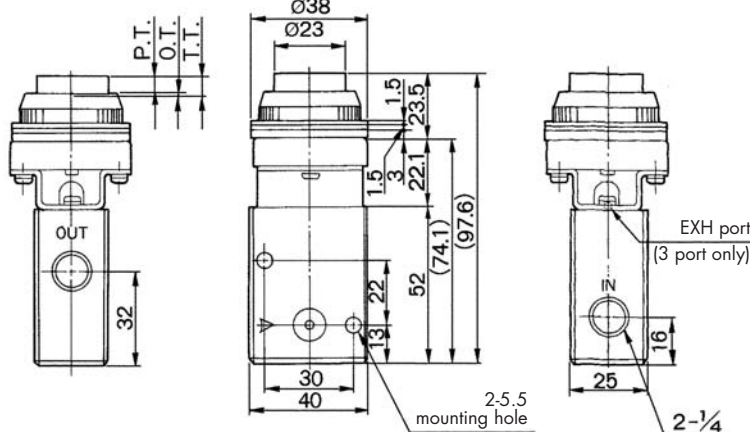
Dimensions: Series EVM200

Push button (extended)

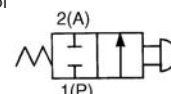
Base valve	Operating head	(Pre-Assembled unit)	Note
EVM220-F02-00	VM-32A □	EVM220-F02-32 □	2 port
EVM230-F02-00	VM-32A □	EVM230-F02-32 □	3 port

□ = Specify colour (R/B/G/Y)

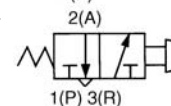
Replacement operator head VM-32A*



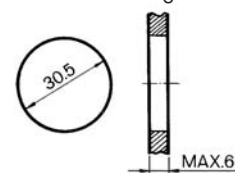
Symbol
2 port



3 port



Panel mounting hole



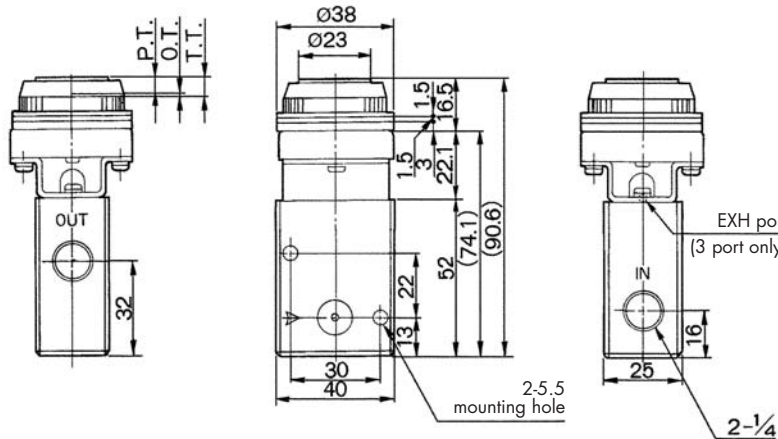
P.T.	4.9 mm
O.T.	1.6 mm

T.T. 6.5 mm

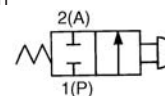
Push Button (flush)

Base valve	Operating head	(Pre-Assembled unit)	Note
EVM220-F02-00	VM-33A	EVM220-F02-33	2 port
EVM230-F02-00	VM-33A	EVM230-F02-33	3 port

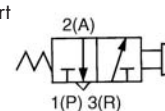
Replacement operator head VM-33A



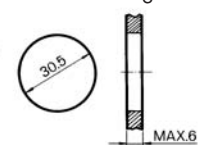
Symbol
2 port



3 port



Panel mounting hole



P.T.	4.9 mm
O.T.	1.6 mm
T.T.	6.5 mm

Note: Supplied with four colour caps.

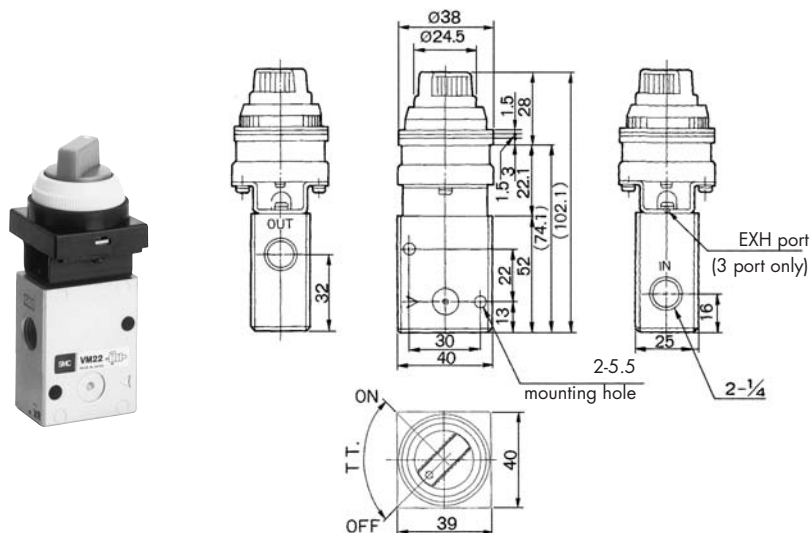
Dimensions: Series EVM200

Twist selector (2 position)

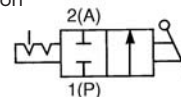
Base valve	Operating head	(Pre-Assembled unit)	Note
EVM220-F02-00	VM-34A □	EVM220-F02-34 □	2 port
EVM230-F02-00	VM-34A □	EVM230-F02-34 □	3 port

□ = Specify colour (R/B/G/Y)

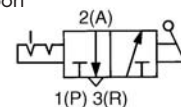
Replacement operator head VM-34A*



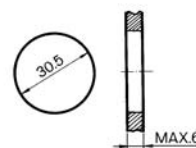
Symbol
2 port



3 port



Panel mounting hole



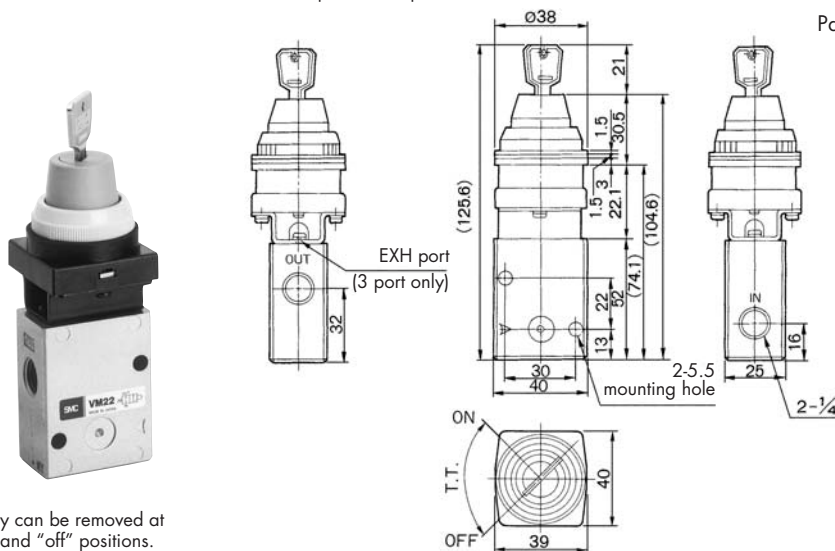
T.T.

90°

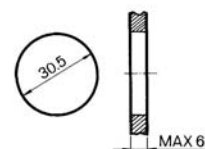
Key Selector (2 position)

Base valve	Operating head	(Pre-Assembled unit)	Note
EVM220-F02-00	VM-36A	EVM220-F02-36	2 port
EVM230-F02-00	VM-36A	EVM230-F02-36	3 port

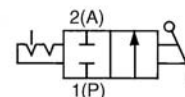
Replacement operator head VM-36A



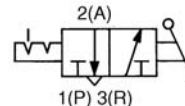
Panel mounting hole



Symbol
2 port



3 port



T.T.

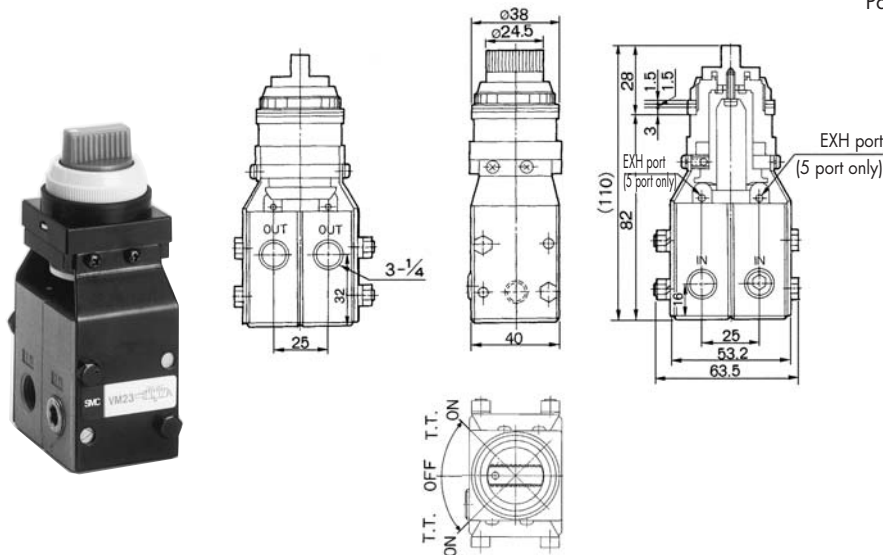
90°

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

Valves

Base valve	Operating head	Pre-Assembled unit	Note
N/A	N/A	EVM230-F02-35 □	3 port
N/A	N/A	EVM250-F02-35 □	5 port

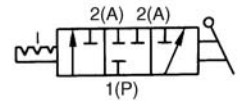
Note: 3 port or 5 port functions.



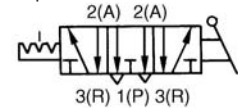
A circle with a horizontal diameter line passing through the center. The diameter is labeled with the number 30.5.

MAX.6

Symbol
3 port



5 port

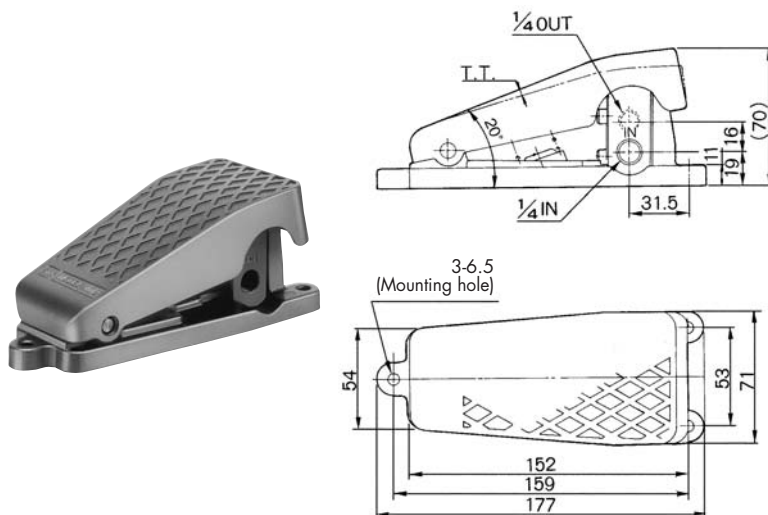


T.T.

45°

Base valve	Operating head	Pre-Assembled unit	Note
N/A	N/A	EVM220-F02-40	2 port
N/A	N/A	EVM230-F02-40	3 port

Note: 2 port or 3 port functions.



T.T.

1.2°

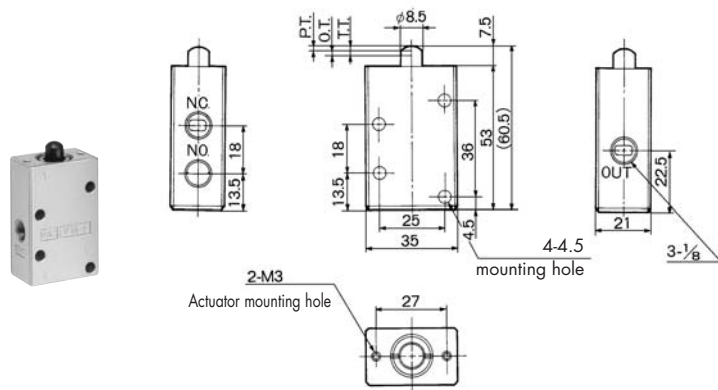
How to order EVM100/200/400 Mechanical valves

For best delivery times, please order the parts highlighted bold in the following pages. The operating heads are supplied with screws for easy fixing to the base valves. Pre-assembled valves and operating heads are also available where shown but may be subject to extended delivery times. Some variants, for example roller lever, are only available as pre-assembled units

Dimensions: Series EVM400

Basic

Base valve	Operating head	(Pre-Assembled unit)	Note
EVM430-F01-00	N/A	N/A	3 port

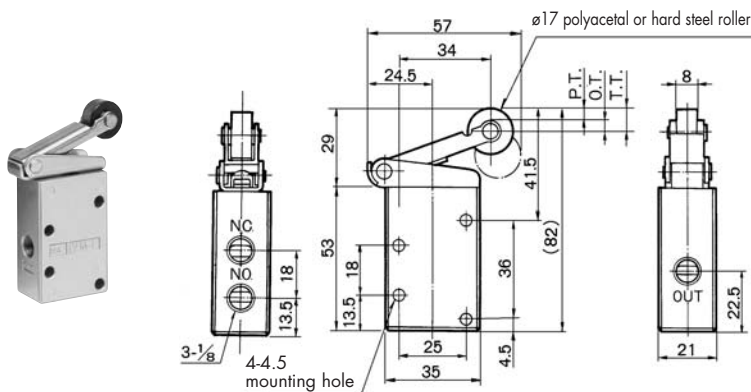


P.T.	1.5 mm
O.T.	2.0 mm
T.T.	3.5 mm

Roller lever

Base valve	Operating head	Pre-Assembled unit	Note
N/A	N/A	EVM430-F01-01	3 port
N/A	N/A	EVM430-F01-01S	3 port steel roller

Replacement actuator head: VM-01A, VM-01AS

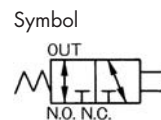
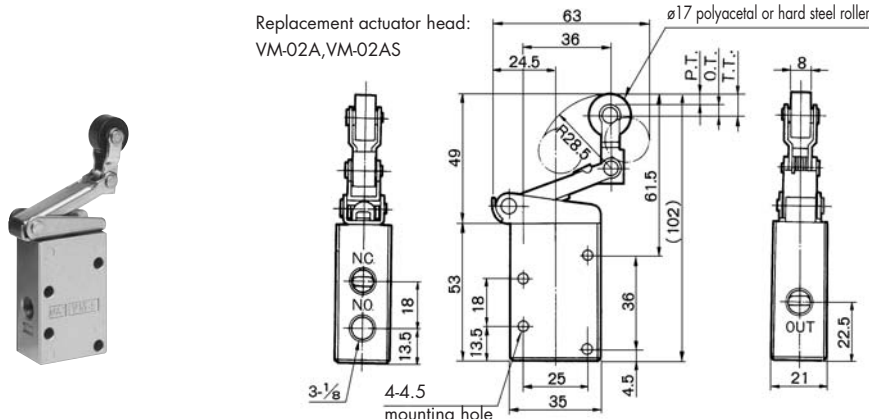


P.T.	4.0 mm
O.T.	4.5 mm
T.T.	8.5 mm

One way roller lever

Base valve	Operating head	Pre-Assembled unit	Note
N/A	N/A	EVM430-F01-02	3 port
N/A	N/A	EVM430-F01-02S	3 port steel roller

Replacement actuator head:
VM-02A, VM-02AS



P.T.	4.0 mm
O.T.	5.0 mm
T.T.	9.0 mm

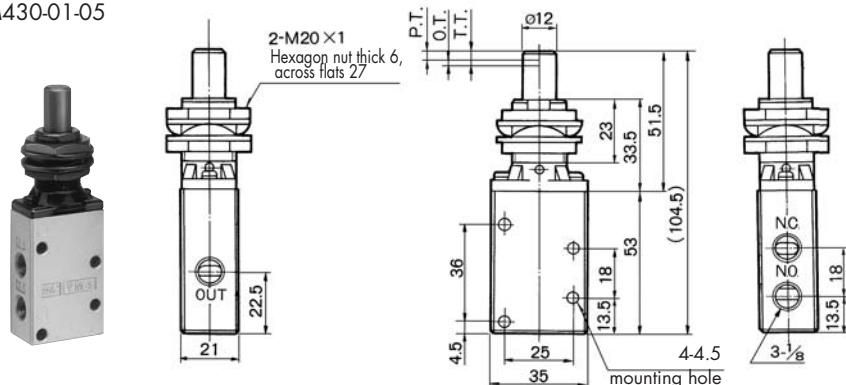
Dimensions: Series EVM400

Straight Plunger

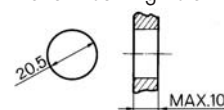
Base valve	Operating head	(Pre-Assembled unit)	Note
EVM430-F01-00	VM-05A	EVM430-F01-05	3 port

Straight plunger VM430-01-05

Replacement actuator head: VM-05A



Panel mounting hole



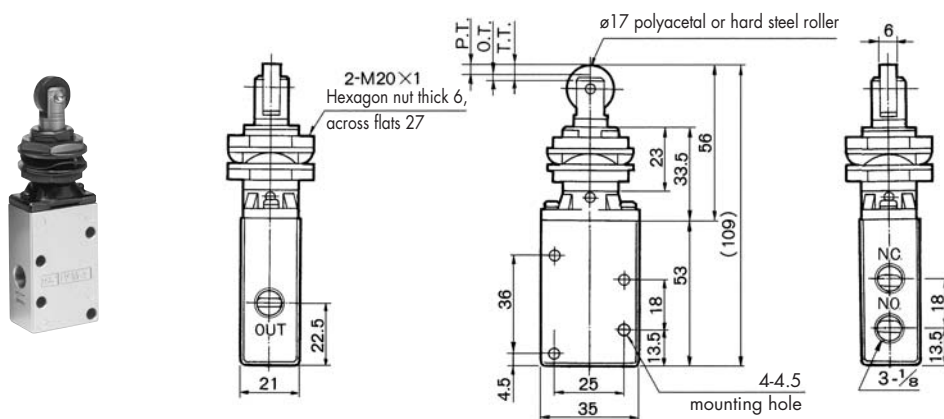
Symbol



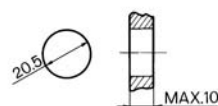
P.T.	3.5 mm
O.T.	2.0 mm
T.T.	5.5 mm

Roller Plunger

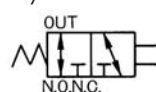
Base valve	Operating head	(Pre-Assembled unit)	Note
EVM430-F01-00	VM-06A	EVM430-F01-06	3 port
EVM430-F01-00	VM-06AS	EVM430-F01-06S	3 port steel roller



Panel mounting hole



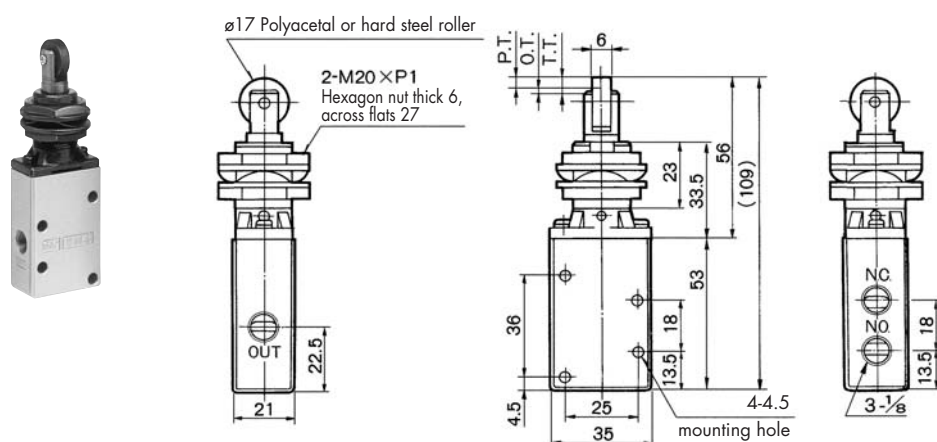
Symbol



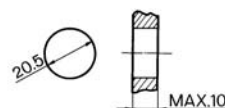
P.T.	3.5 mm
O.T.	2.0 mm
T.T.	5.5 mm

Cross roller plunger

Base valve	Operating head	(Pre-Assembled unit)	Note
EVM430-F01-00	VM-07A	EVM430-F01-07	3 port
EVM430-F01-00	VM-07AS	EVM430-F01-07S	3 port steel roller



Panel mounting hole



Symbol

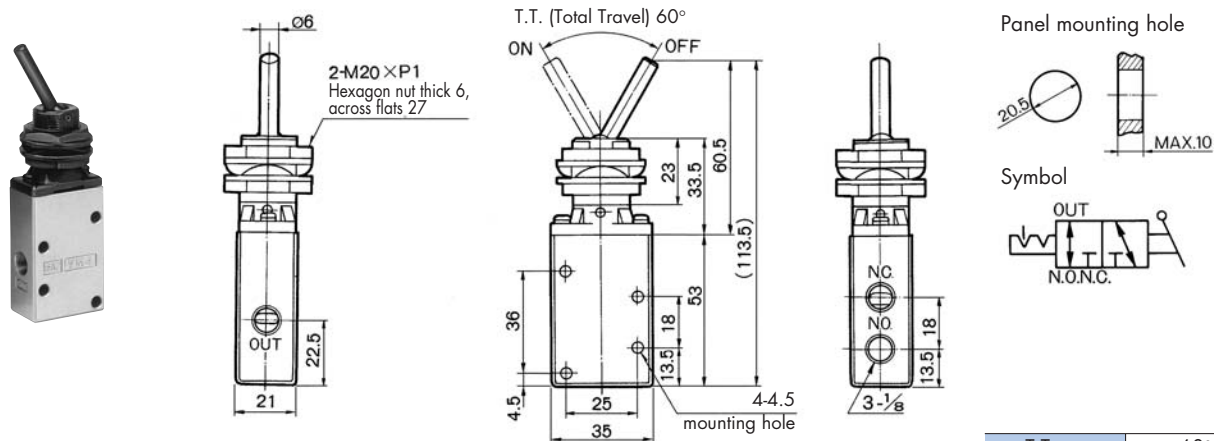


P.T.	3.5 mm
O.T.	2.0 mm
T.T.	5.5 mm

Dimensions: Series EVM400

Toggle Lever

Base valve	Operating head	(Pre-Assembled unit)	Note
EVM430-F01-00	VM-08A	EVM430-F01-08	3 port

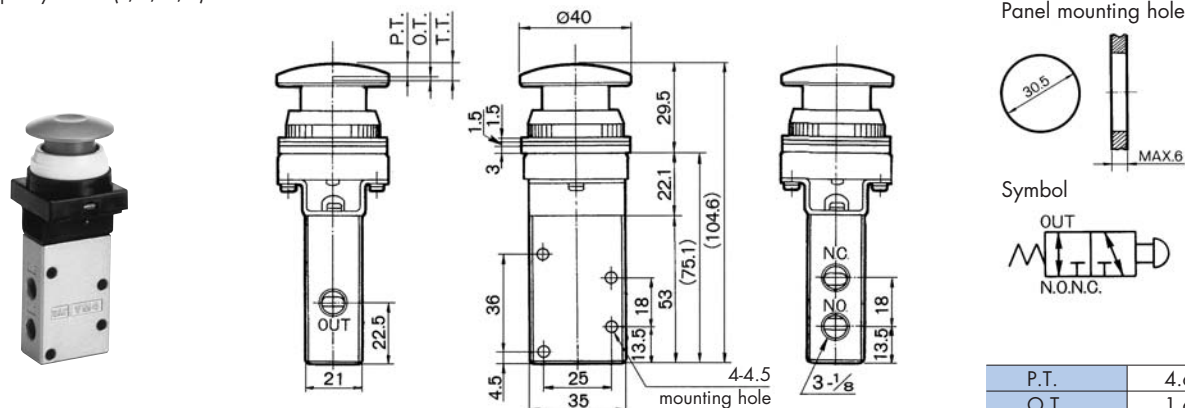


T.T. 60°

Push button (mushroom)

Base valve	Operating head	(Pre-Assembled unit)	Note
EVM430-F01-00	VM-30A □	EVM430-F01-30 □	3 port

□ = Specify colour (R/B/G/Y)



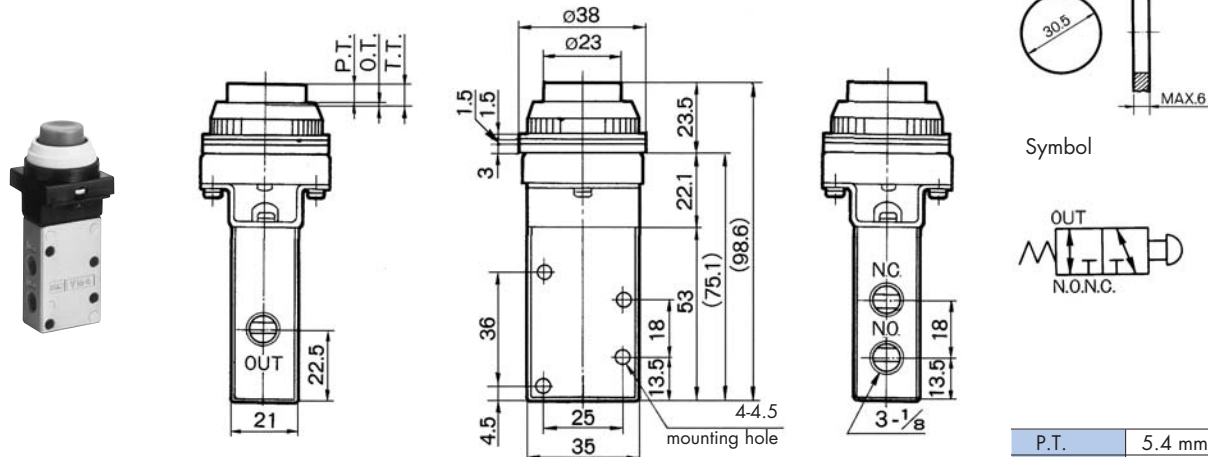
P.T.	4.6 mm
O.T.	1.6 mm
T.T.	6.5 mm

Push button (extended)

Base valve	Operating head	(Pre-Assembled unit)	Note
EVM430-F01-00	VM-32A □	EVM430-F01-32 □	3 port

□ = Specify colour (R/B/G/Y)

Replacement actuator head: VM-32A



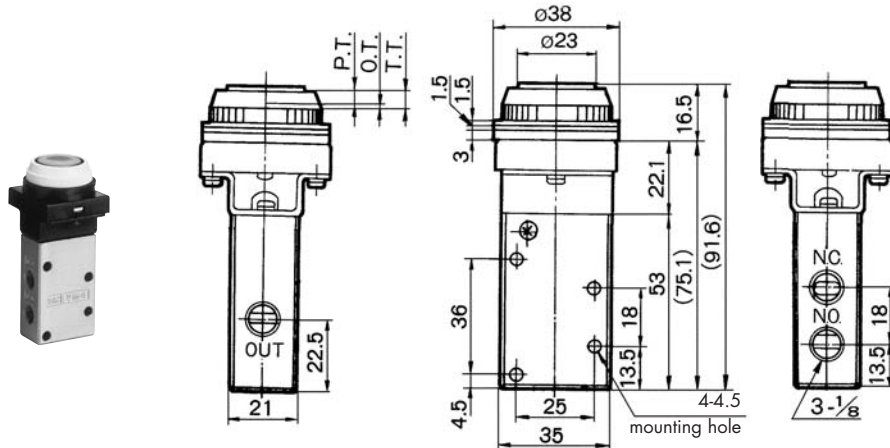
P.T.	5.4 mm
O.T.	1.6 mm
T.T.	6.5 mm

Dimensions: Series EVM400

Push Button (flush)

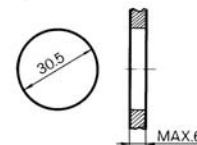
Base valve	Operating head	(Pre-Assembled unit)	Note
EVM430-F01-00	VM-33A	EVM430-F01-33	3 port

Replacement actuator head: VM-33A



Note: Supplied with four colour caps.

Panel mounting hole



Symbol



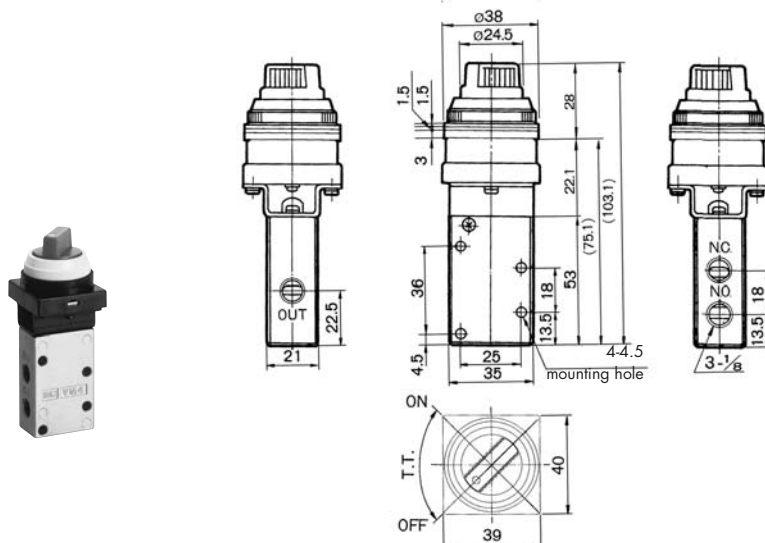
P.T.	4.9 mm
O.T.	1.6 mm
T.T.	6.5 mm

Twist selector (2 position)

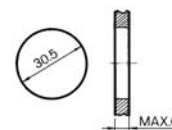
Base valve	Operating head	(Pre-Assembled unit)	Note
EVM230-F02-00	VM-34A □	EVM430-F01-34 □	3 port

□ = Specify colour (R/B/G/Y)

Replacement actuator head: VM-34A*



Panel mounting hole



Symbol



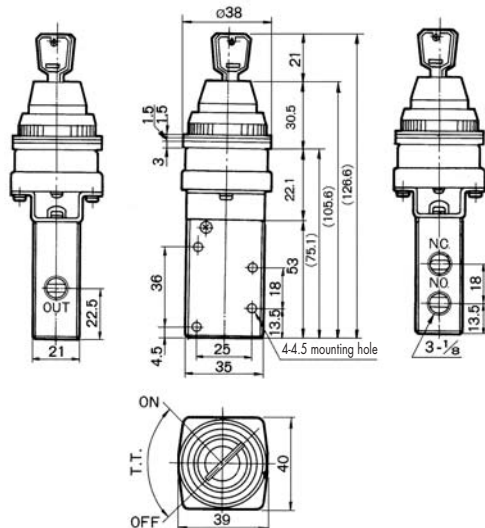
T.T.	90°
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Dimensions: Series EVM400

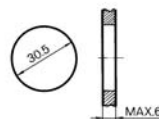
Key Selector (2 position)

Base valve	Operating head	(Pre-Assembled unit)	Note
EVM230-F02-00	VM-36A	EVM430-F01-36	3 port

Replacement actuator head: VM-36A



Panel mounting hole



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

T.T.	90°
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