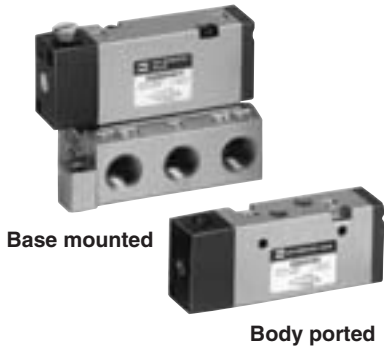


# 5 Port Air Operated Valve

## Series VZA2000



### Specifications

Fluid	Air	
Operating pressure range (MPa)	VZA2121, 2141	0.1 to 1.0
	VZA2 <sup>2</sup> / <sub>3</sub> 21, 2 <sup>2</sup> / <sub>3</sub> 41	0 to 1.0
Pilot pressure range (MPa)	0.1 to 1.0	
Impact/Vibration resistance (m/s <sup>2</sup> ) <small>Note)</small>	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	Function	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 [dm <sup>3</sup> /(s·bar)]	b	Cv	C [dm <sup>3</sup> /(s·bar)]	b	Cv			
Body ported VZA2121-M5 VZA2221-M5 VZA2321-M5 VZA2421-M5	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 (With sub-plate) VZA2141-1-01 VZA2141-2-01 VZA2241-1-01 VZA2241-2-01 VZA2341-1-01 VZA2341-2-01 VZA2441-1-01 VZA2441-2-01	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	1.0	0.30	0.25	0.90	0.25	0.21		Body side
											Sub-plate side
											Body side



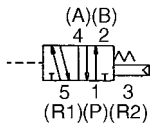
Note) Model number for base mounted style without sub-plate is VZA2□41-<sub>1</sub>.

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

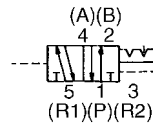
### JIS symbol

#### Body ported

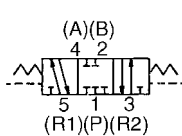
2 position single



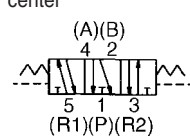
2 position double



3 position closed center

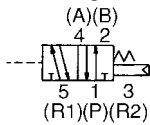


3 position exhaust center

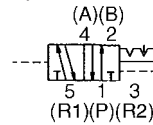


#### Base mounted

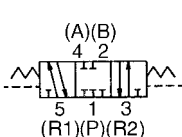
2 position single



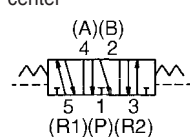
2 position double



3 position closed center



3 position exhaust center



### Foot Bracket

Air operated valve model no.	VZA2121-M5-F
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### How to Order Manifold Base

Use the same manifold bases as the VZ2000.

(For VZA2000) VV5ZA2- Specify the same manifold part number as VV5Z2.

\* 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

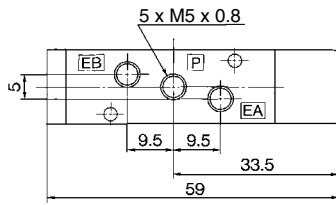
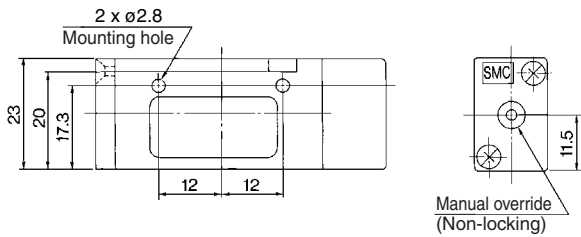
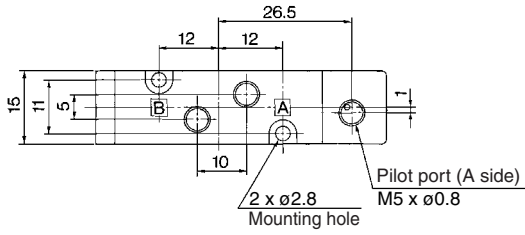
Nil	Rc
N	NPT
T	NPTF
F	G

### Caution

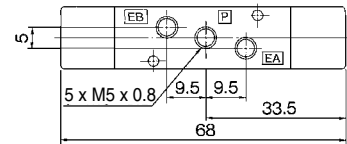
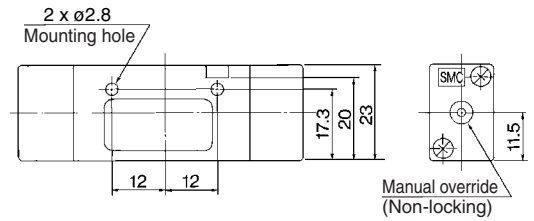
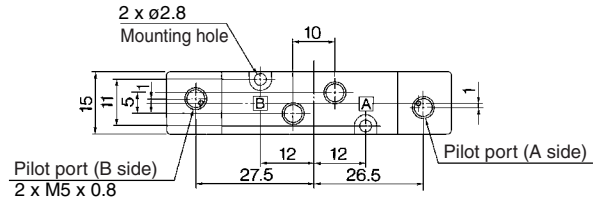
**Be sure to read this before handling. Refer to front matters 58 and 59 for Safety Instructions and pages 3 to 7 for 3/4/5 Port Solenoid Valve Precautions.**

## Dimensions: Body Ported

### 2 position single: VZA2121-M5

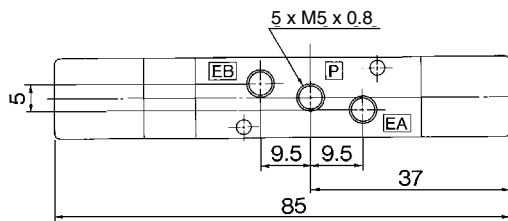
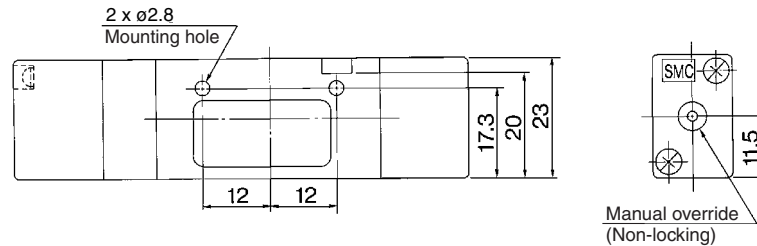
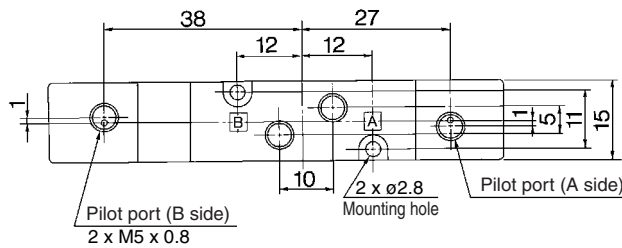


### 2 position double: VZA2221-M5



### 3 position closed center: VZA2321-M5

### 3 position exhaust center: VZA2421-M5



SYA

SYJA

VZA

VFA

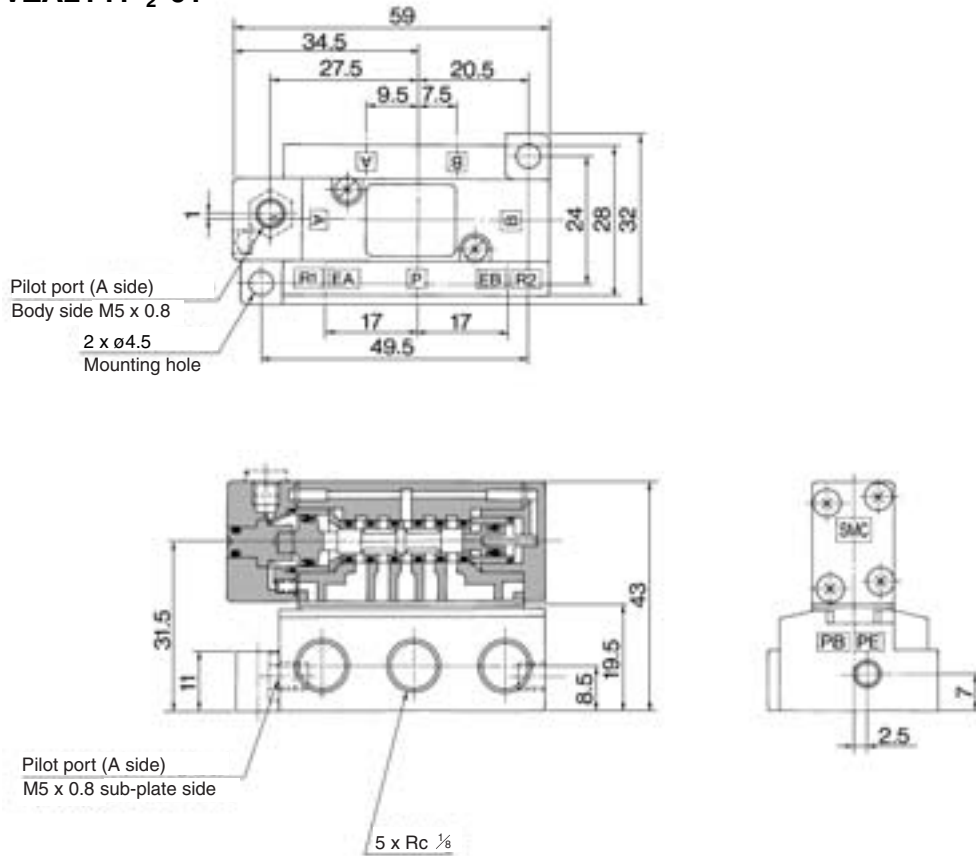
VFRA

V□A

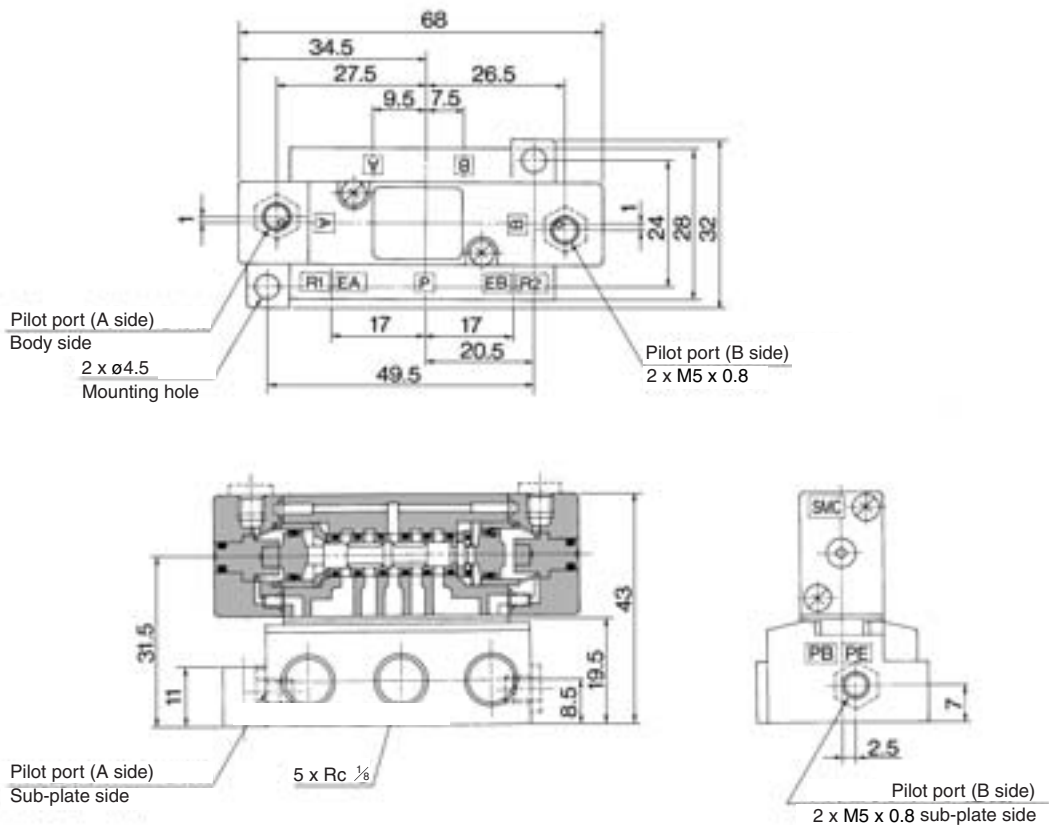
# Series VZA2000

## Dimensions: Base Mounted

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

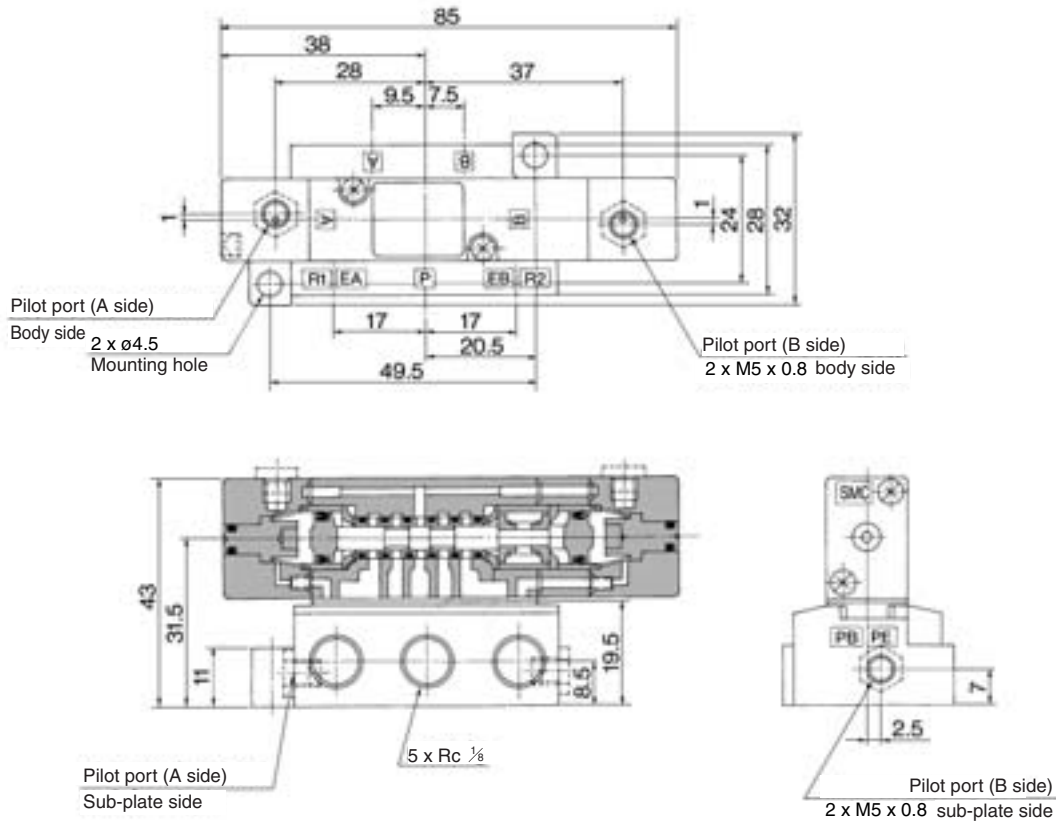


### 2 position double: VZA2241- $\frac{1}{2}$ -01

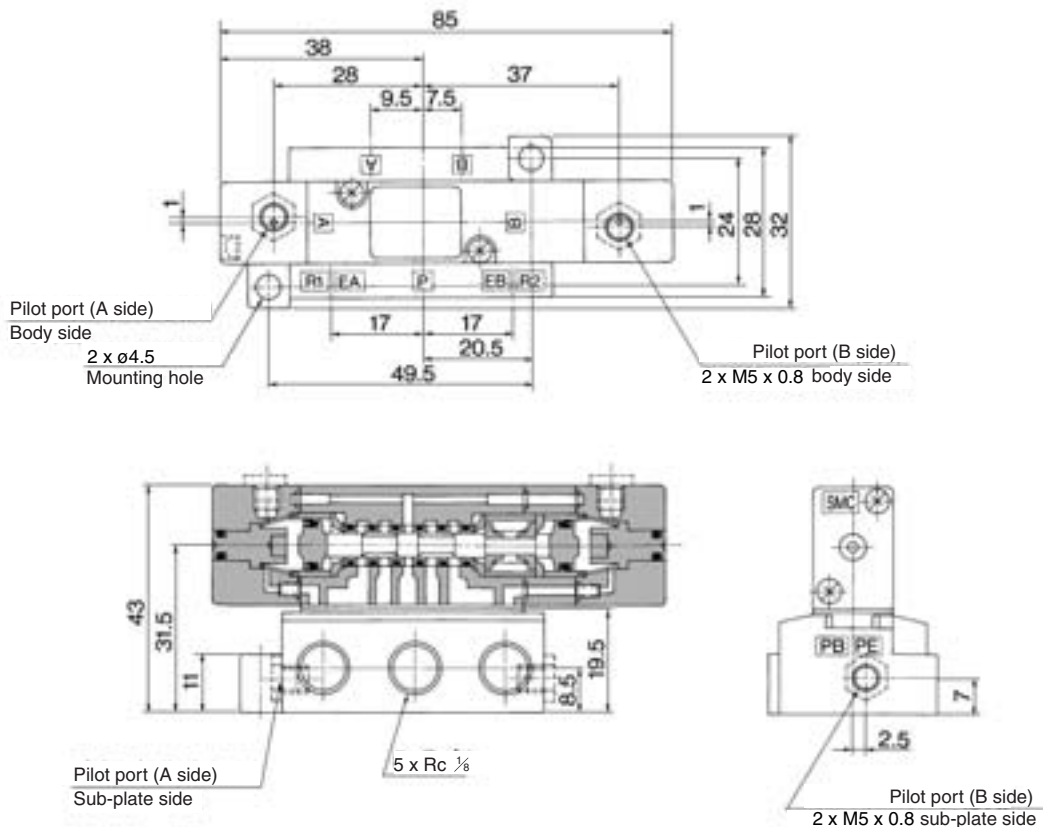


**Dimensions: Base Mounted**

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



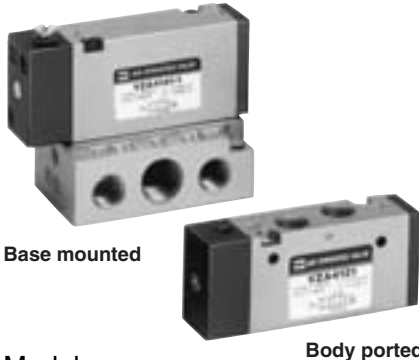
**3 position exhaust center: VZA2441- $\frac{1}{2}$ -01**



- SYA
- SYJA
- VZA**
- VFA
- VFRA
- V□A

# 5 Port Air Operated Valve

## Series VZA4000



### Specifications

Fluid	Air	
Operating pressure range (MPa)	VZA4121, 4141	0.15 to 1.0
	VZA4 $\frac{3}{4}$ 21, 4 $\frac{3}{4}$ 41	0 to 1.0
Pilot pressure range (MPa)	VZA4121, 4141	0.15 to 1.0
	VZA4 $\frac{3}{4}$ 21, 4 $\frac{3}{4}$ 41	0.1 to 1.0
Impact/Vibration resistance (m/s <sup>2</sup> ) <sup>Note)</sup>	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	Function	Port size Rc	Flow characteristics <sup>(2)</sup>						Pilot port size	Pilot port piping location	
			1→4/2(P→A/B)			4/2→5/3(A/B→EA/EB)					
			C [dm <sup>3</sup> /(s·bar)]	b	Cv	C [dm <sup>3</sup> /(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
				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								Sub-plate side
			1/4								Body side
		1/8	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		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		
	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							Sub-plate side	
			1/4							Body side	
		1/8	Sub-plate side								
		Exhaust center	1/8	2.3	0.21	0.52	2.2	0.22	0.52	Sub-plate side	
			1/4	2.3	0.21	0.52	2.2	0.22	0.52	Body side	
1/8			Sub-plate side								
1/4	Body side										

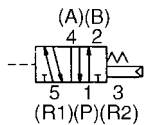
Compatibility with universal porting is possible except for with the single type.

Note 1) Model number for base mounted style without sub-plate is VZA4□41-1.  
 Note 2) Value at the maximum port size

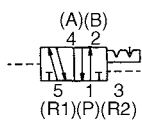
### JIS symbol

Body ported

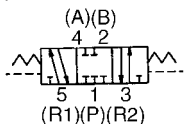
2 position single



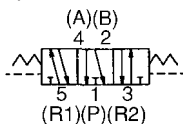
2 position double



3 position closed center

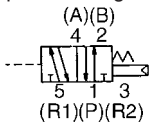


3 position exhaust center

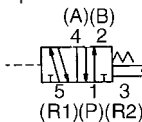


Base mounted

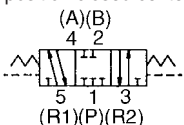
2 position single



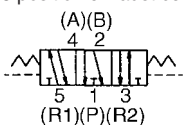
2 position double



3 position closed center



3 position exhaust center



### Foot Bracket

Air operated valve model no.	VZA4121-01-F
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### How to Order Manifold Base

Use the same manifold bases as the VZ4000.

(For VZA4000) VV5ZA4- Specify the same manifold part number as VV5Z4.

\* 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> VV5ZA4-20-081.....1 pc.  
 VZA4121-01.....4 pcs.  
 VZA4221-01.....3 pcs.  
 VVZ4000-31A-1.....1 pc.

<Example: Base mounted> VV5ZA4-50-081-02.....1 pc.  
 VZA4141-2.....4 pcs.  
 VZA4241-2.....3 pcs.  
 VVZ4000-31A-2.....1 pc.

### Sub-plate Assembly Part No.: VZA4000-S-<sup>01</sup><sub>02</sub> □

\* Mounting bolt and gasket are not included.

Thread type

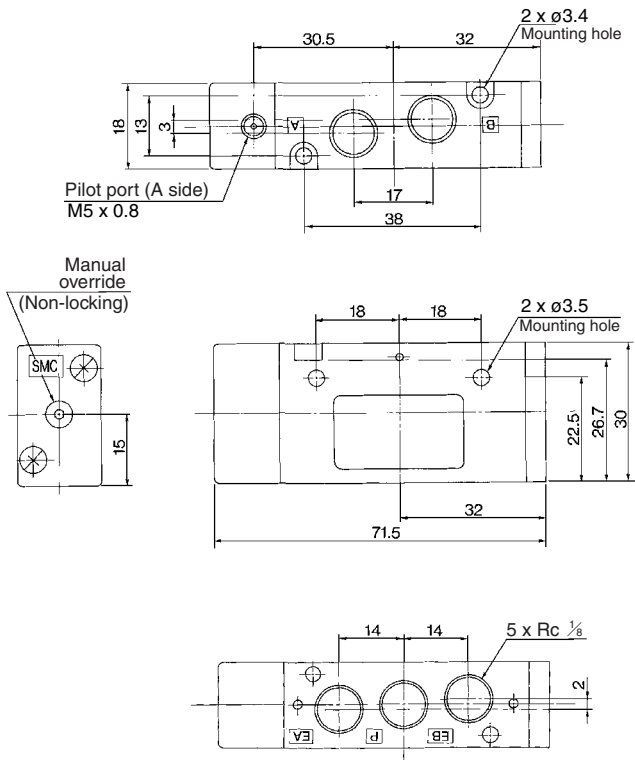
Nil	Rc
N	NPT
T	NPTF
F	G

### Caution

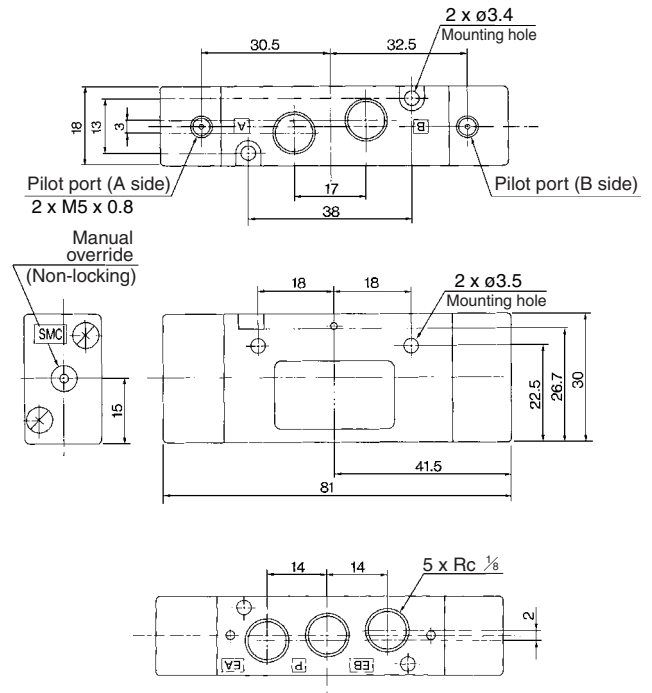
Be sure to read this before handling. Refer to front matters 58 and 59 for Safety Instructions and pages 3 to 7 for 3/4/5 Port Solenoid Valve Precautions.

## Dimensions: Body Ported

### 2 position single: VZA4121-01

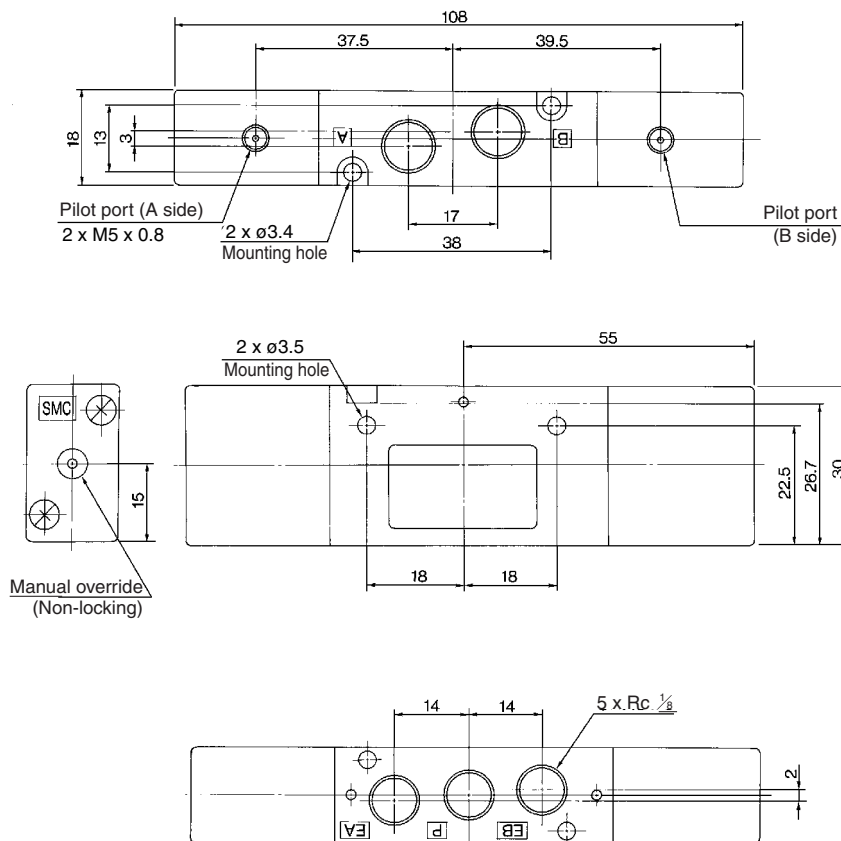


### 2 position double: VZA4221-01



### 3 position closed center: VZA4321-01

### 3 position exhaust center: VZA4421-01



SYA

SYJA

VZA

VFA

VFRA

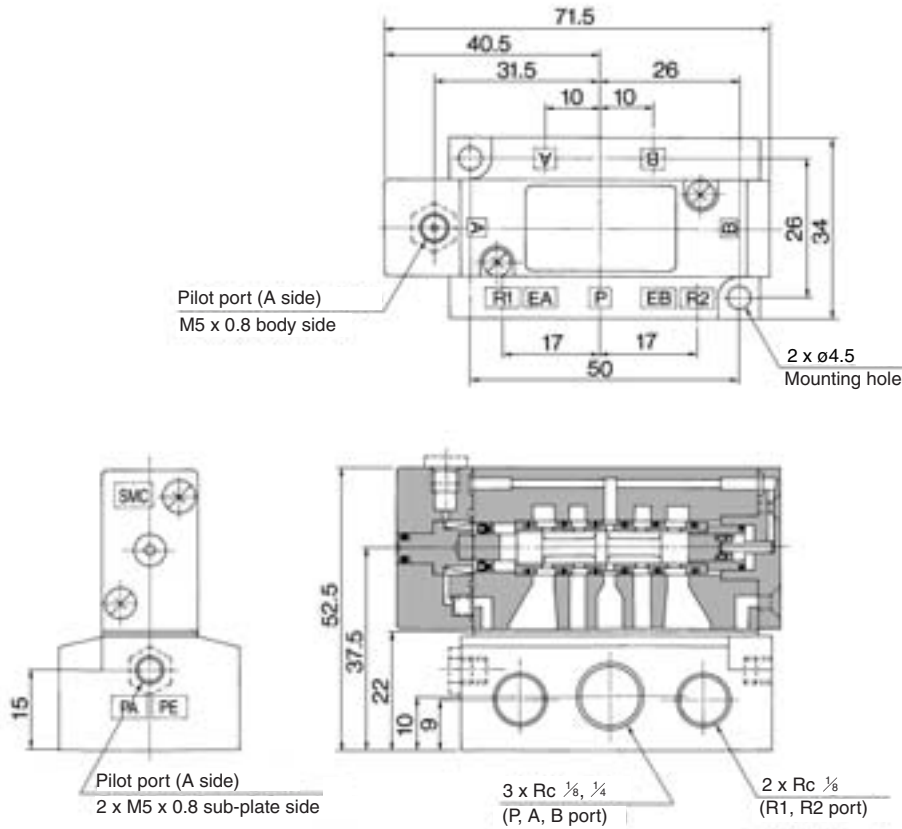
V□A



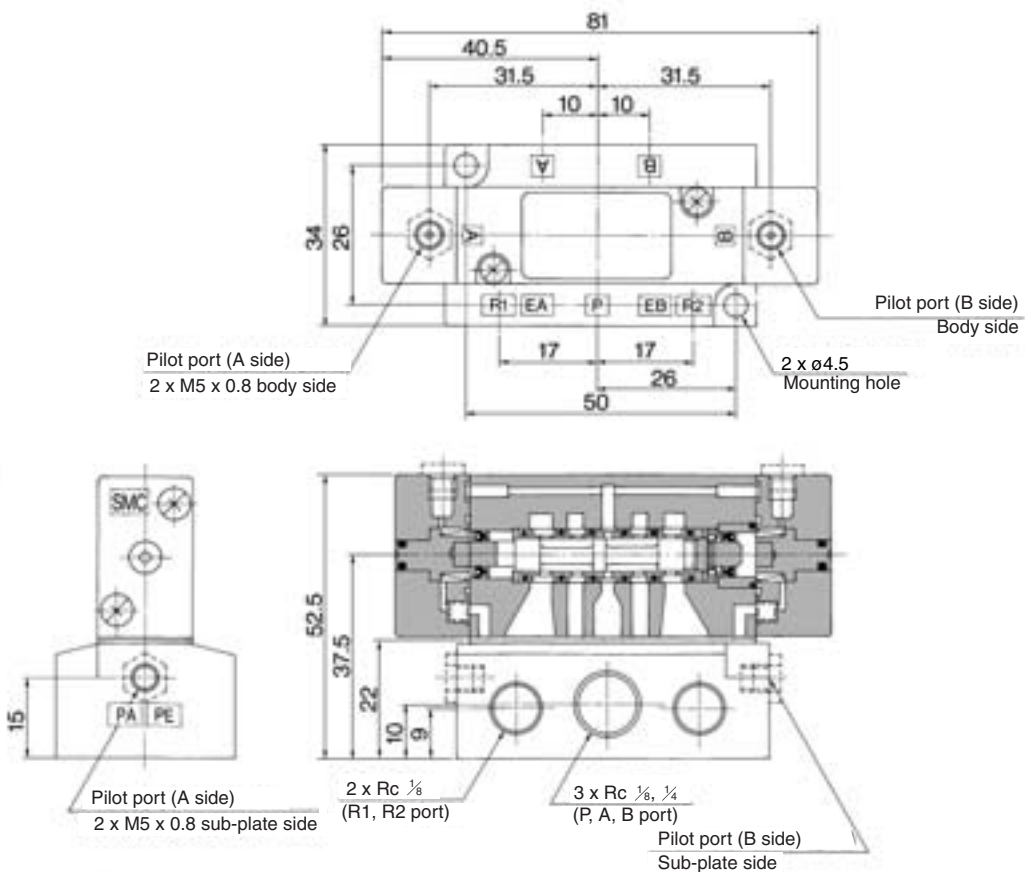
# Series VZA4000

## Dimensions: Base Mounted

### 2 position single: VZA4141-□-01-02

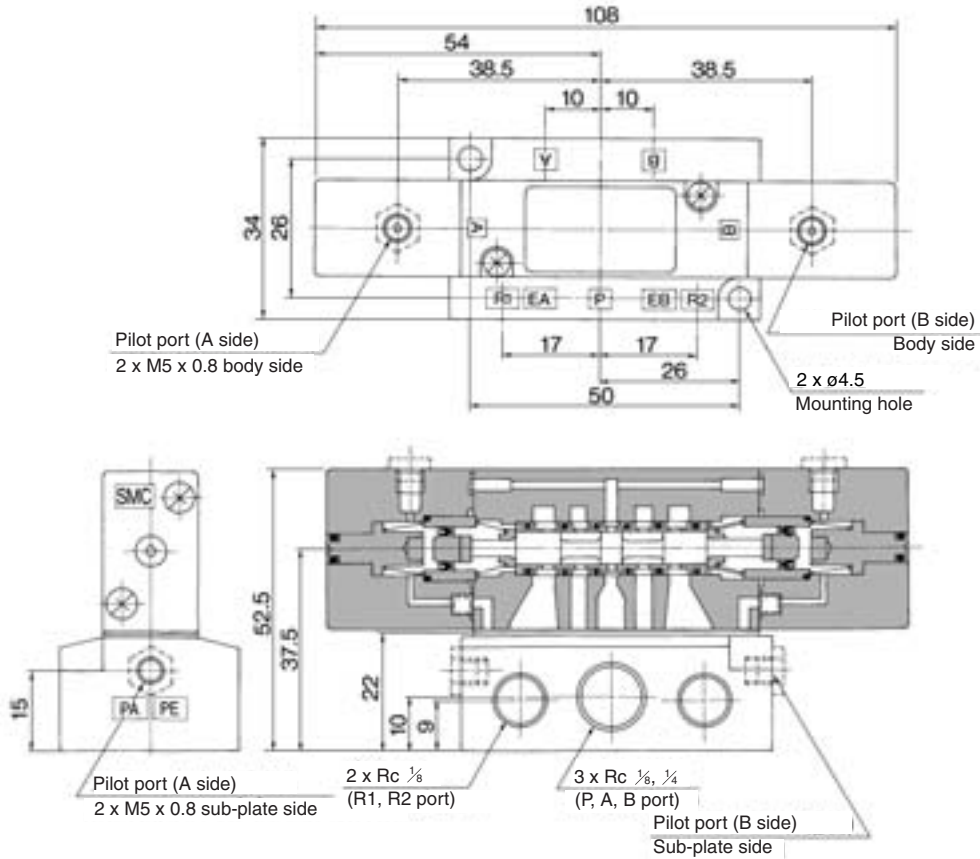


### 2 position double: VZA4241-□-01-02

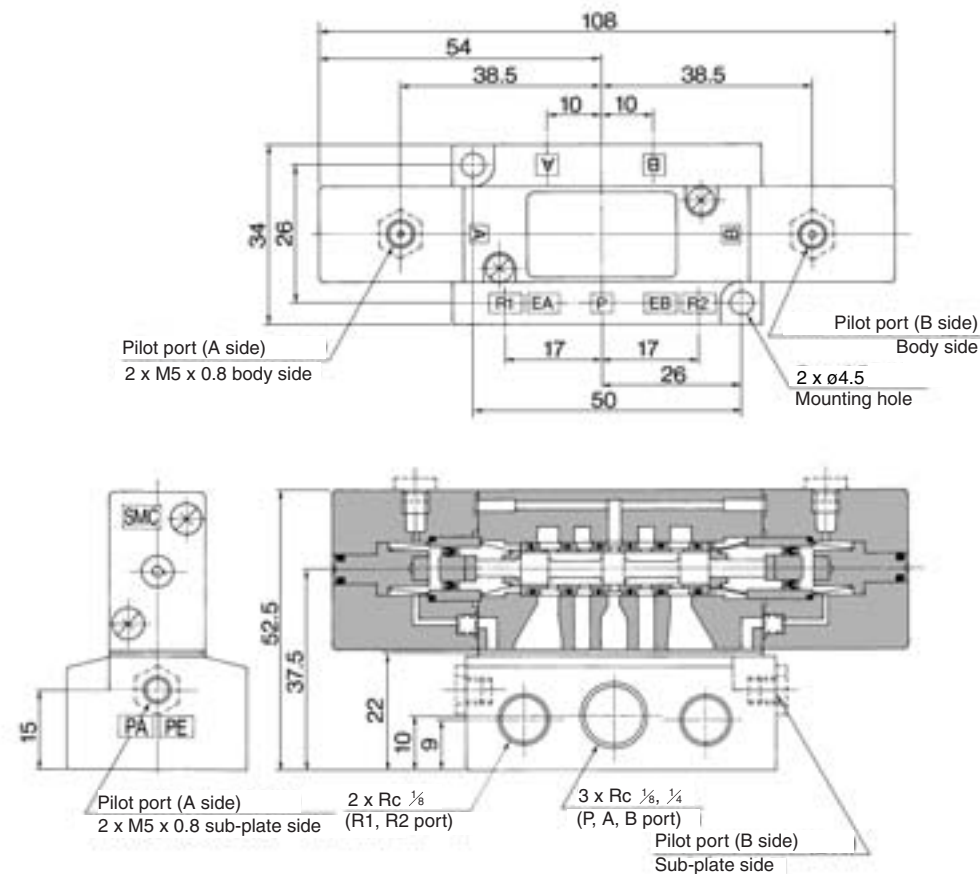


## Dimensions: Base Mounted

### 3 position closed center: VZA4341-□-<sup>01</sup>/<sub>02</sub>



### 3 position exhaust center: VZA4441-□-<sup>01</sup>/<sub>02</sub>



SYA

SYJA

VZA

VFA

VFRA

V□A