

2/3 Port Mechanical Valves Series 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.
- Wide variety of replaceable operating heads.
- Compact designs.

How to Order

VM 1 3 1 - F01 - 01 S

Valve type

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

Number of ports

2	2 port
3	3 port

VM400 series only available in 3 port.

Port size

M5	M5 (Female thread)	EVM100
F01	G 1/8	EVM100/400
F02	G 1/4	EVM200

Plunger length (VM100 only)

0	Long	Side
1	Short	Side
2	Long	Bottom
3	Short	Bottom

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 *

Suffix for actuator

S	Hard steel roller	
R	Red	Colour of push button selector
B	Black	
G	Green	
Y	Yellow	

(See details pages for combinations available)

(See details pages for combinations available) *Serie VM200



Valves

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	M5	1/4	1/8
Weight (Basic)	95 g	110g	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.



Product Recommendation



Stocked items for fast delivery

References	Available Actuator Types and their specifications (*)
EVM133-M5-*	01S
EVM120-F01-*	00, 30G, 33
EVM121-F01-*	01, 01S
EVM130-F01-*	00, 05, 06, 06S, 08, 30B, 30G, 30R, 32B, 32G, 32R, 33, 34B, 34G, 34R, 36
EVM131-F01-*	00, 01, 01S, 02, 02S
EVM151-F01-*	35B, 35R
EVM220-F02-*	00, 01, 34B, 40
EVM230-F02-*	00, 01, 01S, 02, 02S, 08, 30B, 30G, 30R, 33, 34B, 34G, 34R, 36, 40
EVM250-F02-*	35B, 35R
EVM430-F01-*	00, 01, 01S, 02, 02S, 05, 06S, 07S, 08, 30B, 30G, 30R, 32G, 33, 34B, 34G, 34R, 36



Related Products

- Series KQ2 - Fittings - page 1184
- Series TU - Tubing - page 1223
- Series VR12□□ - Shuttle/AND Valves - page 545
- Series VHK - Finger Valve - page 549



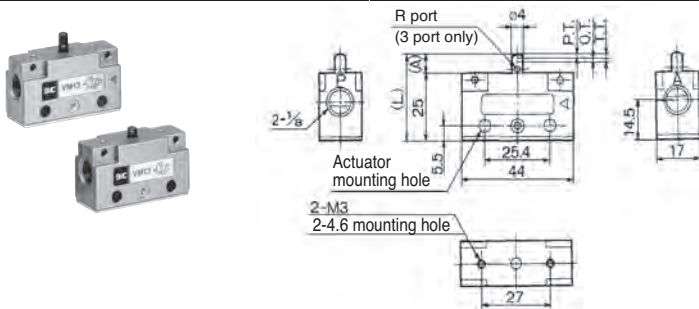
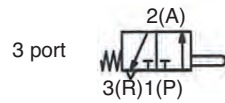
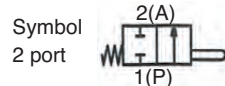
For more product options and details see our specific catalogues or on-line information.

How to order EVM100/200/400 Mechanical valves.
 The operating heads are supplied with screws for easy fixing to the base valves.
 Preassembled 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
VM120-F01-00	N/A	N/A	2 port long plunger
VM130-F01-00	N/A	N/A	3 port long plunger
VM121-F01-00	N/A	N/A	2 port short plunger
VM131-F01-00	N/A	N/A	3 port short plunger

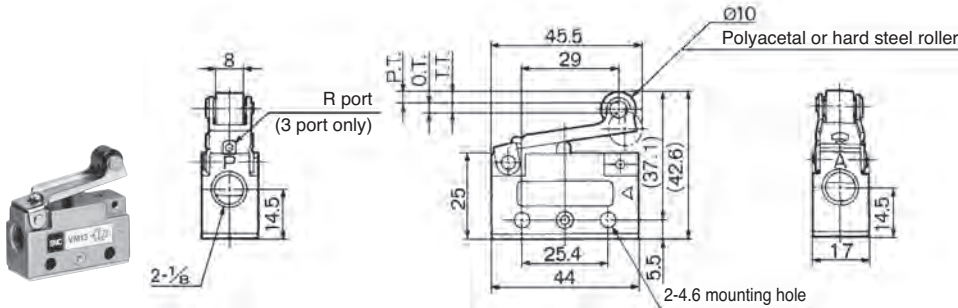
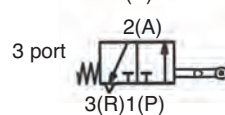
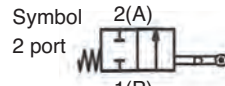


Model	L	A
VM120-01-00	32.5	7.5
VM130-01-00		
VM121-01-00	28.5	3.5
VM131-01-00		

P.T.	1.5 mm
O.T.	1.5 mm
T.T.	3.0 mm

Roller lever

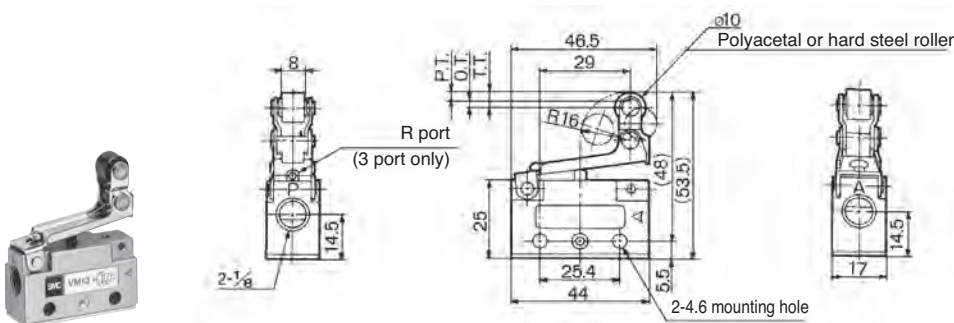
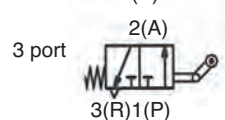
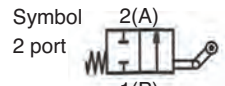
Base valve	Operating head	Pre-Assembled unit	Note
N/A	N/A	VM121-F01-01	2 port
N/A	N/A	VM131-F01-01	3 port
N/A	N/A	VM121-F01-01S	2 port steel roller
N/A	N/A	VM131-F01-01S	3 port steel roller



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	VM121-F01-02	2 port
N/A	N/A	VM131-F01-02	3 port
N/A	N/A	VM121-F01-02S	2 port steel roller
N/A	N/A	VM131-F01-02S	3 port steel roller

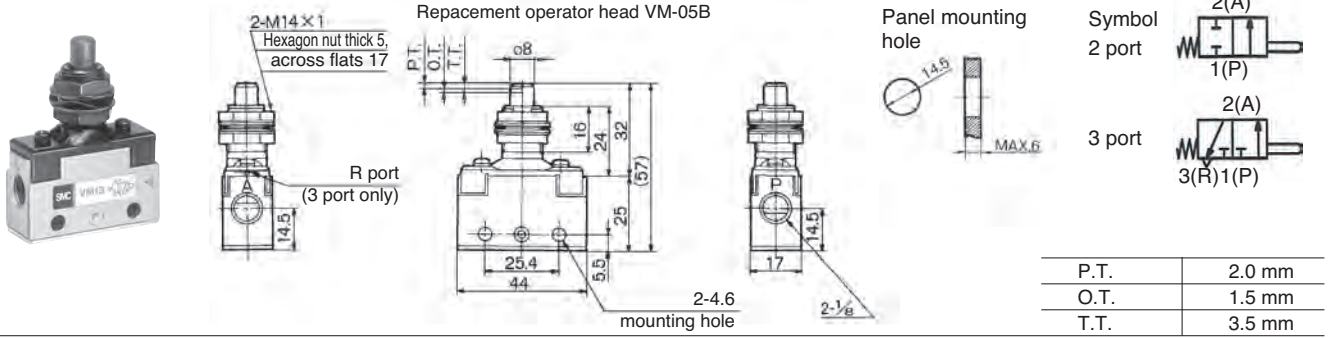


P.T.	3.2 mm
O.T.	2.3 mm
T.T.	5.5 mm

Dimensions: Series VM100

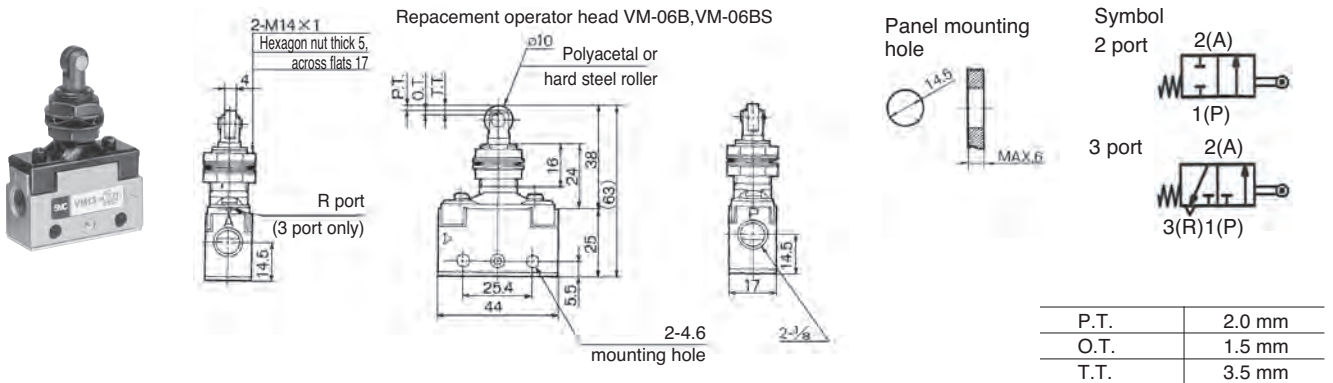
Straight Plunger

Base valve	Operating head	(Pre-Assembled unit)	Note
VM120-F01-00	VM-05B	VM120-F01-05	2 port
VM130-F01-00	VM-05B	VM130-F01-05	3 port



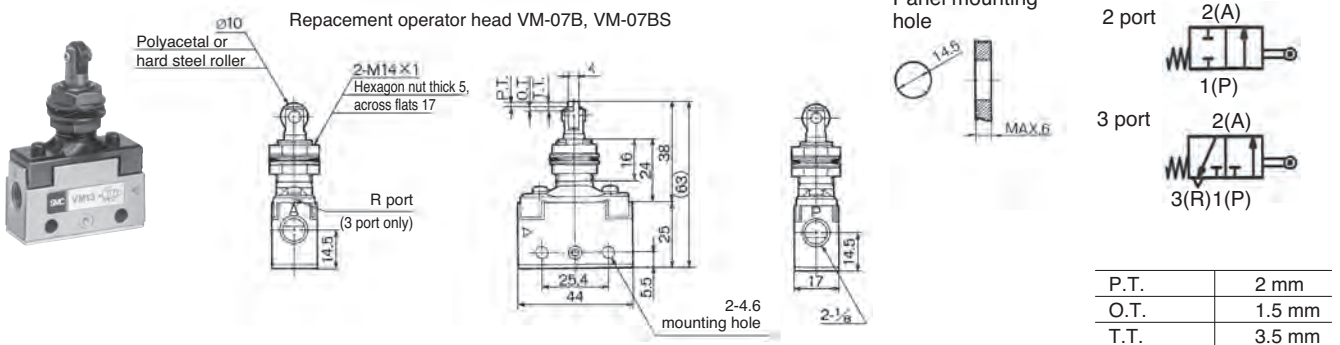
Roller Plunger

Base valve	Operating head	(Pre-Assembled unit)	Note
VM120-F01-00	VM-06B	VM120-F01-06	2 port
VM130-F01-00	VM-06B	VM130-F01-06	3 port
VM120-F01-00	VM-06BS	VM120-F01-06S	2 port steel roller
VM130-F01-00	VM-06BS	VM130-F01-06S	3 port steel roller



Cross roller plunger

Base valve	Operating head	(Pre-Assembled unit)	Note
VM120-F01-00	VM-07B	VM120-F01-07	2 port
VM130-F01-00	VM-07B	VM130-F01-07	3 port
VM120-F01-00	VM-07BS	VM120-F01-07S	2 port steel roller
VM130-F01-00	VM-07BS	VM130-F01-07S	3 port steel roller

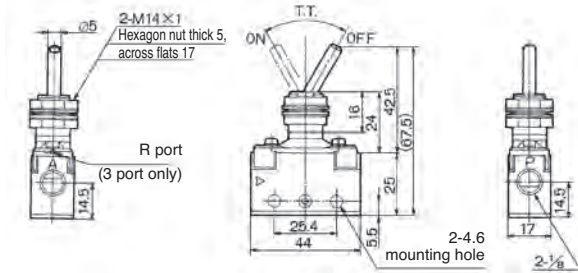


Dimensions: Series EVM100

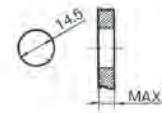
Toggle Lever

Base valve	Operating head	(Pre-Assembled unit)	Note
VM120-F01-00	VM-08B	VM120-F01-08	2 port
VM130-F01-00	VM-08B	VM130-F01-08	3 port

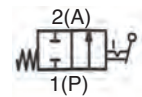
Replacement operator head VM-08B



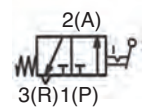
Panel mounting hole



Symbol
2 port



3 port



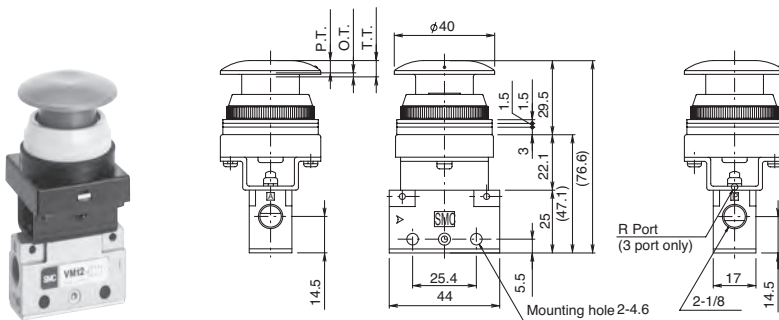
T.T.	60
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Push button (mushroom)

Base valve	Operating head	(Pre-Assembled unit)	Note
VM120-F01-00	VM-30A□	VM120-F01-30□	2 port
VM130-F01-00	VM-30A□	VM130-F01-30□	3 port

□ = Specify colour (R/B/G/Y)

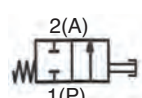
Replacement operator head VM-30A□



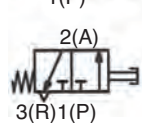
Panel mounting hole



Symbol
2 port



3 port



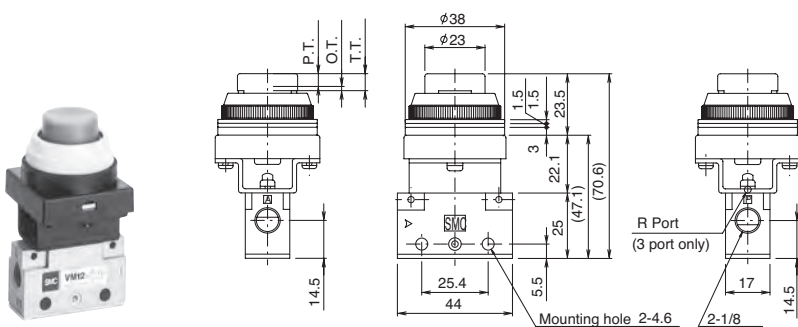
P.T.	4.9 mm
O.T.	1.6 mm
T.T.	6.5 mm

Push button (extended)

Base valve	Operating head	(Pre-Assembled unit)	Note
VM120-F01-00	VM-32A□	VM120-F01-32□	2 port
VM130-F01-00	VM-32A□	VM130-F01-32□	3 port

□ = Specify colour (R/B/G/Y)

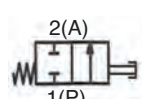
Replacement operator head VM-32A□



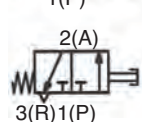
Panel mounting hole



Symbol
2 port



3 port

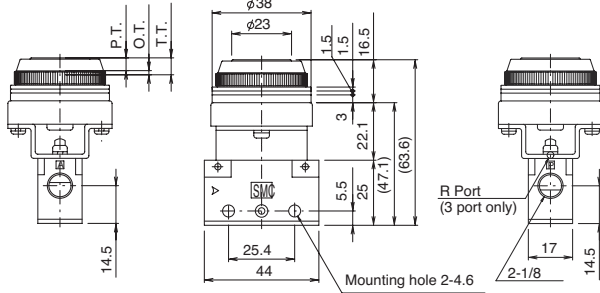


P.T.	4.9 mm
O.T.	1.6 mm
T.T.	6.5 mm

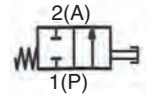
Dimensions: Series VM100
Push Button (flush)

Base valve	Operating head	(Pre-Assembled unit)	Note
VM120-F01-00	VM-33A	VM120-F01-33	2 port
VM130-F01-00	VM-33A	VM130-F01-33	3 port

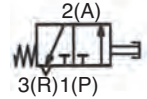
Replacement operator head VM-33A



Panel mounting hole


 Symbol
2 port


3 port



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

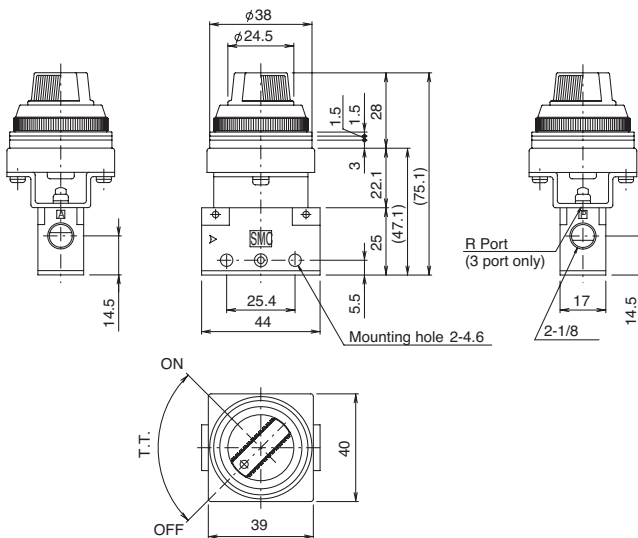
Nota: Supplied with four colour caps.

Dimensions: Series VM100/Side Ported
Twist selector (2 position)

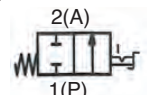
Base valve	Operating head	(Pre-Assembled unit)	Note
VM120-F01-00	VM-34A □	VM120-F01-34 □	2 port
VM130-F01-00	VM-34A □	VM130-F01-34 □	3 port

□ = Specify colour (R/B/G/Y)

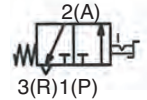
Replacement operator head VM-34A □



Panel mounting hole


 Symbol
2 port


3 port



T.T.	90°
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Dimensions: Series VM100/Side Ported

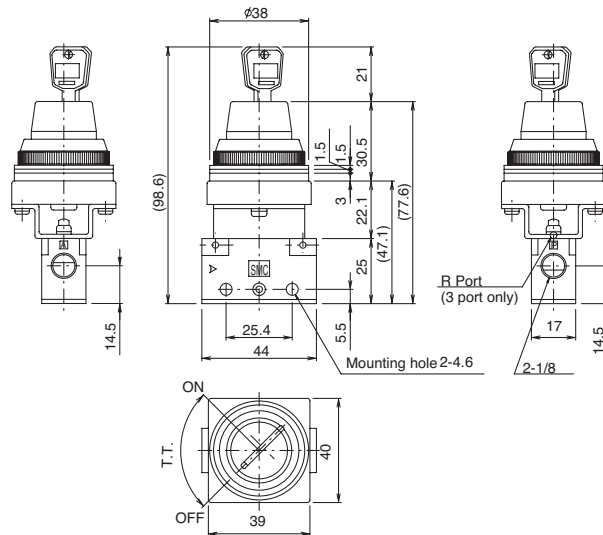
Key Selector (2 position)

Base valve	Operating head	(Pre-Assembled unit)	Note
VM120-F01-00	VM-36A	VM120-F01-36	2 port
VM130-F01-00	VM-36A	VM130-F01-36	3 port

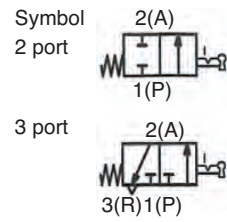
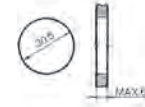
Replacement operator head VM-36A



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



Panel mounting hole



T.T. 90°

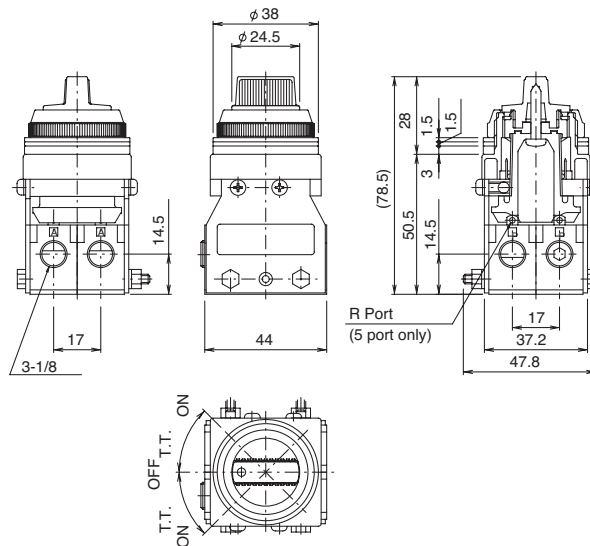
Twist Selector (3 position)

Base valve	Operating head	Pre-Assembled unit	Note
N/A	N/A	VM131-F01-35□	3 port
N/A	N/A	VM151-F01-35□	5 port

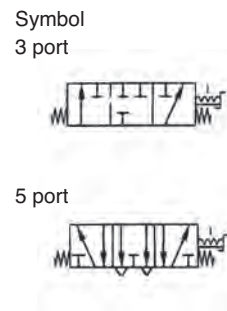
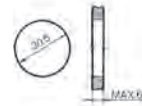
□ = Specify colour (R/B/G/Y)



Note: 3 port or 5 port function



Panel mounting hole



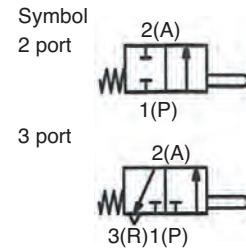
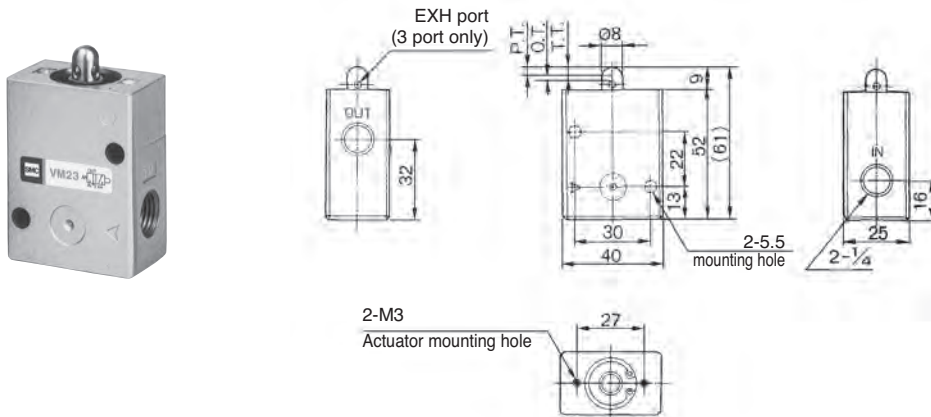
T.T. 45°

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.
 Preassembled valves and operating heads are also available where shown but may be subject to extended delivery times. Some variants, for example foot pedal, are only available as pre-assembled units.

Dimensions: Series VM200

Basic

Base valve	Operating head	(Pre-Assembled unit)	Note
VM220-F02-00	N/A	N/A	2 port
VM230-F02-00	N/A	N/A	3 port

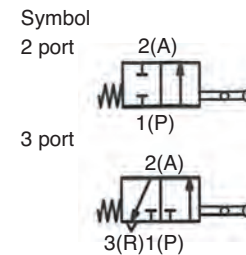
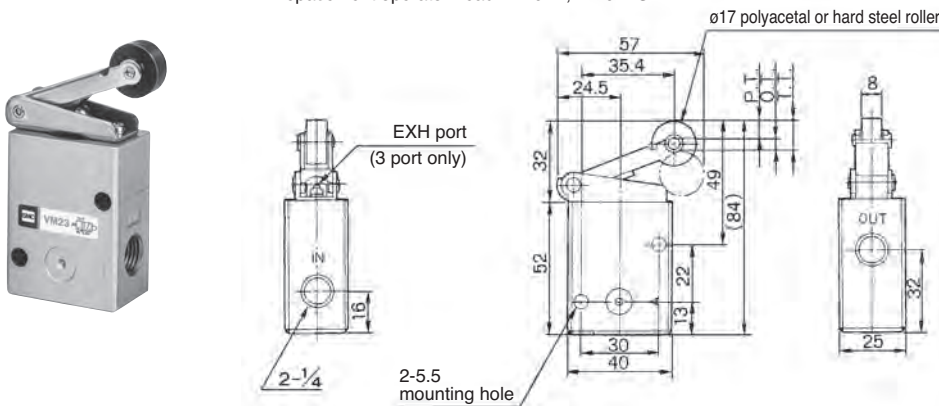


P.T.	3.0 mm
O.T.	2.0 mm
T.T.	5.0 mm

Roller lever

Base valve	Operating head	Pre-Assembled unit	Note
VM220-F02-00	VM-01A	VM220-F02-01	2 port
VM230-F02-00	VM-01A	VM230-F02-01	3 port
VM220-F02-00	VM-01AS	VM220-F02-01S	2 port steel roller
VM230-F02-00	VM-01AS	VM230-F02-01S	3 port steel roller

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

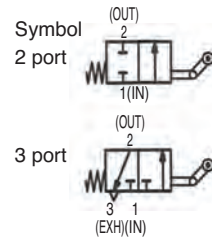
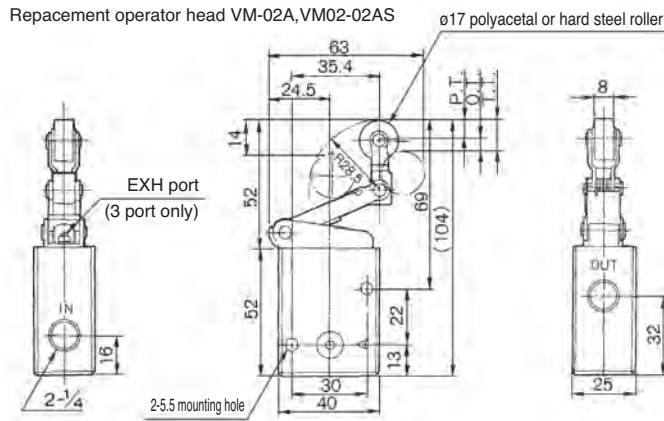


P.T.	6.5 mm
O.T.	4.5 mm
T.T.	11.0 mm

Dimensions: Series VM200

One way roller lever

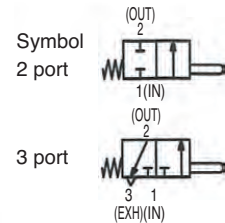
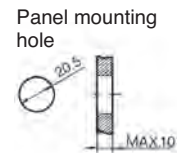
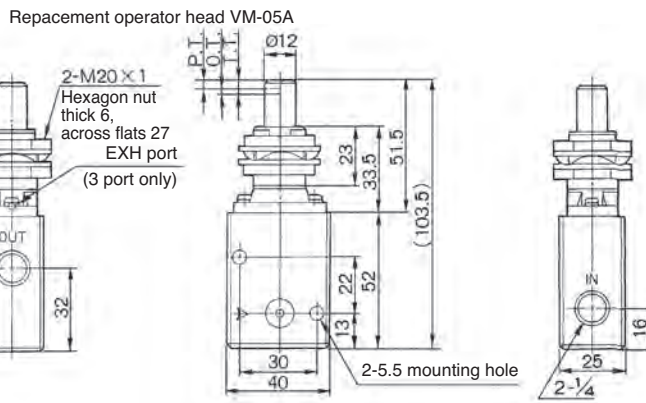
Base valve	Operating head	Pre-Assembled unit	Note
VM220-F02-00	VM-02A	VM220-F02-02	2 port
VM230-F02-00	VM-02A	VM230-F02-02	3 port
VM220-F02-00	VM-02AS	VM220-F02-02S	2 port steel roller
VM230-F02-00	VM-02AS	VM230-F02-02S	3 port steel roller



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
VM220-F02-00	VM-05-A	VM220-F02-05	2 port
VM230-F02-00	VM-05-A	VM230-F02-05	3 port



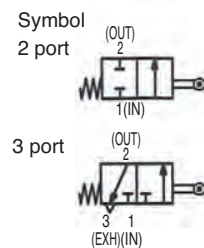
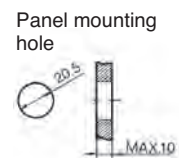
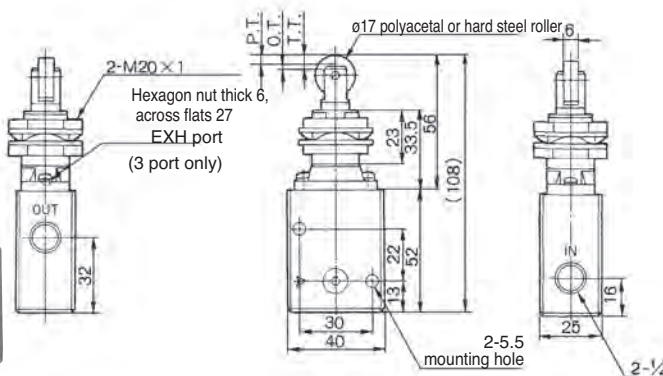
P.T.	3.5 mm
O.T.	2.0 mm
T.T.	5.5 mm

Roller Plunger

Base valve	Operating head	(Pre-Assembled unit)	Note
VM220-F02-00	VM-06A	VM220-F02-06	2 port
VM230-F02-00	VM-06A	VM230-F02-06	3 port
VM220-F02-00	VM-06AS	VM220-F02-06S	2 port steel roller
VM230-F02-00	VM-06AS	VM230-F02-06S	3 port steel roller



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



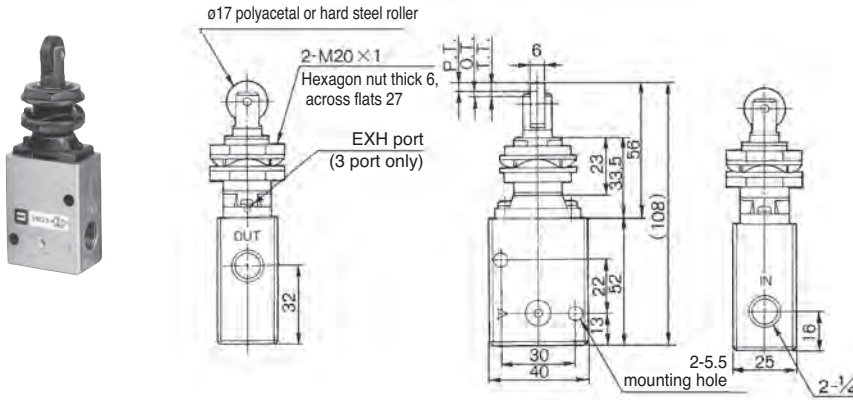
P.T.	3.5 mm
O.T.	2.0 mm
T.T.	5.5 mm

Dimensions: Series VM200

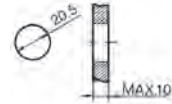
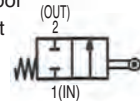
Cross roller plunger

Base valve	Operating head	(Pre-Assembled unit)	Note
VM220-F02-00	VM-07A	VM220-F02-07	2 port
VM230-F02-00	VM-07A	VM230-F02-07	3 port
VM220-F02-00	VM-07AS	VM220-F02-07S	2 port steel roller
VM230-F02-00	VM-07AS	VM230-F02-07S	3 port steel roller

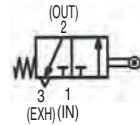
Replacement operator head VM-07A, VM-07AS



Panel mounting hole


 Symbol
2 port


3 port

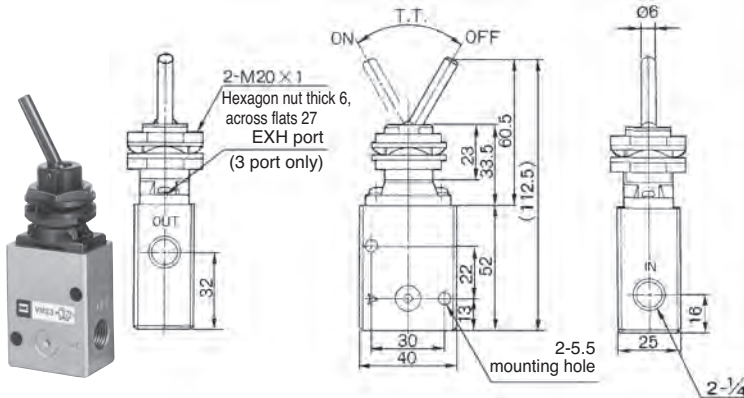


P.T.	3.5 mm
O.T.	2.0 mm
T.T.	5.5 mm

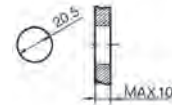
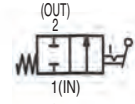
Toggle Lever

Base valve	Operating head	(Pre-Assembled unit)	Note
VM220-F02-00	VM-08A	VM220-F02-08	2 port
VM230-F02-00	VM-08A	VM230-F02-08	3 port

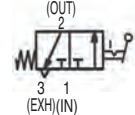
Replacement operator head VM-08A



Panel mounting hole


 Symbol
2 port


3 port



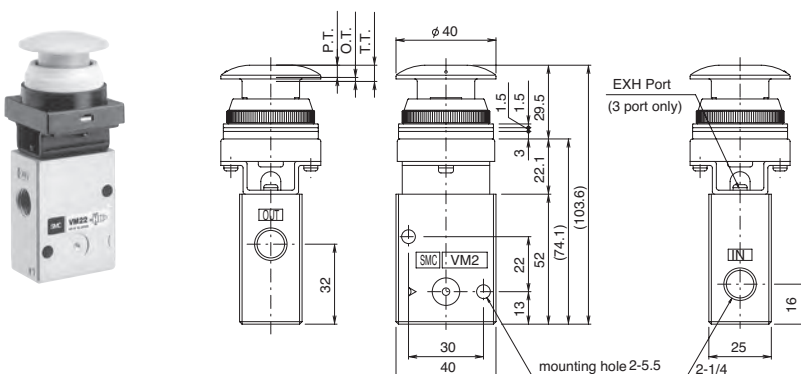
T.T.	60
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Push button (mushroom)

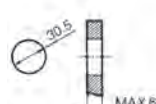
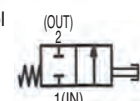
Base valve	Operating head	(Pre-Assembled unit)	Note
VM220-F02-00	VM-30A □	VM220-F02-30□	2 port
VM230-F02-00	VM-30A □	VM230-F02-30□	3 port

□ = Specify colour (R/B/G/Y)

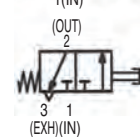
Replacement operator head VM-30A□



Panel mounting hole


 Symbol
2 port


3 port



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



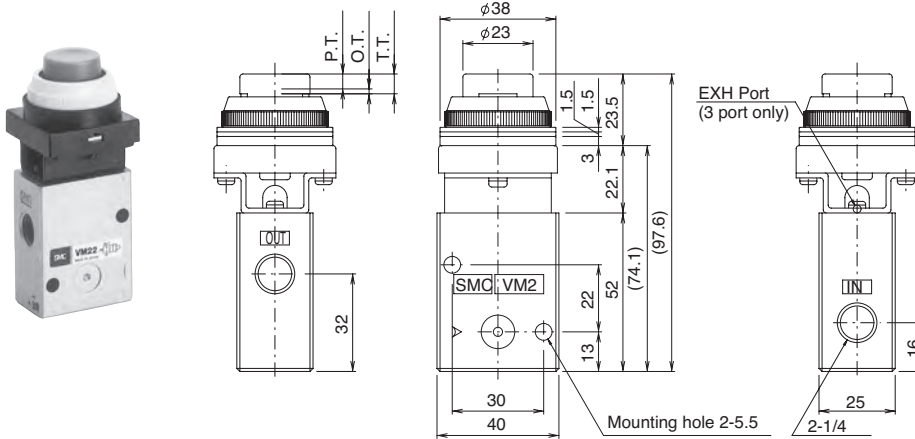
Dimensions: Series VM200

Push button (extended)

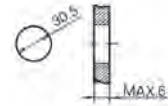
Base valve	Operating head	(Pre-Assembled unit)	Note
VM220-F02-00	VM-32A □	VM220-F02-32 □	2 port
VM230-F02-00	VM-32A □	VM230-F02-32 □	3 port

□ = Specify colour (R/B/G/Y)

Replacement operator head VM-32A □

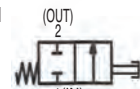


Panel mounting hole

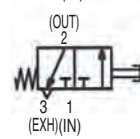


Symbol

2 port



3 port

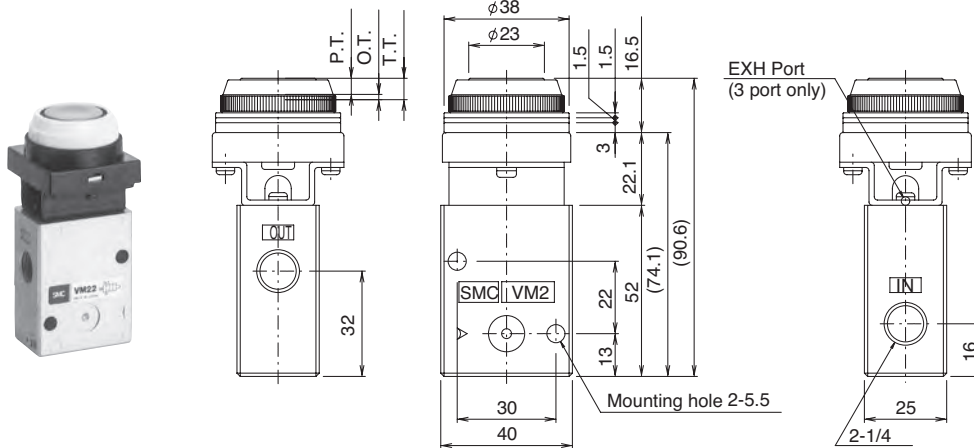


P.T.	4.9 mm
O.T.	1.6 mm
T.T.	6.5 mm

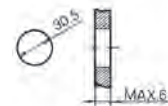
Push Button (flush)

Base valve	Operating head	(Pre-Assembled unit)	Note
VM220-F02-00	VM-33A	VM220-F02-33	2 port
VM230-F02-00	VM-33A	VM230-F02-33	3 port

Replacement operator head VM-33A

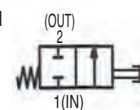


Panel mounting hole

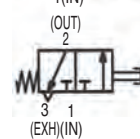


Symbol

2 port



3 port



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

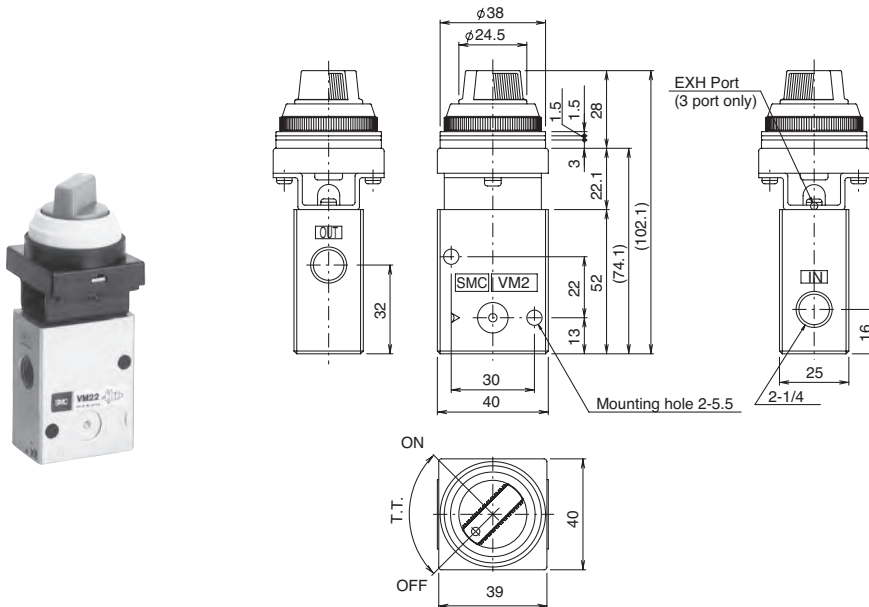
Note: Supplied with four colour caps.

Dimensions: Series VM200
Twist selector (2 position)

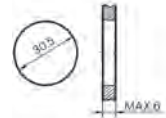
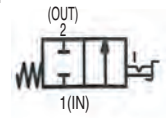
Base valve	Operating head	(Pre-Assembled unit)	Note
VM220-F02-00	VM-34A □	VM220-F02-34 □	2 port
VM230-F02-00	VM-34A □	VM230-F02-34 □	3 port

□ = Specify colour (R/B/G/Y)

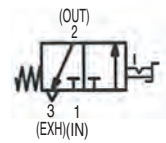
Replacement operator head VM-34A □



Panel mounting hole


 Symbol
2 port


3 port

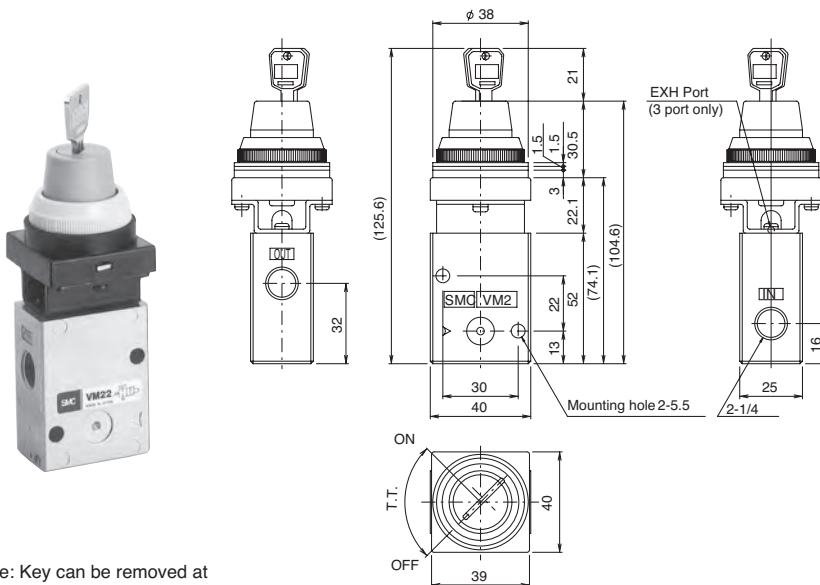


T.T. 90°

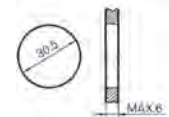
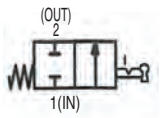
Key Selector (2 position)

Base valve	Operating head	(Pre-Assembled unit)	Note
VM220-F02-00	VM-36A	VM220-F02-36	2 port
VM230-F02-00	VM-36A	VM230-F02-36	3 port

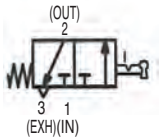
Replacement operator head VM-36A



Panel mounting hole


 Symbol
2 port


3 port



T.T. 90°

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



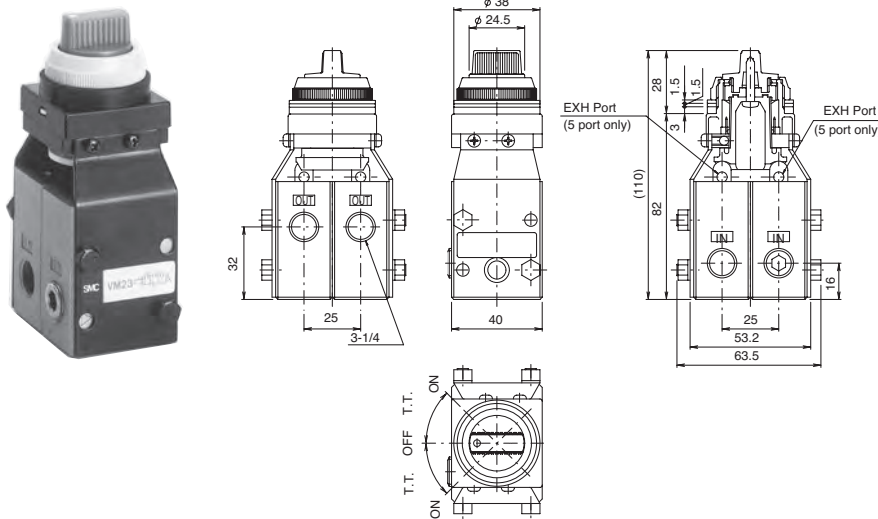
Dimensions: Series VM200

Twist Selector (3 position)

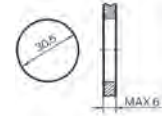
Base valve	Operating head	Pre-Assembled unit	Note
N/A	N/A	VM230-F02-35□	3 port
N/A	N/A	VM250-F02-35□	5 port

□ = Specify colour (R/B/G/Y)

Note: 3 port or 5 port functions.

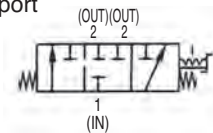


Panel mounting hole



Symbol

3 port



5 port

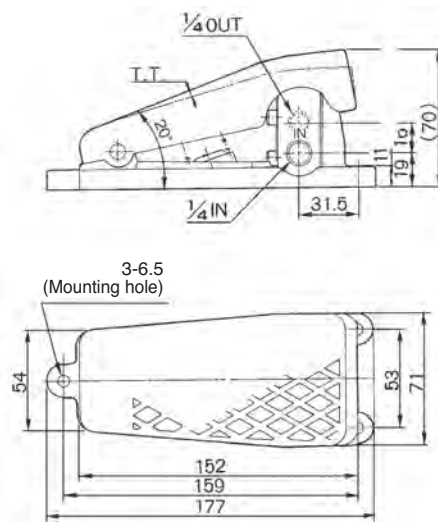


T.T.	45°
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Foot pedal

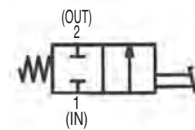
Base valve	Operating head	Pre-Assembled unit	Note
N/A	N/A	VM220-F02-40	2 port
N/A	N/A	VM230-F02-40	3 port

Note: 2 port or 3 port functions.

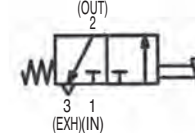


Symbol

2 port



3 port



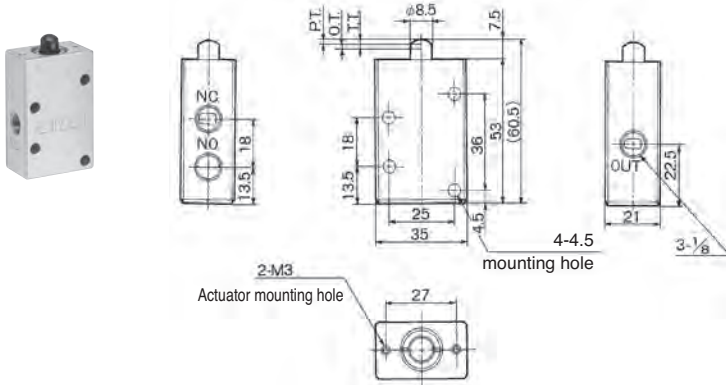
T.T.	1.2°
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How to order EVM100/200/400 Mechanical valves.
 For best delivery times, please order the parts highlighted bold in the following pages.
 The operating heads are supplied with screws for easy fixing to the base valves.
 Preassembled valves and operating heads are also available where shown but may be subject to extended delivery times.

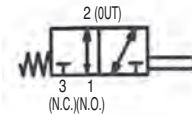
Dimensions: Series VM400

Basic

Base valve	Operating head	(Pre-Assembled unit)	Note
VM430-F01-00	N/A	N/A	3 port



Symbol

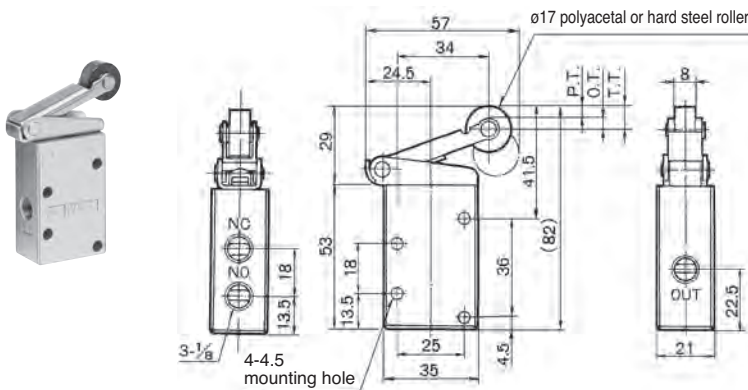


P.T.	1.5 mm
O.T.	2.0 mm
T.T.	3.5 mm

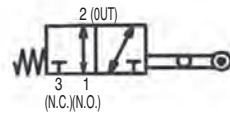
Roller lever

Base valve	Operating head	Pre-Assembled unit	Note
VM430-F01-00	VM-01A	VM430-F01-01	3 port
VM430-F01-00	VM-01AS	VM430-F01-01S	3 port steel roller

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



Symbol

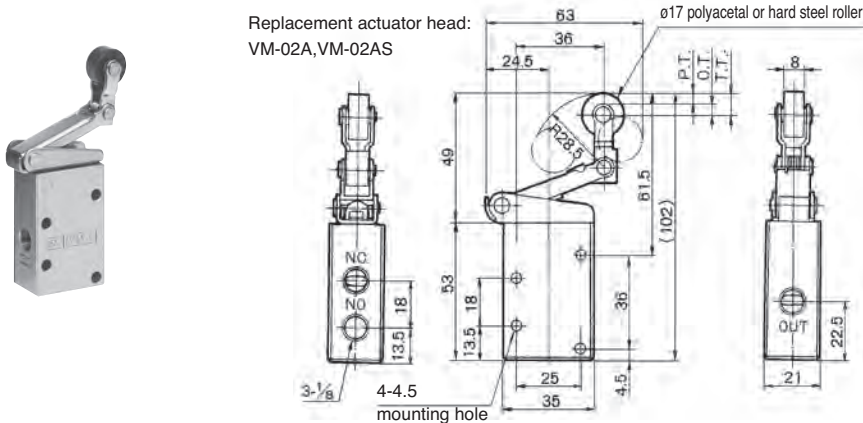


P.T.	4.0 mm
O.T.	4.5 mm
T.T.	8.5 mm

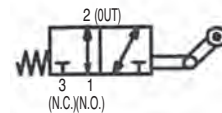
One way roller lever

Base valve	Operating head	Pre-Assembled unit	Note
VM430-F01-00	VM-02A	VM430-F01-02	3 port
VM430-F01-00	VM-02AS	VM430-F01-02S	3 port steel roller

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



Symbol



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

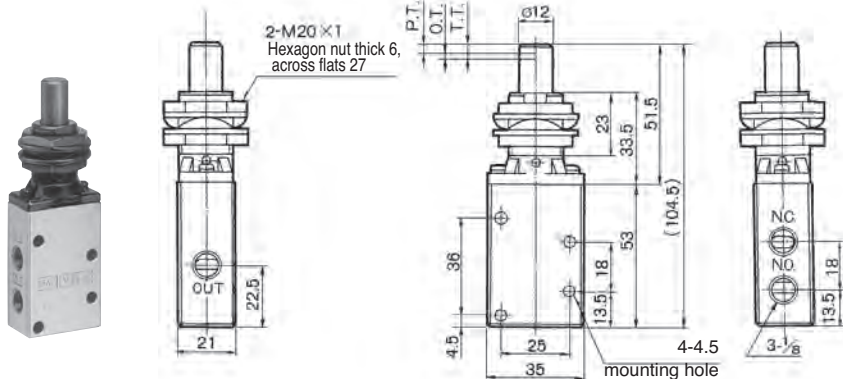


Dimensions: Series VM400

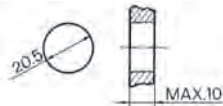
Straight Plunger

Base valve	Operating head	(Pre-Assembled unit)	Note
VM430-F01-00	VM-05A	VM430-F01-05	3 port

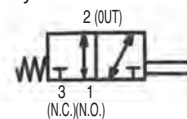
Replacement actuator head: VM-05A



Panel mounting hole



Symbol

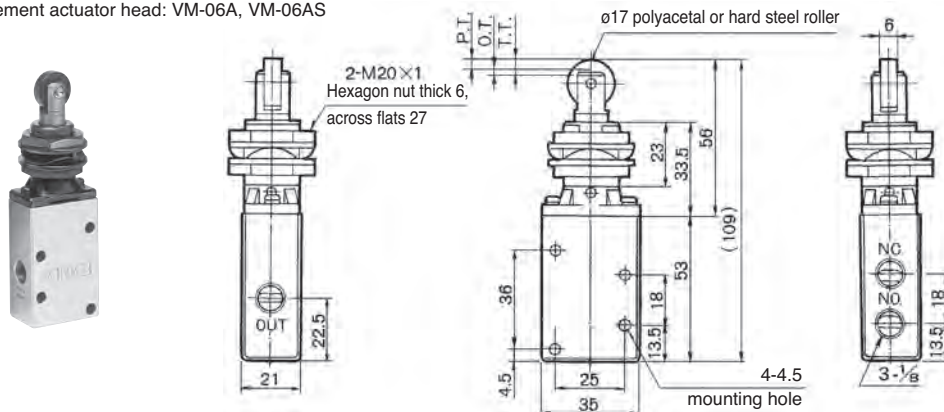


P.T.	3.5 mm
O.T.	2.0 mm
T.T.	5.5 mm

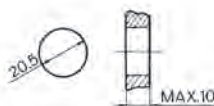
Roller Plunger

Base valve	Operating head	(Pre-Assembled unit)	Note
VM430-F01-00	VM-06A	VM430-F01-06	3 port
VM430-F01-00	VM-06AS	VM430-F01-06S	3 port steel roller

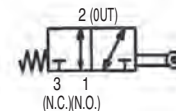
Replacement actuator head: VM-06A, VM-06AS



Panel mounting hole



Symbol

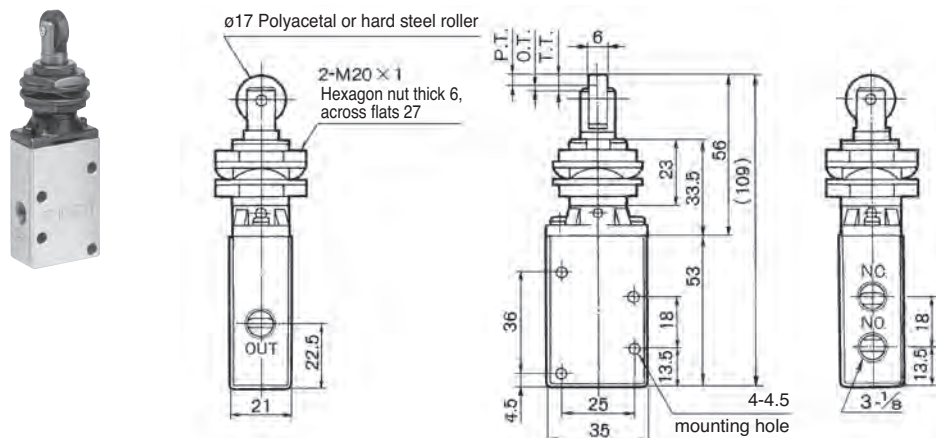


P.T.	3.5 mm
O.T.	2.0 mm
T.T.	5.5 mm

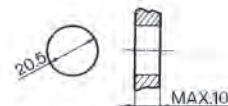
Cross roller plunger

Base valve	Operating head	(Pre-Assembled unit)	Note
VM430-F01-00	VM-07A	VM430-F01-07	3 port
VM430-F01-00	VM-07AS	VM430-F01-07S	3 port steel roller

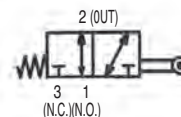
Replacement actuator head: VM-07A, VM-07AS



Panel mounting hole



Symbol



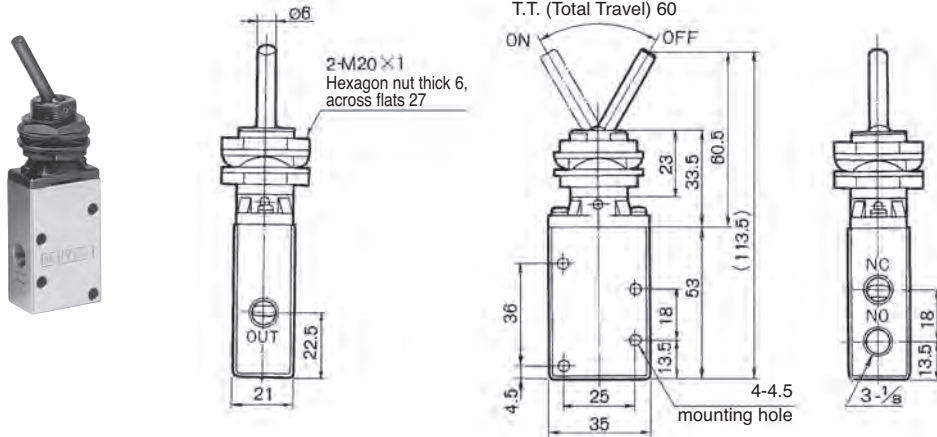
P.T.	3.5 mm
O.T.	2.0 mm
T.T.	5.5 mm

Dimensions: Series VM400

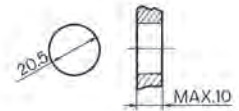
Toggle Lever

Base valve	Operating head	(Pre-Assembled unit)	Note
VM430-F01-00	VM-08A	VM430-F01-08	3 port

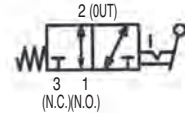
Replacement actuator head: VM-08A



Panel mounting hole



Symbol



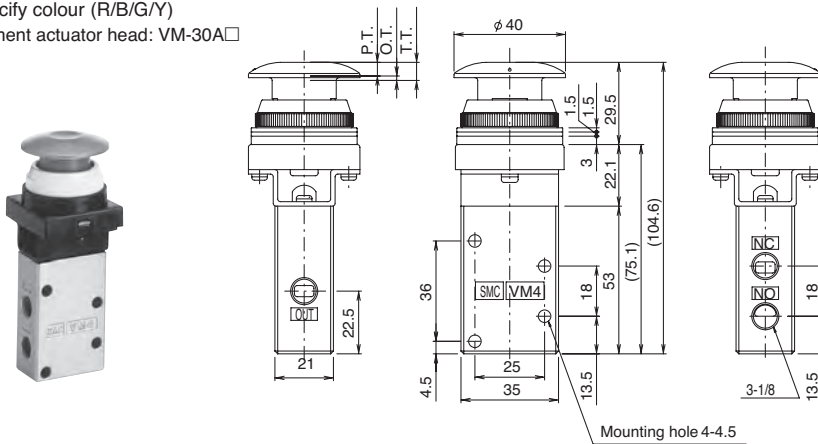
T.T.	60°
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Push button (mushroom)

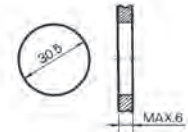
Base valve	Operating head	(Pre-Assembled unit)	Note
VM430-F01-00	VM-30A□	VM430-F01-30□	3 port

□ = Specify colour (R/B/G/Y)

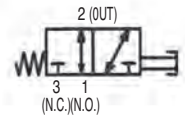
Replacement actuator head: VM-30A□



Panel mounting hole



Symbol



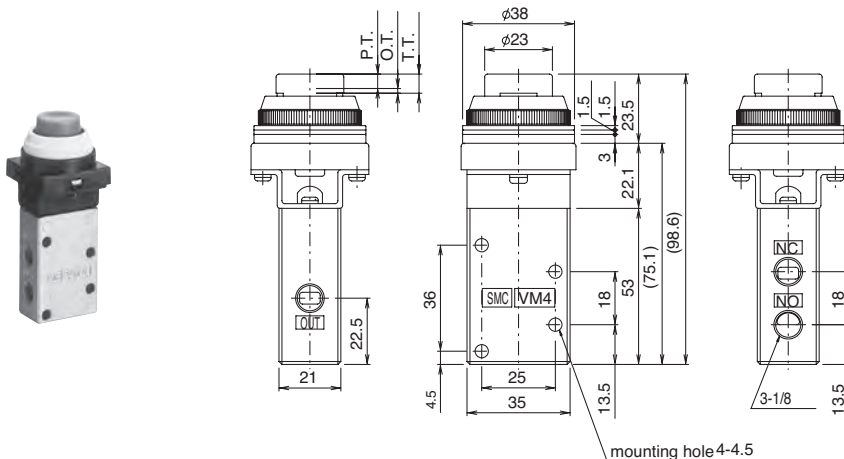
P.T.	4.6 mm
O.T.	1.6 mm
T.T.	6.5 mm

Push button (extended)

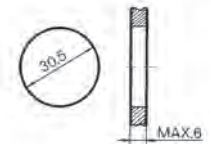
Base valve	Operating head	(Pre-Assembled unit)	Note
VM430-F01-00	VM-32A□	VM430-F01-32□	3 port

□ = Specify colour (R/B/G/Y)

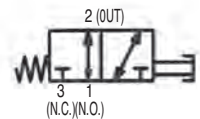
Replacement actuator head: VM-32A□



Panel mounting hole



Symbol



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

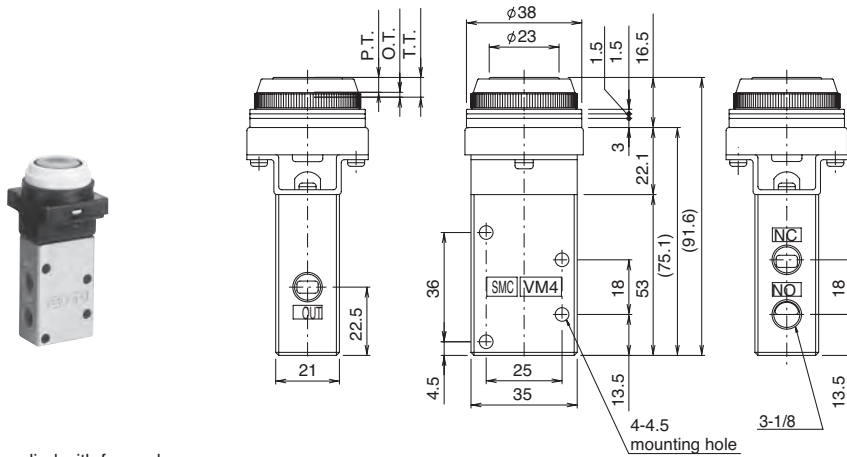


Dimensions: Series VM400

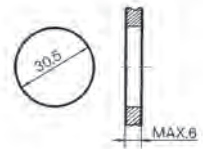
Push Button (flush)

Base valve	Operating head	(Pre-Assembled unit)	Note
VM430-F01-00	VM-33A	VM430-F01-33	3 port

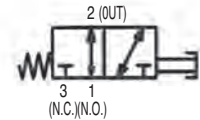
Replacement actuator head: VM-33A



Panel mounting hole



Symbol



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

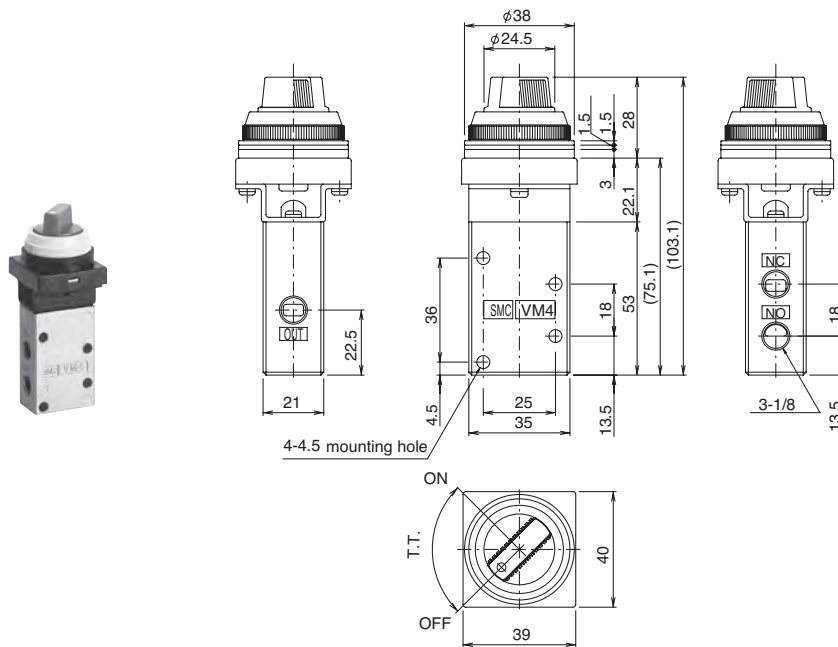
Note: Supplied with four colour caps.

Twist selector (2 position)

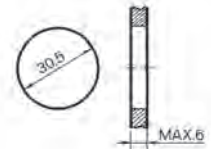
Base valve	Operating head	(Pre-Assembled unit)	Note
VM430-F01-00	VM-34A □	VM430-F01-34 □	3 port

□ = Specify colour (R/B/G/Y)

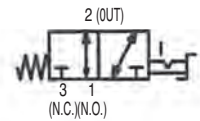
Replacement actuator head: VM-34A □



Panel mounting hole



Symbol



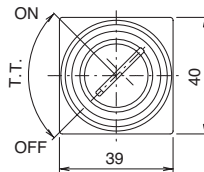
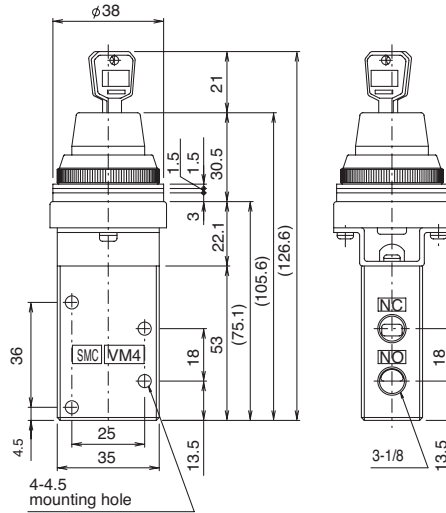
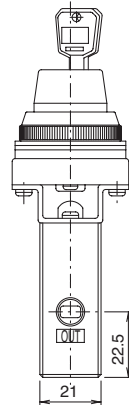
T.T.	90°
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Dimensions: Series VM400

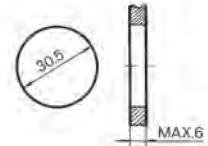
Key Selector (2 position)

Base valve	Operating head	(Pre-Assembled unit)	Note
VM430-F01-00	VM-36A	VM430-F01-36	3 port

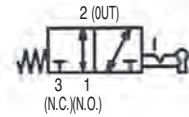
Replacement actuator head: VM-36A



Panel mounting hole



Symbol



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

T.T.

90°

Heavy Duty 3 Port Mechanical Valve Series VM800

*The product variant is the EVM800 type with parallel thread ports. However, the VM800 type may also be found. This is the variant used outside Europe and is identical except for the port thread which is Rc (taper) thread.

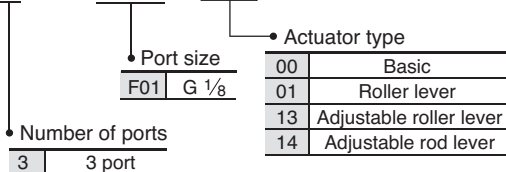


Features

- Robust construction.
- Universal porting.
- Flexible actuator options.
- Replaceable operator heads.

How to Order

EVM8 3 0 – F01 – 01



Specifications

Fluid	Air/Inert gas
Operating pressure	-100 kPa to 1.0 MPa
Ambient and fluid temperature	-5 to 60°C (No freezing)
Effective area	6 mm ²
Lubrication	Not required (Use turbine oil Class 1 ISO VG32, if lubricated.)
Port size	1/8
Weight (Basic)	180 g



Related Products

- Series KQ2 - Fittings - page 1184
- Series TU - Tubing - page 1223
- Series VR12 - Shuttle/AND Valves - page 545
- Series VHK - Finger Valve - page 549

Product Recommendation

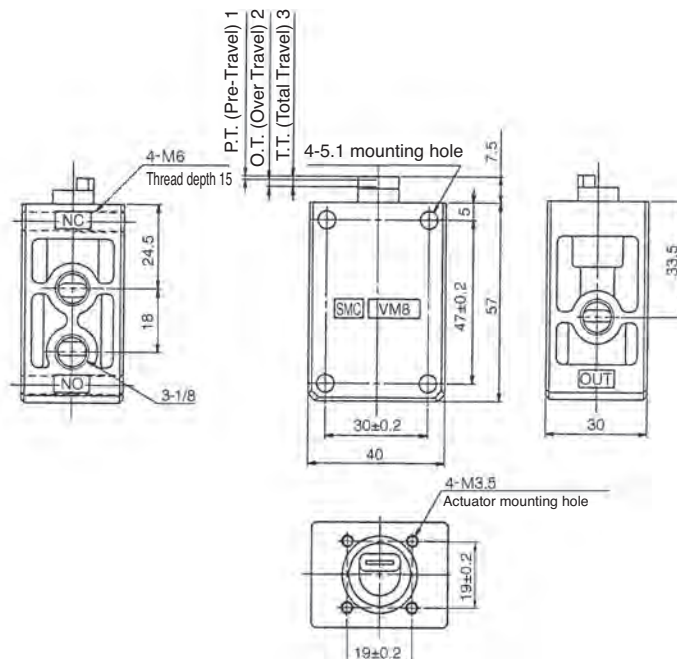


Stocked items for fast delivery

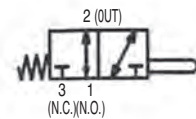
References	Available Actuator Types and their specifications (*)
VM830-F01 - *	01, 13, 14

Dimensions

Basic
VM830-F01-00



Symbol

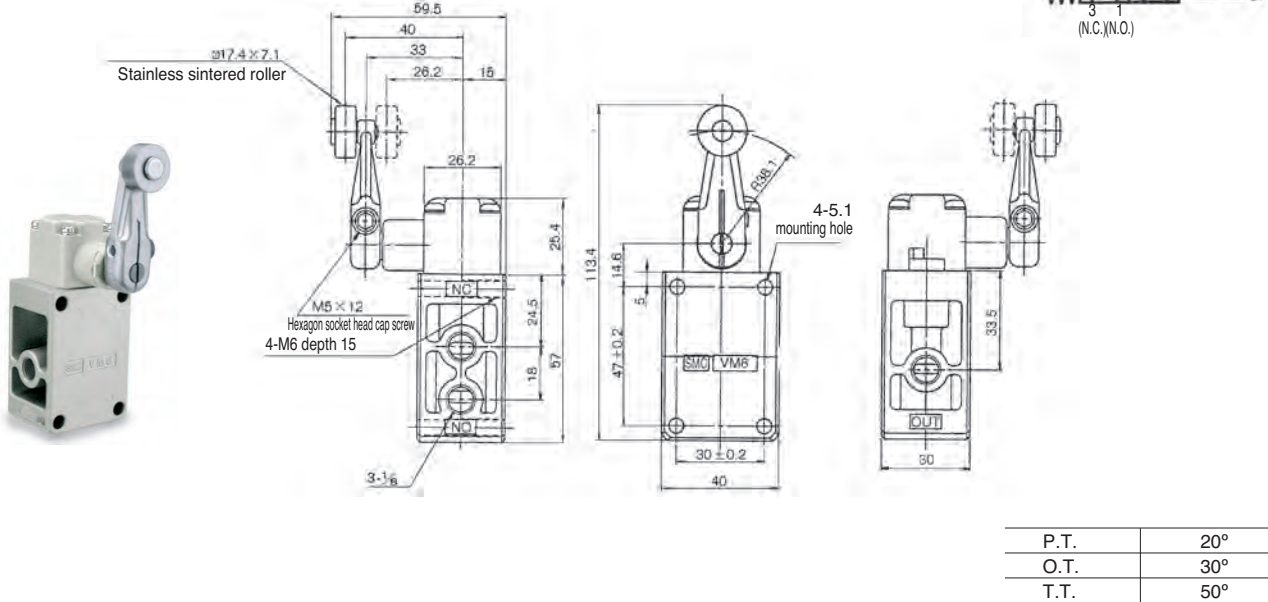
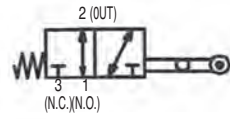


P.T.	1 mm
O.T.	2 mm
T.T.	3 mm

Dimensions

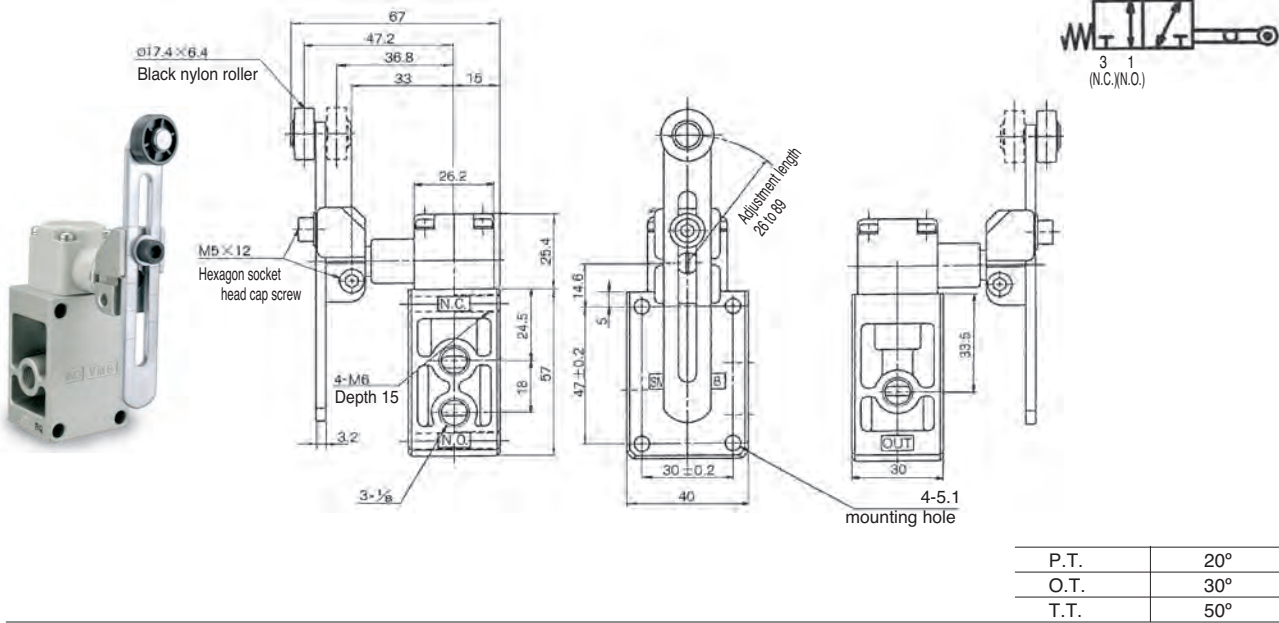
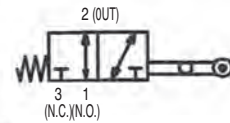
Roller lever Replacement actuator head: VM-01F
VM830-F01-01

Symbol



Adjustable roller lever Replacement actuator head: VM -13F
VM830-F01-13

Symbol

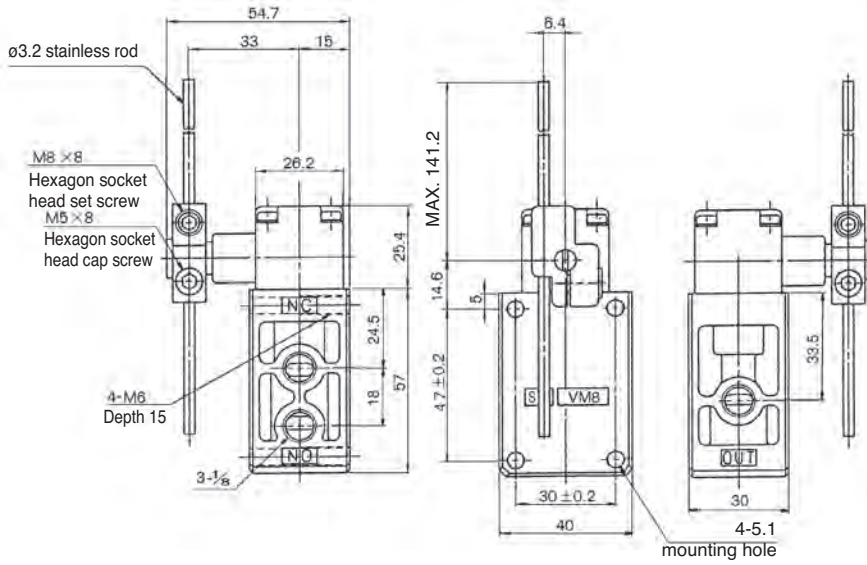
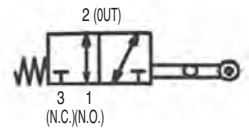


Dimensions

Adjustable rod lever
EVM830-F01-14

Replacement actuator head: VM-014F

Symbol



P.T.	20°
O.T.	30°
T.T.	50°

5 Port Mechanical Valves Series VZM

Features

- Metal and rubber seal types.
- 1/8 ported sizes.
- Wide choice of replaceable operating heads.



How to Order

VZM45 0-F01-01 S

Valve type

VZM45	VZM400 Series (1/8)
VZM55	VZM500 Series (1/8)

Port size

F01	G 1/8
-----	-------

(See detail pages for applicability)

Suffix for actuator

S	Hard steel roller	Colour of push button selector
R	Red	
B	Black	
G	Green	
Y	Yellow	

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)
37	Push pull (VZM550 only)

Product Recommendation



Stocked items for fast delivery

References	Available Actuator Types and their specifications (*)
EVZM450-F01-*	00, 01S, 08, 34R
EVZM550-F01-*	00, 01, 01S, 02, 02S, 05, 06, 06S, 08, 30B, 30G, 30R, 32B, 33, 34B, 34G, 34R, 36, 37



Related Products

- Series KQ2** - Fittings - page 1184
- Series TU** - Tubing - page 1223
- Series VR12** - Shuttle/AND Valves - page 535
- Series VHK** - Finger Valve - page 549

Specifications

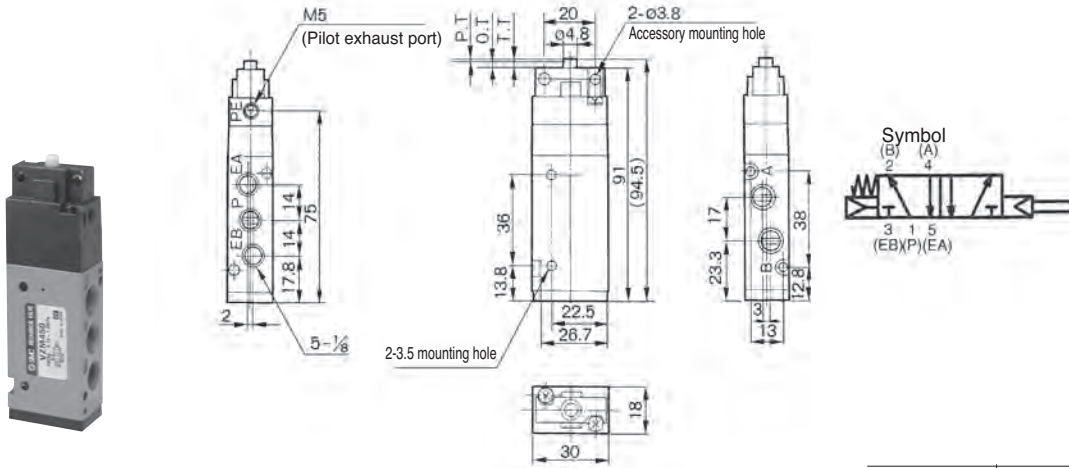
	Series VZM400	Series VZM500
Fluid	Air/Inert gas	Air/Inert gas
Operating pressure	0.15 to 1.0 MPa ⁽¹⁾	0.15 to 0.7 MPa ⁽¹⁾
Ambient and fluid temperature	-5 to 60°C (No freezing)	-5 to 60°C (No freezing)
Effective area	9.9 mm ²	10.8 mm ²
Maximum frequency (Mechanical operation type)	300 c.p.m. or less	300 c.p.m. or less
Lubrication	Not required (Use turbine oil class 1 ISO VG32, if lubricated.)	Not required (Use turbine oil Class 1 ISO VG32, if lubricated.)
Port size	Main valve 1/8	Main valve 1/8
	Pilot valve (EXH)/M5	Pilot valve (EXH)/M5
Weight (Basic)	150 g	130 g
Spool sealing	Metal	Rubber



Dimensions: VZM400

Basic

Base valve	Operating head	(Pre-Assembled unit)	Note
VZM450-F01-00	N/A	N/A	5 port

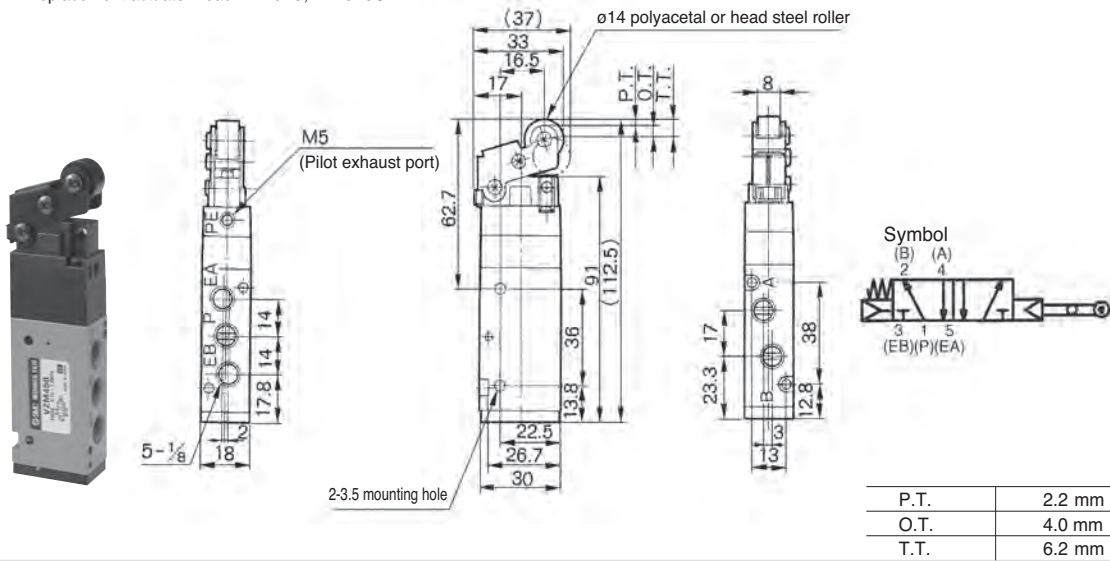


P.T.	1.0 mm
O.T.	2.0 mm
T.T.	3.0 mm

Roller lever

Base valve	Operating head	Pre-Assembled unit	Note
VZM450-F01-00	VM-01C	VZM450-F01-01	5 port
VZM450-F01-00	VM-01CS	VZM450-F01-01S	5 port steel roller

Replacement actuator head: VM-01C, VM-01CS

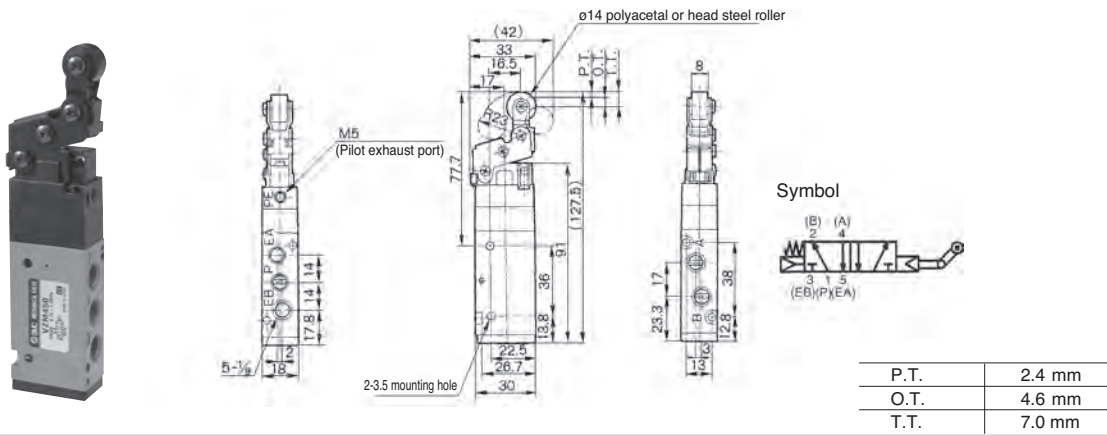


P.T.	2.2 mm
O.T.	4.0 mm
T.T.	6.2 mm

Dimensions: VZM400
One way roller lever

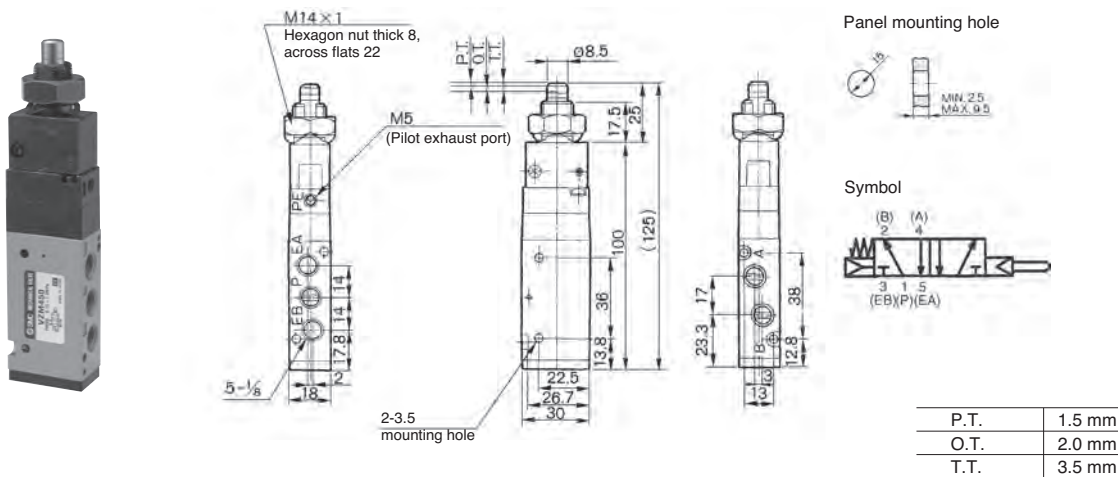
Base valve	Operating head	Pre-Assembled unit	Note
VZM450-F01-00	VM_02C	VZM450-F01-02	5 port
VZM450-F01-00	VM_02CS	VZM450-F01-02S	5 port steel roller

Replacement actuator head: VM-02C, VM-02CS


Straight Plunger

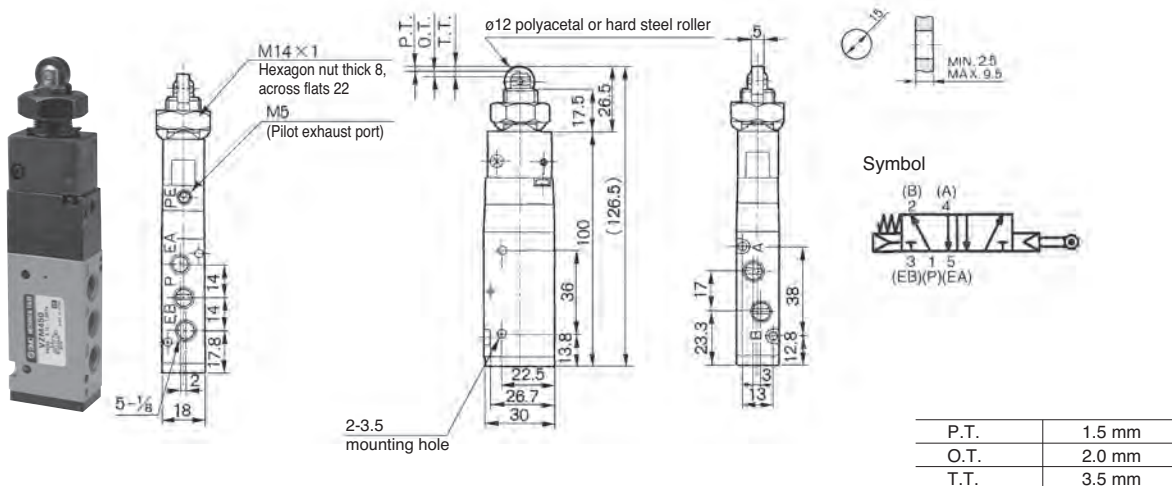
Base valve	Operating head	(Pre-Assembled unit)	Note
VZM450-F01-00	VM-05C	VZM450-F01-05	5 port

Replacement actuator head: VM-05C


Roller Plunger

Base valve	Operating head	(Pre-Assembled unit)	Note
VZM450-F01-00	VM-06C	VZM450-F01-06	5 port
VZM450-F01-00	VM-06CS	VZM450-F01-06S	5 port steel roller

Replacement actuator head: VM-06C, VM-06CS

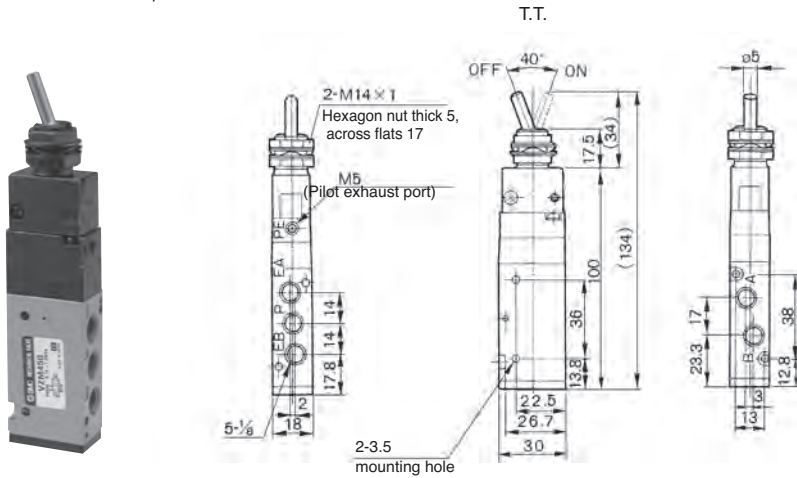


Dimensions: VZM400

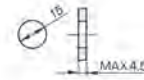
Toggle Lever

Base valve	Operating head	(Pre-Assembled unit)	Note
VZM450-F01-00	VM-08C	VZM450-F01-08	5 port

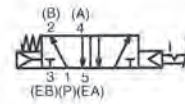
Replacement actuator head: VM-08C



Panel mounting hole



Symbol



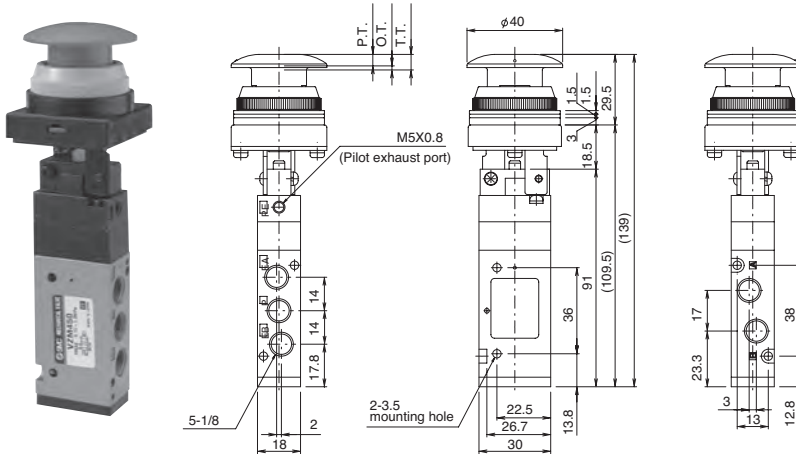
T.T.	40°
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Push button (mushroom)

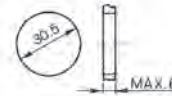
Base valve	Operating head	(Pre-Assembled unit)	Note
VZM450-F01-00	VM-30C□	VZM450-F01-30□	5 port

□ = Specify colour (R/B/G/Y)

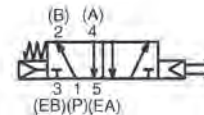
Replacement actuator head: VM-30C□



Panel mounting hole



Symbol



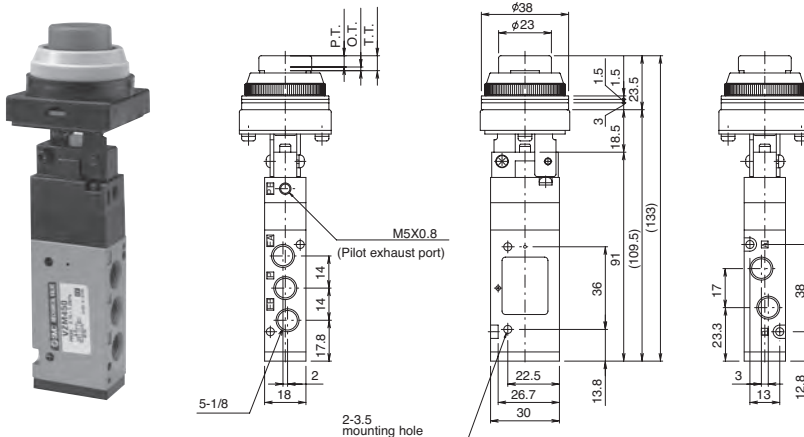
P.T.	4.8 mm
O.T.	1.7 mm
T.T.	6.5 mm

Push button (extended)

Base valve	Operating head	(Pre-Assembled unit)	Note
VZM450-F01-00	VM-32C□	VZM450-F01-32□	5 port

□ = Specify colour (R/B/G/Y)

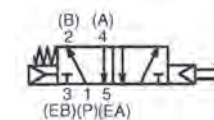
Replacement actuator head: VM-32C□



Panel mounting hole



Symbol

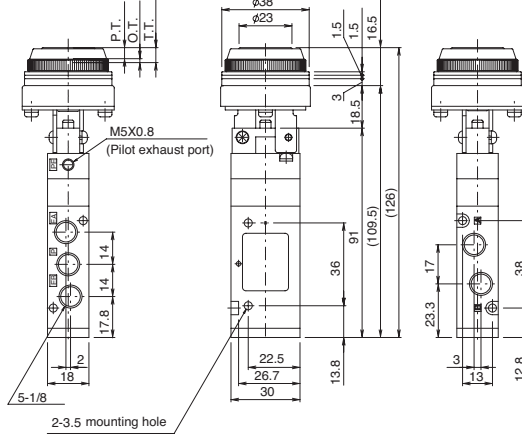


P.T.	4.8 mm
O.T.	1.7 mm
T.T.	6.5 mm

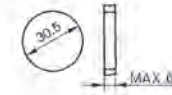
Dimensions: VZM400
Push Button (flush)

Base valve	Operating head	(Pre-Assembled unit)	Note
VZM450-F01-00	VM-33C	VZM450-F01-33	5 port

Replacement actuator head: VM-33C



Panel mounting hole



Symbol

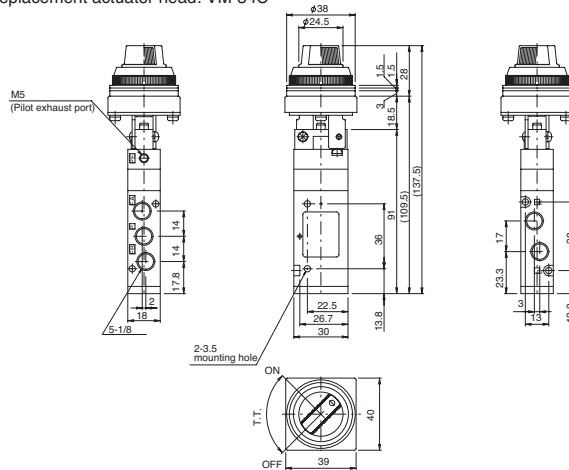


P.T.	4.8 mm
O.T.	1.7 mm
T.T.	6.5 mm

Twist selector (2 position)

Base valve	Operating head	(Pre-Assembled unit)	Note
VZM450-F01-00	VM-34C□	VZM450-F01-34□	5 port

□ = Specify colour (R/B/G/Y) Replacement actuator head: VM-34C*



Panel mounting hole



Symbol



T.T.	90°
------	-----

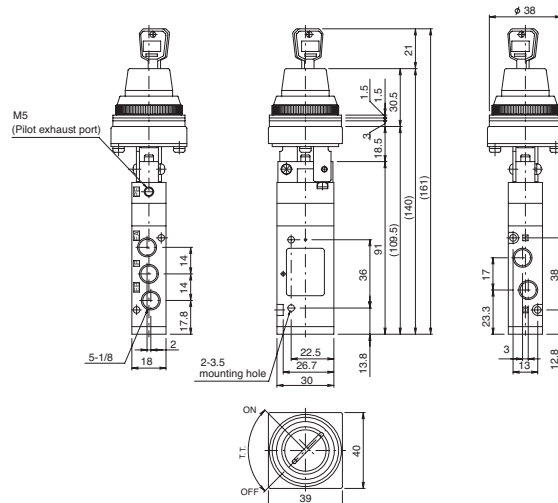
Key Selector (2 position)

Base valve	Operating head	(Pre-Assembled unit)	Note
VZM450-F01-00	VM-36C	VZM450-F01-36	5 port

Replacement actuator head: VM-36C



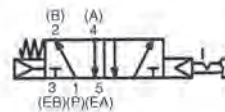
Key can be removed at the "on" and "off" positions.



Panel mounting hole



Symbol



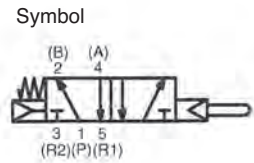
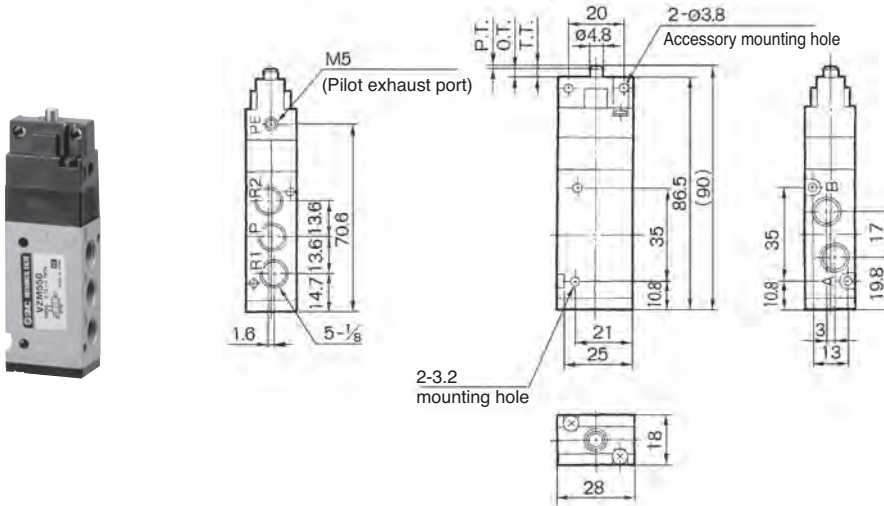
T.T.	90°
------	-----



Dimensions: VZM500

Basic

Base valve	Operating head	(Pre-Assembled unit)	Note
VZM550-F01-00	N/A	N/A	5 port

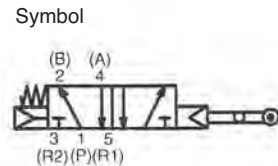
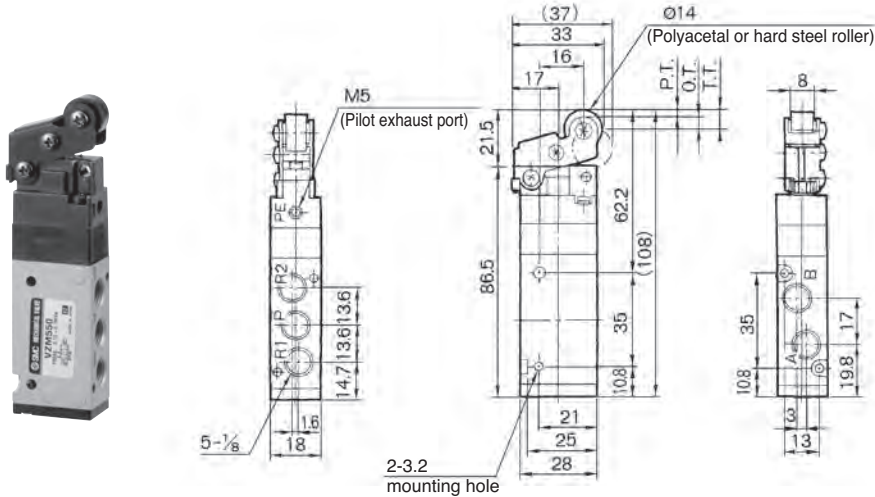


P.T.	1.0 mm
O.T.	2.0 mm
T.T.	3.0 mm

Roller lever

Base valve	Operating head	Pre-Assembled unit	Note
VZM550-F01-00	VM-01C	VZM550-F01-01	5 port
VZM550-F01-00	VM-01CS	VZM550-F01-01S	5 port steel roller

Replacement actuator head: VM-01C, VM-01CS

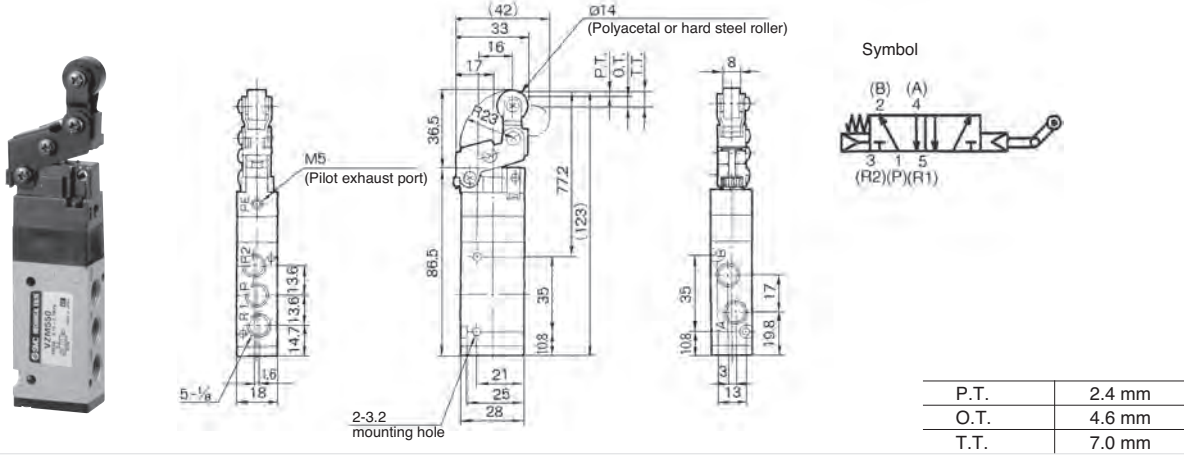


P.T.	2.2 mm
O.T.	4.0 mm
T.T.	6.2 mm

Dimensions: VZM500
One way roller lever

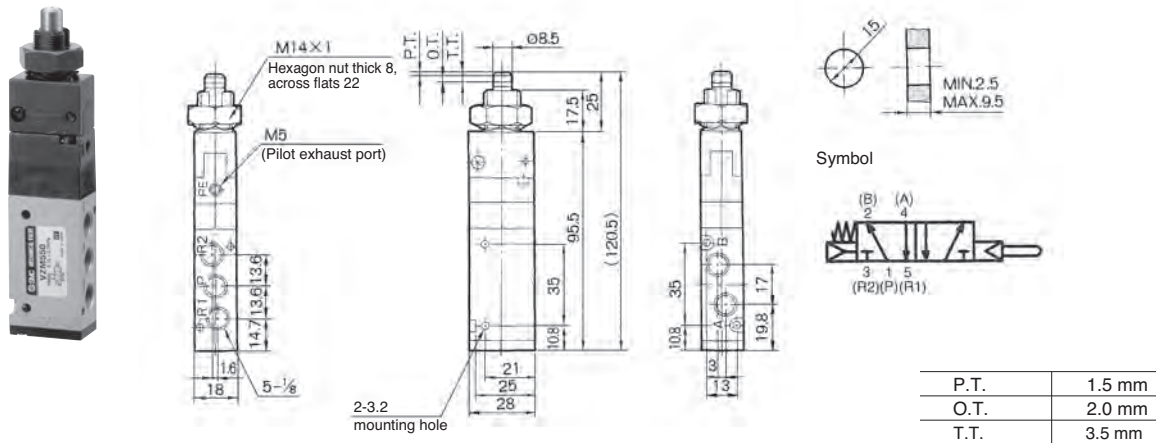
Base valve	Operating head	Pre-Assembled unit	Note
VZM550-F01-00	VM-02C	VZM550-F01-02	5 port
VZM550-F01-00	VM-02CS	VZM550-F01-02S	5 port steel roller

Replacement actuator head: VM-02C, VM-02CS

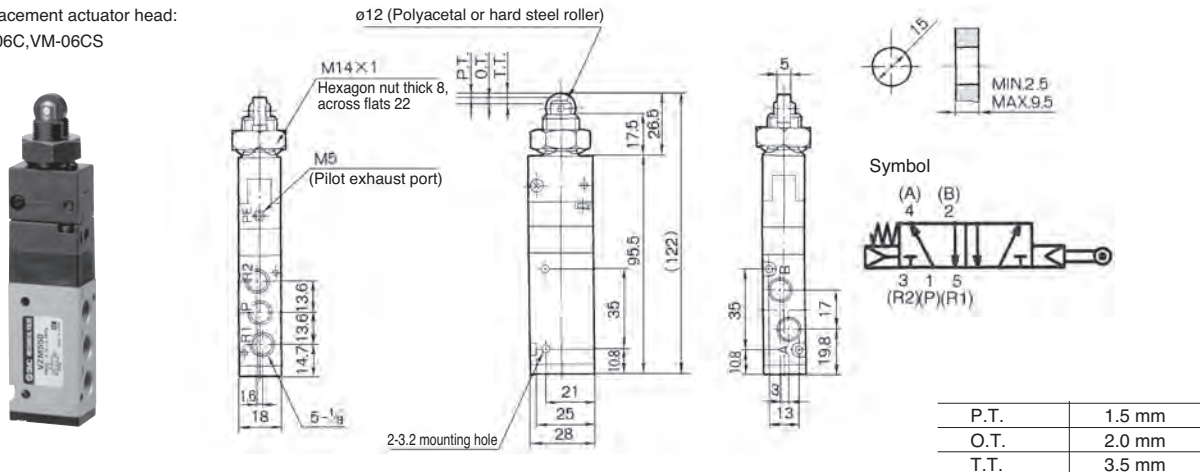

Straight Plunger

Base valve	Operating head	(Pre-Assembled unit)	Note
VZM550-F01-00	VM-05C	VZM550-F01-05	5 port

Replacement actuator head: VM-05C


Roller Plunger

Base valve	Operating head	(Pre-Assembled unit)	Note
VZM550-F01-00	VM-06C	VZM550-F01-06	5 port
VZM550-F01-00	VM-06CS	VZM550-F01-06S	5 port steel roller

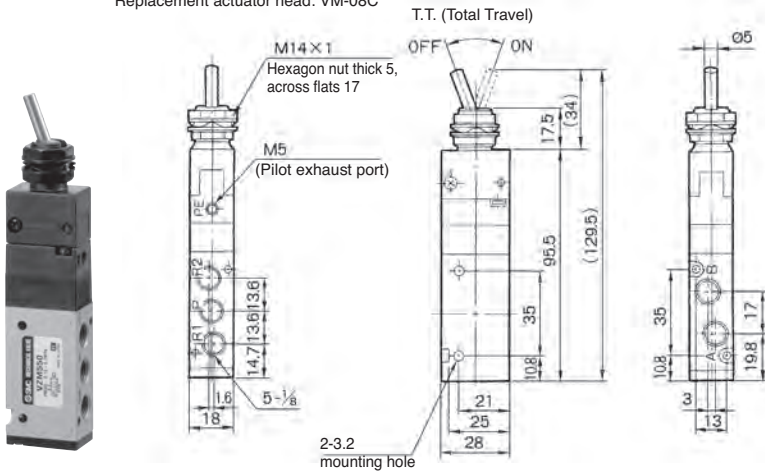
 Replacement actuator head:
VM-06C, VM-06CS


Dimensions: VZM500

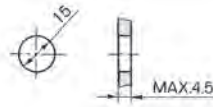
Toggle Lever

Base valve	Operating head	(Pre-Assembled unit)	Note
VZM550-F01-00	VM-08C	VZM550-F01-08	5 port

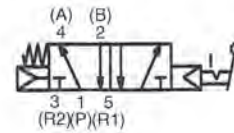
Replacement actuator head: VM-08C



Panel mounting hole



Symbol



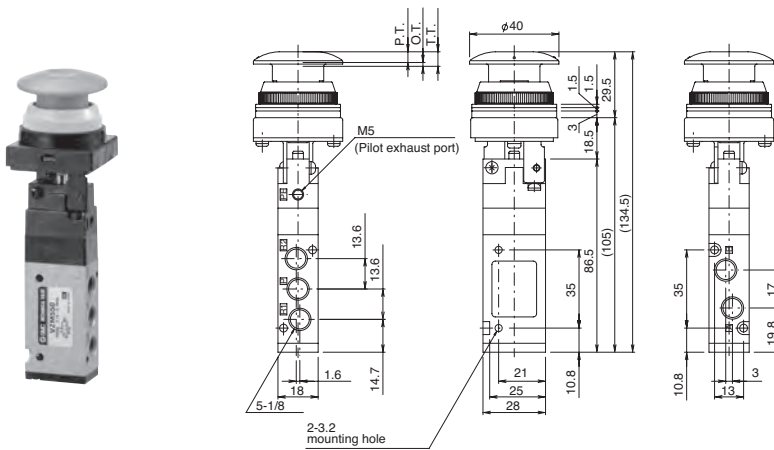
T.T.	40°
------	-----

Push button (mushroom)

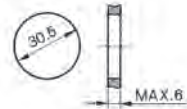
Base valve	Operating head	(Pre-Assembled unit)	Note
VZM550-F01-00	VM-30C□	VZM550-F01-30□	5 port

□ = Specify colour (R/B/G/Y)

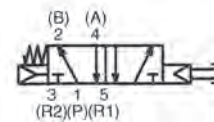
Replacement actuator head: VM-30C□



Panel mounting hole



Symbol



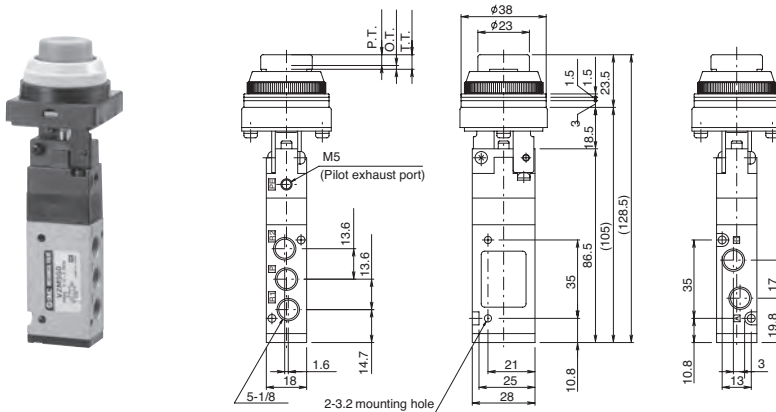
P.T.	4.8 mm
O.T.	1.7 mm
T.T.	6.5 mm

Push button (extended)

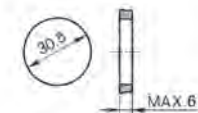
Base valve	Operating head	(Pre-Assembled unit)	Note
VZM550-F01-00	VM-32C□	VZM550-F01-32□	5 port

□ = Specify colour (R/B/G/Y)

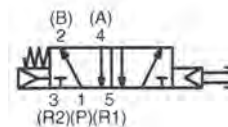
Replacement actuator head: VM-32C□



Panel mounting hole



Symbol

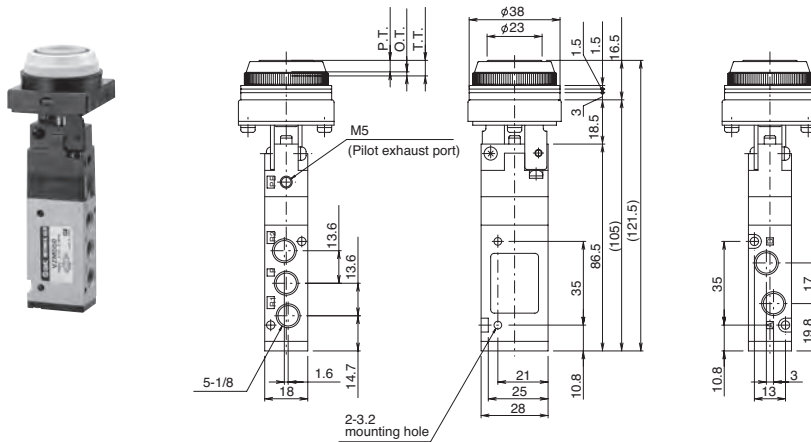


P.T.	4.8 mm
O.T.	1.7 mm
T.T.	6.5 mm

Dimensions: VZM500
Push Button (flush)

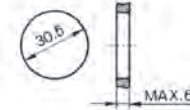
Base valve	Operating head	(Pre-Assembled unit)	Note
VZM550-F01-00	VM-33C	VZM550-F01-33	5 port

Replacement actuator head: VM-33C

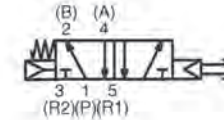


Note: Supplied with 4 colour caps.

Panel mounting hole



Symbol



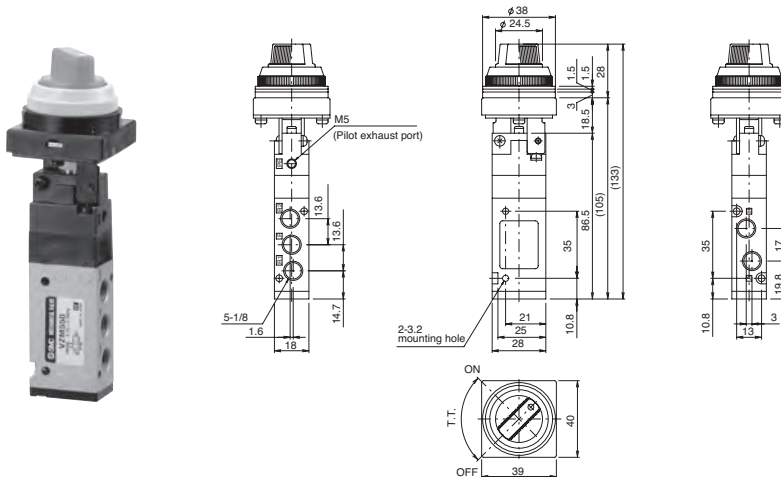
P.T.	4.8 mm
O.T.	1.7 mm
T.T.	6.5 mm

Twist selector (2 position)

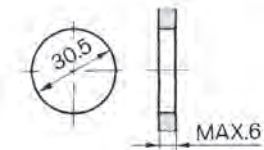
Base valve	Operating head	(Pre-Assembled unit)	Note
VZM550-F01-00	VM-34C□	VZM550-F01-34□	5 port

□ = Specify colour (R/B/G/Y)

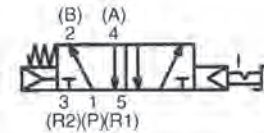
Replacement actuator head: VM-34C□



Panel mounting hole



Symbol

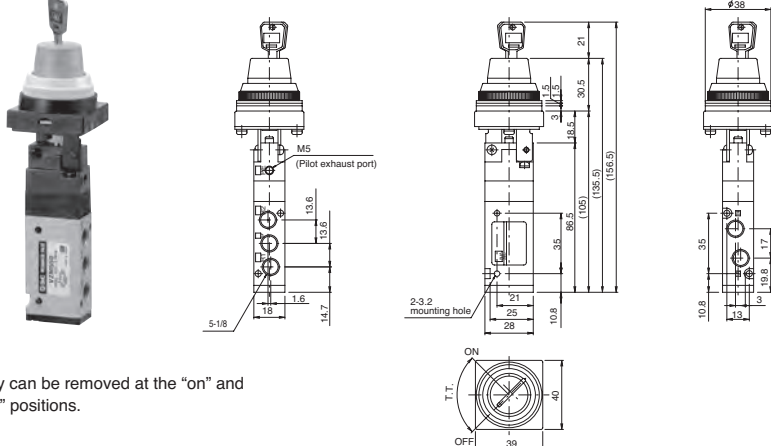


T.T.	90°
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Key Selector (2 position)

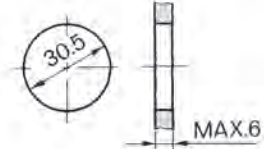
Base valve	Operating head	(Pre-Assembled unit)	Note
VZM550-F01-00	VM-36C	VZM550-F01-36	5 port

Replacement actuator head: VM-36C

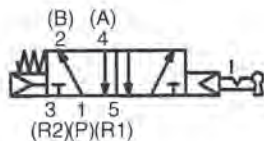


Key can be removed at the "on" and "off" positions.

Panel mounting hole



Symbol



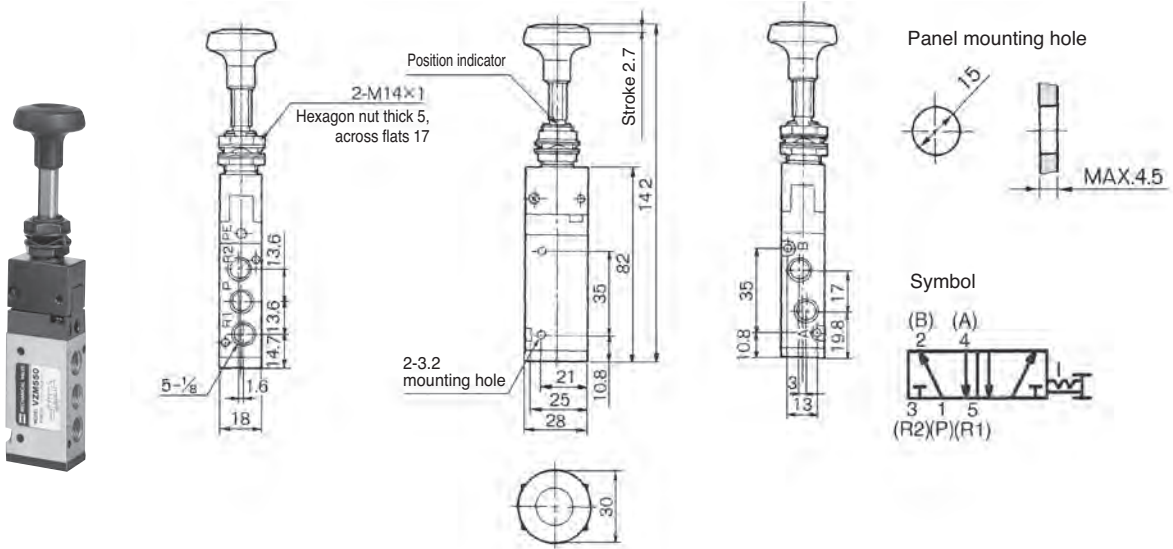
T.T.	90°
------	-----



Dimensions: VZM500

Push-pull

Base valve	Operating head	Pre-Assembled unit	Note
N/A	N/A	VZM550-F01-37	5 port



T.T.	2.7 mm
------	--------

Shuttle Valve with One-Touch Connection Series VR1210F/VR1220F

Features

- 3 ported check valve with one output from either of 2 pneumatic signal inputs.
- Output always supplied by higher signal pressure.
- Easy one-touch connection.



How to Order

VR 12 **1** 0 F – **06**

Body size

1	1/8 standard
2	1/4 standard

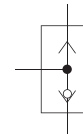
With One-touch fittings

Applicable tubing diameter

Metric sizes		Inch sizes	
23	ø3.2*	01	ø1/8"
04	ø4	03	ø5/32"
06	ø6	07	ø1/4"
08	ø8	09	ø5/16"
10	ø10	11	ø3/8"

* Use ø1/8" tubing for ø3.2

Symbols



Product Recommendation



Stocked items for fast delivery

VR1210F-04	VR1210F-23	VR1220F-10
VR1210F-06	VR1220F-06	
VR1210F-08	VR1220F-08	



Related Products

Series TU - Tubing - page 1223
Series VM - Mechanical Valves - page 515, 532
Series VZM - Mechanical Valves - page 535
Series VHK - Finger Valve - page 549

Specifications

Proof pressure	1.5 MPa
Max. operating pressure	1 MPa
Min. operating pressure	0.05 MPa
Ambient and fluid temperature	-5 to 60°C (No freezing)
Applicable tubing material	Nylon, Soft nylon, Polyurethane

Flow Rate and Effective Area

Model		VR1210F				VR1220F		
Applicable tubing O.D.	Metric size	ø3.2	ø4	ø6	ø8	ø6	ø8	ø10
	Inch size	ø1/8"	ø5/32"	ø1/4"	ø5/16"	ø1/4"	ø5/16"	ø3/8"
IN – OUT	Flow rate [Nl/min]	150	210	420	480	440	680	1000
	Effective area [mm ²]	2.3	3.2	6.4	7.3	6.7	10.4	15.2

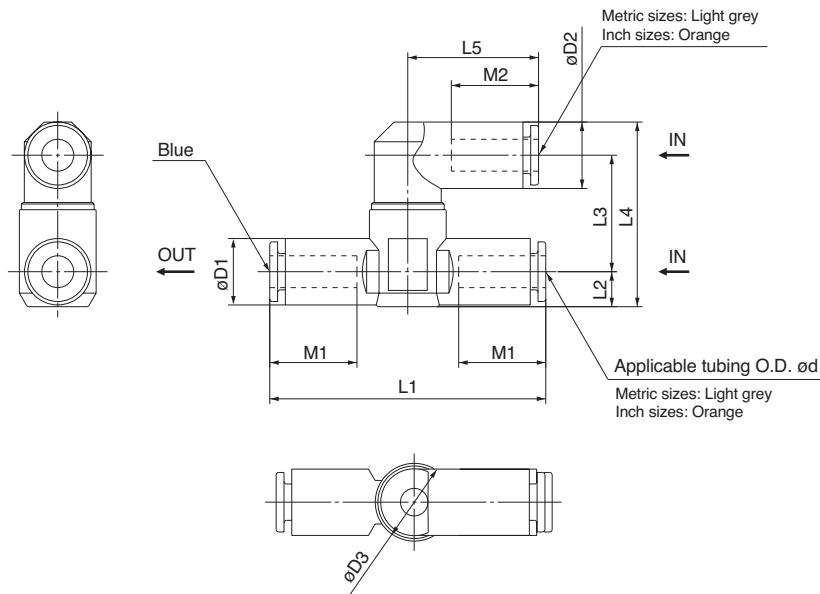
Note 1) Flow rate values are at a pressure of 0.5MPa and temperature of 20°C.



For more product options and details see our specific catalogues or on-line information.

Dimensions

Shuttle Valve with One-Touch Fittings VR1210F/1220F



Metric sizes

Model	d	D1	D2	D3	L1	L2	L3	L4	L5	M1	M2	Weight [g]
VR1210F-23	3.2	11.4	8.4	14.8	52	6.2	19.4	29.8	17.5	12.7	12.9	21.4
VR1210F-04	4	11	10.4		53	6	20.3	31.5	21.9	16.5	15.8	15.6
VR1210F-06	6	12.8	12.8		53.2	6.8	22.5	35.6	25.2	16.8	16.8	23.0
VR1210F-08	8	15.2	15.2		60.4	8.1		38.2	28.2	18.7	18.7	24.0
VR1220F-06	6	12.8	12.8	19.8	59	7.4	23.9	37.7	25.2	16.8	16.8	27.2
VR1220F-08	8	15.2	15.2		65	8.2		39.7	28.2	18.7	18.7	31.9
VR1220F-10	10	18.5	18.5		71.6	9.8	25.8	44.8	31	20.8	20.8	43.2

Inch sizes

Model	d	D1	D2	D3	L1	L2	L3	L4	L5	M1	M2	Weight [g]
VR1210F-01	1/8"	11.4	8.4	14.8	52	6.2	19.4	29.8	17.5	12.7	12.9	21.4
VR1210F-03	5/32"	11	10.4		53	6	20.3	31.5	21.9	16.5	15.8	15.6
VR1210F-07	1/4"	13.2	13.2		54.4	7.1	22.5	36.2	25.6	16.8	16.8	23.5
VR1210F-09	5/16"	15.2	15.2		60.4	8.1		38.2	28.2	18.7	18.7	24.0
VR1220F-07	1/4"	13.2	13.2	19.8	59	7.4	23.9	37.9	25.6	16.8	16.8	31.4
VR1220F-09	5/16"	15.2	15.2		65	8.2		39.7	28.2	18.7	18.7	31.9
VR1220F-11	3/8"	17.9	18.5		69.8	9.5	25.8	44.5	31	20.8	20.8	53.0

AND Logic Valve (with one-touch connection) Series VR1211F

Features

- Logic control providing output only when both input signals are received.
- Easy one-touch connection.



How to Order

VR 12 1 1 F – 06

Body size

1	1/8 standard
---	--------------

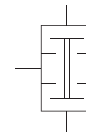
With One-touch fittings

Applicable tubing outside diameter

Metric sizes		Inch sizes	
23	ø3.2*	01	ø1/8"
04	ø4	03	ø5/32"
06	ø6	07	ø1/4"

* Use ø1/8" tubing for ø3.2

Symbols



Product Recommendation



Stocked items for fast delivery

VR1211F-04 VR1211F-06



Related Products

Series TU - Tubing - page 1223
Series VM - Mechanical Valves - page 515, 532
Series VZM - Mechanical Valves - page 535
Series VHK - Finger Valve - page 549

Specifications

Proof pressure	1.5 MPa
Max. operating pressure	1 MPa
Min. operating pressure	0.05 MPa
Ambient temperature and operating fluid temperature	-5 to 60°C (No freezing)
Applicable tubing material	Nylon, Soft nylon, Polyurethane

Flow Rate and Effective Area

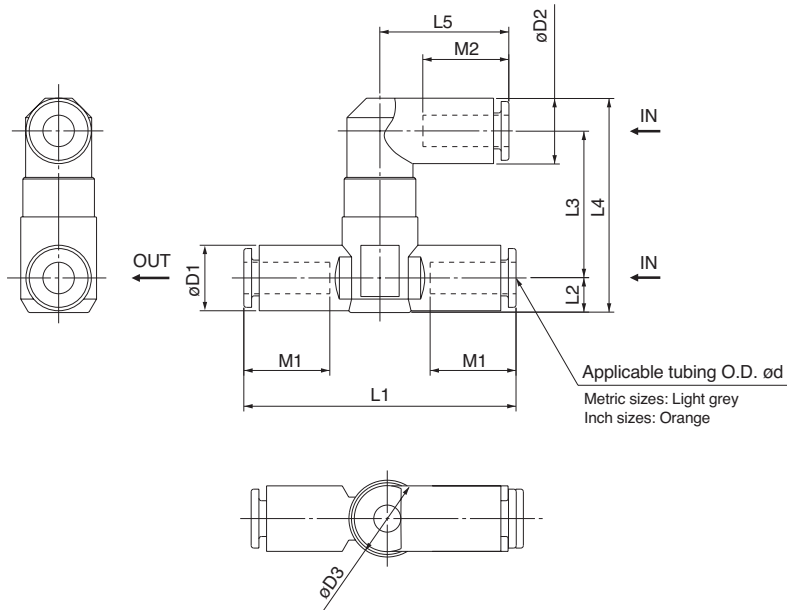
Model	VR1211F				
	Applicable tubing O.D.	Metric size	ø3.2	ø4	ø6
	Inch size	ø1/8"	ø5/32"	–	ø1/4"
IN – OUT	Flow rate [Nl/min]	100	120	150	170
	Effective area [mm ²]	1.5	1.8	2.3	2.6

Note 1) Flow rate values are at a pressure of 0.5MPa and temperature of 20°C.



Dimensions

AND Valve with One-Touch Fittings VR1211F



Metric sizes

Model	d	D1	D2	D3	L1	L2	L3	L4	L5	M1	M2	Weight [g]
VR1211F-23	3.2	11.4	8.4	14.8	52	6.2	25.7	36.1	17.5	12.7	12.9	26.4
VR1211F-04	4	11	10.4		53	6.8	26.6	37.8	21.9	16.5	15.8	20.8
VR1211F-06	6	12.8	12.8		53.2	6.8	28.8	41.9	25.2	16.8	16.8	25.0

Inch sizes

Model	d	D1	D2	D3	L1	L2	L3	L4	L5	M1	M2	Weight [g]
VR1211F-01	1/8"	11.4	8.4	14.8	52	6.2	25.7	36.1	17.5	12.7	12.9	26.4
VR1211F-03	5/32"	11	10.4		53	6.8	26.6	37.8	21.9	16.5	15.8	20.8
VR1211F-07	1/4"	13.2	13.2		54.4	7.1	28.8	42.5	25.6	16.8	16.8	27.0

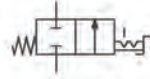
Finger Valve Series VHK

Features

- In line shut-off valve.
- Compact and light weight.
- Thread or one-touch fittings.
- 2 port and 3 port versions.
- Optional red handle.

Symbols

2 port valve



3 port valve with a Locking Hole



How to Order

VHK 2-02S-02S R

• Valve model

2	2 port valve
3	3 port valve

1(P) port size

04F	ø4
06F	ø6
08F	ø8
10F	ø10
12F	ø12
M5	M5
01S	R 1/8
02S	R 1/4
03S	R 3/8
04S	R 1/2

• 2(A) port size

04F	ø4
06F	ø6
08F	ø8
10F	ø10
12F	ø12
M5	M5
01S	R 1/8
02S	R 1/4
03S	R 3/8
04S	R 1/2

• Handle colour

— (Standard)	2 port valve	Grey
	3 port valve	Blue
R (Option)	2 port valve	Red
	3 port valve	Red

■ See dimensions table for mounting bracket part numbers

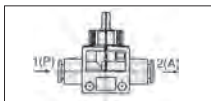
■ Also available: Flame resistant type for welding areas.



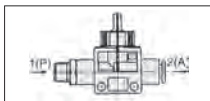
Specifications

Valve	2/3 port valves
Fluid	Air
Proof pressure	1.5 MPa
Max. operating pressure	1.0 MPa
Operating vacuum pressure (VHK2 type only)	-100 kPa
Ambient temperature and operating fluid temperature	0 to 60°C
Applicable tubing material	Nylon, Soft nylon, Polyurethane
Accessory (Option)	Bracket

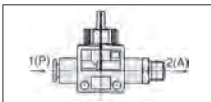
Types available


 1(P): One-touch fitting
2(A): One-touch fitting

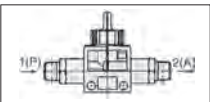
	2(A)	Applicable tubing O.D. (mm)				
1(P)		ø4	ø6	ø8	ø10	ø12
Applicable tubing O.D. (mm)	ø4	●				
	ø6	●	●			
	ø8		●	●		
	ø10			●	●	
ø12				●	●	


 1(P): Male thread
2(A): One-touch fitting

	2(A)	Applicable tubing O.D. (mm)				
1(P)		ø4	ø6	ø8	ø10	ø12
Port size R	M5	●	●			
	1/8	●	●	●		
	1/4		●	●	●	
	3/8			●	●	●
1/2				●	●	


 1(P): One-touch fitting
2(A): Male thread

	2(A)	Port size R				
1(P)		M5	1/8	1/4	3/8	1/2
Applicable tubing O.D. (mm)	ø4	●	●			
	ø6	●	●	●		
	ø8		●	●	●	
	ø10			●	●	●
ø12				●	●	


 1(P): Male thread
2(A): Male thread

	2(A)	Port size R				
1(P)		M5	1/8	1/4	3/8	1/2
Port size R	M5	●	●			
	1/8	●	●	●		
	1/4		●	●	●	
	3/8			●	●	●
1/2				●	●	

Related Products

- Series KQ2 - Fittings - page 1184
- Series TU - Tubing - page 1223
- Series VM - Mechanical Valves - page 515, 532
- Series VZM - Mechanical Valves - page 535
- Series VR12□□ - Shuttle/AND Valves - page 545

Product Recommendation

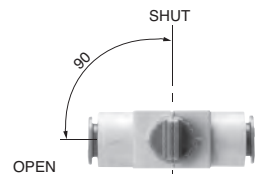


Stocked items for fast delivery

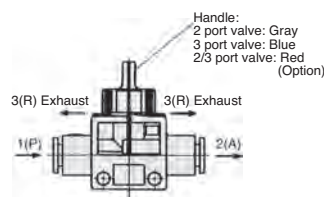
References shorted by 1(P) Port Size	2(A) Port Size Combinations (*)
VHK2-M5-*	04F, 06F
VHK2-01S-*	01S, 04F, 06F, 08F
VHK2-02S-*	02S, 06F, 08F, 10F
VHK2-03S-*	03S, 08F, 10F, 12F
VHK2-04F-*	04F, 04FR, M5
VHK2-04S-*	04S, 10F, 12F
VHK2-06F-*	01S, 02S, 04F, 06F, M5
VHK2-08F-*	01S, 02S, 06F, 08F
VHK2-10F-*	02S, 10F
VHK2-12F-*	12F
VHK3-M5-*	M5
VHK3-01S-*	01S, 04F, 06F, 08F
VHK3-02S-*	02S, 06F, 08F, 10F, 12F
VHK3-03S-*	03S, 08F, 10F, 12F
VHK3-04F-*	04F, M5
VHK3-04S-*	04S, 10F
VHK3-06F-*	01S, 02S, 04F, 06F, 06FR
VHK3-08F-*	01S, 02S, 03S, 06F, 08F
VHK3-10F-*	02S, 03S, 10F
VHK3-12F-*	12F

Specifications

The valve direction clearly indicates whether the valve is open or closed. (SHUT-OPEN: Counterclockwise)

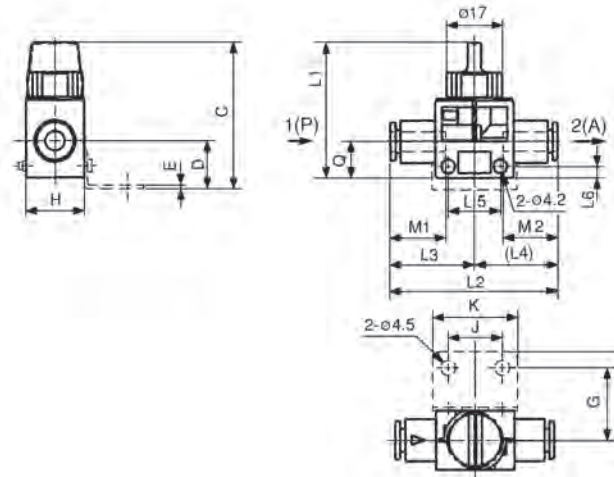
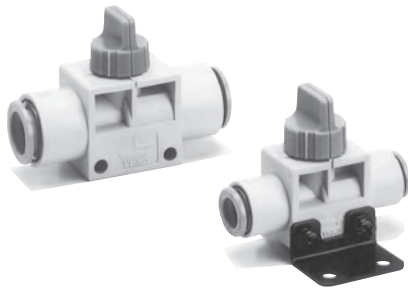


2 port valves and 3 port valves can be distinguished by the colour of their handles.



Dimensions

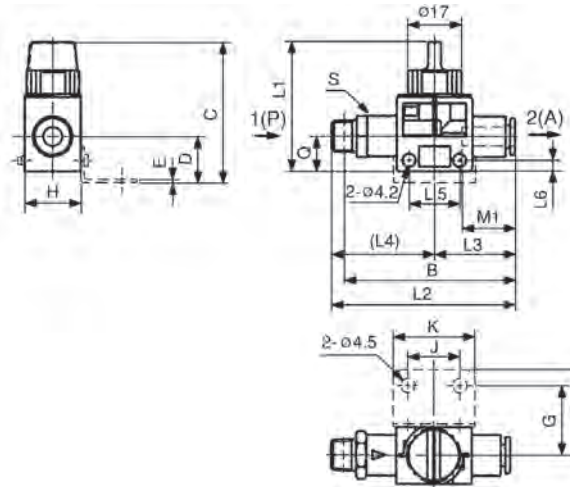
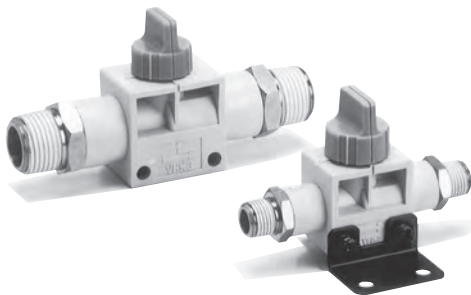
1(P)/2(A): One-touch Fitting



Applicable tubing O. D. [mm]		Model	H	L1	L2	L3	L4	L5	L6	M1	M2	Q	Effective area [mm ²]		Weight [g]	Bracket mounting dimensions							
1(P)	2(A)												1(P) R 2(A)	2(A) R 3(R)		Bracket assembly no.	C	D	E	F	G	J	K
4	4	VHK□-04F-04F	18	41	47.6	23.8	23.8	16.5	3.5	15.8	15.8	11	3.4	1.2	15	VHK-B1A	44.5	14.5	1	27	22	16.5	26
	4	VHK□-06F-04F	18	41	48	24.3	23.7	16.5	3.5	16.8	15.8	11	5.1	1.2	15	VHK-B1A	44.5	14.5	1	27	22	16.5	26
6	6	VHK□-06F-06F	18	41	48.6	24.3	24.3	16.5	3.5	16.8	16.8	11	7.2	1.2	16	VHK-B1A	44.5	14.5	1	27	22	16.5	26
	6	VHK□-08F-06F	18	41	50.5	26.2	24.3	16.5	3.5	18.7	16.8	11	9	1.2	16	VHK-B1A	44.5	14.5	1	27	22	16.5	26
8	8	VHK□-08F-08F	18	41	52.4	26.2	26.2	16.5	3.5	18.7	18.7	11	9.7	1.2	17	VHK-B1A	44.5	14.5	1	27	22	16.5	26
	8	VHK□-10F-08F	22	46	58.5	30.5	28	21.5	4	20.8	18.7	14	13.7	3.2	28	VHK-B2A	49	17	1	30	25	21.5	31
10	10	VHK□-10F-10F	22	46	61	30.5	30.5	21.5	4	20.8	20.8	14	16.1	3.2	29	VHK-B2A	49	17	1	30	25	21.5	31
	10	VHK□-12F-10F	22	46	62	31.5	30.5	21.5	4	21.8	20.8	14	17	3.2	31	VHK-B2A	49	17	1	30	25	21.5	31
12	12	VHK□-12F-12F	22	46	63	31.5	31.5	21.5	4	21.8	21.8	14	17.5	3.2	32	VHK-B2A	49	17	1	30	25	21.5	31

* 3 port valve

1(P): Male Thread, 2(A): One-touch Fitting



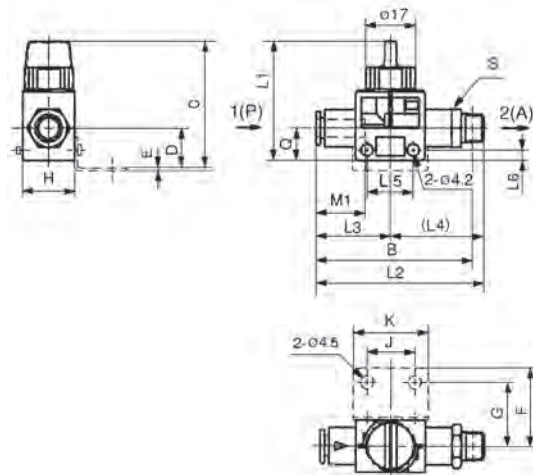
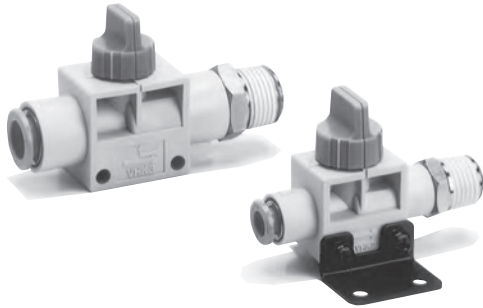
Connection thread R	Applicable tubing O. D. [mm]	Model	H	L1	L2	L3	L4	L5	L6	M1	Q	Effective area [mm ²]		Weight [g]	B**	S (Width across flats)	Bracket mounting dimensions							
												1(P) R 2(A)	2(A) R 3(R)				Bracket assembly no.	C	D	E	F	G	J	K
1(P)	4	VHK□-M5-04F	18	41	52.9	23.8	29.1	16.5	3.5	15.8	11	2.0	1.2	19	49	11	VHK-B1A	44.5	14.5	1	27	22	16.5	26
	6	VHK□-M5-06F	18	41	53.9	24.3	29.6	16.5	3.5	16.8	11	2.0	1.2	21	50	13	VHK-B1A	44.5	14.5	1	27	22	16.5	26
1/8	4	VHK□-01S-04F	18	41	55.4	23.8	31.6	16.5	3.5	15.8	11	3.4	1.2	21	51	11	VHK-B1A	44.5	14.5	1	27	22	16.5	26
	6	VHK□-01S-06F	18	41	56.9	24.3	32.6	16.5	3.5	16.8	11	7.2	1.2	23	53	13	VHK-B1A	44.5	14.5	1	27	22	16.5	26
1/4	8	VHK□-01S-08F	18	41	62.2	26.2	36	16.5	3.5	18.7	11	9.7	1.2	31	58	17	VHK-B1A	44.5	14.5	1	27	22	16.5	26
	6	VHK□-02S-06F	18	41	60.4	24.3	36.1	16.5	3.5	16.8	11	7.2	1.2	31	54	14	VHK-B1A	44.5	14.5	1	27	22	16.5	26
	8	VHK□-02S-08F	18	41	65.2	26.2	39	16.5	3.5	18.7	11	9.7	1.2	32	59	17	VHK-B1A	44.5	14.5	1	27	22	16.5	26
	10	VHK□-02S-10F	22	46	73.8	30.5	43.3	21.5	4	20.8	14	16.1	3.2	49	68	19	VHK-B2A	49	17	1	30	25	21.5	31
3/8	12	VHK□-02S-12F	22	46	76.3	31.5	44.8	21.5	4	21.8	14	17.5	3.2	63	70	22	VHK-B2A	49	17	1	30	25	21.5	31
	6	VHK□-03S-06F	18	41	62.4	24.3	38.1	16.5	3.5	16.8	11	7.2	1.2	41	56	17	VHK-B1A	44.5	11.5	1	27	22	16.5	26
	8	VHK□-03S-08F	18	41	66.2	26.2	40	16.5	3.5	18.7	11	9.7	1.2	40	60	17	VHK-B1A	44.5	11.5	1	27	22	16.5	26
	10	VHK□-03S-10F	22	46	74.8	30.5	44.3	21.5	4	20.8	14	16.1	3.2	51	68	19	VHK-B2A	49	17	1	30	25	21.5	31
1/2	12	VHK□-03S-12F	22	46	77.3	31.5	45.8	21.5	4	21.8	14	17.5	3.2	64	71	22	VHK-B2A	49	17	1	30	25	21.5	31
	10	VHK□-04S-10F	22	46	78.2	30.5	47.7	21.5	4	20.8	14	16.1	3.2	72	70	22	VHK-B2A	49	17	1	30	25	21.5	31
1/2	12	VHK□-04S-12F	22	46	80.2	31.5	48.7	21.5	4	21.8	14	17.5	3.2	70	72	22	VHK-B2A	49	17	1	30	25	21.5	31

* 3 port valve

** Reference dimensions after insertion of R thread.

Dimensions

1(P): One-touch Fitting, 2(A): Male Thread

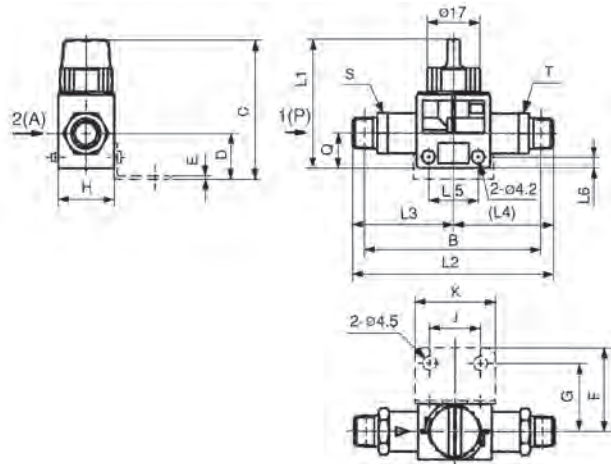
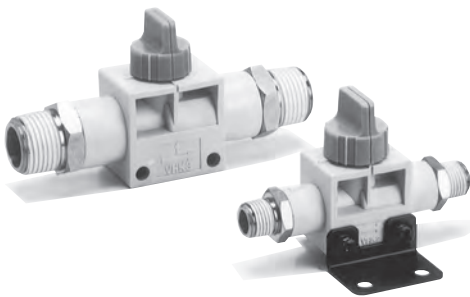


Applicable tubing O. D. [mm]	Connection thread R	Model	H	L1	L2	L3	L4	L5	L6	M1	Q	Effective area [mm ²]		Weight [g]	B**	S (Width across flats)	Bracket mounting dimensions										
												1(P) R 2(A)	2(A) R 3(P)				Bracket assembly no.	C	D	E	F	G	J	K			
4	M5	VHK□-04F-M5	18	41	52.9	23.8	29.1	16.5	3.5	15.8	11	2.0	1.2	19	49	11	VHK-B1A	44.5	14.5	1	27	22	16.5	26			
	1/8	VHK□-04F-01S			55.4		31.6																		21	51	11
6	M5	VHK□-06F-M5	18	41	53.9	24.3	29.6	16.5	3.5	16.8	11	7.2	1.2	21	50	13	VHK-B1A	44.5	14.5	1	27	22	16.5	26			
	1/8	VHK□-06F-01S			56.9		32.6																		23	53	13
	1/4	VHK□-06F-02S			60.4		36.1																		31	54	14
	3/8	VHK□-06F-03S			62.4		38.1																		41	56	17
8	1/8	VHK□-08F-01S	18	41	62.2	26.2	36	16.5	3.5	18.7	11	9.7	1.2	31	58	17	VHK-B1A	44.5	14.5	1	27	22	16.5	26			
	1/4	VHK□-08F-02S			65.2		39																		32	59	11
	3/8	VHK□-08F-03S			66.2		40																		40	60	17
10	1/4	VHK□-10F-02S	22	46	73.8	30.5	43.3	21.5	4	20.8	14	16.1	3.2	49	68	19	VHK-B2A	49	17	1	30	25	21.5	31			
	3/8	VHK□-10F-03S			74.8		44.3																		51	70	22
	1/2	VHK□-10F-04S			78.2		47.7																		72	70	22
12	1/4	VHK□-12F-02S	22	46	76.3	31.5	44.8	21.5	4	21.8	14	17.5	3.2	63	70	22	VHK-B2A	49	17	1	30	25	21.5	31			
	3/8	VHK□-12F-03S			77.3		45.8																		64	71	22
	1/2	VHK□-12F-04S			80.2		48.7																		70	72	22

* 3 port valve

** Reference dimensions after insertion of R thread.

1(P)/2(A): Male Thread



Connection thread R	Model	H	L1	L2	L3	L4	L5	L6	Q	Effective area [mm ²]		Weight [g]	B**	S (Width across flats)	T (Width across flats)	Bracket mounting dimensions								
										1(P) R 2(A)	2(A) R 3(P)					Bracket assembly no.	C	D	E	F	G	J	K	
M5	M5	VHK□-M5-M5	18	41	58.2	29.1	29.1	16.5	3.5	11	2.0	1.2	23	51	11	11	VHK-B1A	44.5	14.5	1	27	22	16.5	26
1/8	M5	VHK□-01S-M5	18	41	61.6	29	16.5	3.5	11	2.0	1.2	26	54	13	11	VHK-B1A	44.5	14.5	1	27	22	16.5	26	
	1/8	VHK□-01S-01S			65.2	32.6																		8.6
1/4	1/8	VHK□-02S-01S	18	41	71.6	32.6	16.5	3.5	11	9.0	1.2	39	62	13	13	VHK-B1A	44.5	14.5	1	27	22	16.5	26	
	1/4	VHK□-02S-02S			78	39																		9.7
3/8	1/4	VHK□-03S-02S	22	46	85.1	40.8	21.5	4	14	13.7	3.2	65	73	19	17	VHK-B2A	49	17	1	30	25	21.5	31	
	3/8	VHK□-03S-03S			88.6	44.3																		16.1
1/2	3/8	VHK□-04S-03S	22	46	93	44.3	21.5	4	14	15.1	3.2	90	79	19	19	VHK-B2A	49	17	1	30	25	21.5	31	
	1/2	VHK□-04S-04S			97.4	48.7																		17.5

* 3 port valve

** Reference dimensions after insertion of R thread.



Pressure Relief 3 Port Valve with Locking Holes Series VHS



Features

- Manually operated valve can be used to prevent accidents caused by residual pressure in pneumatic lines.
- Can prevent accidents due to inadvertent air supply.
- Lockable in OFF position.
- Clear indication of SUP or EXH.
- OSHA compliant.
- 2 material options: PBT and aluminium.

How to Order

Symbol

VHS 40 – F 04 A – BS – R –

Pressure relief 3 port valve

Body size

Symbol	Body size
Single action	20
	30
	40
Double action	50
	2510
	3510
	4510
5510	

Thread type

Symbol	Thread type
F	F
G	G

Port size

Symbol	Port size	Body size			
		20	30	40	50
01	1/8	●	—	—	—
02	1/4	●	●	●	—
03	3/8	—	●	●	—
04	1/2	—	—	●	—
06	3/4	—	—	●	●
10	1	—	—	—	●

Handle / Bonnet material

Symbol	Material
A	Flame resistant PBT
B	Aluminium

Made to Order

Symbol	Body: Red
X1	Body: Red

Semi-standard specifications

Symbol	Flow direction: Left to right / MPa as unit displayed on label
—	Flow direction: Left to right / MPa as unit displayed on label
R	Flow direction: Right → Left
Z	PSI as unit displayed on label

Options

Symbol	Description
—	—
B	With bracket
S	Built-in silencer (EXH port)

A spacer or spacer with bracket is required if the valve is combined with modular F.R.L. Please order it separately.
 VHS type can be ordered from How to Order of modular F.R.L. combination.

Pressure relief 3 port valve	Spacer part no.	Spacer with bracket part no.	Applicable air preparation equipment
VHS20/VHS2510	Y200-A	Y200T-A	AC20-A
VHS30/VHS3510	Y300-A	Y300T-A	AC25-A, AC30-A
VHS40/VHS4510	Y400-A	Y400T-A	AC40-A
VHS40-06/VHS4510-06	Y500-A	Y500T-A	AC40-06-A
VHS50/VHS5510	Y600-A	Y600T-A	AC50, AC55, AC60

Product Recommendation



Stocked items for fast delivery

VHS20-F01A	VHS30-F02B	VHS40-F03A	VHS40-F06B	Y200-A
VHS20-F01B	VHS30-F02A-R	VHS40-F03B	VHS50-F06A	Y300-A
VHS20-F02A	VHS30-F02B-R	VHS40-F04A	VHS50-F06B	Y400-A
VHS20-F02B	VHS30-F03A	VHS40-F04B	VHS50-F10A	Y500-A
VHS20-F02A-R	VHS30-F03B	VHS40-F04A-R	VHS50-F10B	Y200T-A
VHS20-F02B-R	VHS30-F03A-R	VHS40-F04B-R	VHS2510-F02A	Y300T-A
VHS20-F02A-X1	VHS30-F03B-R	VHS40-F04A-X1	VHS3510-F03A	Y400T-A
VHS30-F02A	VHS30-F03A-X1	VHS40-F06A	VHS4510-F04A	Y500T-A



Related Products

- Series AN - Silencers - page 556
- Series AC - Air Preparation - page 1076
- Series TU - Tubing - page 1223
- Series KQ2 - Fittings - page 1184
- Series PA - Process Pump - page 1473
- Series AV - Soft Start-up Valves - www.smc.eu

Specifications

Standard specifications

Model		VHS20	VHS30	VHS40	VHS40-06	VHS50	VHS2510	VHS3510	VHS4510	VHS4510-06	VHS5510
Fluid		Air									
Ambient and fluid temperature		-5 to 60°C (No freezing)									
Proof pressure		1.5 MPa									
Operating pressure range		0.1 to 1.0 MPa									
Handle switching angle		90°									
Paint colour (Standard)		Handle: Red Body: White									
Weight	Handle, onnet lame resistant B)	76 g	127 g	247 g	293 g	532 g	77 g	129 g	250 g	296 g	536 g
	B Handle, onnet aluminium)	92 g	156 g	301 g	349 g	630 g	93 g	158 g	304 g	352 g	635 g

Flow-rate characteristics

Model	Port size		Flow-rate characteristics					
	IN, OUT	EXH	IN→OUT			OUT→EXH		
			C[dm ³ /s·bar]	b	Cv	C[dm ³ /s·bar]	b	Cv
VHS20	1/8	1/8	2.4	0.43	0.65	2.5	0.39	0.69
VHS2510	1/4		3.3	0.40	0.88	3.1	0.51	0.84
VHS30	1/4	1/4	6.4	0.45	1.7	6.2	0.38	1.7
VHS3510	3/8		8.3	0.41	2.3	7.0	0.41	1.9
VHS40	1/4	3/8	7.3	0.49	2.0	8.5	0.35	2.3
VHS4510	3/8		10.9	0.45	3.0	11.6	0.40	3.1
VHS4510	1/2		14.2	0.39	3.8	13.3	0.43	3.6
VHS40-06	3/4	1/2	18.3	0.31	5.0	17.7	0.37	4.8
VHS4510-06								
VHS50	3/4	1/2	23.8	0.41	6.4	21.8	0.41	5.9
VHS5510	1		31.9	0.33	8.6	23.5	0.44	6.4

Option part No.

Model	Bracket assembly part no.	Silencer assembly part no.
H 20/ H 2510	H 20 -180	H 20 -190
H 30/ H 3510	H 30 -180	H 30 -190
H 40/ H 4510	H 40 -180	H 40 -190
H 40-06/ H 4510-06	H 40 -180-06	H 40 -190-06
H 50/ H 5510	H 50 -180	H 50 -190

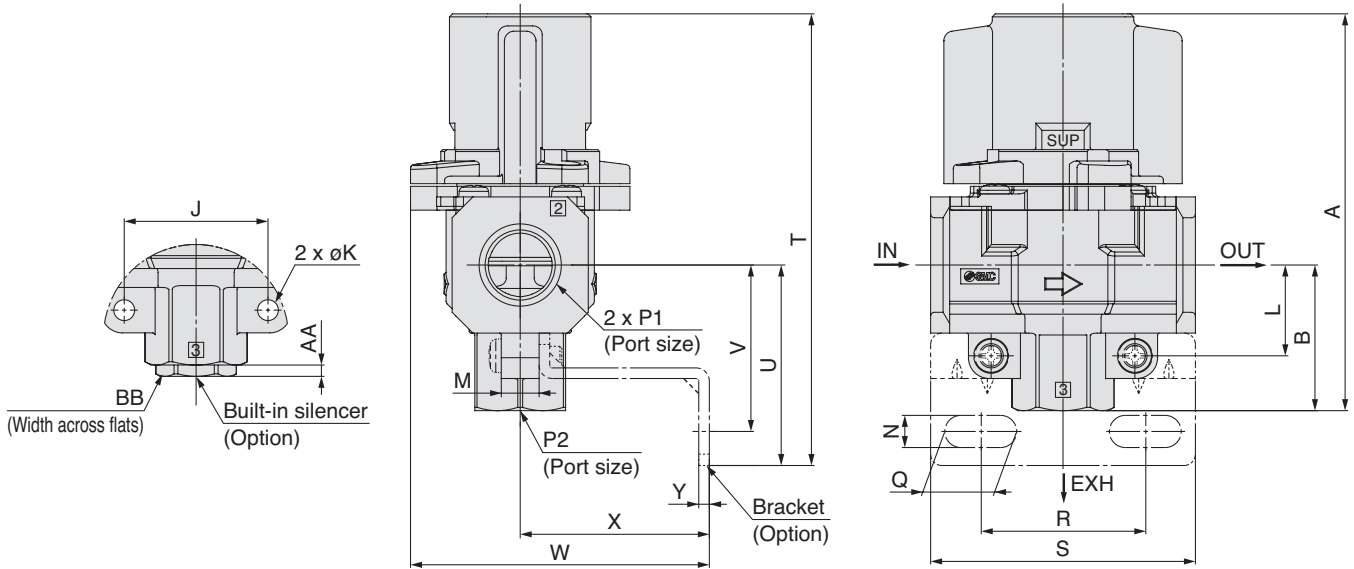
Note 1) Bracket/1pc., mounting screw/2pcs.

Note 2) Built-in silencer element, element O-ring, element cover 1pc. for each.



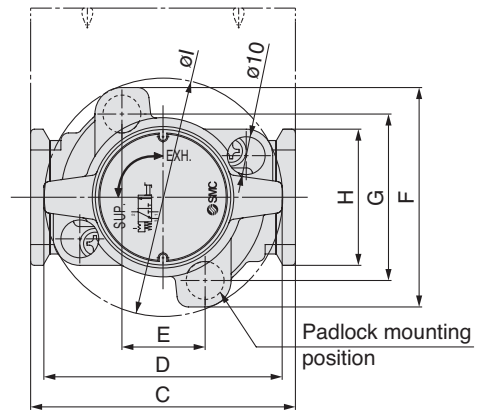
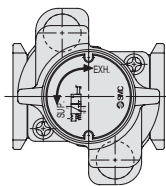
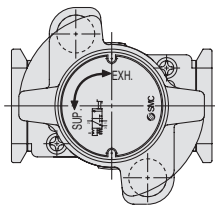
Dimensions

VHS40/50



VHS30

VHS20



Dimensions

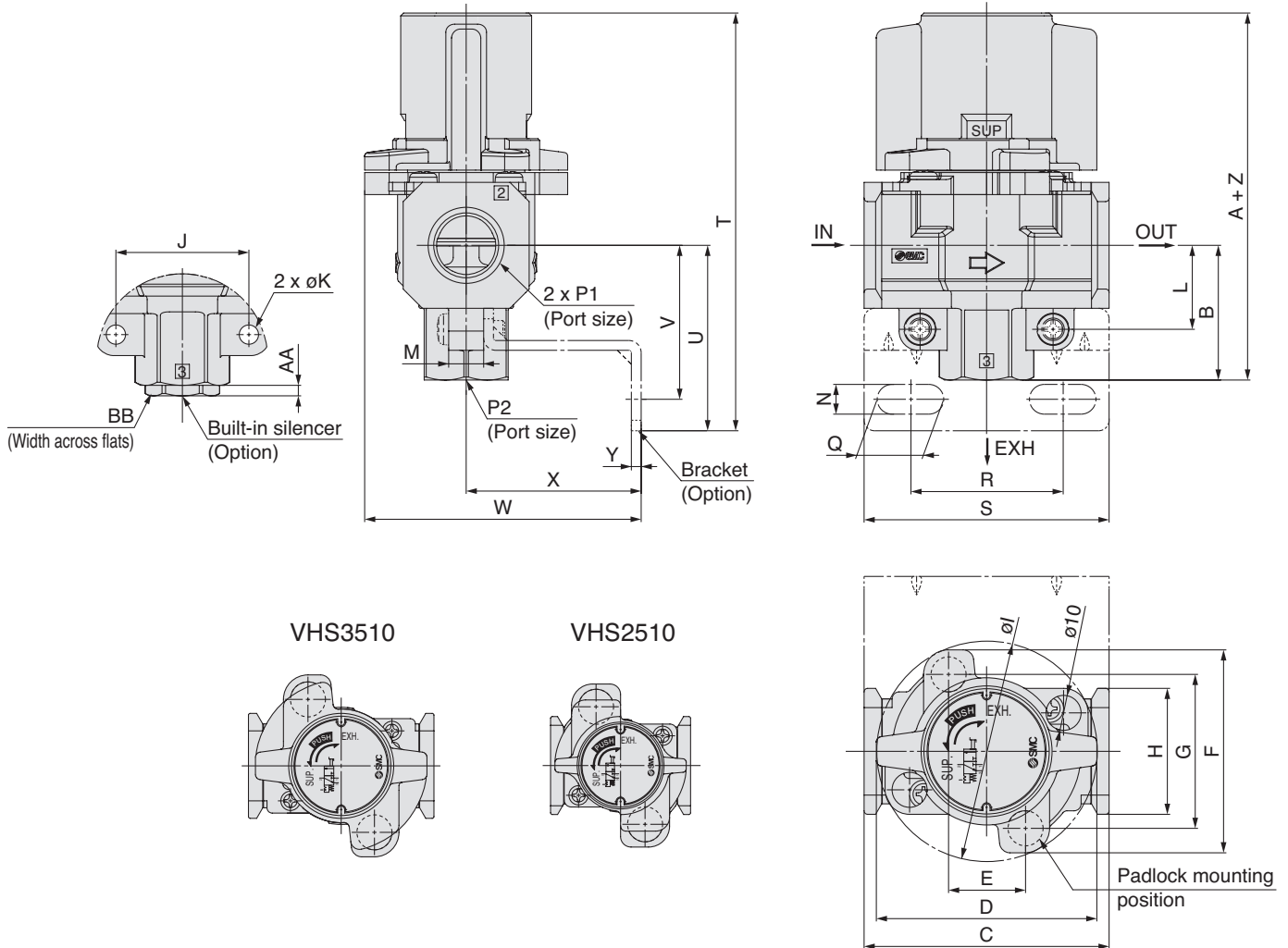
[mm]

Model	Standard specifications														
	P1	P2	A	B	C	D	E	F	G	H	I	J	K	L	M
VHS20	1/8, 1/4	1/8	66.4	22.3	40	37.5	14	46.6	33.6	28	37.5	24	4.5	14.8	9
VHS30	1/4, 3/8	1/4	80.3	29.4	53	49	19	52	38	30	49	30	4.5	19	9
VHS40	1/4, 3/8, 1/2	3/8	104.9	38.5	70	63	22	58	44	36	63	38	5.5	24	10
VHS40-06	3/4	1/2	110.4	42	75	63	22	58	44	44	63	43	5.5	26	10
VHS50	3/4, 1	1/2	134.3	53	90	76	26	76	61	53	81	50	6.5	31	12

Model	Options specifications											
	With bracket										Built-in silencer	
	N	Q	R	S	T	U	V	W	X	Y	AA	BB
VHS20	5.4	8.4	27	40	75.4	31.3	25.3	53.3	30	2.3	3	12
VHS30	6.5	10	36.5	53	90.9	40	33	67	41	2.3	3	14
VHS40	8.5	19	43.5	70	119.4	53	44	79	50	2.8	3	19
VHS40-06	8.5	19	43.5	70	123.4	55	46	79	50	2.8	4	22
VHS50	11	27.5	49.5	90	152.3	71	60	108	70	3.2	4	22

Dimensions

VHS4510/5510



Dimensions

[mm]

Model	Standard specifications															A+Z (Handle up: Unlocked)
	P1	P2	A (Handle down: Locked)	B	C	D	E	F	G	H	I	J	K	L	M	
VHS2510	1/8, 1/4	1/8	66.4	22.3	40	37.5	14	46.6	33.6	28	37.5	24	4.5	14.8	9	69.6
VHS3510	1/4, 3/8	1/4	80.3	29.4	53	49	19	52	38	30	49	30	4.5	19	9	83.5
VHS4510	1/4, 3/8, 1/2	3/8	104.9	38.5	70	63	22	58	44	36	63	38	5.5	24	10	109.1
VHS4510-06	3/4	1/2	110.4	42	75	63	22	58	44	44	63	43	5.5	26	10	114.6
VHS5510	3/4, 1	1/2	134.3	53	90	76	26	76	61	53	81	50	6.5	31	12	138.5

Model	Options specifications											
	With bracket										Built-in silencer	
	N	Q	R	S	T	U	V	W	X	Y	AA	BB
VHS2510	5.4	8.4	27	40	75.4	31.3	25.3	53.3	30	2.3	3	12
VHS3510	6.5	10	36.5	53	90.9	40	33	67	41	2.3	3	14
VHS4510	8.5	19	43.5	70	119.4	53	44	79	50	2.8	3	19
VHS4510-06	8.5	19	43.5	70	123.4	55	46	79	50	2.8	4	22
VHS5510	11	27.5	49.5	90	152.3	71	60	108	70	3.2	4	22



For more product options and details see our specific catalogues or on-line information.