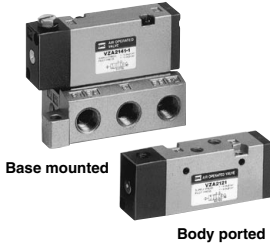


5 Port Air Operated Valve

VZA2000 Series



Base mounted

Body ported

Specifications

Fluid	Air	
	Operating pressure range (MPa)	VZA2121, 2141 VZA2221, 2241
Pilot pressure range (MPa)	0.1 to 1.0	
Ambient and fluid temperature (°C)	-10 to 60 (No freezing.)	
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 rate characteristics						Pilot port size	Pilot port piping location	
			1→4/2(P→A/B)			4/2→5/3(A/B→EA/EB)					
			C [dm ³ /(s·bar)]	b	Cv	C [dm ³ /(s·bar)]	b	Cv			
Body ported	2 position	M5 x 0.8	Single	0.60	0.43	0.15	0.59	0.30	0.15	M5 x 0.8	Body side
			Double	0.60	0.43	0.15	0.59	0.30	0.15		
	3 position		Closed center	0.56	0.15	0.13	0.59	0.22	0.14		
			Exhaust center	0.60	0.20	0.15	0.59	0.22	0.14		
Base mounted (Min sub-plate)	2 position	Rc 1/8	Single	1.0	0.30	0.25	0.90	0.25	0.21	M5 x 0.8	Sub-plate side
			Double	1.0	0.30	0.25	0.90	0.25	0.21		Body side
	3 position		Closed center	0.90	0.25	0.21	0.71	0.30	0.19		Sub-plate side
			Exhaust center	0.90	0.25	0.21	0.90	0.25	0.21		Body side
				0.90	0.25	0.21	0.90	0.25	0.21		Sub-plate side
			0.90	0.25	0.21	0.90	0.25	0.21	Body side		

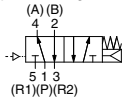
Note) Model number for base mounted type without sub-plate is VZA2□41- $\frac{1}{2}$.

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

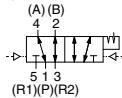
Symbol

Body ported

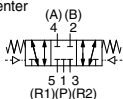
2 position single



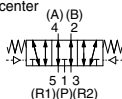
2 position double



3 position closed center

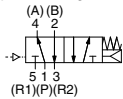


3 position exhaust center

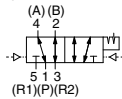


Base mounted

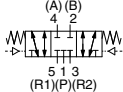
2 position single



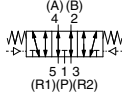
2 position double



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.

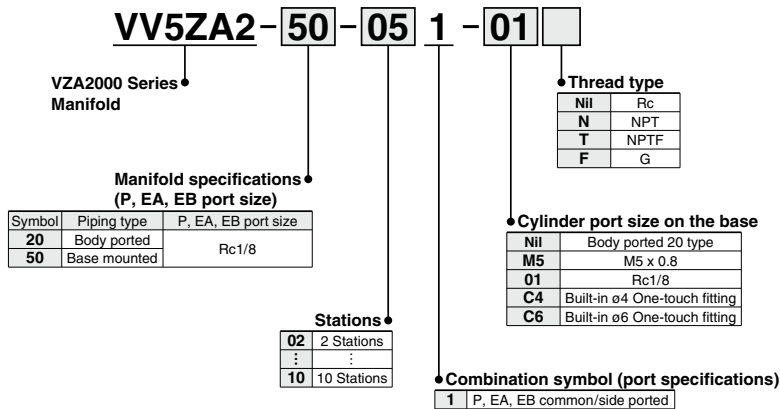
Thread type

NH	Rc
N	NPT
T	NPTF
F	G

⚠ Caution

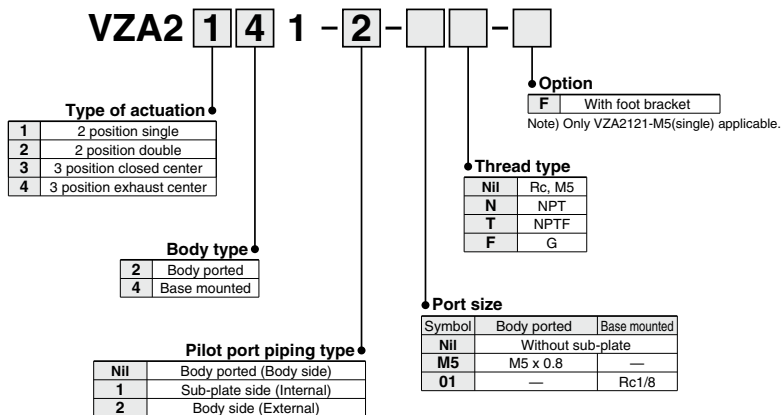
Be sure to read this before handling the products.
Refer to back page 50 for Safety Instructions and pages 3 to 9 for 3/4/5 Port Solenoid Valve Precautions.

How to Order Manifold



SYA
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VPA3

How to Order Valve



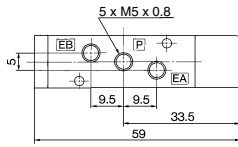
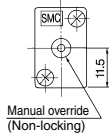
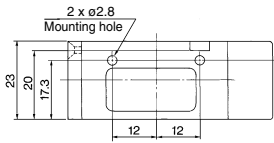
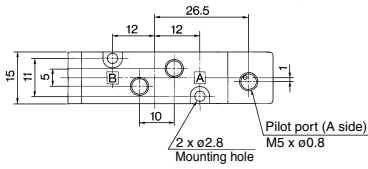
With Bracket

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

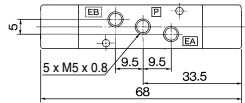
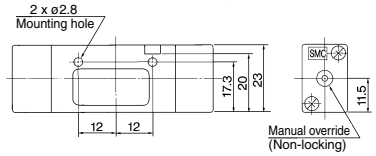
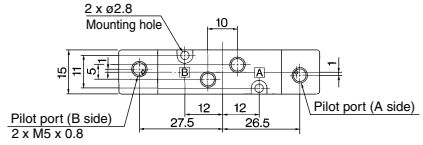
VZA2000 Series

Dimensions: Body Ported

2 position single: VZA2121-M5

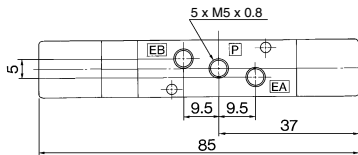
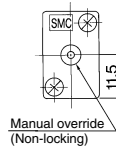
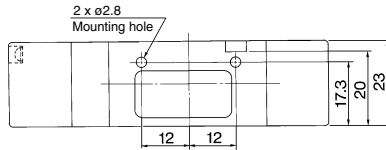
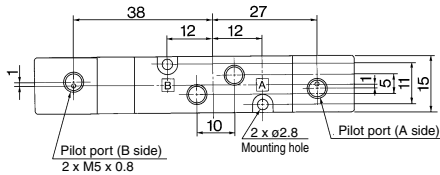


2 position double: VZA2221-M5



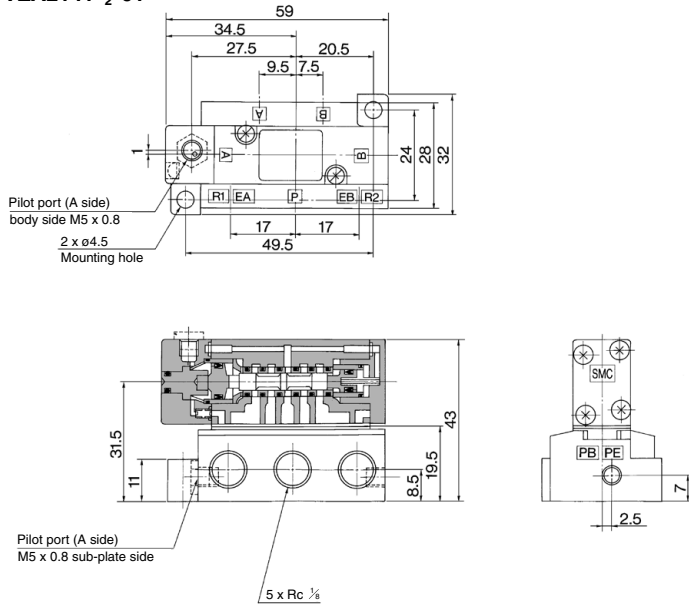
3 position closed center: VZA2321-M5

3 position exhaust center: VZA2421-M5

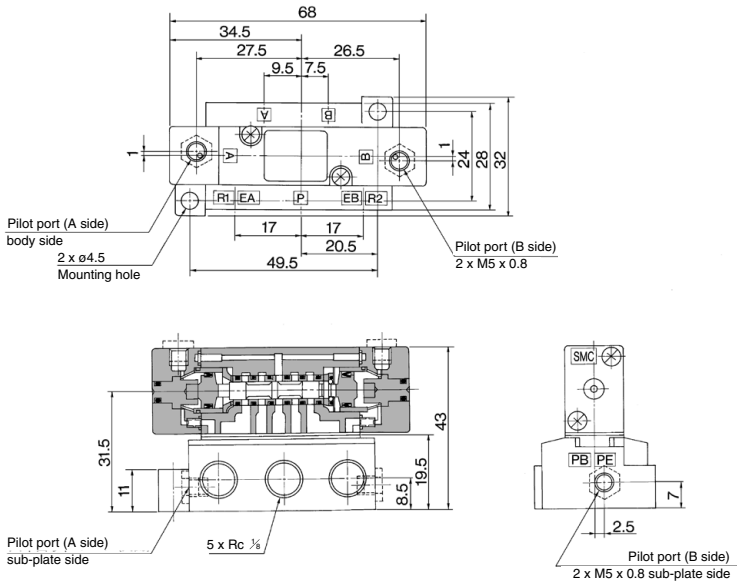


Dimensions: Base Mounted

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



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

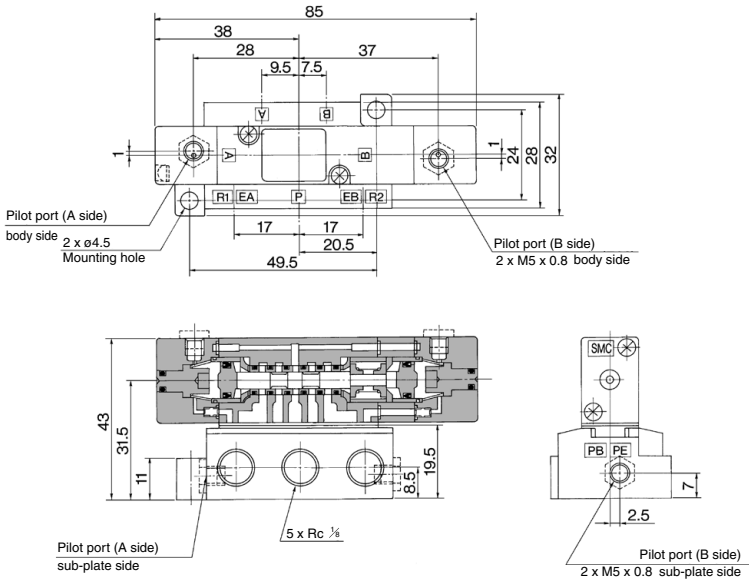


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VPA3

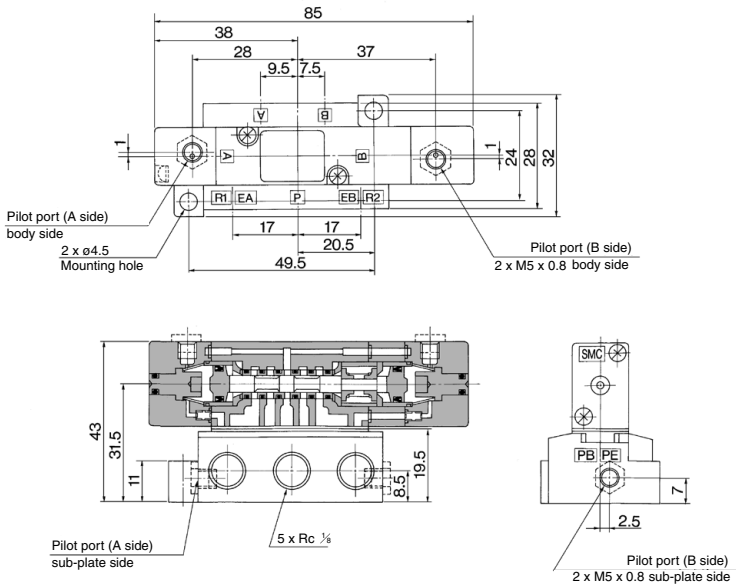
VZA2000 Series

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

VZA4000 Series



Base mounted

Body ported

Specifications

Fluid	Air	
	Operating pressure range (MPa)	VZA4121, 4141 VZA4321, 4341
Pilot pressure range (MPa)	VZA4121, 4141	0.15 to 1.0
	VZA4321, 4341	0.1 to 1.0
Ambient and fluid temperature (°C)	-10 to 60 (No freezing.)	
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 Rc	Flow rate characteristics ⁽²⁾						Pilot port size	Pilot port piping location			
				1→4/2(P→A/B)			4/2→5/3(A/B→EA/EB)							
				C [dm ³ /(s·bar)]	b	Cv	C [dm ³ /(s·bar)]	b	Cv					
Body ported	2 position	Single	1/8	2.0	0.14	0.49	1.7	0.25	0.44	M5 x 0.8	Body side			
		Double		2.0	0.14	0.49	1.7	0.25	0.44					
	3 position	Closed center		1.9	0.15	0.47	1.7	0.25	0.44					
Exhaust center		1.9		0.15	0.47	1.7	0.25	0.44						
Base mounted (With sub-plate)	2 position	Single		1/8	2.4	0.23	0.56	2.2	0.19			0.54	M5 x 0.8	Sub-plate side
				1/4	2.4	0.23	0.56	2.2	0.19			0.54		Body side
			1/8	2.4	0.23	0.56	2.2	0.19	0.54	Sub-plate side				
		Double	1/4	2.4	0.23	0.56	2.2	0.19	0.54	Body side				
			1/8	2.4	0.23	0.56	2.2	0.19	0.54	Body side				
			1/4	2.4	0.23	0.56	2.2	0.19	0.54	Body side				
	3 position	Closed center	1/8	2.3	0.19	0.54	2.3	0.21	0.54	Sub-plate side				
			1/4	2.3	0.19	0.54	2.3	0.21	0.54	Body side				
			1/8	2.3	0.19	0.54	2.3	0.21	0.54	Body side				
		Exhaust center	1/4	2.3	0.21	0.52	2.2	0.22	0.52	Sub-plate side				
			1/8	2.3	0.21	0.52	2.2	0.22	0.52	Body side				
			1/4	2.3	0.21	0.52	2.2	0.22	0.52	Body side				

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

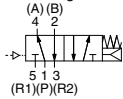
Note 1) Model number for base mounted type without sub-plate is VZA4□41· $\frac{1}{2}$.

Note 2) Value at the maximum port size

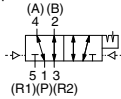
Symbol

Body ported

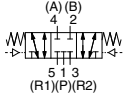
2 position single



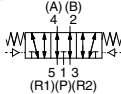
2 position double



3 position closed center

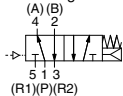


3 position exhaust center

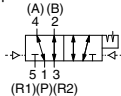


Base mounted

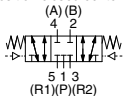
2 position single



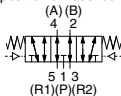
2 position double



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 pcs. VV5ZA4-50-081-02.....1 pcs.

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

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

VVZ4000-31A-1.....1 pcs. VVZ4000-31A-2.....1 pcs.

Sub-plate Assembly Part No.: VZA4000-S- $\frac{01}{02}$

* Mounting bolt and gasket are not included.

Thread type

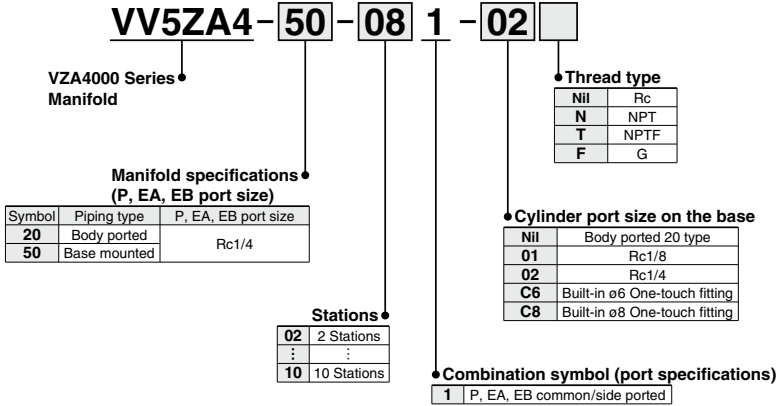
Nil	Rc
N	NPT
T	NPTF
F	G

⚠ Caution

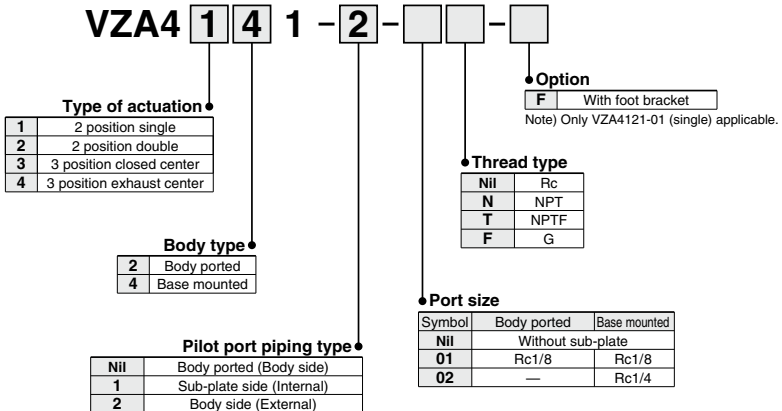
Be sure to read this before handling the products.
Refer to back page 50 for Safety Instructions and pages 3 to 9 for 3/4/5 Port Solenoid Valve Precautions.

VZA4000 Series

How to Order Manifold



How to Order Valve

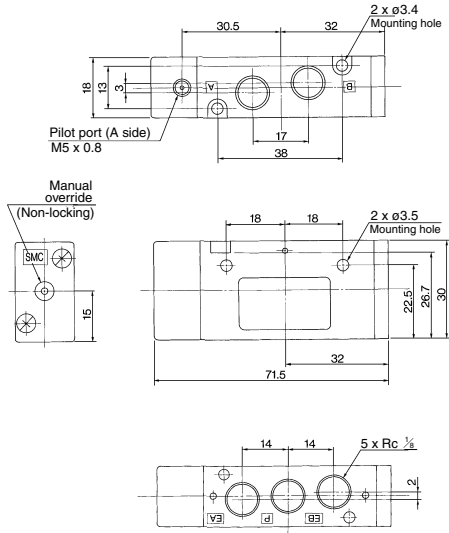


With Bracket

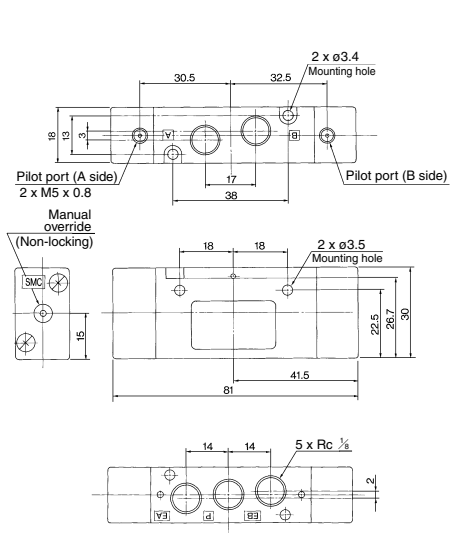
VZA4000	Air operated valve model	VZA4121-01-F
	Bracket assembly part no.	VZ4000-22A

Dimensions: Body Ported

2 position single: VZA4121-01

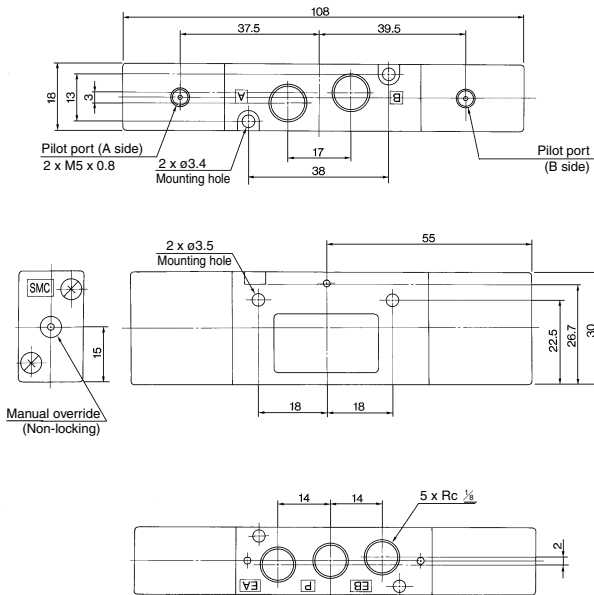


2 position double: VZA4221-01



3 position closed center: VZA4321-01

3 position exhaust center: VZA4421-01

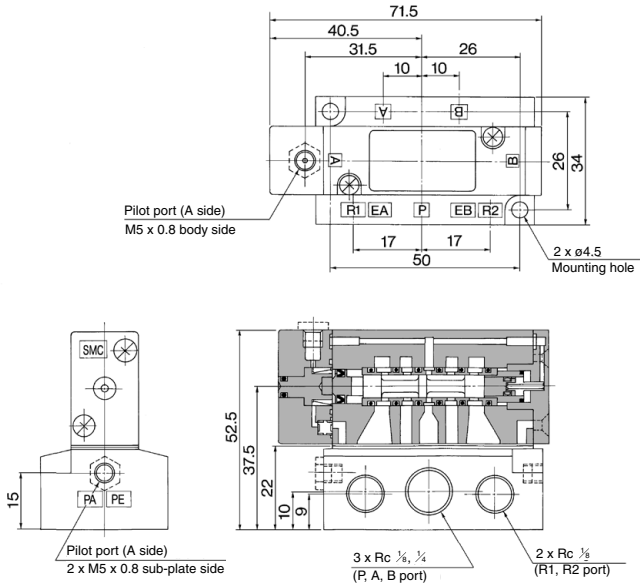


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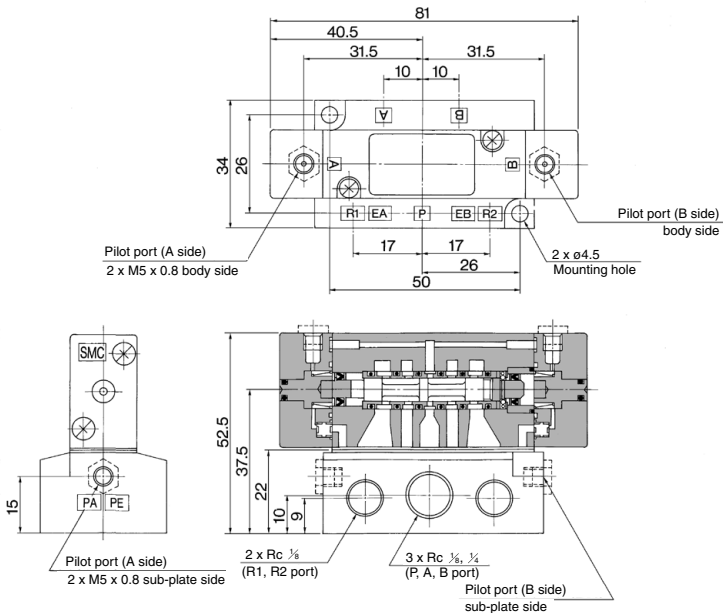
VZA4000 Series

Dimensions: Base Mounted

2 position single: VZA4141-□-01 02

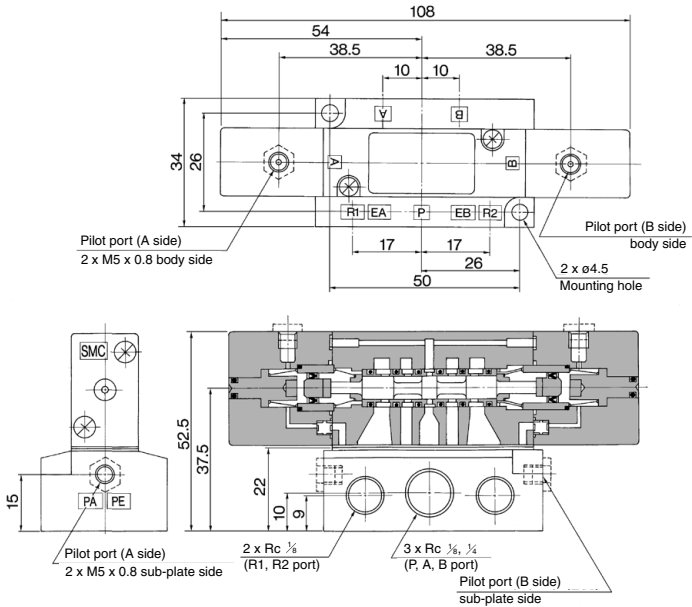


2 position double: VZA4241-□-01 02

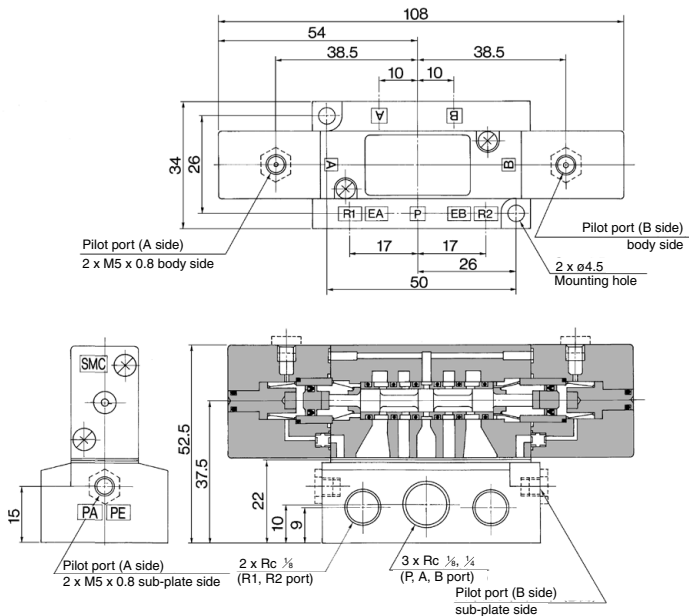


Dimensions: Base Mounted

3 position closed center: VZA4341-□⁰¹/₀₂



3 position exhaust center: VZA4441-□⁰¹/₀₂



SYA

SYJA

VZA

VFA

VFRA

VPA4

SYJA

VZA

VTA

VGA

VPA

VPA3