

3 Port/Air Operated Valve Body Ported/Single Unit

Series VPA300/500/700



Series VPA300



Series VPA500



Series VPA700

How to Order

VPA 3 4 2 [] - 1 - 01 [] A - [] - []

Series

3	VPA300
5	VPA500
7	VPA700

Valve option

Nil	Standard
V	For vacuum

Port size

Symbol	Port size	VPA300	VPA500	VPA700
01	1/8	○	—	—
02	1/4	○	○	—
03	3/8	—	○	○
04	1/2	—	—	○

Thread type

Nil	Rc
F	G
N	NPT
T	NPTF

Made to Order

Nil	—
X505	Interchangeable specification with the previous valve mounting hole pitch type (Refer to page 40).

Bracket

Nil	Without bracket
F	With bracket

Type of actuation

A	N.C. (Normally closed)
B	N.O. (Normally open)

Specifications

Fluid	Air	
Type of actuation	N.C. or N.O. (Convertible)	
Operating pressure range (MPa)	Standard	0.2 to 1.0
	For vacuum	-100 kPa to 0.2
Pilot pressure (MPa)	0.2 to 1.0 (Equivalent to the operating pressure or more)	
Ambient and fluid temperature (°C)	-10 to 50 (No freezing)	
Lubrication	Not required	
Mounting orientation	Unrestricted	
Impact/Vibration resistance (m/s ²) <small>Note)</small>	300/50	

Note) Impact resistance: No malfunction to axis and right angle directions of main valve, each one time when pilot signal ON and OFF. (Values at the initial period)

Vibration resistance: No malfunction from test with 45 to 2000 Hz one sweep, to axis and right angle direction of main valve, each one time when pilot signal ON and OFF. (Values at the initial period)

Flow Characteristics/Weight

Model	Port size	1 ↔ 2 (P ↔ A)			2 ↔ 3 (A ↔ R)			Weight (g) <small>Note)</small>
		C [dm ³ /(s·bar)]	b	Cv	C [dm ³ /(s·bar)]	b	Cv	
VPA342	1/8	3.5	0.26	0.8	3.6	0.26	0.9	118
	1/4	4.2	0.22	1.0	4.2	0.23	1.0	114
VPA542	1/4	7.9	0.21	1.8	7.2	0.27	1.8	237
	3/8	8.9	0.16	2.2	8.9	0.20	2.1	229
VPA742	3/8	11.9	0.21	2.7	11.8	0.20	2.7	501
	1/2	15.1	0.21	3.6	15.3	0.22	3.7	484

Note) Values without brackets

⚠ Caution

Refer to back cover for Safety Instructions, "Handling Precautions for SMC Products" (M-E03-3) for Common Precautions.

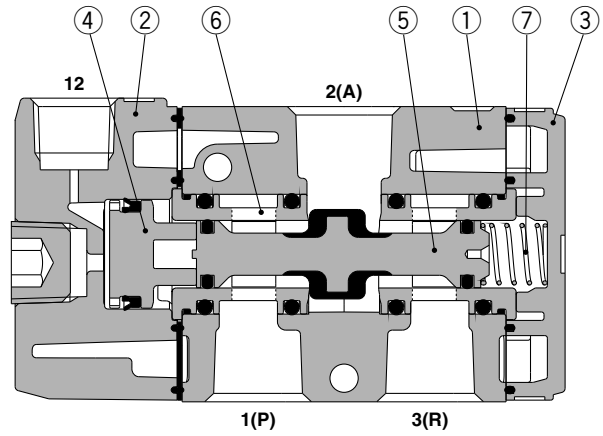
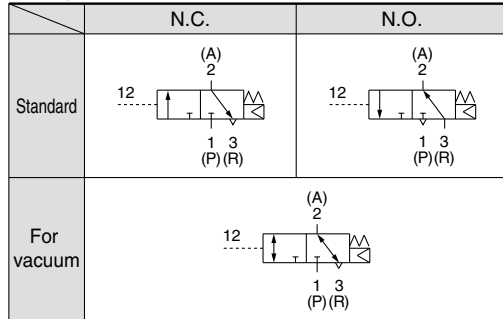


Refer to back page 6 for changing the type of actuation.

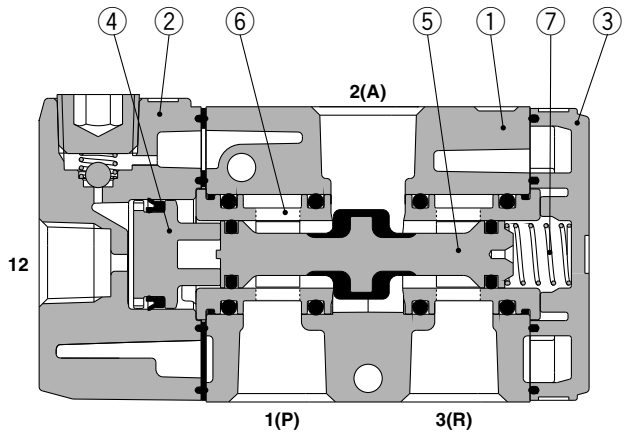
Construction

Standard

JIS symbol



For vacuum



Component Parts

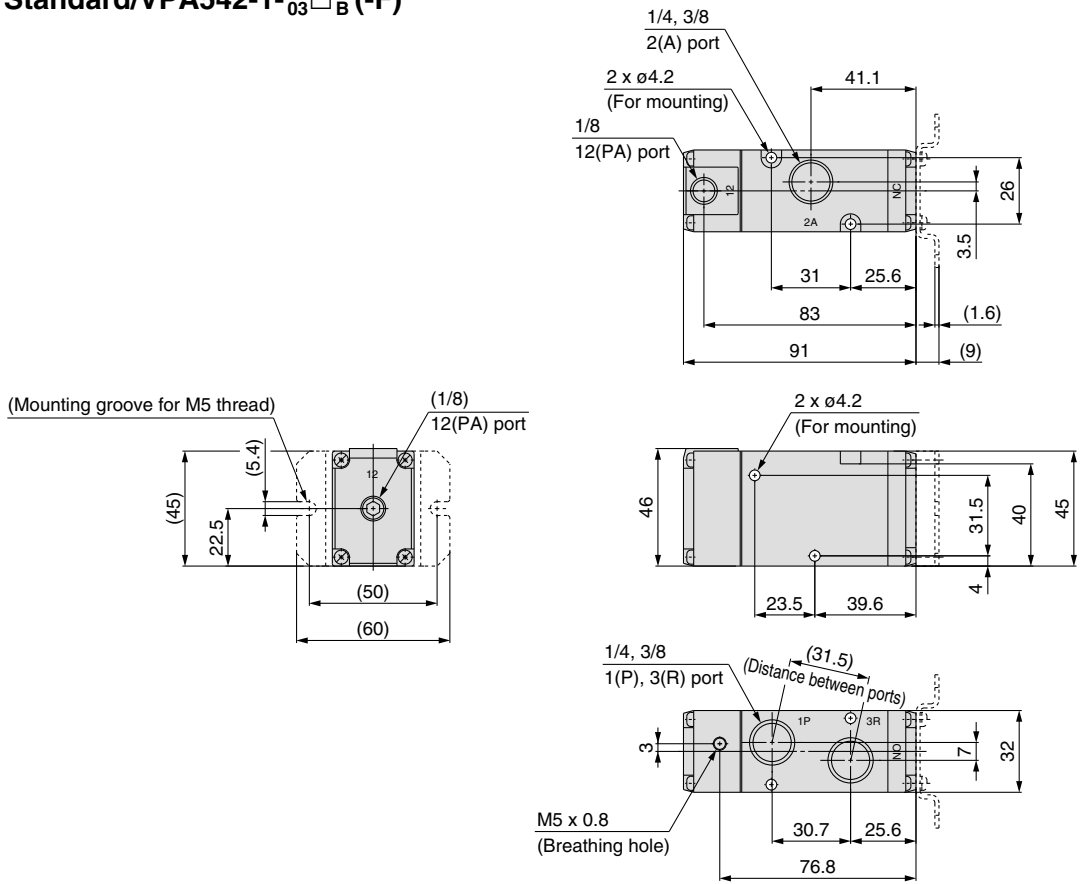
No.	Description	Material	Note
1	Body	Aluminum die-casted	White
2	Adapter plate	Aluminum die-casted	Gray
3	End plate	Resin	White
4	Piston	Resin	
5	Spool valve	Aluminum/HNBR	
6	Retainer	Resin	
7	Spring	Stainless steel	

Bracket Assembly Part No.

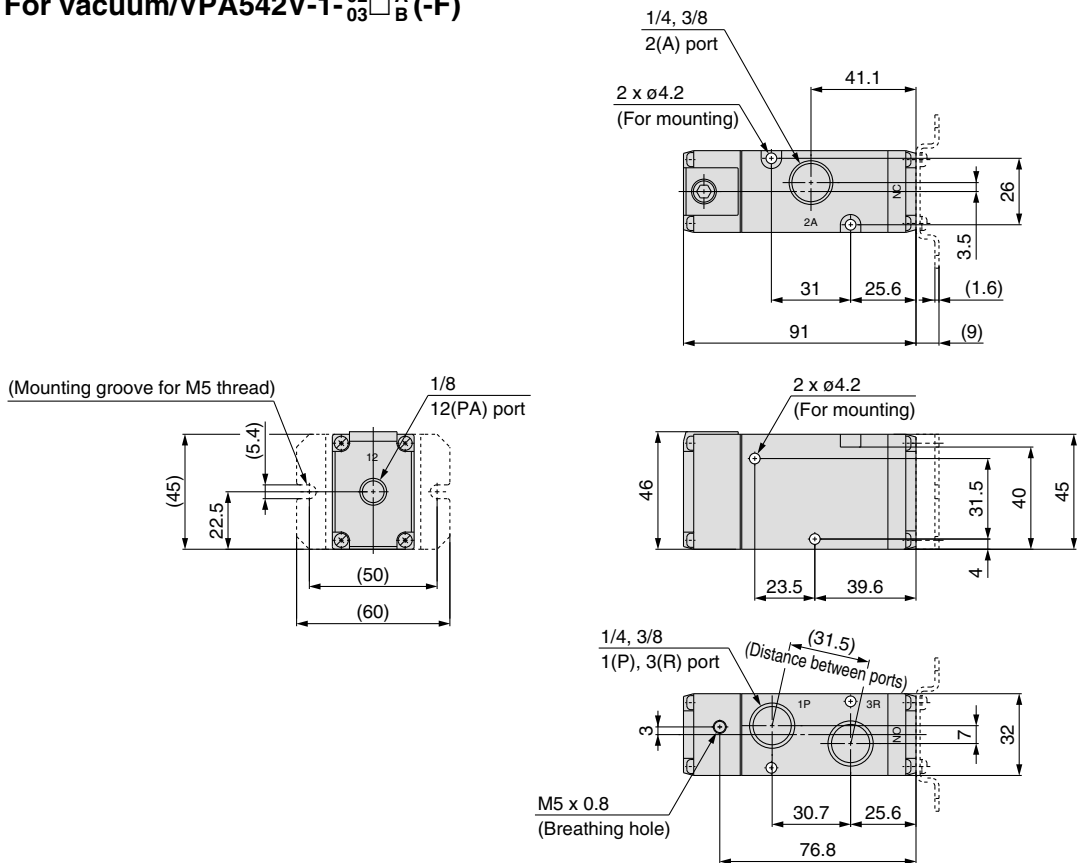
Description	Model	Part no.
Bracket (With 2 screws)	VPA342	VP300-227-1A
	VPA542	VP500-227-1A
	VPA742	VP700-227-1A

Series VPA500/Body Ported/Dimensions

Standard/VPA542-1- $\frac{02}{03}$ □ $\frac{A}{B}$ (-F)



For vacuum/VPA542V-1- $\frac{02}{03}$ □ $\frac{A}{B}$ (-F)





Please contact SMC for detailed dimensions, specifications, and lead times.

1 Body Ported Interchangeable Specification with the Previous Valve Mounting Hole Pitch Type

The mounting hole has been changed to the long type in order to provide interchangeability with the previous VPA300/500 series.

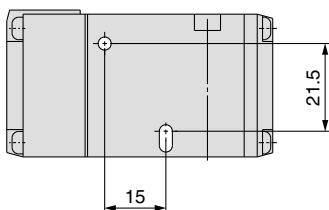
How to Order Valve

VPA $\frac{3}{5}$ 42 -1- -X505

- **Entry is the same as standard products.**
The specifications, performance and external dimensions are the same as those of standard models.

Note) VPA742 is not available because the mounting hole pitch is the same as the previous type.

VPA342



VPA542

