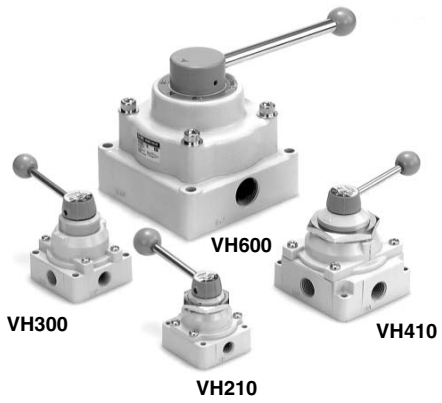
Hand Valve
Series VH



Specifications

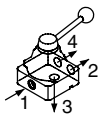
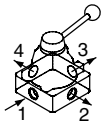
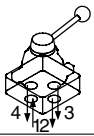
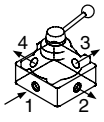
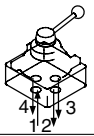
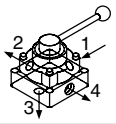
Fluid		Air
Proof pressure		1.5 MPa
Max. operating pressure	**VH200/300/400**	1.0 MPa
	VH600	0.7 MPa
Ambient temperature and operating fluid temperature		–5 to 60°C (No freezing)
Operating angle		90°
Lubrication		Not required (Use turbine oil Class 1 ISO VG32, if lubricated.)

Option

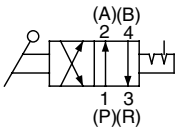
Bottom ported	VH300/400
Panel mounted	VH200/300/400
Different P port location (On handle side)	All models applicable *□

* Note that 1(P) port of VH600 is located on handle side as standard. □

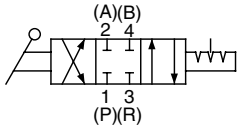
Model

Series	Port size Rc	Number of positions	Piping direction	Model		Effective area (mm²)	Weight (kg)
				Body mounted	Panel mounted		
VH2	1/4	3 (Closed center)		**VH200-02**	**VH210-02**	7.5	0.42
		3 (Exhaust center)		**VH201-02**	**VH211-02**		
		2 (Position)		**VH202-02**	**VH212-02**		
VH3	1/4, 3/8	3 (Closed center)		**VH300-02/03**	**VH310-02/03**	Rc 1/4: 17 Rc 3/8: 20	0.71
		3 (Exhaust center)		**VH301-02/03**	**VH311-02/03**		
		2 (Position)		**VH302-02/03**	**VH312-02/03**		
		3 (Closed center)		**VH320-02/03**	**VH330-02/03**		
		3 (Exhaust center)		**VH321-02/03**	**VH331-02/03**		
		2 (Position)		**VH322-02/03**	**VH332-02/03**		
VH4	1/4 to 3/4	3 (Closed center)		**VH400-02 to 06**	**VH410-02 to 06**	Rc 1/4: 45 Rc 3/8: 49 Rc 1/2: 55 Rc 3/4: 58	1.28
		3 (Exhaust center)		**VH401-02 to 06**	**VH411-02 to 06**		
		2 (Position)		**VH402-02 to 06**	**VH412-02 to 06**		
		3 (Closed center)		**VH420-02 to 06**	**VH430-02 to 06**		
		3 (Exhaust center)		**VH421-02 to 06**	**VH431-02 to 06**		
		2 (Position)		**VH422-02 to 06**	**VH432-02 to 06**		
VH6	3/4, 1	3 (Exhaust center)		**VH600-06/10**	—	Rc 3/4: 185 Rc 1: 194	9.7

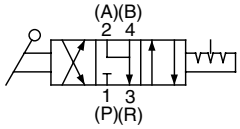
JIS Symbol
2 position



Closed center

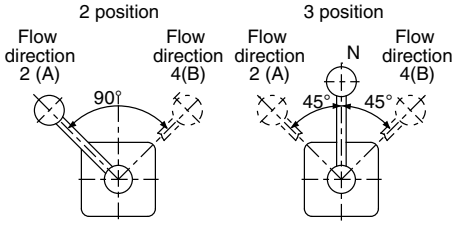


Exhaust center



Handle Operation Angle and Air Flow Direction

(Refer to the figures of piping direction to the right.)



How to Order

VH 2 0 1 — □ 02 — □

Hand valve

Body size (Base size)

2	1/4 base
3	3/8 base
4	1/2 base
6	1 base

Piping/Mounting

Symbol	Piping Note)	Mounting method
0	Side	Body
1	Side	Panel mounting
2	Bottom	Body
3	Bottom	Panel mounting

Note) Only side piping is available for VH200 and VH600 and R port is located on the bottom.

Function

0	3 position closed center
1	3 position exhaust center
2	2 position

Thread type

Nil	Rc
N	NPT
F	G

Port size (Nominal size)

02	1/4
03	3/8
04	1/2
06	3/4
10	1

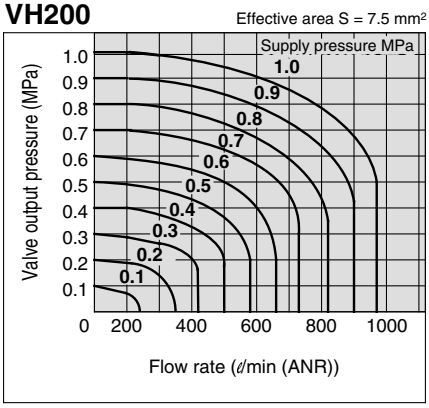
1(P) port location

R	1(P) port 180° location change
L	Long handle (Applicable to VH300/400)

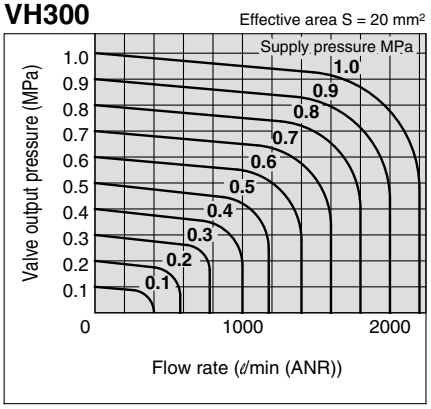
∗ When specifying more than one option, indicate symbols alphabetically.

Flow Characteristics

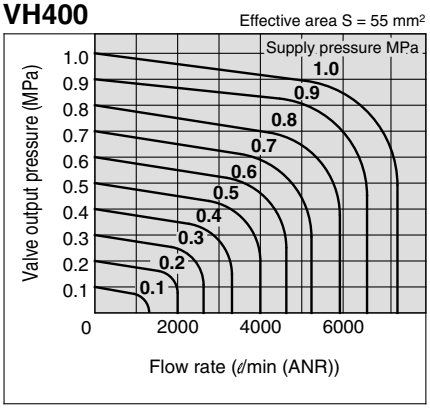
VH200



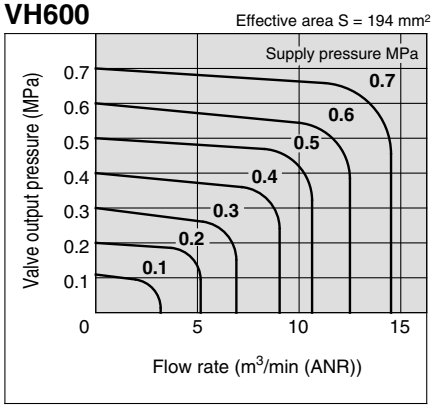
VH300



VH400

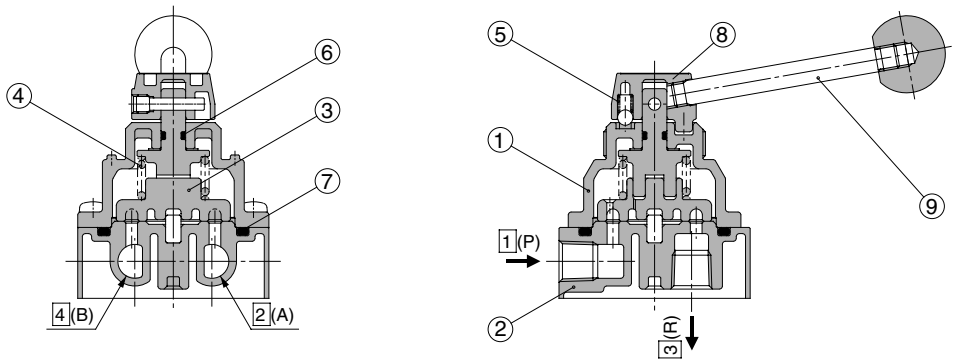


VH600

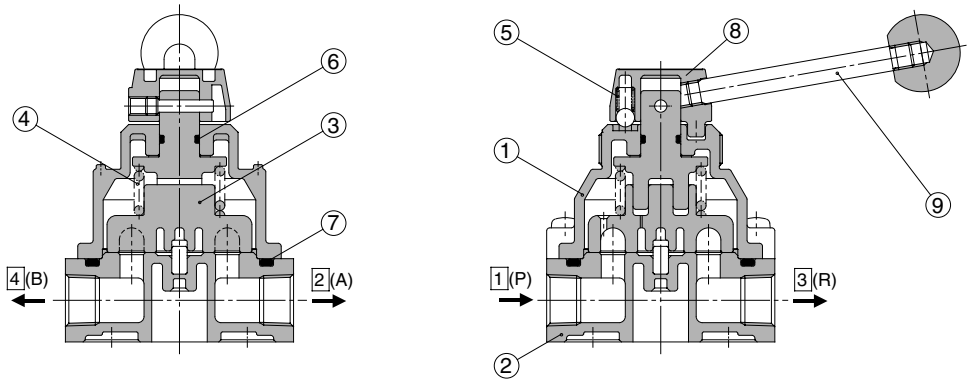


Construction

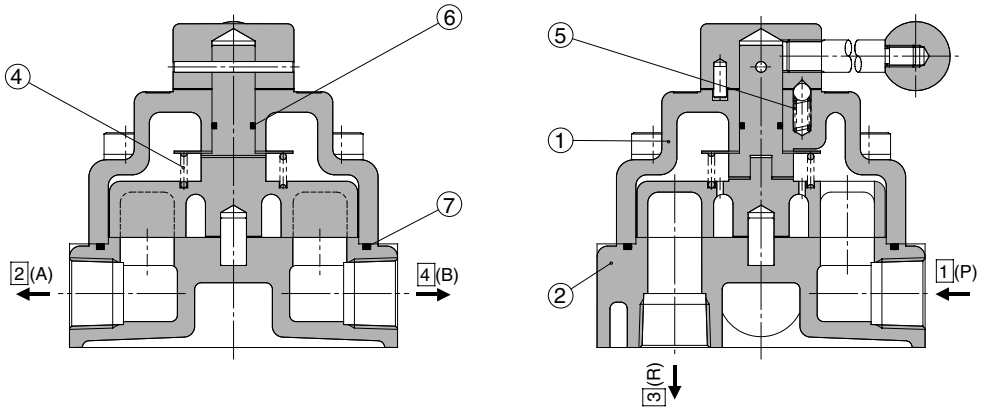
VH200



VH300/400



VH600



Component Parts

No.	Description	Material	
		VH200/300/400	**VH600**
①	Cover	Zinc die-casted	Cast iron
②	Body	Aluminium die-casted	Cast iron

Replacement Parts

No.	Description	Material	Part no.			
			VH200	**VH300**	**VH400**	**VH600**
③	Slide ring	Resin	244026 244026-1*	244120 244120-1*	244219 244219-1*	—
④	Slide ring spring	Piano wire	24408-1	24416-3	24425-6	240417
⑤	Check ball spring	Piano wire	24077	240359	240359	24047
⑥	O-ring	NBR	JIS B 2401 P5	JIS B 2401 P10	JIS B 2401 P10	JIS B 2401 P15
⑦	O-ring	NBR	JIS B 2401 P42	JIS B 2401 G55	JIS B 2401 P71	JIS B 2401 G120
⑧	Handle head	Zinc alloy	24403	24413	24413	—
⑨	Handle rod assembly	—	2407102A	2407102A (2407114A)	2407102A (2407114A)	—

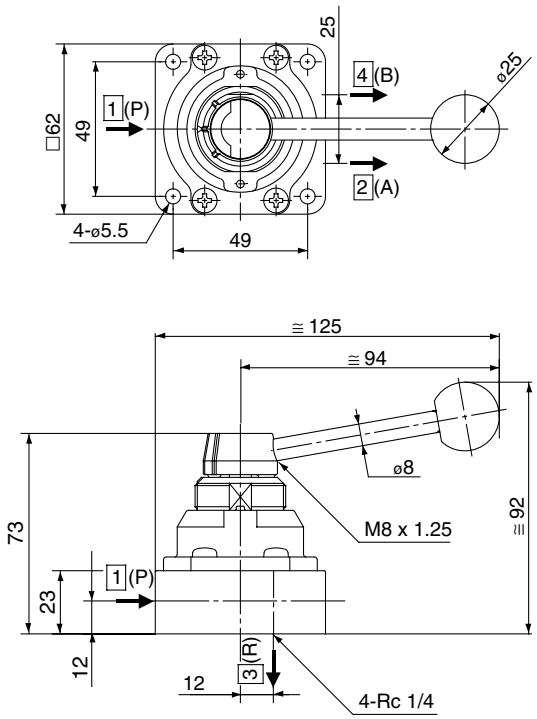
∗ In the case of the exhaust center type.
( ): Long handle type

Part No. of Lock Nut for Panel Mounting

Series	Part no.
VH200	244010
VH300	24418
VH400	240258

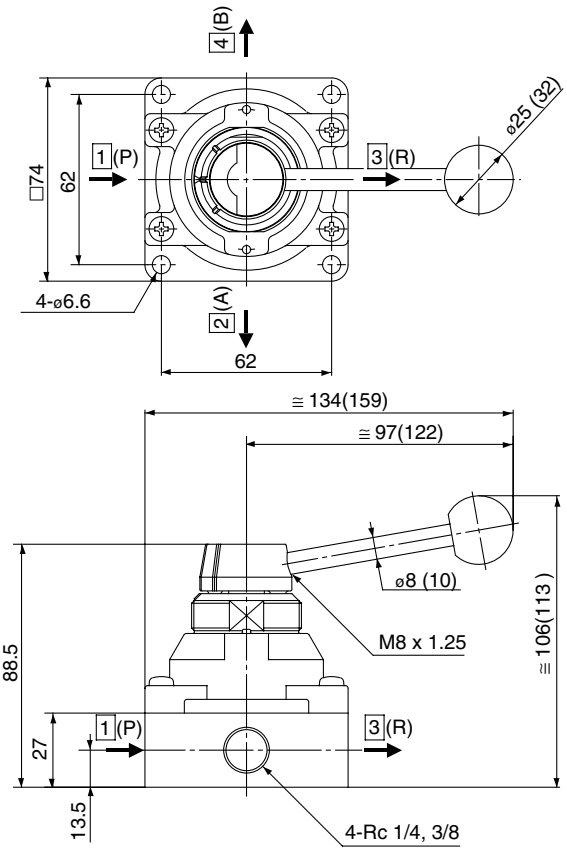
Dimensions: Body Mounted

VH20□-02

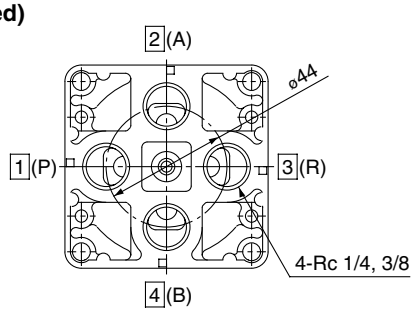


VH30□-02/03

( ): Long handle type



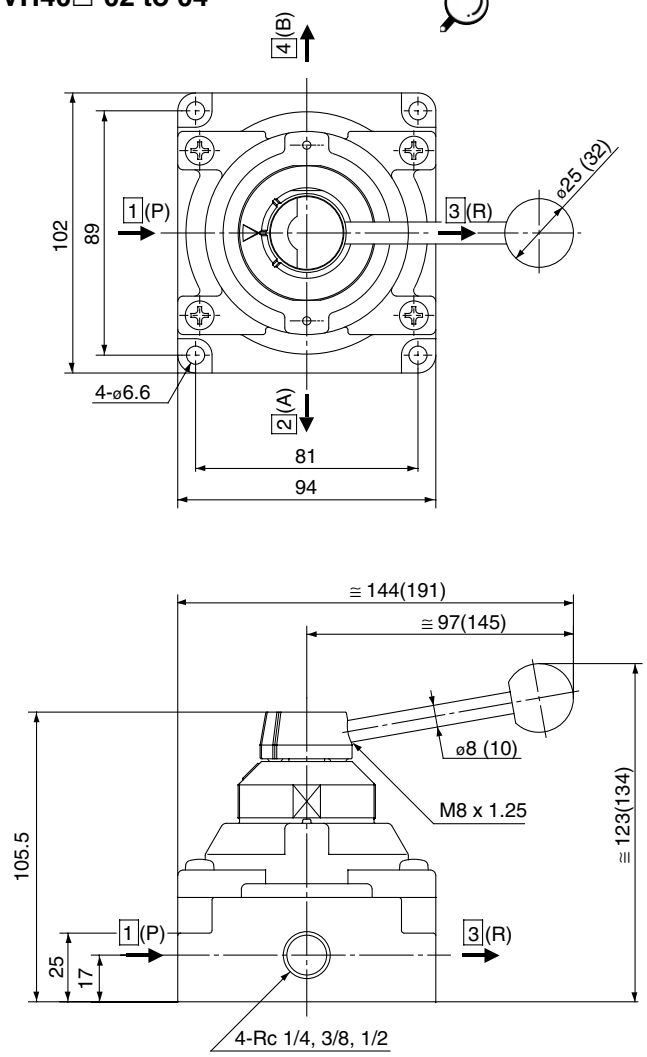
VH32□-02/03
(Bottom ported)



Dimensions: Body Mounted

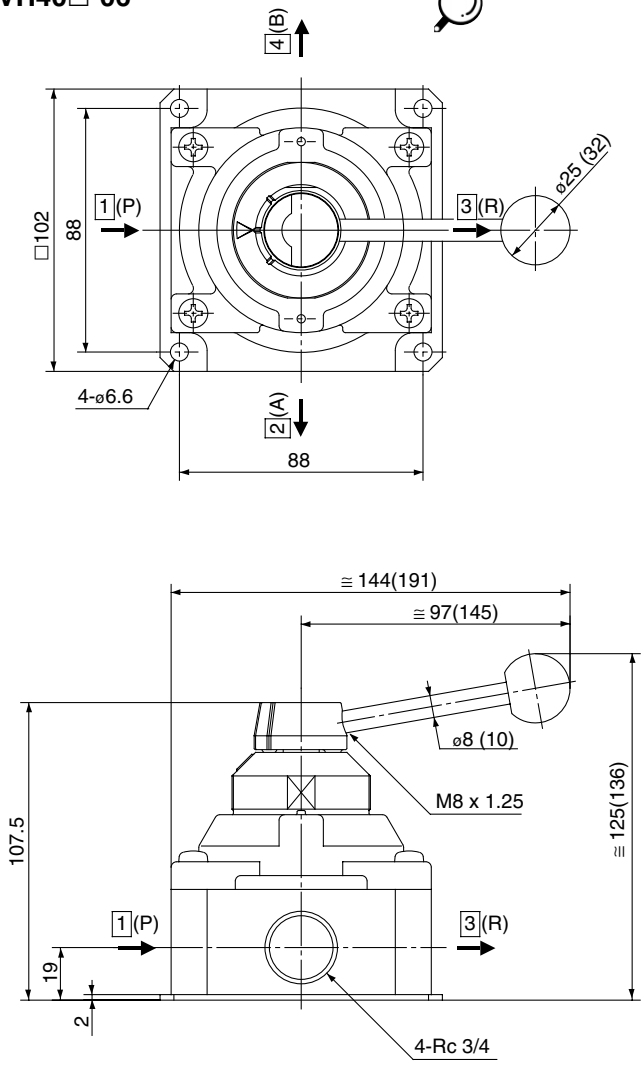
VH40□-02 to 04

( ): Long handle type



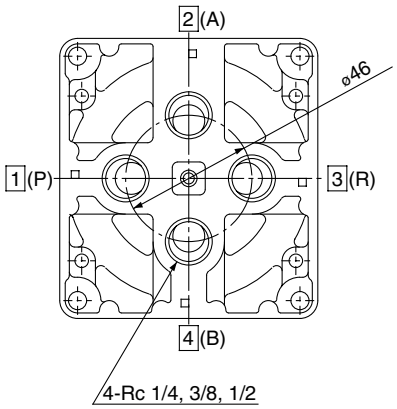
VH40□-06

( ): Long handle type



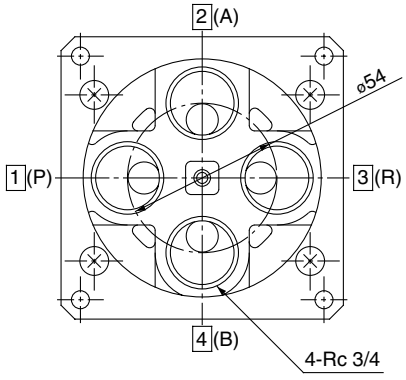
VH42□-02 to 04

(Bottom ported)



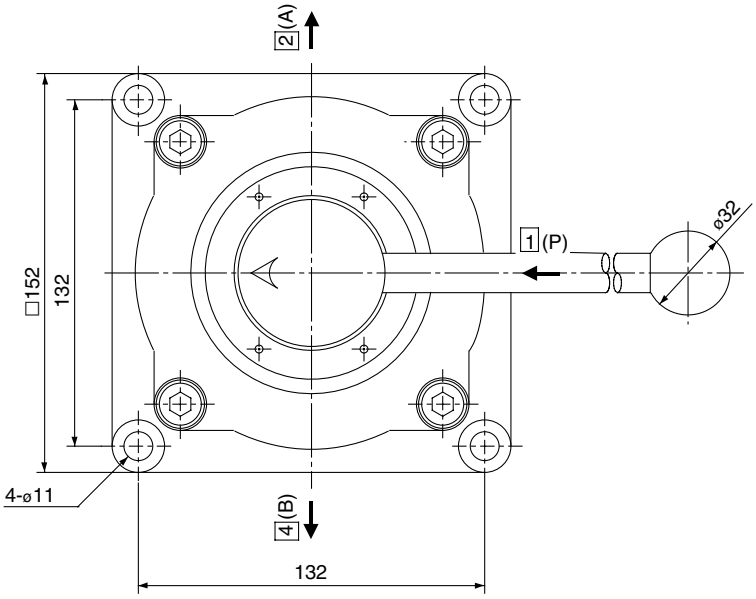
VH42□-06

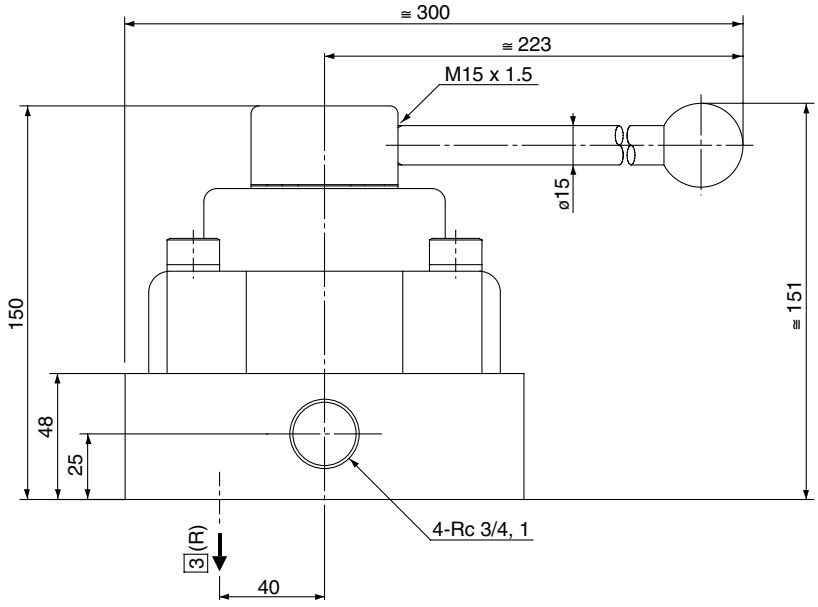
(Bottom ported)



Dimensions: Body Mounted

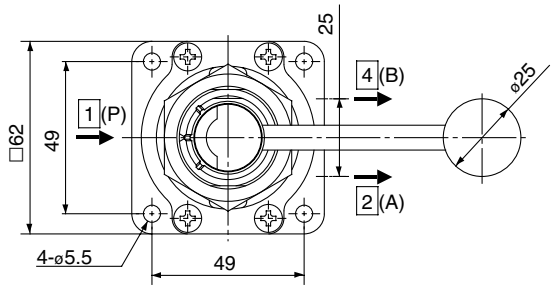
VH600-06/10

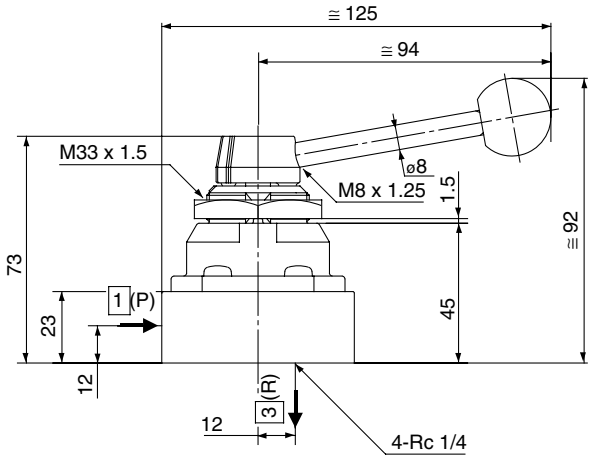




Dimensions: Panel Mounted

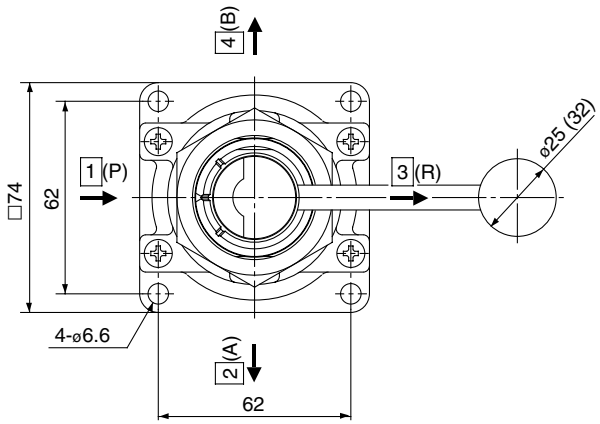
VH21□-02

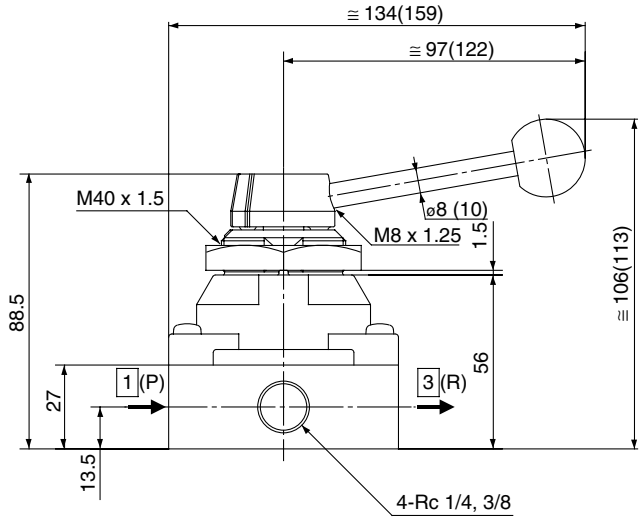




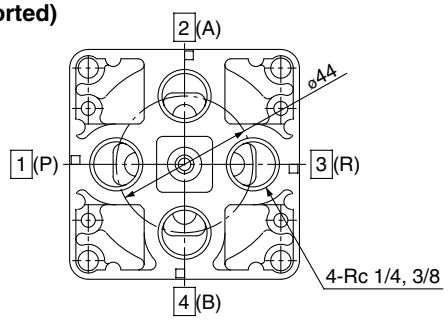
VH31□-02/03

( ): Long handle type

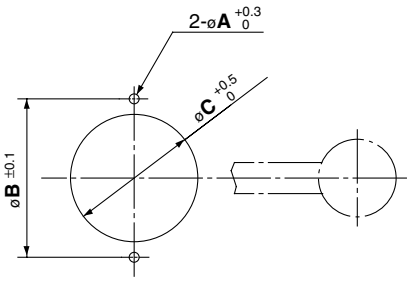




VH33□-02/03
(Bottom ported)



Panel cut dimension



Max. panel thickness D

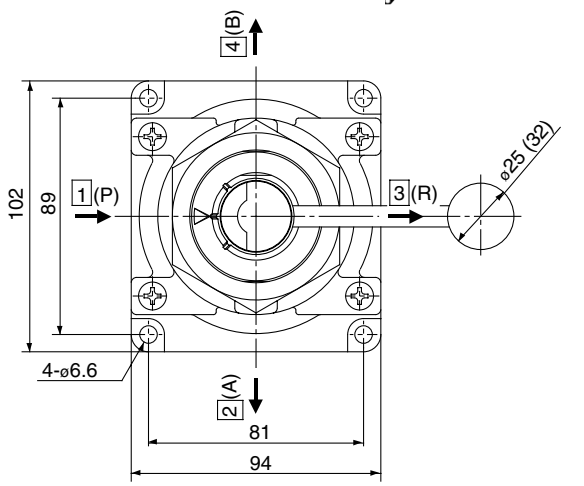
(mm)

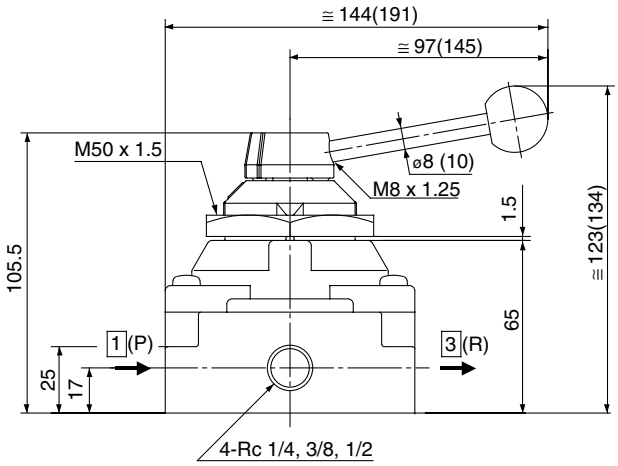
	A	B	C	D
VH200	3.2	40	35	3.5
VH300	3.2	51	41	6
VH400	3.2	64	51	8

Dimensions: Panel Mounted

VH41□-02 to 04

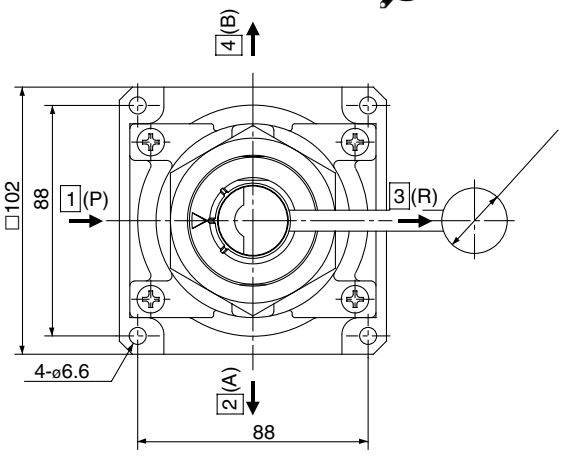
( ): Long handle type

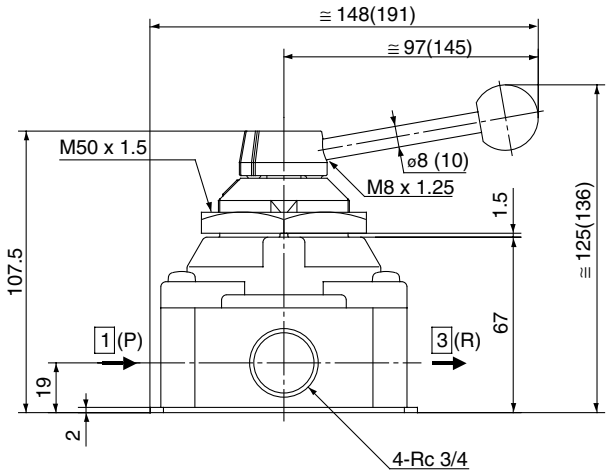




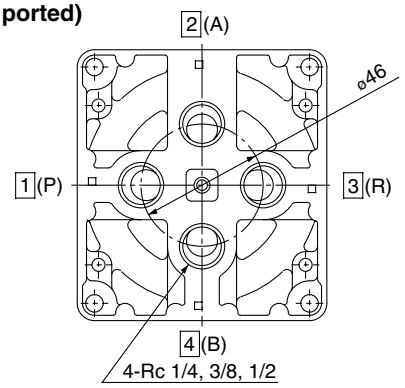
VH41□-06

( ): Long handle type

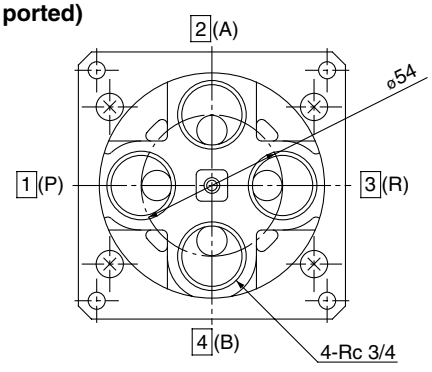




VH43□-02 to 04
(Bottom ported)



VH43□-06
(Bottom ported)



⚠ Precautions

Be sure to read before handling. Refer to pages 5-11-2 to 6 for Safety Instruction and Solenoid Valve Precautions.

Design

⚠ Caution

1. Not suitable for use as a selector valve or a divider valve.
The valve can malfunction due to air leakage.

2. Not suitable for vaccum applications.
The valve can malfunction due to air leakage.

3. Do not supply air pressure from other ports than 1(P) port.
Air leakage may occur when the pressure is supplied from other ports.

Selection

⚠ Caution

1. Use in low temperature environments
The valve can be used at a temperature down to –5°C. Take appropriate measures to avoid freezing of drainage, moisture, etc.

2. Operation method
The valve must be switched to each position instantly and securely. Stopping the handle halfway between the extreme positions may cause malfunction.

Piping

⚠ Caution

1. Ensure connection so that air is supplied to the port "1(P)" port.
Air leakage may occur when the pressure is supplied from other ports.

2. Note that in the case of the option of different "1(P)" porting position, porting indication on the body and flow direction by handle operation are reversed.

Environment

⚠ Caution

1. When the valve is exposed to a large amount of dust, install a silencer into the port "3(R)". When dust enters the valve from the port "3(R)", it may cause malfunction.