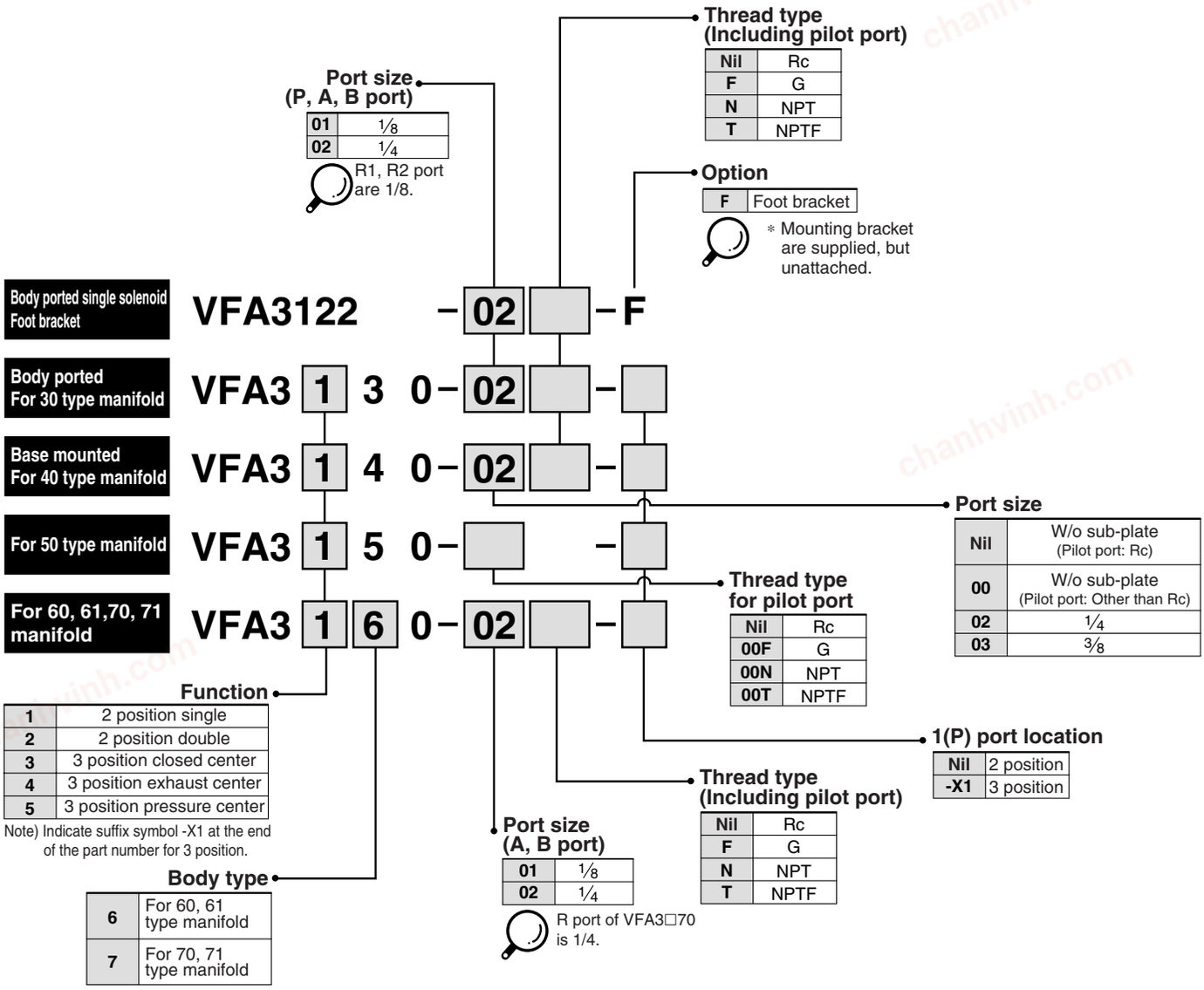
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5 Port Air Operated Valve
Series VFA3000

How to Order



How to Order Manifold Base

Use the same manifold bases as the VF3000.

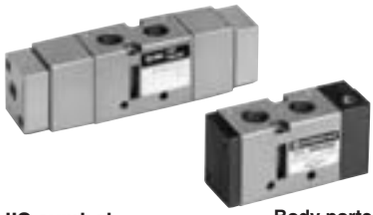
VV5FA3 – Specify the same manifold part number as VV5F3.

* To order valves and blanking plate assembly mounted onto the manifold, list valves and blanking plate assembly with manifold base part number.
  <Example> **VV5FA3-40-052-02**·····1 pc.
  *VFA3140·····2 pcs.
  *VFA3240·····2 pcs.
  *DXT031-38-1A·····1 pc.
  ↳ To order valves and options mounted onto the manifold at the factory, list the valve/option with an asterisk (*) in front of each part number.

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Base mounted



Body ported

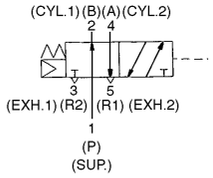
Specifications

Fluid		Air
Operating pressure range (MPa)	**2 position single**	0.15 to 0.9
	2 position double	0.1 to 0.9
	3 position	0.15 to 0.9
Pilot pressure range (MPa)	**2 position single**	(0.4 x P + 0.1) to 0.9, P: Operating pressure
	2 position double	0.1 to 0.9
	3 position	0.15 to 0.9
Ambient and fluid temperature (°C)		–10 to 60 (No freezing. Refer to page 5.)
Lubrication		Not required
Mounting orientation		Free
Impact/Vibration resistance (m/s²) Note)		300/50

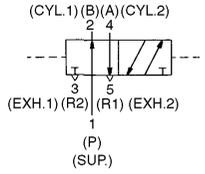
Note) Impact resistance: No malfunction from test using drop impact tester, to axis and right angle directions of main valve, each one time when pilot signal is ON and OFF. (Valve in the initial stage)
Vibration resistance: No malfunction from test with 45 to 2000 Hz one sweep, to axis and right angle direction of main valve, each one time when pilot signal ON and OFF. (Value in the initial stage)

JIS symbol

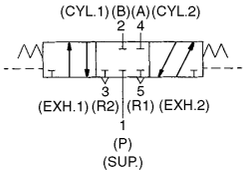
2 position single



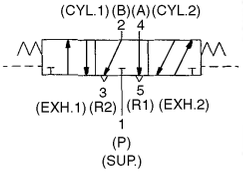
2 position double



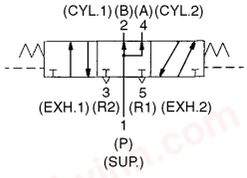
3 position closed center



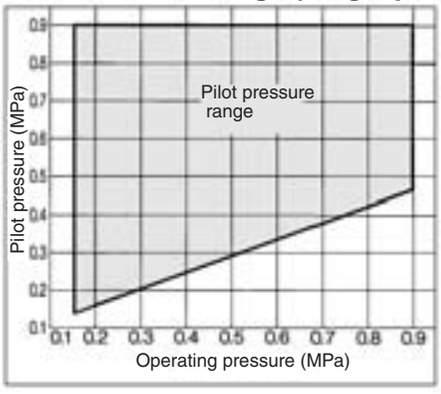
3 position exhaust center



3 position pressure center



Pilot Pressure Range (Single pilot)



⚠ Cautions

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.

Flow Characteristics/Mass

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	Mass (kg)
Body ported	**VFA3122-01-F**	2 position single	1/8	3.0	0.38	0.78	2.8	0.30	0.67	1/8	0.18
	VFA3$^{1}_{2}$30-01	2 position single		3.0	0.38	0.78	2.8	0.30	0.67		0.15
		2 position double		3.0	0.38	0.78	2.8	0.30	0.67		0.17
	VFA34$^{3}_{5}$□30-01-X1	3 position closed center		2.4	0.31	0.64	1.8	0.37	0.46		0.32
		3 position exhaust center		2.6	0.37	0.70	3.0{2.5}	0.32{0.28}	0.76{0.62}		0.32
		3 position pressure center		3.0{1.4}	0.42{0.44}	0.83{0.39}	2.4	0.27	0.59		0.32
	VFA3122-02-F	2 position single	1/4	4.0	0.36	1.0	3.1	0.32	0.75		0.18
	VFA3$^{1}_{2}$30-02	2 position single		4.0	0.36	1.0	3.1	0.32	0.75		0.15
		2 position double		4.0	0.36	1.0	3.1	0.32	0.75		0.17
	VFA34$^{3}_{5}$30-02-X1	3 position closed center		2.4	0.45	0.68	1.9	0.37	0.47		0.32
		3 position exhaust center		3.0	0.42	0.82	3.1{2.7}	0.36{0.29}	0.79{0.66}		0.32
		3 position pressure center		5.5{1.4}	0.37{0.50}	1.4{0.40}	2.6	0.32	0.64		0.32
Base mounted (2)	**VFA3$^{1}_{2}$40-02**	2 position single	1/4	2.8	0.14	0.64	2.5	0.18	0.57		0.31
		2 position double		2.8	0.14	0.64	2.5	0.18	0.57		0.33
	VFA34$^{3}_{5}$40-02-X1	3 position closed center		2.1	0.22	0.49	1.6	0.26	0.41		0.48
		3 position exhaust center		2.3	0.21	0.53	2.8{2.1}	0.23{0.26}	0.66{0.50}		0.48
		3 position pressure center		2.9{1.1}	0.16{0.45}	0.67{0.32}	2.1	0.23	0.49		0.48
	VFA3$^{1}_{2}$40-03	2 position single	3/8	3.1	0.24	0.76	2.6	0.23	0.62		0.31
		2 position double		3.1	0.24	0.76	2.6	0.23	0.62		0.33
	VFA34$^{3}_{5}$40-03-X1	3 position closed center		2.2	0.33	0.57	1.6	0.34	0.40		0.48
		3 position exhaust center		2.6	0.27	0.61	2.8{2.3}	0.30{0.28}	0.68{0.55}		0.48
		3 position pressure center		3.4{1.3}	0.29{0.48}	0.80{0.38}	2.2	0.31	0.52		0.48

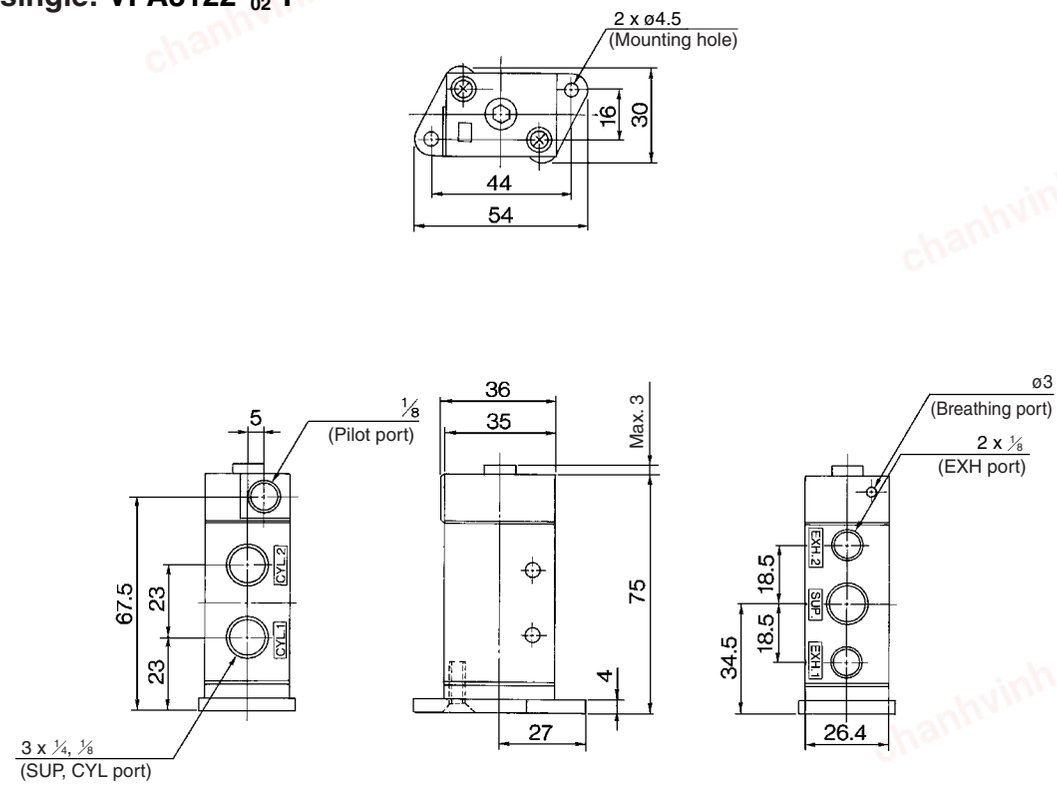
Note 1) Port size of the exhaust ports on body ported type are all 1/8.
Note 2) With sub-plate
Note 3) { }: Normal position

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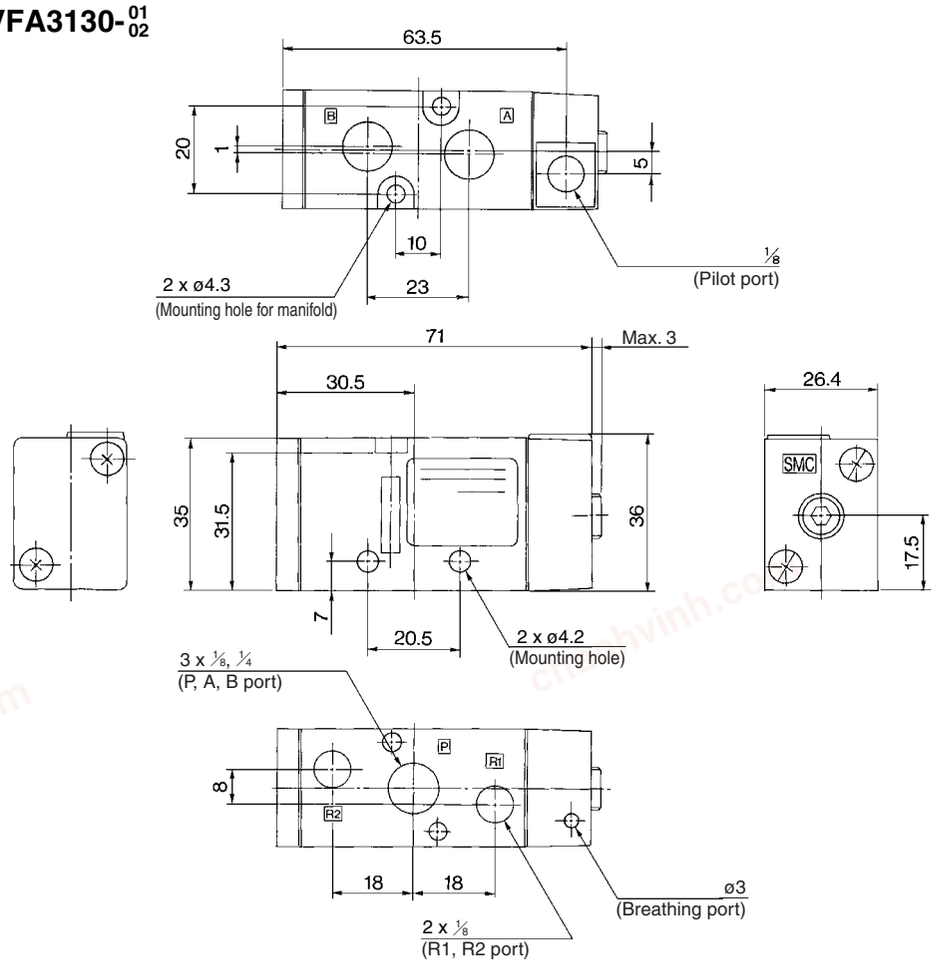
Series VFA3000

Dimensions: Body Ported

2 position single: VFA3122-$^{01}_{02}$-F



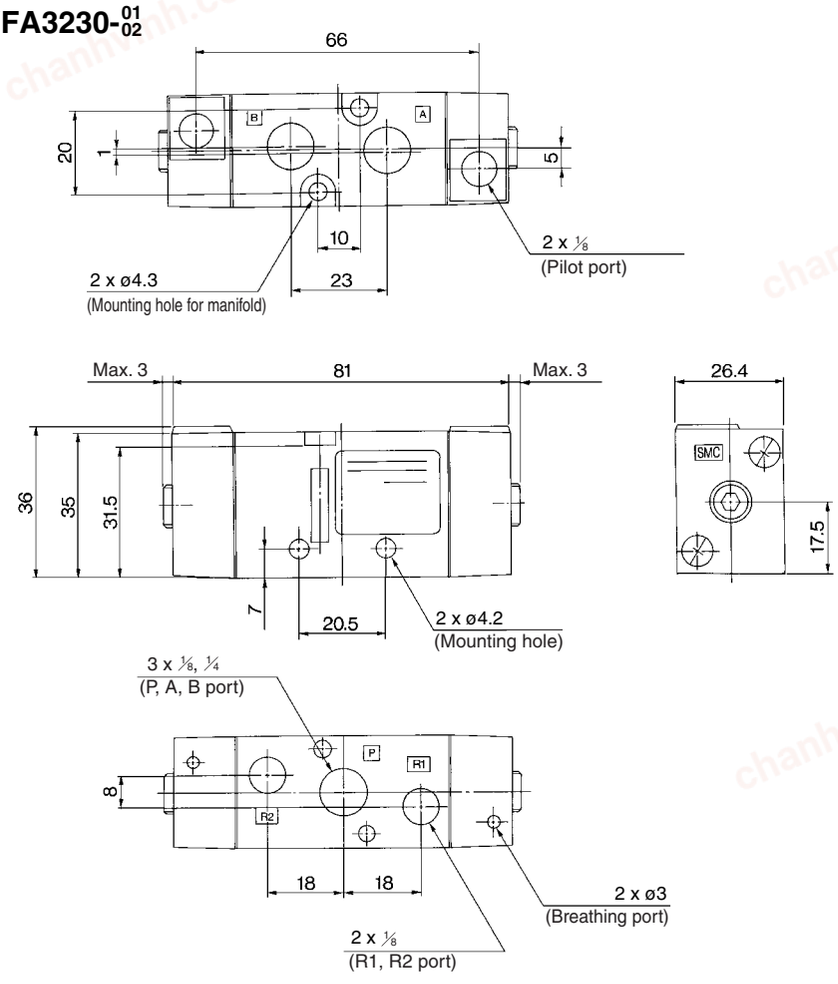
2 position single: VFA3130-$^{01}_{02}$



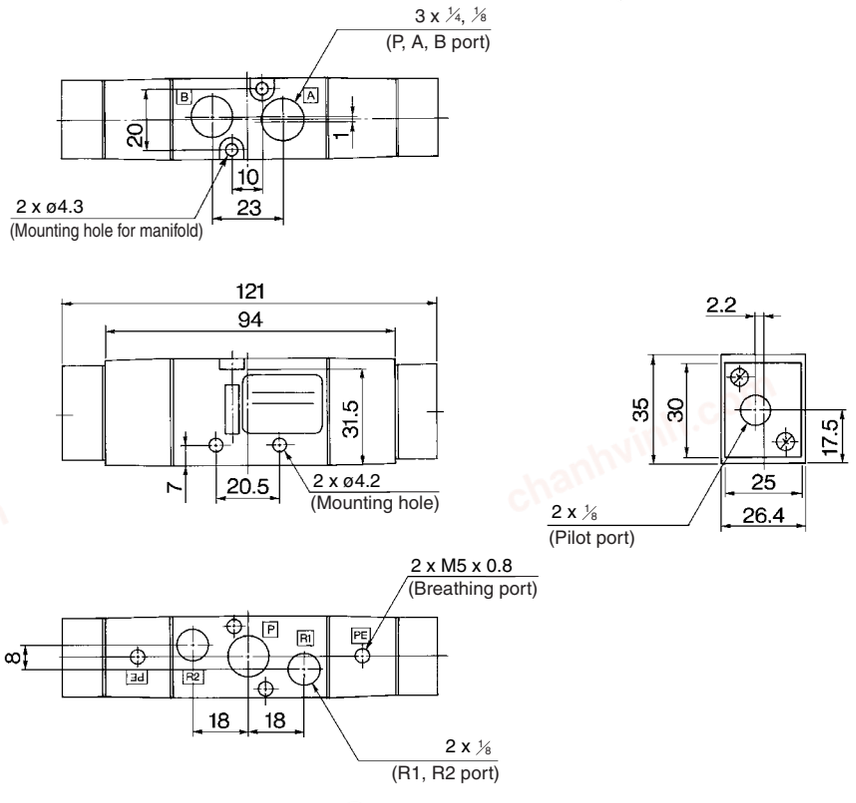
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Dimensions: Body Ported

2 position double: VFA3230-$^{01}_{02}$



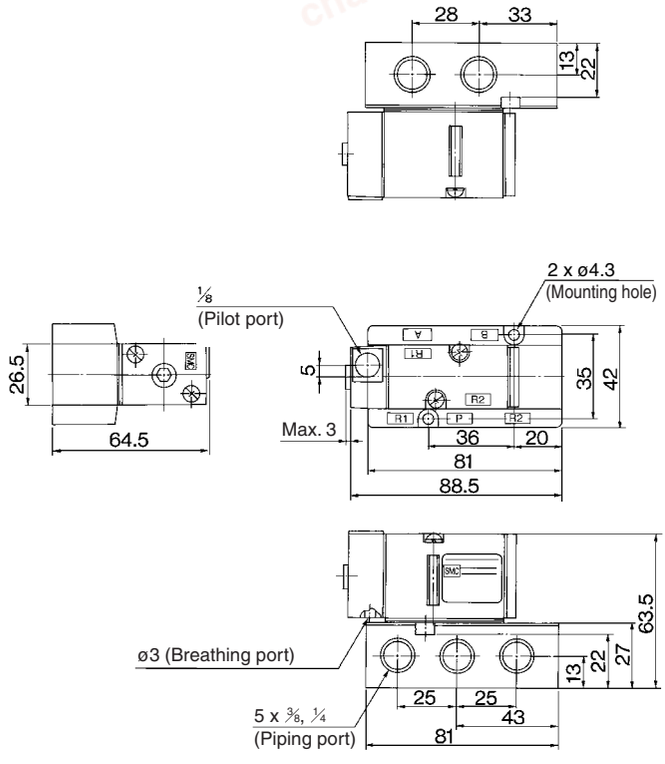
3 position closed center/exhaust center/pressure center: VFA3$^{3}_{4}_{5}$30-$^{01}_{02}$-X1



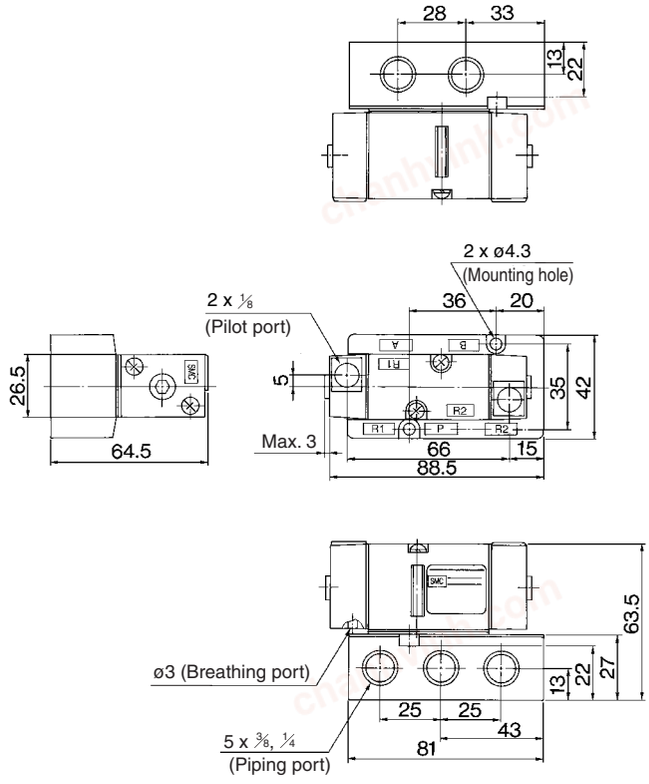
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Dimensions: Base Mounted

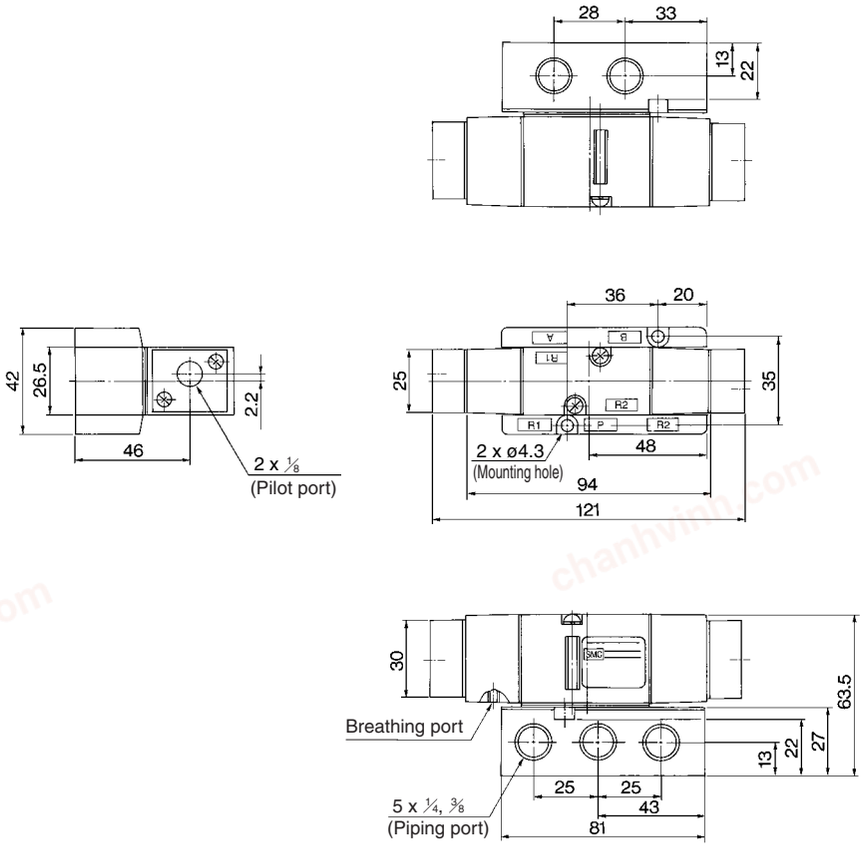
2 position single: VFA3140-$^{02}_{03}$



2 position double: VFA3240-$^{02}_{03}$



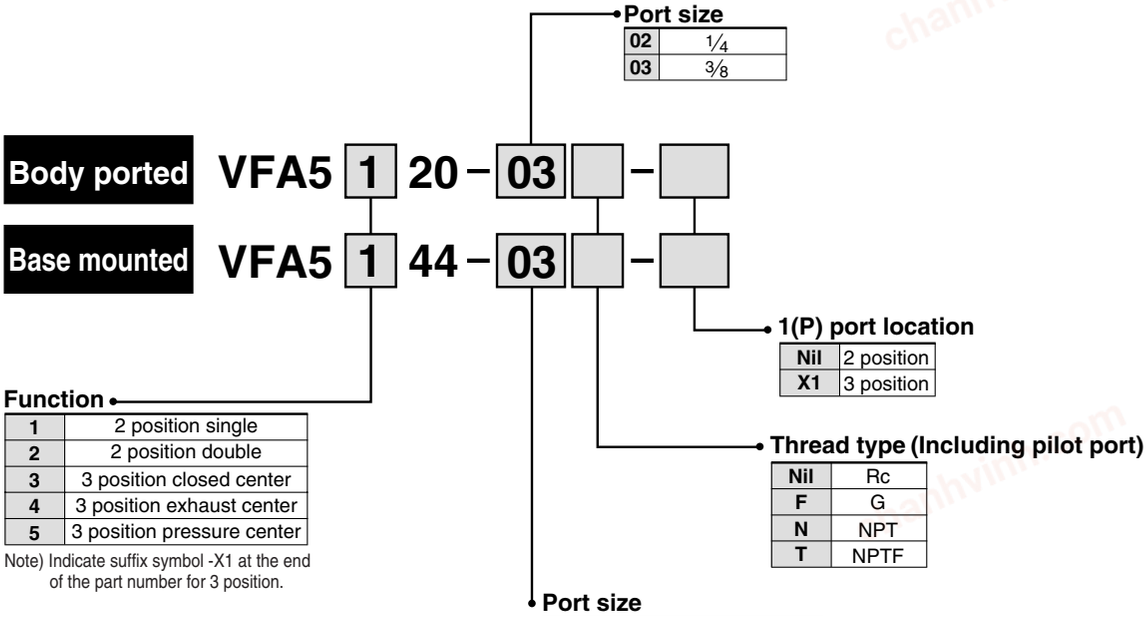
3 position closed center/exhaust center/pressure center: VFA3$^{3}_{4}_{5}$40-$^{02}_{03}$-X1



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5 Port Air Operated Valve
Series VFA5000

How to Order



Note) Indicate suffix symbol -X1 at the end of the part number for 3 position.

How to Order Manifold Base

Use the same manifold bases as the VF5000.

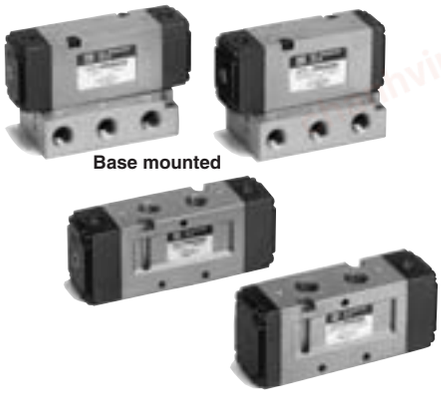
VV5FA5 – Specify the same manifold part number as VV5F5.

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

<Example> **VV5FA5-20-051**····· 1 pc.
∗VFA5120-03····· 2 pcs.
∗VFA5220-03····· 2 pcs.
∗DXT156-19-1A····· 1 pc.
└▶To order valves and options mounted onto the manifold at the factory, list the valve/option with an asterisk (∗) in front of each part number.

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Series VFA5000



Base mounted

Body ported

Specifications

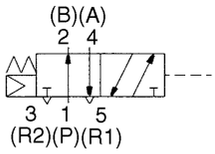
Fluid		Air
Operating pressure range (MPa)	**2 position single**	0.15 to 0.9
	2 position double	0.1 to 0.9
	3 position	0.15 to 0.9
Pilot pressure range (MPa)	**2 position single**	(0.4 x P + 0.1) to 0.9, P: Operating pressure
	2 position double	0.1 to 0.9
	3 position	0.15 to 0.9
Ambient and fluid temperature (°C)		–10 to 60 (No freezing. Refer to page 5.)
Lubrication		Not required
Mounting orientation		Free
Impact/Vibration resistance (m/s²) Note)		300/50

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 is ON and OFF. (Valve in the initial stage)

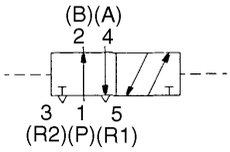
Vibration resistance: No malfunction from test with 45 to 2000 Hz one sweep, to axis and right angle direction of main valve, each one time when pilot signal ON and OFF. (Value in the initial stage)

JIS symbol

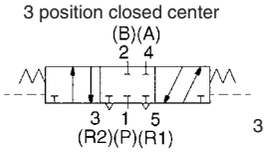
2 position single



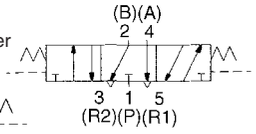
2 position double



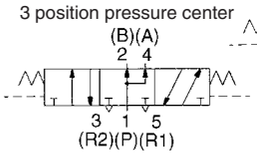
3 position closed center



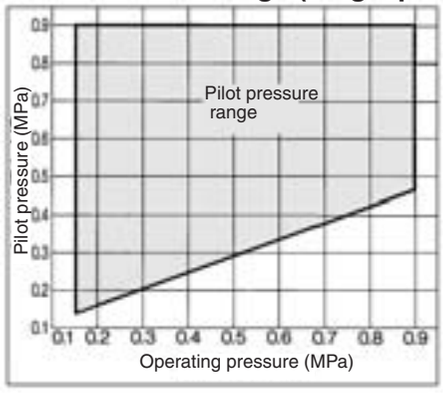
3 position exhaust center



3 position pressure center



Pilot Pressure Range (Single pilot)



⚠Cautions

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.

Flow Characteristics/Mass

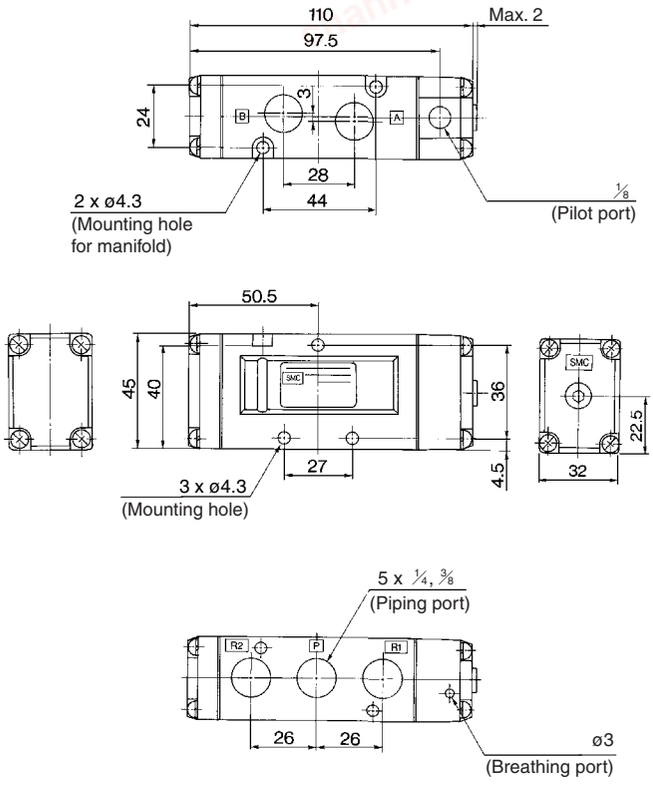
Valve model		Function	Port size	Flow characteristics 1→4/2(P→A/B) C [dm³/(s·bar)]	b	Cv	Flow characteristics 4/2→5/3(A/B→EA/EB) C [dm³/(s·bar)]	b	Cv	Pilot port size	Mass (kg)
Body ported	**VFA5$^{1}_{2}$20-02**	2 position single	1/4	7.1	0.46	1.9	7.7	0.51	2.2	1/8	0.33
		2 position double		7.1	0.46	1.9	7.7	0.51	2.2		0.34
	VFA54$^{3}_{5}$□20-02-X1	3 position closed center		6.7	0.46	1.8	6.6	0.41	1.8		0.43
		3 position exhaust center		7.1	0.42	1.9	8.0{7.4}	0.45{0.47}	2.2{2.1}		0.43
		3 position pressure center		6.8{2.7}	0.51{0.50}	2.0{0.78}	5.7	0.37	1.4		0.43
	VFA5$^{1}_{2}$20-03	2 position single	3/8	8.8	0.44	2.4	10	0.49	2.9		0.33
		2 position double		8.8	0.44	2.4	10	0.49	2.9		0.34
	VFA54$^{3}_{5}$20-03-X1	3 position closed center		7.5	0.43	2.0	7.5	0.38	1.9		0.43
		3 position exhaust center		8.3	0.40	2.2	10{8.7}	0.48{0.46}	3.0{2.4}		0.43
		3 position pressure center		9.2{3.0}	0.50{0.49}	2.6{0.85}	6.1	0.35	1.6		0.43
Base mounted (1)	**VFA5$^{1}_{2}$44-02**	2 position single	1/4	7.3	0.49	2.1	7.3	0.50	2.0		0.51
		2 position double		7.3	0.49	2.1	7.3	0.50	2.0		0.52
	VFA54$^{3}_{5}$44-02-X1	3 position closed center		6.6	0.35	1.7	6.3	0.31	1.6		0.66
		3 position exhaust center		7.4	0.33	1.9	8.1{7.4}	0.35{0.34}	2.1{1.9}		0.66
		3 position pressure center		8.0{2.9}	0.35{0.48}	2.1{0.85}	5.6	0.31	1.5		0.66
	VFA5$^{1}_{2}$44-03	2 position single	3/8	8.4	0.34	2.2	8.9	0.29	2.3		0.51
		2 position double		8.4	0.34	2.2	8.9	0.29	2.3		0.52
	VFA54$^{3}_{5}$44-03-X1	3 position closed center		7.3	0.34	2.0	7.1	0.28	1.8		0.66
		3 position exhaust center		8.1	0.27	2.0	14{8.3}	0.26{0.31}	3.4{2.2}		0.66
		3 position pressure center		8.1{2.5}	0.33{0.48}	2.0{0.74}	5.7	0.31	1.4		0.66
	VFA5$^{1}_{2}$44-04	2 position single	1/2	9.4	0.43	2.7	12	0.32	3.0		0.56
		2 position double		9.4	0.43	2.7	12	0.32	3.0		0.57
	VFA54$^{3}_{5}$44-04-X1	3 position closed center		7.1	0.41	2.1	7.4	0.32	2.0		0.71
		3 position exhaust center		8.6	0.39	2.4	13{8.9}	0.21{0.40}	3.1{2.5}		0.71
		3 position pressure center		11{2.6}	0.18{0.47}	2.6{0.78}	6.1	0.35	1.6		0.71

Note 1) With sub-plate
Note 2) { }: Normal position

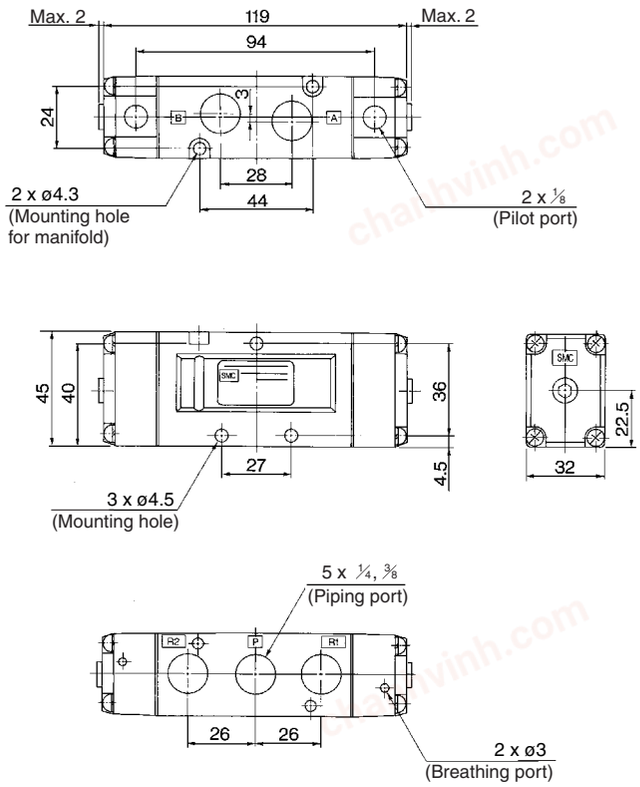
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Dimensions: Body Ported

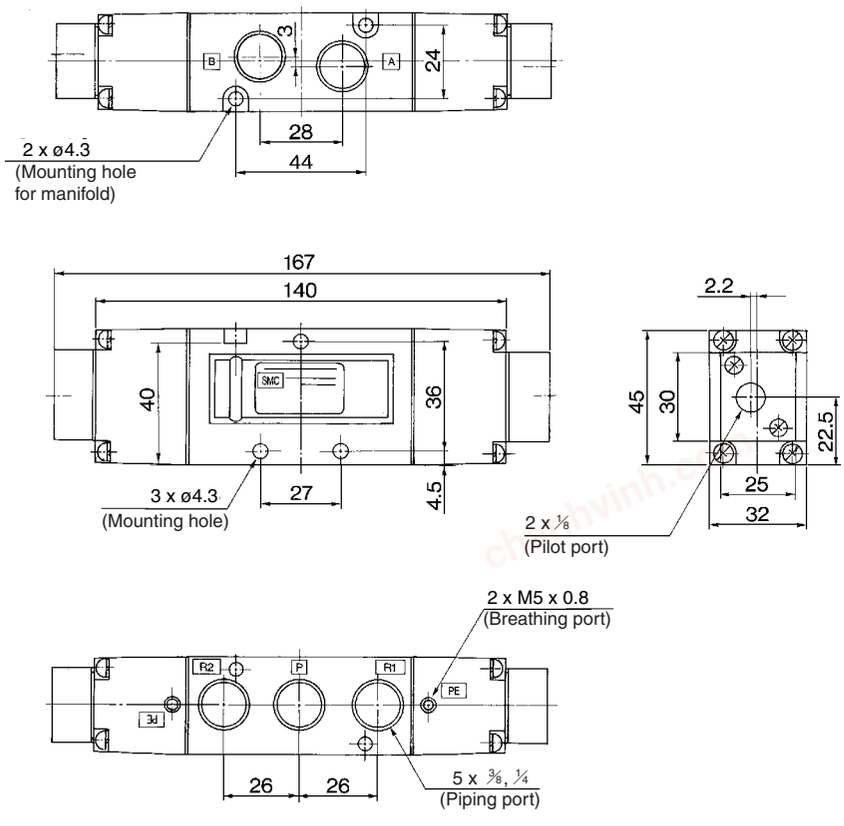
2 position single: VFA5120-$^{02}_{03}$



2 position double: VFA5220-$^{02}_{03}$



3 position closed center/exhaust center/pressure center: VFA5$^{3}_{4}_{5}$20-$^{02}_{03}$-X1

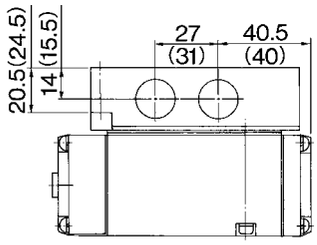


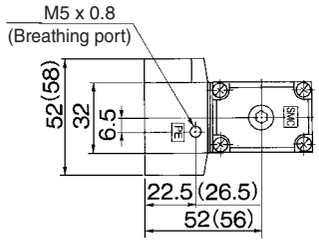
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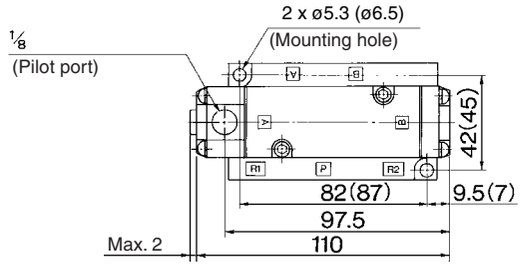
Series VFA5000

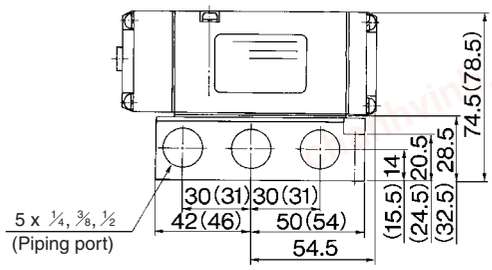
Dimensions: Base Mounted

2 position single: VFA5144-$^{02}_{03}_{04}$



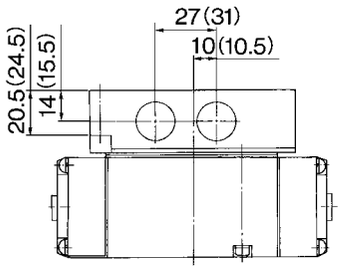


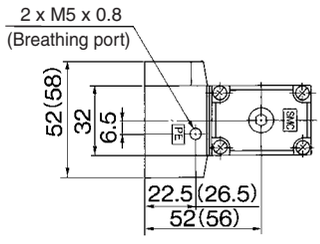


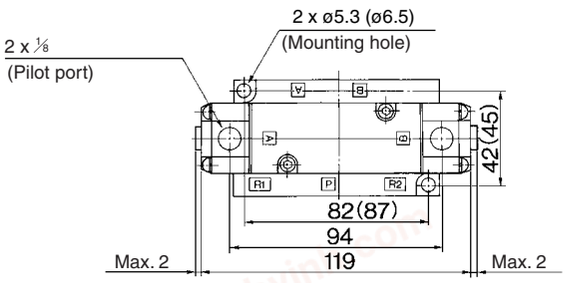


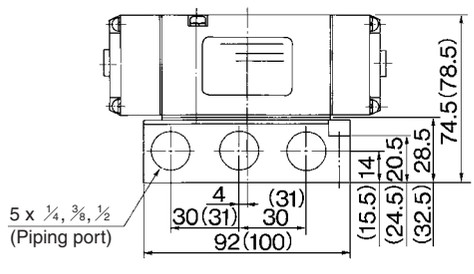
( ): Value for Rc 1/2

2 position double: VFA5244-$^{02}_{03}_{04}$







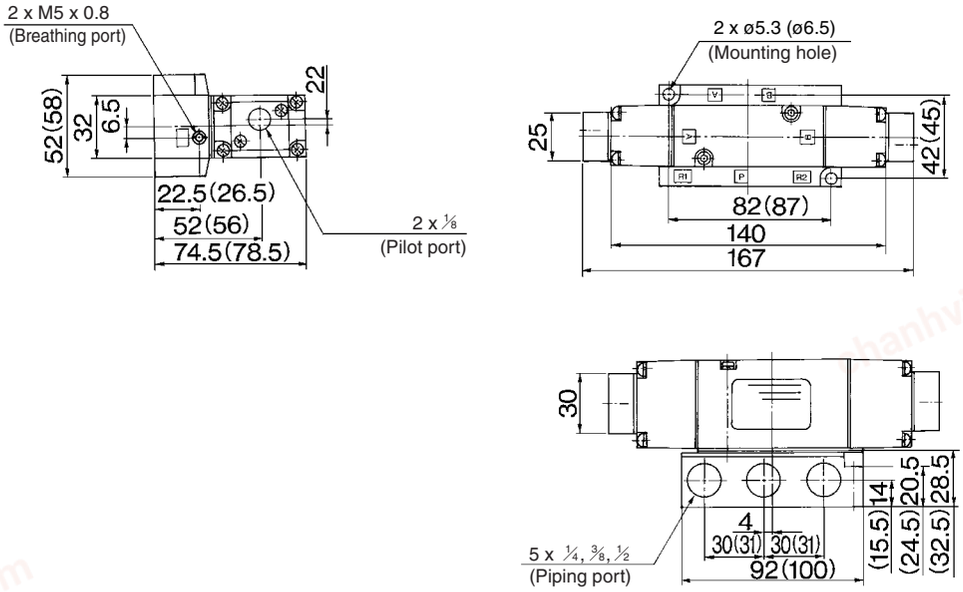


( ): Value for Rc 1/2

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Dimensions: Base Mounted

3 position closed center/exhaust center/pressure center: VFA5$^{3}_{4}_{5}$44-$^{02}_{03}_{04}$-X1



( ): Value for Rc 1/2