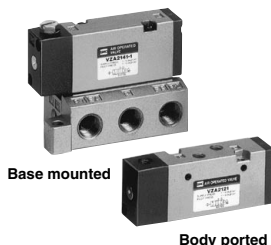


5 Port Air Operated Valve

Series VZA2000



Specifications

Fluid	Air	
Operating pressure range (MPa)	VZA2121, 2141	0.1 to 1.0
	VZA2 ³ / ₂ 21, 2 ³ / ₄ 41	0 to 1.0
Pilot pressure range (MPa)	0.1 to 1.0	
Impact/Vibration resistance (m/s ²) ^{Note)}	150/50	

Operating pressure ≤ Pilot pressure

Note) Impact resistance: No malfunction from test using drop impact tester, to axis and right angle directions of main valve, each one time when pilot signal ON and OFF. (Value in the initial stage)

Vibration resistance: No malfunction from test with 8.3 to 2000 Hz 1 sweep, to axis and right angle directions of main valve, each one time when pilot signal ON and OFF. (Value in the initial stage)

Model

Valve model		Type of actuation		Port size	Flow characteristics						Pilot port size	Pilot port piping location
					1→4/2(P→A/B)			4/2→5/3(A/B→EA/EB)				
					C [dm³/(s·bar)]	b	Cv	C [dm³/(s·bar)]	b	Cv		
Body ported	VZA22121-M5	2 position	Single	M5 x 0.8	0.60	0.43	0.15	0.59	0.30	0.15	M5 x 0.8	Body side
	VZA2221-M5		Double		0.60	0.43	0.15	0.59	0.30	0.15		
	VZA2321-M5	3 position	Closed center		0.56	0.15	0.13	0.59	0.22	0.14		
	VZA2421-M5		Exhaust center		0.60	0.20	0.15	0.59	0.22	0.14		
Base mounted (With sub-plate)	VZA2141-1-01	2 position	Single	Rc 1/8	1.0	0.30	0.25	0.90	0.25	0.21	M5 x 0.8	Sub-plate side
	VZA2141-2-01											Body side
	VZA2241-1-01		Double		1.0	0.30	0.25	0.90	0.25	0.21		Sub-plate side
	VZA2241-2-01									Body side		
	VZA2341-1-01	3 position	Closed center		0.90	0.25	0.21	0.71	0.30	0.19		Sub-plate side
	VZA2341-2-01									Body side		
	VZA2441-1-01		Exhaust center		1.0	0.30	0.25	0.90	0.25	0.21		Sub-plate side
	VZA2441-2-01									Body side		

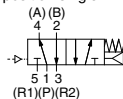
Note) Model number for base mounted style without sub-plate is VZA2□41-1.

Compatibility with universal porting is possible except for with the single type.

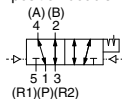
Symbol

Body ported

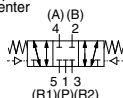
2 position single



2 position double



3 position closed center

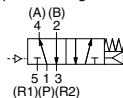


3 position exhaust center

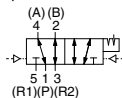


Base mounted

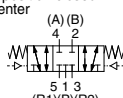
2 position single



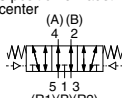
2 position double



3 position closed center



3 position exhaust center



* To order valves and blanking plate assembly mounted onto the manifold, list valves and blank plate assembly with manifold base part number.

<Example: Body ported>

VV5ZA2-20-051.....1 pc.
VZA2121-M5.....1 pc.
VZA2221-M5.....3 pcs.
VVZ2000-31A-2.....1 pc.

<Example: Base mounted>

VV5ZA2-50-051-01.....1 pc.
VZA2141-2.....1 pc.
VZA2241-2.....3 pcs.
VVZ2000-31A-3.....1 pc.

Sub-plate Assembly Part No.: VZA2000-S-01

* Mounting bolt and gasket are not included.

Thread type

NH	Rc
N	NPT
T	NPTF
F	G

⚠ Caution

Be sure to read this before handling. Refer to front matter 53 for Safety Instructions and pages 3 to 8 for 3/4/5 Port Solenoid Valve Precautions.

How to Order Manifold

VV5ZA2-50-05 1-01

Series VZA2000
Manifold

Manifold specifications
(P, EA, EB port size)

Symbol	Piping type	P, EA, EB port size
20	Body ported	Rc1/8
50	Base mounted	

Stations

02	2 Stations
...	...
10	10 Stations

Thread type

Nil	Rc
N	NPT
T	NPTF
F	G

Cylinder port size on the base

Nil	Body ported 20 type
M5	M5 x 0.8
01	Rc1/8
C4	Built-in ø4 One-touch fitting
C6	Built-in ø6 One-touch fitting

Combination symbol (port specifications)

1	P, EA, EB common/side ported
---	------------------------------

How to Order Valve

VZA2 1 4 1-2

Type of actuation

1	2 position single
2	2 position double
3	3 position closed center
4	3 position exhaust center

Body type

2	Body ported
4	Base mounted

Pilot port piping type

Nil	Body ported (Body side)
1	Sub-plate side (Internal)
2	Body side (External)

Option

F	With foot bracket
---	-------------------

(Note) Only VZA2121-M5(single) applicable.

Thread type

Nil	Rc, M5
N	NPT
T	NPTF
F	G

Port size

Symbol	Body ported	Base mounted
Nil	Without sub-plate	
M5	M5 x 0.8	—
01	—	Rc1/8

With Bracket

VZA2000	Air operated valve model	VZA2121-M5-F
	Bracket assembly part no.	VZ2000-37A-2

SYA

SYJA

VZA

VFA

VFRA

VPA4

VSA4

SYJA

VZA

VTA

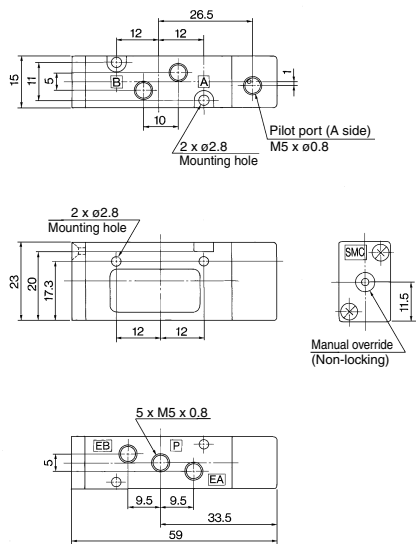
VGA

VPA

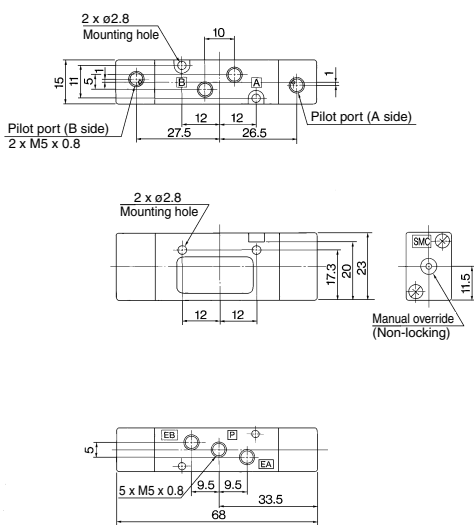
VPA3

Dimensions: Body Ported

2 position single: VZA2121-M5

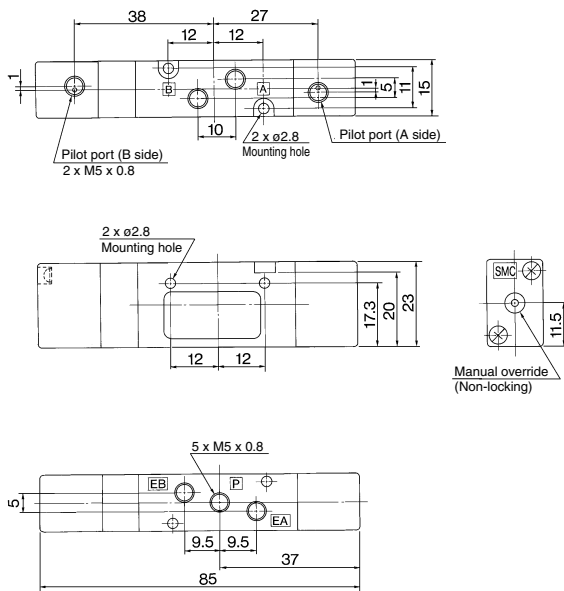


2 position double: VZA2221-M5



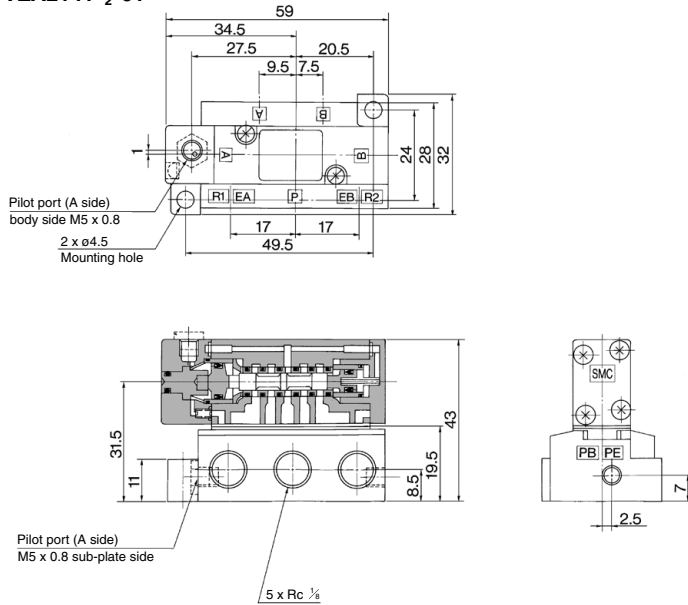
3 position closed center: VZA2321-M5

3 position exhaust center: VZA2421-M5

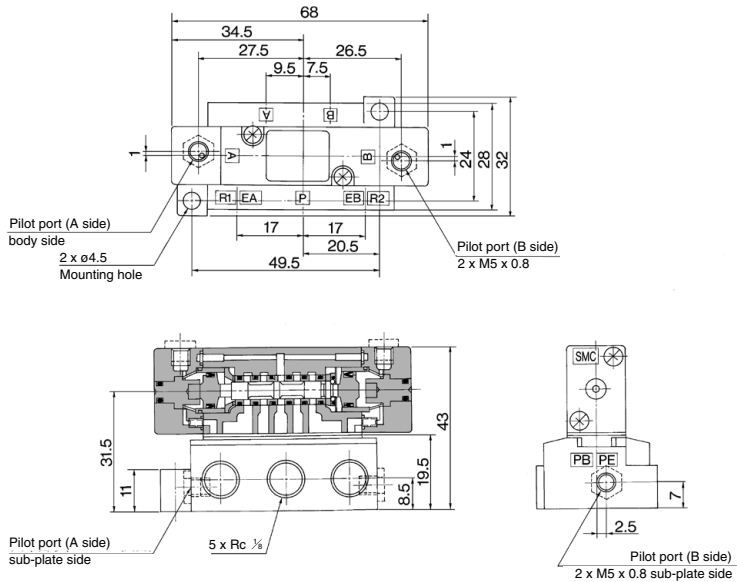


Dimensions: Base Mounted

2 position single: VZA2141- $\frac{1}{2}$ -01



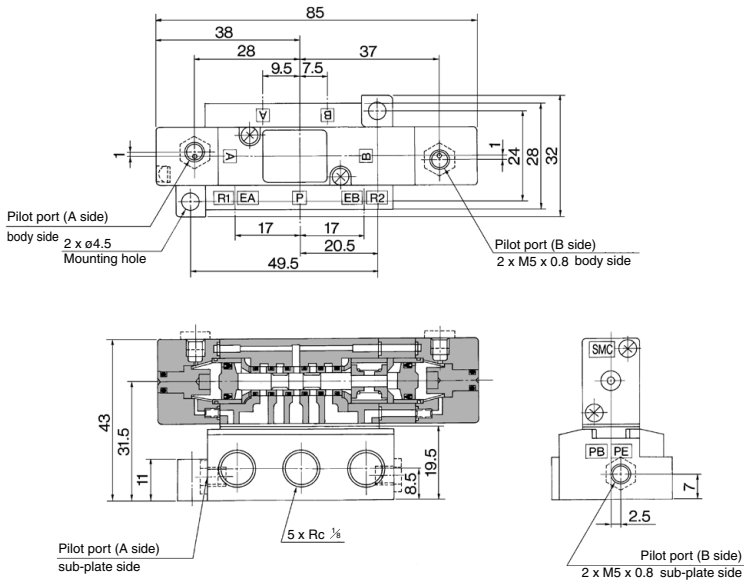
2 position double: VZA2241- $\frac{1}{2}$ -01



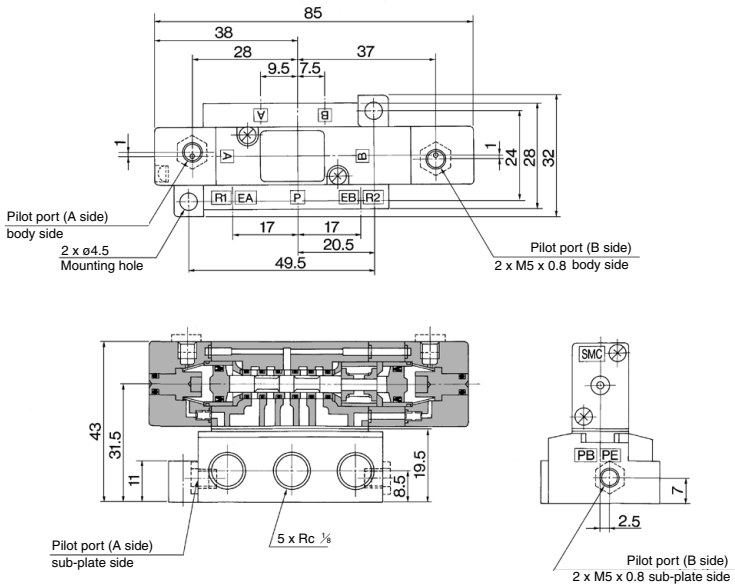
Series **VZA2000**

Dimensions: Base Mounted

3 position closed center: VZA2341- $\frac{1}{2}$ -01



3 position exhaust center: VZA2441- $\frac{1}{2}$ -01



5 Port Air Operated Valve

Series VZA4000



Base mounted



Body ported

Model

Valve model		Type of actuation		Port size Rc	Flow characteristics ⁽²⁾						Pilot port size	Pilot port piping location	
					1→4/2(P→A/B)			4/2→5/3(A/B→EA/EB)					
					C (dm³/(s·bar))	b	Cv	C (dm³/(s·bar))	b	Cv			
Body ported	VZA4121-01	2 position	Single	1/8	2.0	0.14	0.49	1.7	0.25	0.44	M5 x 0.8	Body side	
	VZA4221-01		Double		2.0	0.14	0.49	1.7	0.25	0.44			
	VZA4321-01	3 position	Closed center		1.9	0.15	0.47	1.7	0.25	0.44			
	VZA4421-01		Exhaust center		1.9	0.15	0.47	1.7	0.25	0.44			
Base mounted (With sub-plate)	VZA4141-1-01	2 position	Single	1/8	2.4	0.23	0.56	2.2	0.19	0.54	M5 x 0.8	Sub-plate side	
	VZA4141-1-02			1/8								Body side	
	VZA4141-2-01			1/4	2.4	0.23	0.56	2.2	0.19	0.54			
	VZA4141-2-02			1/8									
	VZA4241-1-01		Double	1/8	2.4	0.23	0.56	2.2	0.19	0.54		Sub-plate side	
	VZA4241-1-02			1/4									
	VZA4241-2-01			1/8	2.4	0.23	0.56	2.2	0.19	0.54		Body side	
	VZA4241-2-02			1/4									
	VZA4341-1-01	3 position	Closed center	1/8	2.3	0.19	0.54	2.3	0.21	0.54	M5 x 0.8	Sub-plate side	
	VZA4341-1-02			1/4									
	VZA4341-2-01			1/8	2.3	0.19	0.54	2.3	0.21	0.54		Body side	
	VZA4341-2-02			1/4									
	VZA4441-1-01		Exhaust center	1/8	2.3	0.21	0.52	2.2	0.22	0.52		M5 x 0.8	Sub-plate side
	VZA4441-1-02			1/4									
	VZA4441-2-01			1/8	2.3	0.21	0.52	2.2	0.22	0.52			
	VZA4441-2-02			1/4									Body side

Compatibility with universal porting is possible except for with the single type.

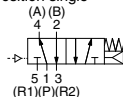
Note 1) Model number for base mounted style without sub-plate is VZA4□41-□.

Note 2) Value at the maximum port size

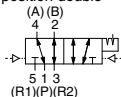
Symbol

Body ported

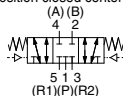
2 position single



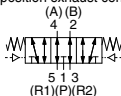
2 position double



3 position closed center

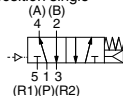


3 position exhaust center

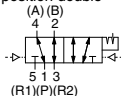


Base mounted

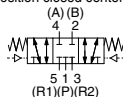
2 position single



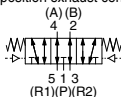
2 position double



3 position closed center



3 position exhaust center



* To order valves and blanking plate assembly mounted onto the manifold, list valves and blanking plate assembly with manifold base part number.

<Example: Body ported> <Example: Base mounted>

VV5ZA4-20-081..... 1 pc. VV5ZA4-50-081-02..... 1 pc.

VZA4121-01..... 4 pcs. VZA4141-2..... 4 pcs.

VZA4221-01..... 3 pcs. VZA4241-2..... 3 pcs.

VVZ4000-31A-1..... 1 pc. VVZ4000-31A-2..... 1 pc.

Sub-plate Assembly Part No.: VZA4000-S-01 02

* Mounting bolt and gasket are not included.

• Thread type

Nil	Rc
N	NPT
T	NPTF
F	G

Caution

Be sure to read this before handling. Refer to front matter 53 for Safety Instructions and pages 3 to 8 for 3/4/5 Port Solenoid Valve Precautions.

SYA

SYJA

VZA

VFA

VFRA

VPA4

VSA4

SYJA

VZA

VTa

VGA

VPA

VPA3

How to Order Manifold

VV5ZA4-50-08 1-02

Series VZA4000
Manifold

Manifold specifications
(P, EA, EB port size)

Symbol	Piping type	P, EA, EB port size
20	Body ported	Rc1/4
50	Base mounted	

Stations

02	2 Stations
⋮	⋮
10	10 Stations

Thread type

Nil	Rc
N	NPT
T	NPTF
F	G

Cylinder port size on the base

Nil	Body ported 20 type
01	Rc1/8
02	Rc1/4
C6	Built-in ø6 One-touch fitting
C8	Built-in ø8 One-touch fitting

Combination symbol (port specifications)

1	P, EA, EB common/side ported
---	------------------------------

How to Order Valve

VZA4 1 4 1-2

Type of actuation

1	2 position single
2	2 position double
3	3 position closed center
4	3 position exhaust center

Body type

2	Body ported
4	Base mounted

Pilot port piping type

Nil	Body ported (Body side)
1	Sub-plate side (Internal)
2	Body side (External)

Option

F	With foot bracket
---	-------------------

Note) Only VZA4121-M5 (single) applicable.

Thread type

Nil	Rc
N	NPT
T	NPTF
F	G

Port size

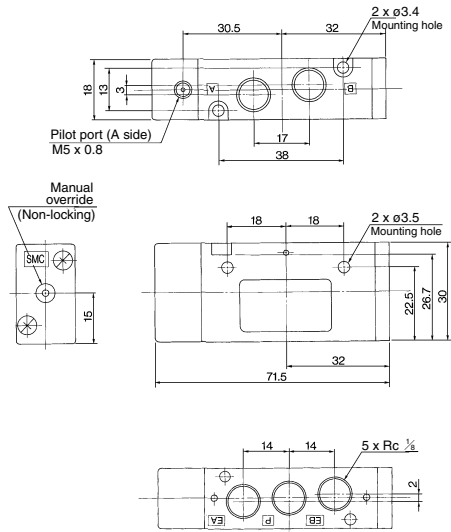
Symbol	Body ported	Base mounted
Nil	Without sub-plate	
01	Rc1/8	Rc1/8
02	—	Rc1/4

With Bracket

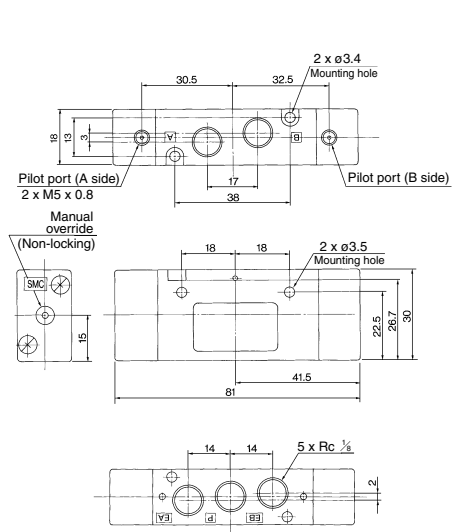
VZA4000	Air operated valve model	VZA4121-01-F
	Bracket assembly part no.	VZ4000-22A

Dimensions: Body Ported

2 position single: VZA4121-01

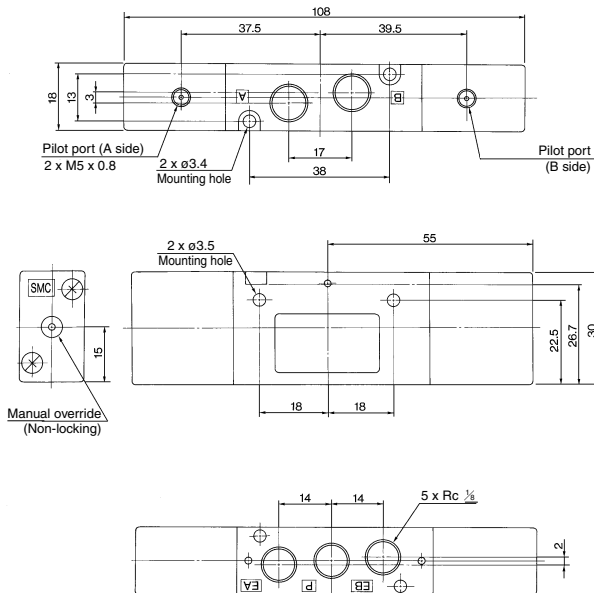


2 position double: VZA4221-01



3 position closed center: VZA4321-01

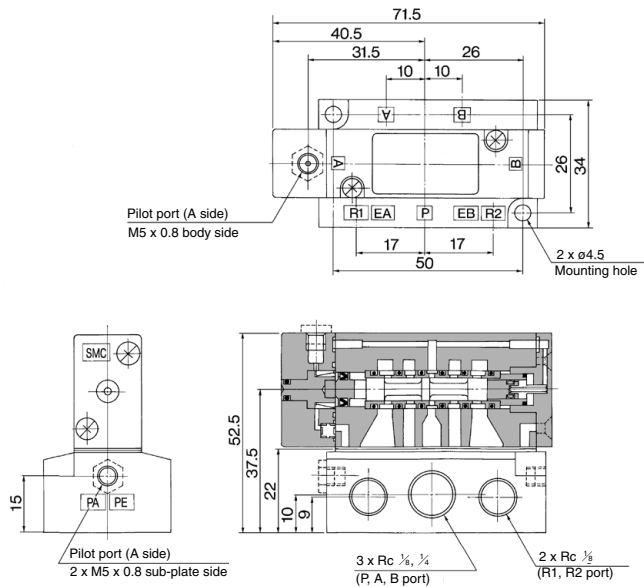
3 position exhaust center: VZA4421-01



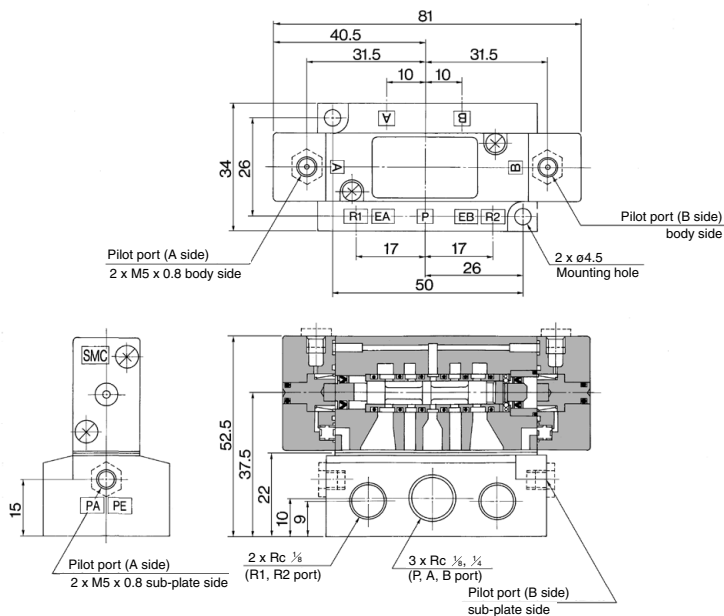
Series **VZA4000**

Dimensions: Base Mounted

2 position single: VZA4141-□-⁰¹₀₂

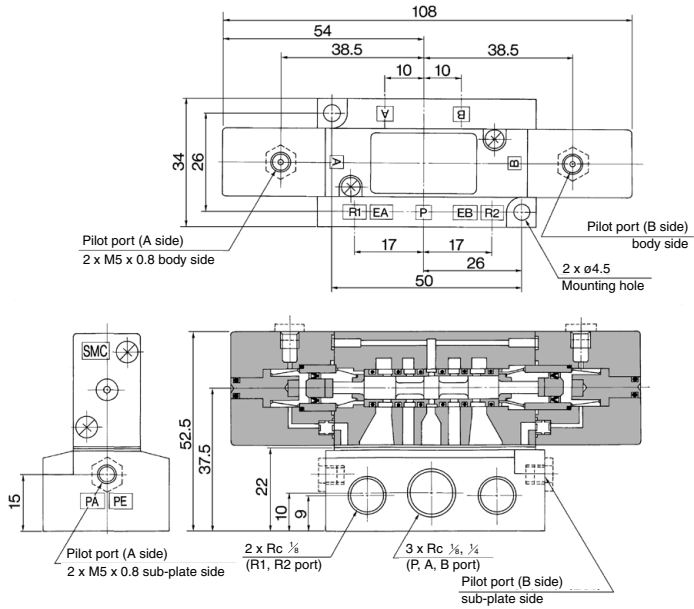


2 position double: VZA4241-□-⁰¹₀₂



Dimensions: Base Mounted

3 position closed center: VZA4341-□-01 02



3 position exhaust center: VZA4441-□-01 02

