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5 Port Air Operated Valve
Series VZA2000



Base mounted

Body ported

Specifications

Fluid	Air	
Operating pressure range (MPa)	VZA2121, 2141	0.1 to 1.0
	VZA2$\frac{2}{4}$21, 2$\frac{2}{4}$41	0 to 1.0
Pilot pressure range (MPa)	0.1 to 1.0	
Impact/Vibration resistance (m/s²) 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		Function		Port size	Flow characteristics 1→4/2(P→A/B) C [dm³/(s·bar)]	b	Cv	Flow characteristics 4/2→5/3(A/B→EA/EB) C [dm³/(s·bar)]	b	Cv	Pilot port size	Pilot port piping location
Body ported	**VZA2121-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	M5 x 0.8	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	Rc 1/8	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

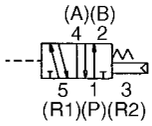
Note) Model number for base mounted style without sub-plate is VZA2□41-$\frac{1}{2}$.

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

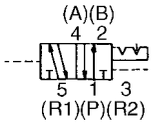
JIS symbol

Body ported

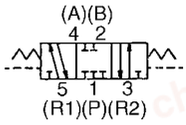
2 position single



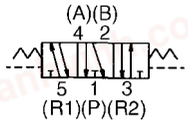
2 position double



3 position closed center

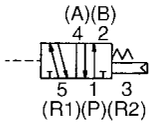


3 position exhaust center

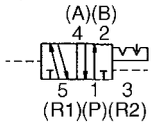


Base mounted

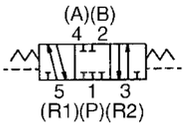
2 position single



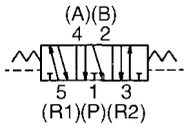
2 position double



3 position closed center



3 position exhaust center



Foot Bracket

Air operated valve model no.	VZA2121-M5-F

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

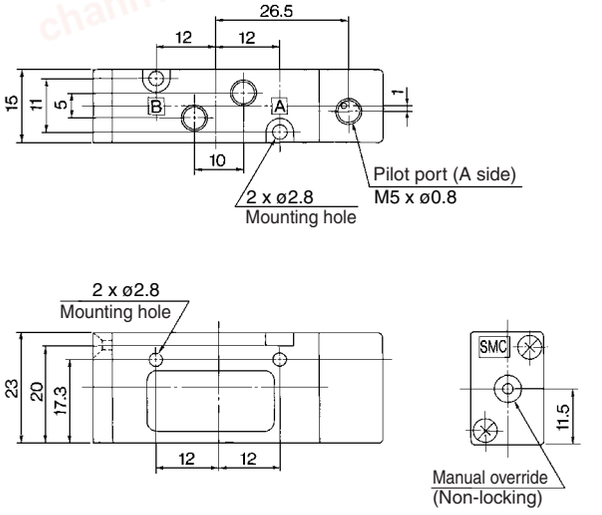
⚠Caution

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.

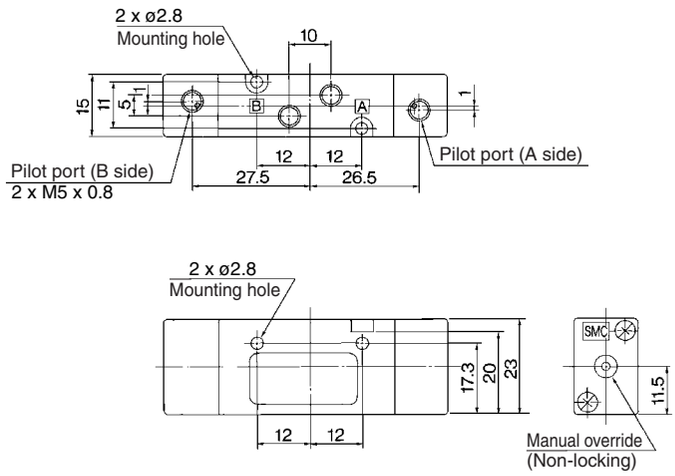
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Dimensions: Body Ported

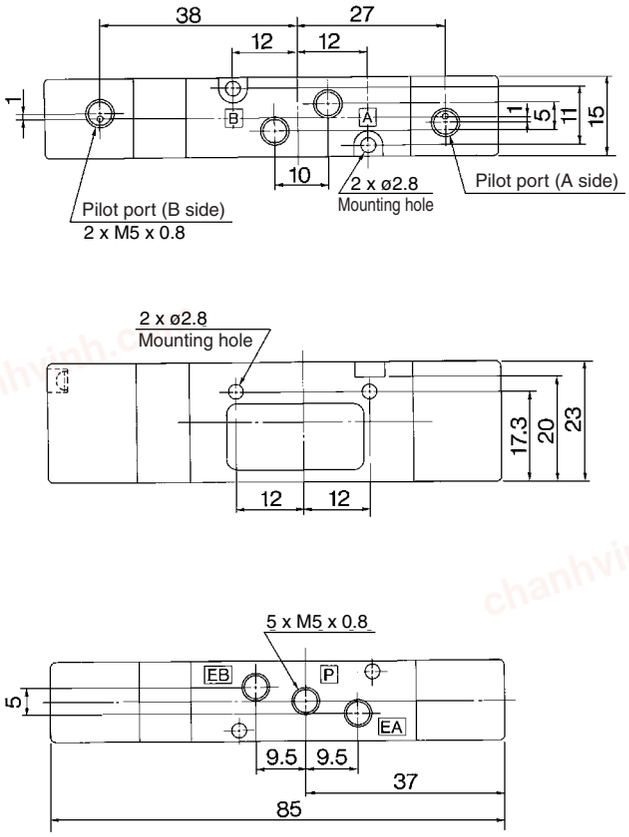
2 position single: VZA2121-M5



2 position double: VZA2221-M5



3 position closed center: VZA2321-M5
3 position exhaust center: VZA2421-M5

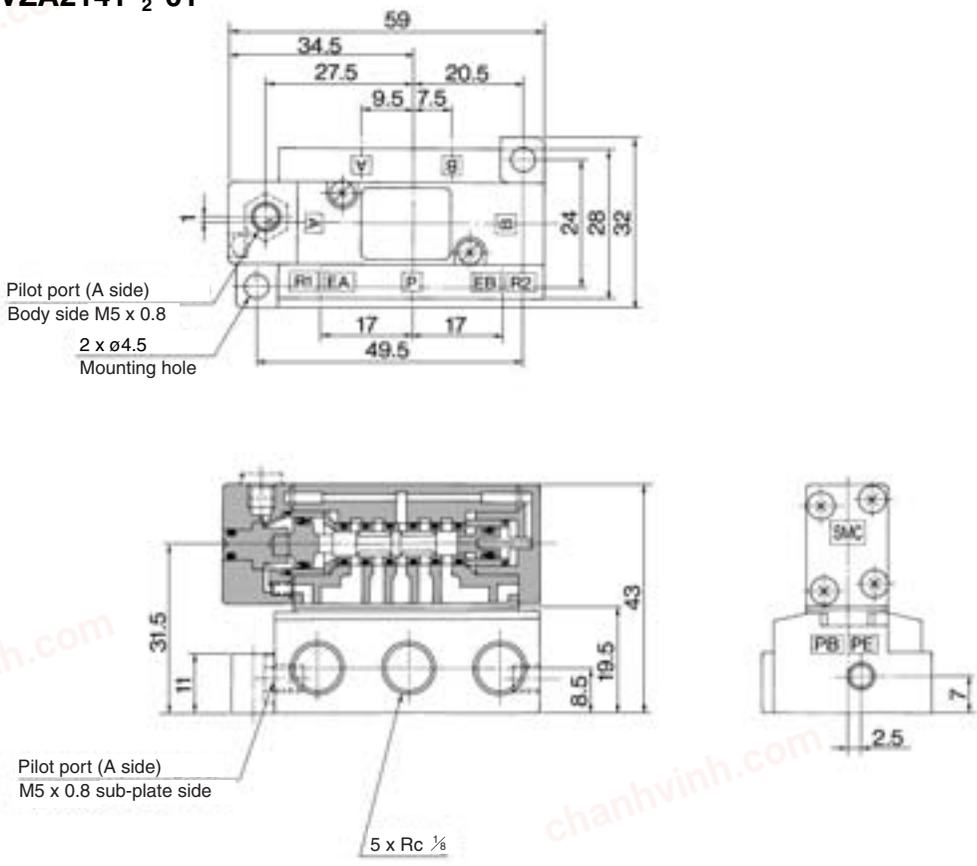


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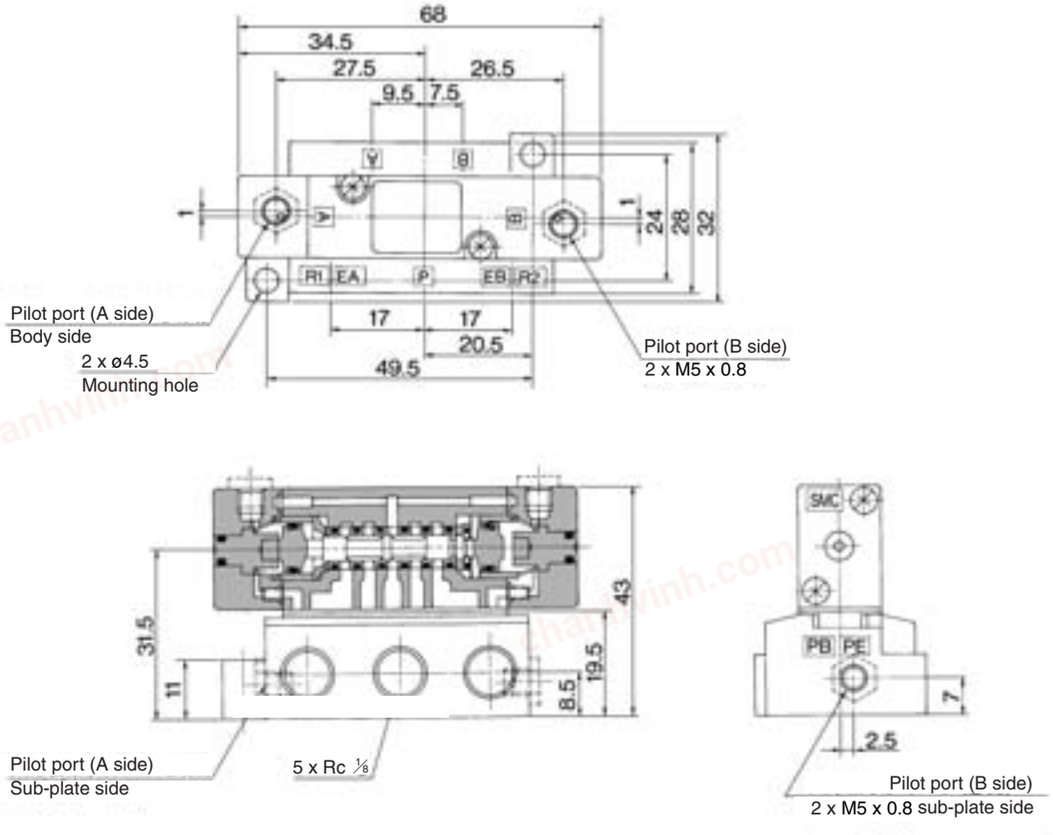
Series VZA2000

Dimensions: Base Mounted

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



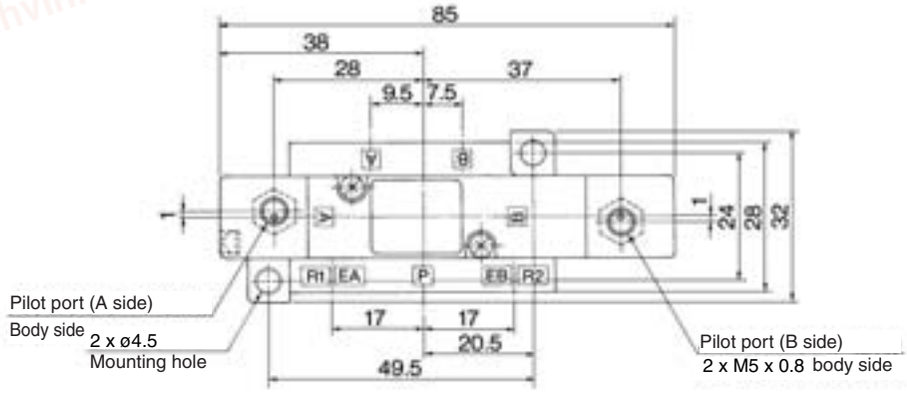
2 position double: VZA2241-$\frac{1}{2}$-01

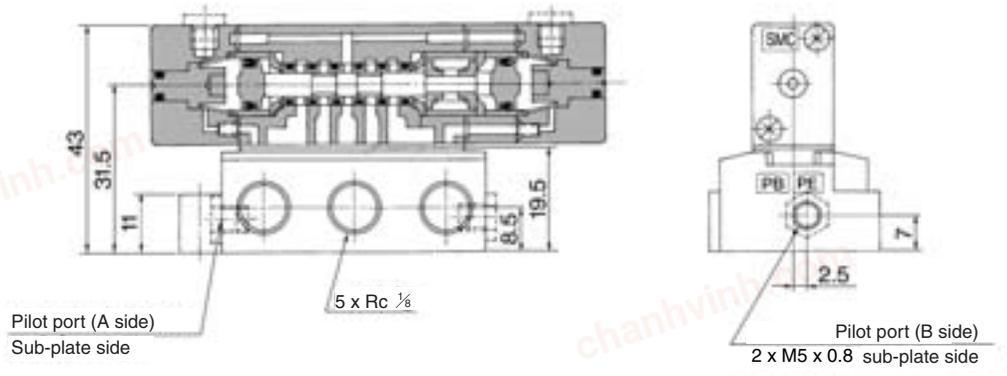


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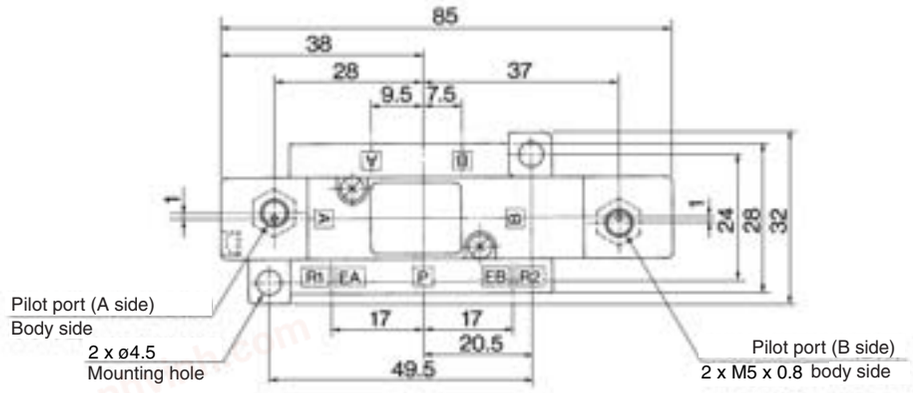
Dimensions: Base Mounted

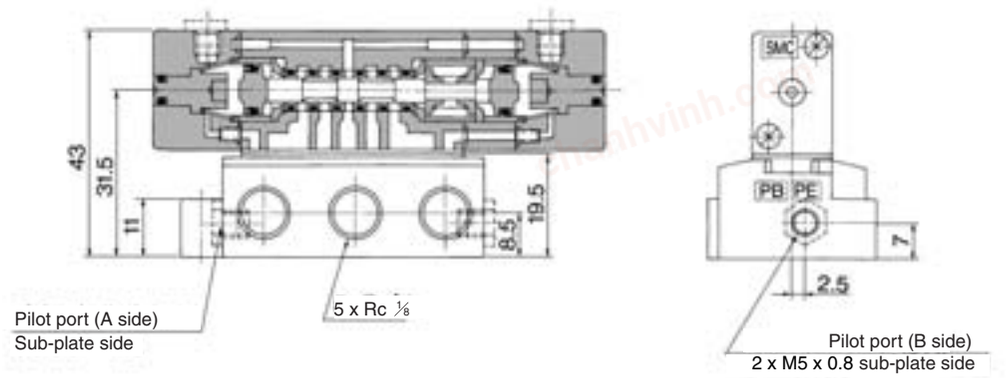
3 position closed center: VZA2341-$\frac{1}{2}$-01





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

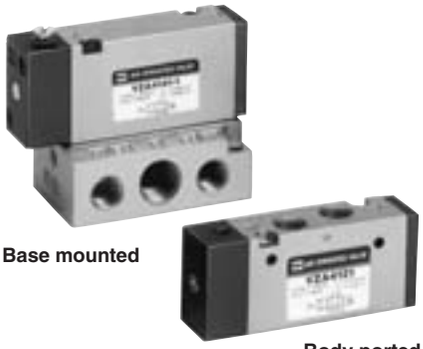




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5 Port Air Operated Valve

Series VZA4000



Base mounted

Body ported

Specifications

Fluid	Air	
Operating pressure range (MPa)	VZA4121, 4141	0.15 to 1.0
	VZA4$^{2}_{4}$21, 4$^{2}_{4}$41	0 to 1.0
Pilot pressure range (MPa)	VZA4121, 4141	0.15 to 1.0
	VZA4$^{2}_{4}$21, 4$^{2}_{4}$41	0.1 to 1.0
Impact/Vibration resistance (m/s²) 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		Function		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			1/4								
	VZA4141-2-01			1/8	2.4	0.23	0.56	2.2	0.19	0.54		Body side
	VZA4141-2-02			1/4								
	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		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		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		Body side
	VZA4441-2-02			1/4								

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

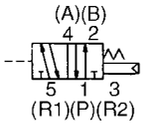
Note 1) Model number for base mounted style without sub-plate is VZA4□41-$^{1}_{2}$.

Note 2) Value at the maximum port size

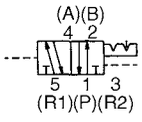
JIS symbol

Body ported

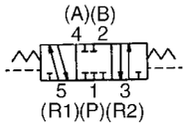
2 position single



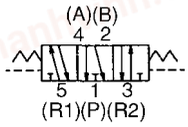
2 position double



3 position closed center

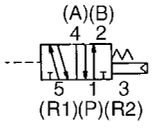


3 position exhaust center

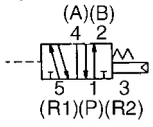


Base mounted

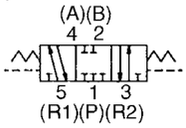
2 position single



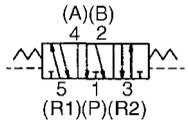
2 position double



3 position closed center



3 position exhaust center



Foot Bracket

Air operated valve model no.	VZA4121-01-F

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-$^{01}_{02}$□

* Mounting bolt and gasket are not included.

• **Thread type**

Nil	Rc
N	NPT
T	NPTF
F	G

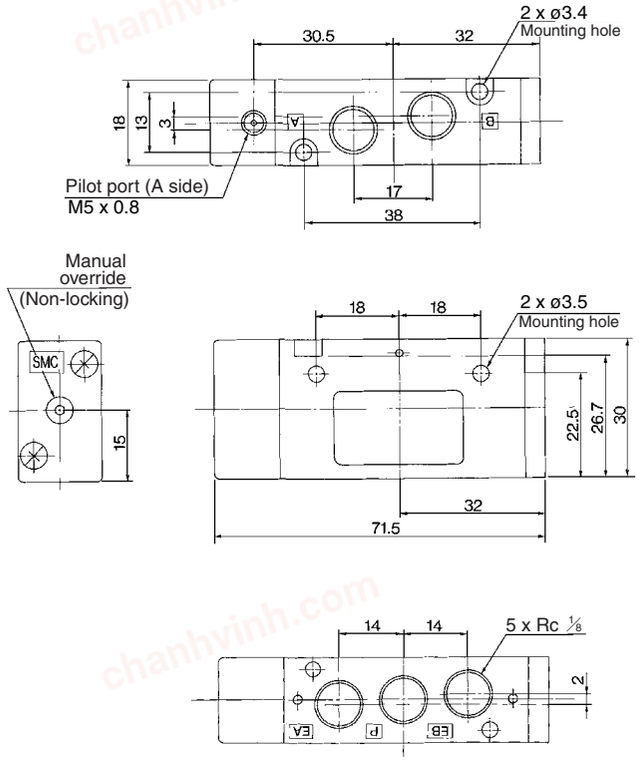
⚠Caution

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

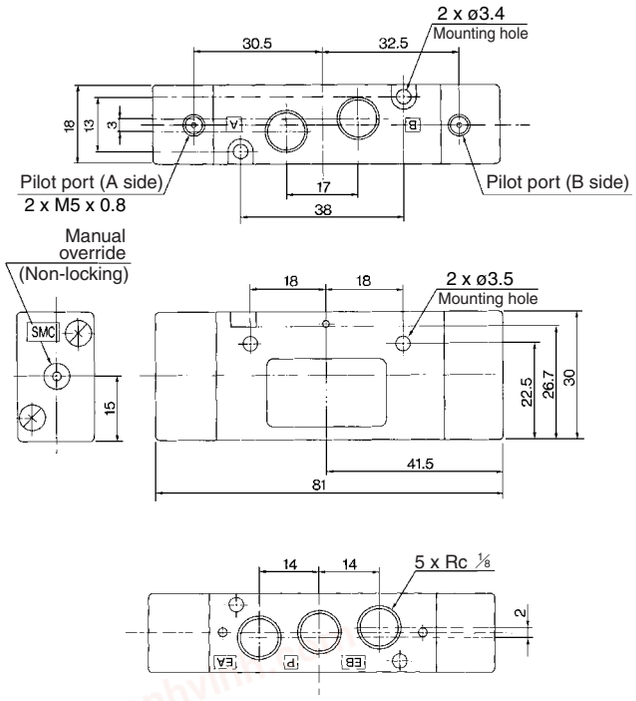
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Dimensions: Body Ported

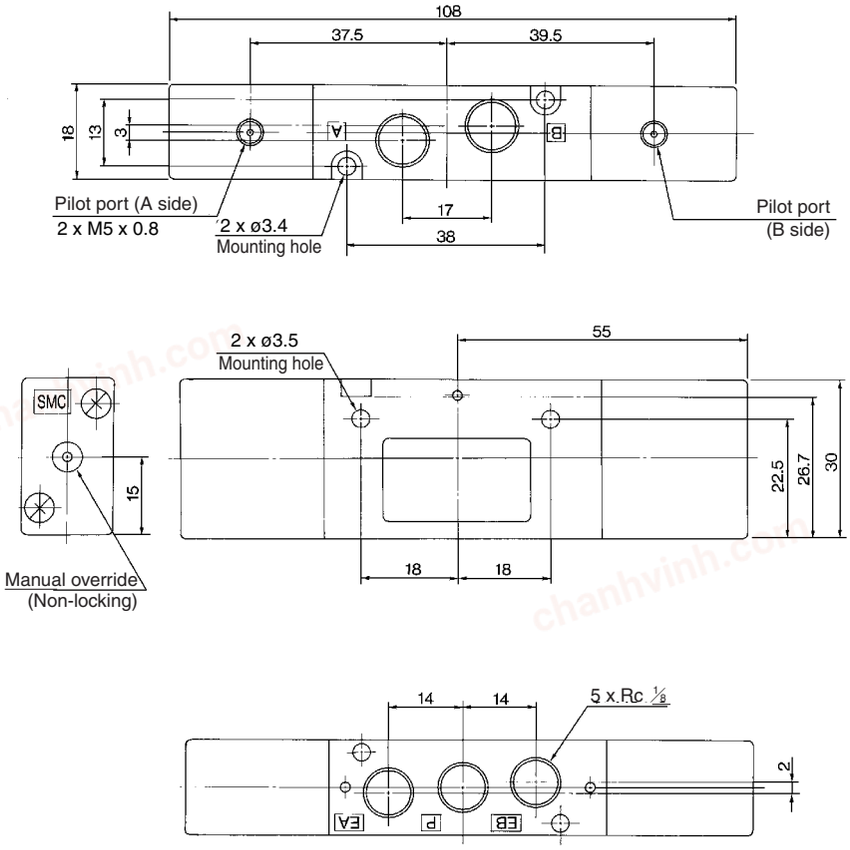
2 position single: VZA4121-01



2 position double: VZA4221-01



3 position closed center: VZA4321-01
3 position exhaust center: VZA4421-01

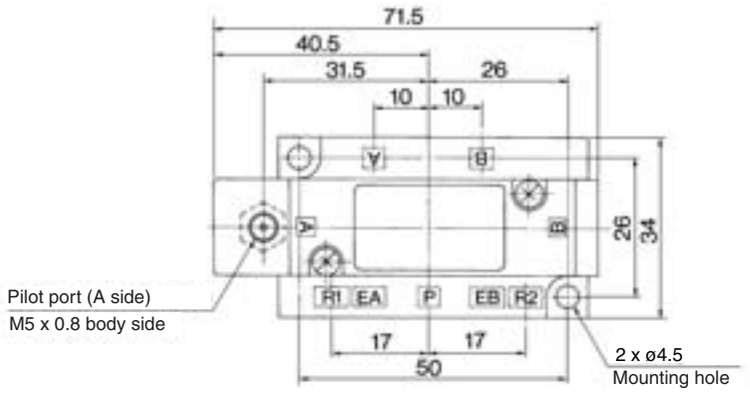


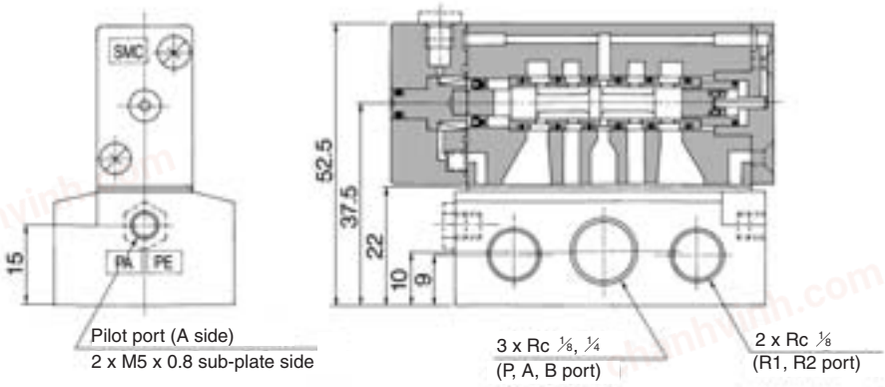
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Series VZA4000

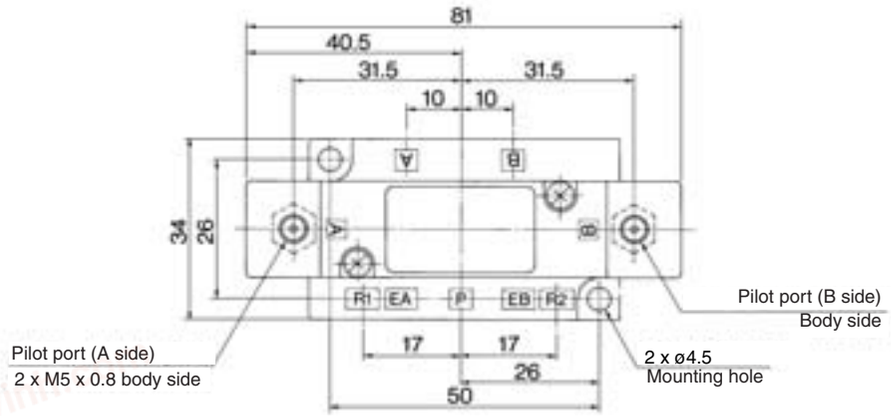
Dimensions: Base Mounted

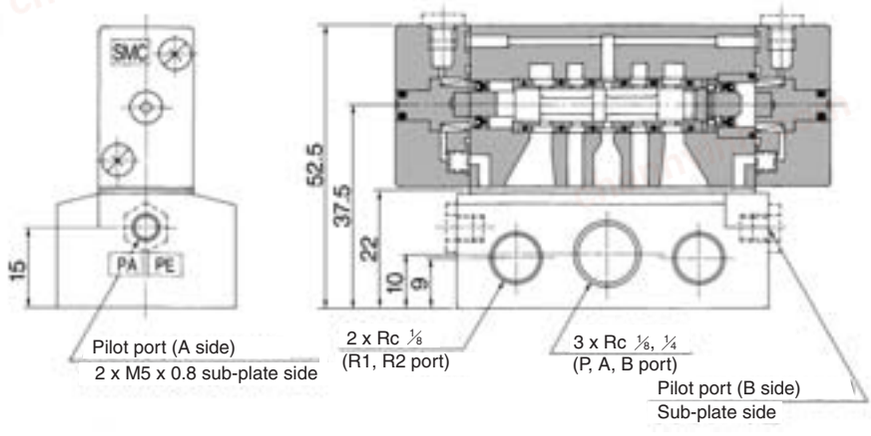
2 position single: VZA4141-□-$^{01}_{02}$





2 position double: VZA4241-□-$^{01}_{02}$

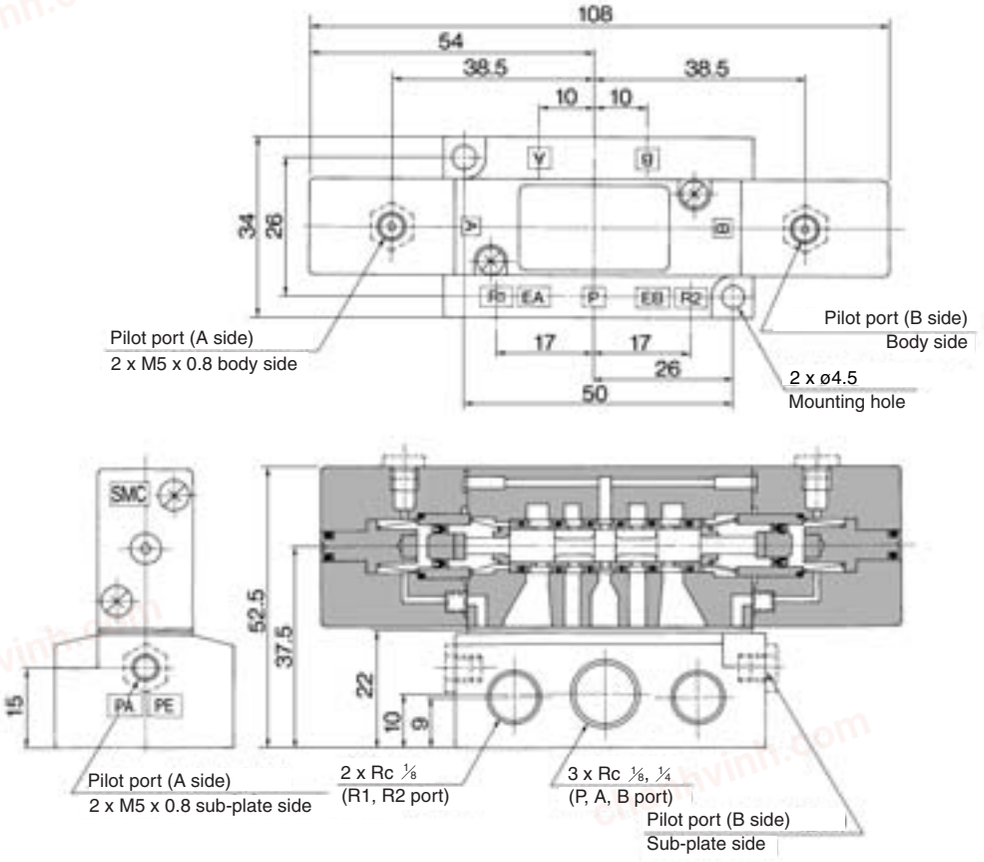




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Dimensions: Base Mounted

3 position closed center: VZA4341-□-$^{01}_{02}$



3 position exhaust center: VZA4441-□-$^{01}_{02}$

