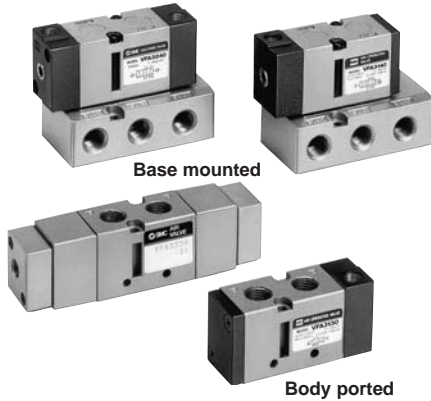


# 4/5 Port Air Operated Valve

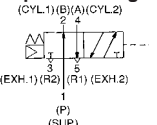
# Series VFA3000

## Model

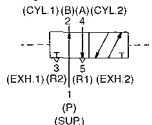


### JIS Symbol

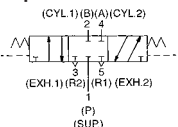
#### 2 position single



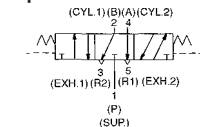
#### 2 position double



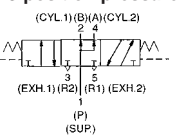
#### 3 position closed centre



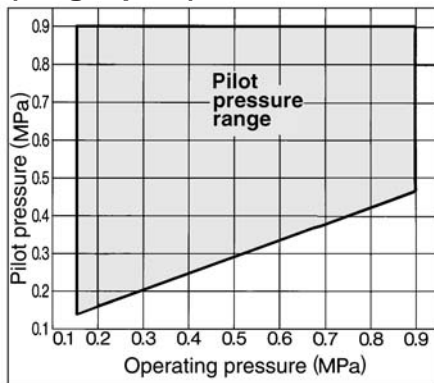
#### 3 position exhaust centre



#### 3 position pressure centre



## Pilot Pressure Range (Single pilot)



## Caution

Refer to p.0-33 to 0-36 for Safety Instruction and common precautions.

Valve model	Configuration	Port size G	Effective area (mm <sup>2</sup> )(Nl/min)			Pilot port size G	Weight (kg)	
			G 1/8	G 1/4	G 3/8			
Body ported	EVFA3122-01F-02F-F	2 position single	1/8	15.3 (757.78)	18 (891.50)	—	1/8	0.18
	EVFA3130-01F-02F	2 position single	1/8	14.4 (713.20)	18 (891.50)	—	1/8	0.15
	EVFA3230-01F-02F	2 position double	1/8	14.4 (713.20)	18 (891.50)	—	1/8	0.17
	EVFA3330-01F-02F-X1	3 position closed centre	1/8	11.7 (579.48)	14.4 (713.20)	—	1/8	0.32
	EVFA3430-01F-02F-X1	3 position exhaust centre	1/8	14.4 (713.20)	18 (891.50)	—	1/8	0.32
	EVFA3530-01F-02F-X1	3 position pressure centre	1/8	14.4 (713.20) 9.9 (490.33)*	16.2 (802.35) 10.8 (534.90)*	—	1/8	0.32
Base mounted (With sub-plate)	EVFA3140-02F-03F	2 position single	1/4 3/8	—	16 (802.35)	18 (891.50)	1/8	0.31
	EVFA3240-02F-03F	2 position double	1/4 3/8	—	16 (802.35)	18 (891.50)	1/8	0.33
	EVFA3340-02F-03F-X1	3 position closed centre	1/4 3/8	—	12.5 (624.05)	14.5 (713.20)	1/8	0.48
	EVFA3440-02F-03F-X1	3 position exhaust centre	1/4 3/8	—	16 (802.35)	18 (891.50)	1/8	0.48
	EVFA3540-02F-03F-X1	3 position pressure centre	1/4 3/8	—	12.7 (624.05) 8.2 (401.18)*	13.3 (668.63) 8.7 (445.75)*	1/8	0.48

\* ( ) for normal position. Exhaust centre: A, B → R1, R2, Pressure centre P → A, B  
Note 1) Contact SMC for other thread types.

## 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)	Max. 60	
Lubrication	Not required	
Mounting	Free	
Impact/Vibration resistance (m/s <sup>2</sup> ) <sup>(1)</sup>	300/50	

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

## How to Order Manifold

Use the same manifold bases as the VF3000.

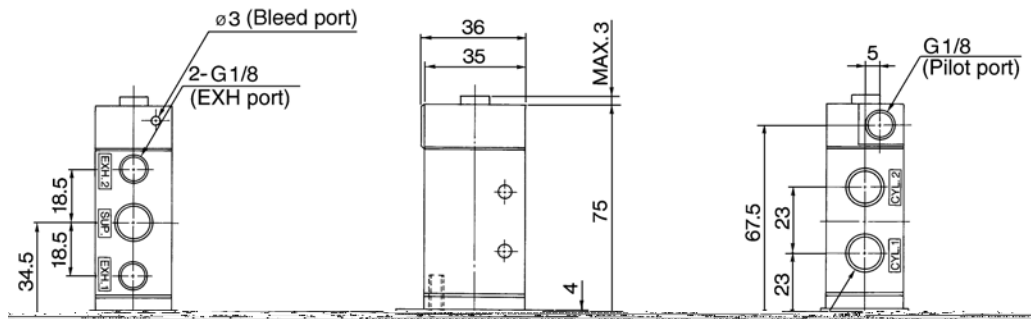
The remainder of the manifold part number is the same as an VV5Z3.

\*Specify the part number for the valve(s), blank plate assembly and manifold base.

<Example> VV5FA3-40-052-02 .....1 pc.  
VFA3140 .....2 pcs.  
VFA3240 .....2 pcs.  
DXT031-38-1A .....1 pc.

## Dimensions/Body Ported

2 position single: EVFA3122-<sup>01F</sup>/<sub>02F</sub>-F



S□A

V□A

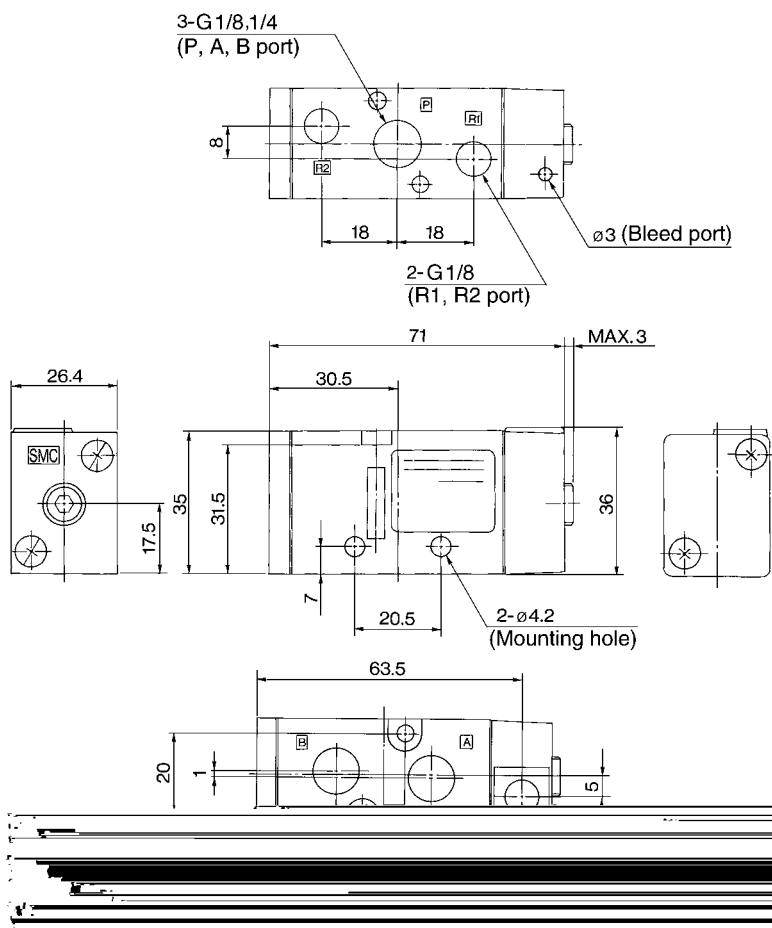
S□A

V□A

VM/VR

VH

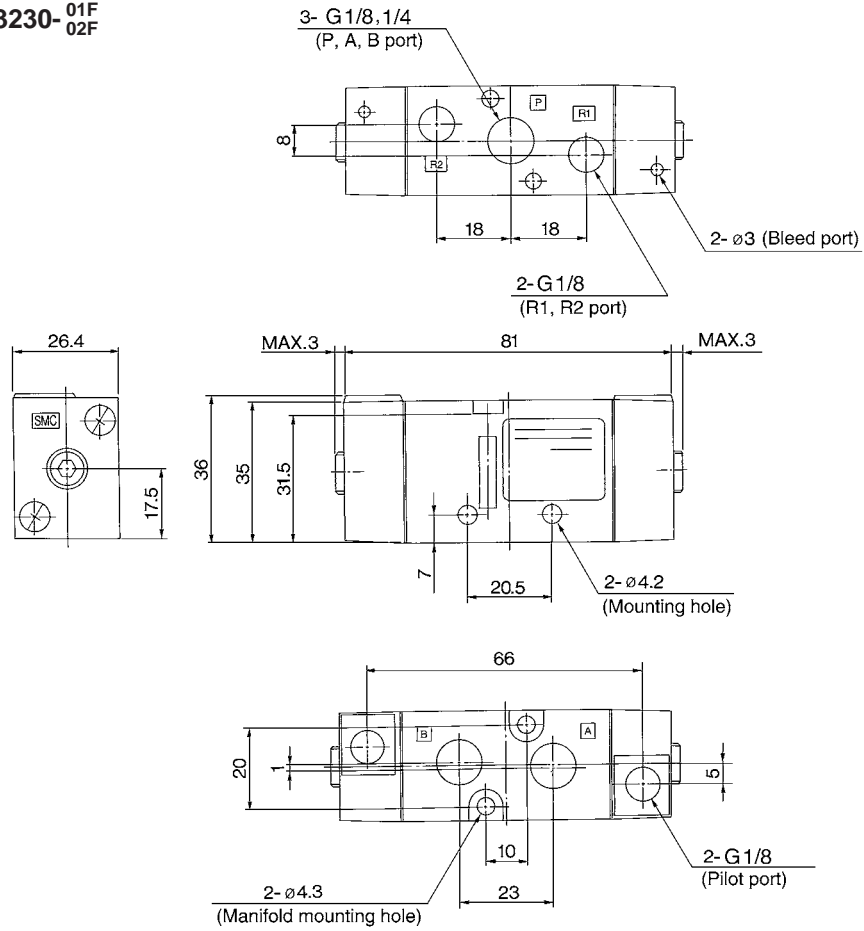
2 position single: EVFA3130-<sup>01F</sup>/<sub>02F</sub>



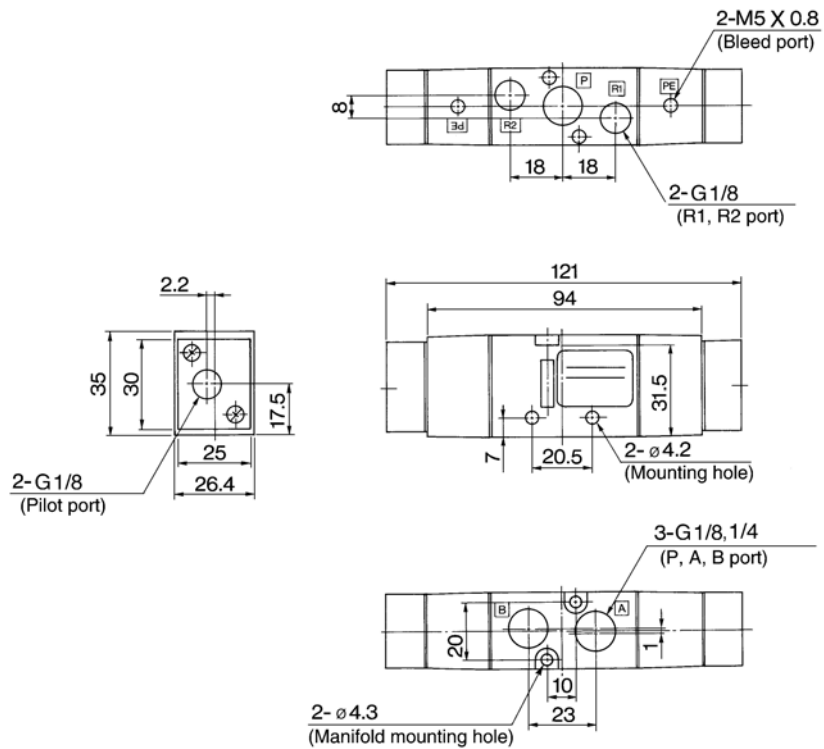
# VFA3000

## Dimensions/Body Ported

2 position double: EVFA3230-<sup>01F</sup>/<sub>02F</sub>

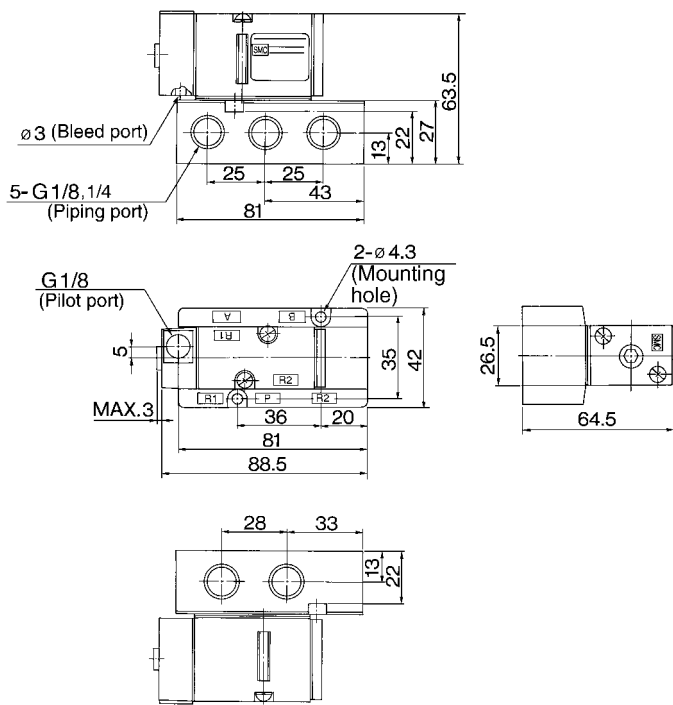


3 position closed centre/exhaust centre/pressure centre: EVFA3<sup>3</sup>/<sub>4</sub>30-<sup>01F</sup>/<sub>02F</sub>-X1

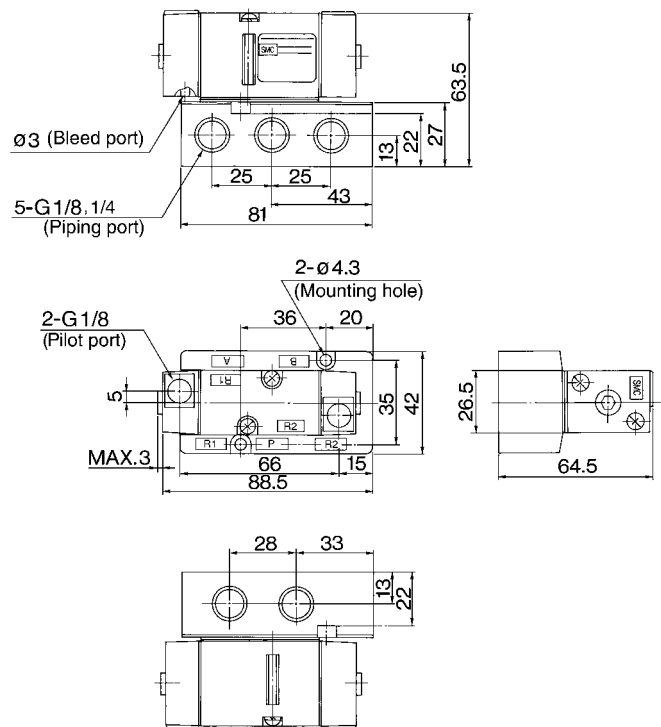


## Dimensions/Base Mounted

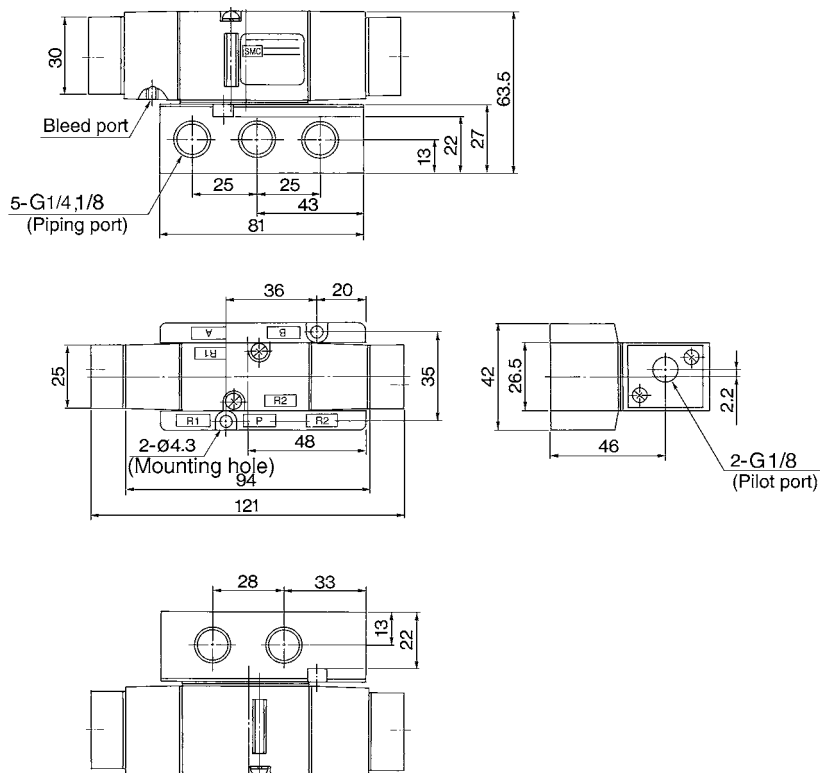
2 position single: EVFA3140-<sup>02F</sup>/<sub>03F</sub>



2 position double: EVFA3240-<sup>02F</sup>/<sub>03F</sub>



3 position closed centre/exhaust centre/pressure centre: EVFA3<sup>3</sup>/<sub>4</sub>40-<sup>02F</sup>/<sub>03F</sub>-X1



S□A

V□A

S□A

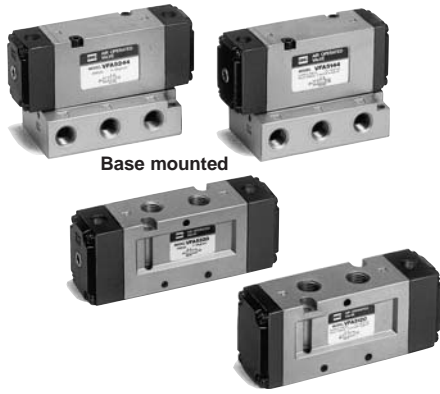
V□A

VM/VR

VH

# 4/5 Port Air Operated Valve

# Series VFA5000

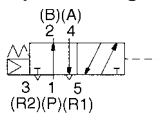


Base mounted

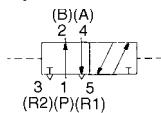
Body ported

### JIS Symbol

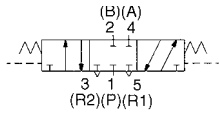
#### 2 position single



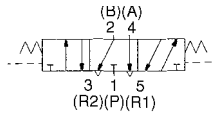
#### 2 position double



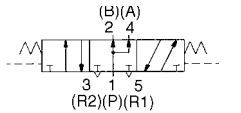
#### 3 position closed centre



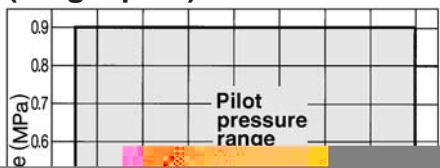
#### 3 position exhaust centre



#### 3 position pressure centre



## Pilot Pressure Range (Single pilot)



### ⚠ Caution

Refer to p.0-33 to 0-36 for Safety Instruction and common precautions.

## Model

Valve model	Configuration	Port size G	Effective area (mm <sup>2</sup> ) (N <sub>e</sub> /min)			Pilot port size G	Weight (kg)
			G <sup>1</sup> / <sub>4</sub>	G <sup>3</sup> / <sub>8</sub>	G <sup>1</sup> / <sub>2</sub>		
Body ported	EVFA5120 -02F/03F	2 position single	1/4 3/8	34.2 (1693.85)	45 (2228.75)	—	1/8 0.33
	EVFA5220 -02F/03F	2 position double	1/4 3/8	34.2 (1693.85)	45 (2228.75)	—	1/8 0.34
	EVFA5320 -02F/03F-X1	3 position closed centre	1/4 3/8	30.6 (1515.55)	36 (1783.00)	—	1/8 0.43
	EVFA5420 -02F/03F-X1	3 position exhaust centre	1/4 3/8	32.4 (1604.70)	41.4 (2050.45)	—	1/8 0.43
	EVFA5520 -02F/03F-X1	3 position pressure centre	1/4 3/8	32(1604.70) 14.8 (713.20)*	36 (1783.00) 15.3 (757.78)*	—	1/8 0.43
Base mounted (With sub-plate)	EVFA5144 -02F/03F/04F	2 position single	1/4, 3/8, 1/2	34.2 (1693.85)	45 (2228.75)	52 (2585.35)	1/8 0 <sup>02</sup> / <sub>03</sub> : 0.51 04: 0.56
	EVFA5244 -02F/03F/04F	2 position double	1/4, 3/8, 1/2	34.2 (1693.85)	45 (2228.75)	52 (2585.35)	1/8 0 <sup>02</sup> / <sub>03</sub> : 0.52 04: 0.57
	EVFA5344 -02F/03F/04F-X1	3 position closed centre	1/4, 3/8, 1/2	33 (1604.70)	34 (1693.85)	38 (1872.15)	1/8 0 <sup>02</sup> / <sub>03</sub> : 0.66 04: 0.71
	EVFA5444 -02F/03F/04F-X1	3 position exhaust centre	1/4, 3/8, 1/2	36 (1783.00)	39 (1961.30)	44 (2139.60)	1/8 0 <sup>02</sup> / <sub>03</sub> : 0.66 04: 0.71
	EVFA5544 -02F/03F/04F-X1	3 position pressure centre	1/4, 3/8, 1/2	33.3 (1649.28) 10.8 (534.90)*	36 (1783.00) 15.3 (757.78)*	39.6 (1961.30) 15.3 (757.78)*	1/8 0 <sup>02</sup> / <sub>03</sub> : 0.66 04: 0.71

\* ( ) for normal position. Exhaust centre: A, B → R1, R2, pressure center P → A, B

## 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	
	3 position	
Ambient and fluid temperature (°C)		Max. 60
Lubrication		Not required
Mounting		Free
Impact/Vibration resistance (m/s <sup>2</sup> ) <sup>(1)</sup>		300/50

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

## How to Order Manifold

Use the same manifold bases as the VF5000.

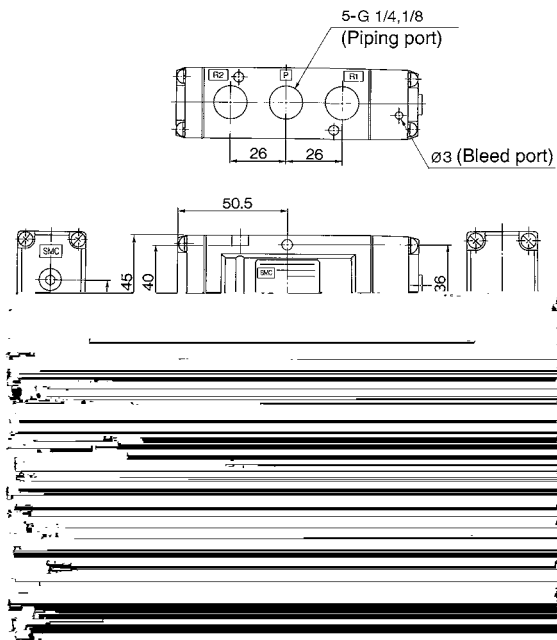
The remainder of the manifold part number is the same as an VV5F5.

\*Specify the part number for the valve(s), blank plate assembly and manifold base.

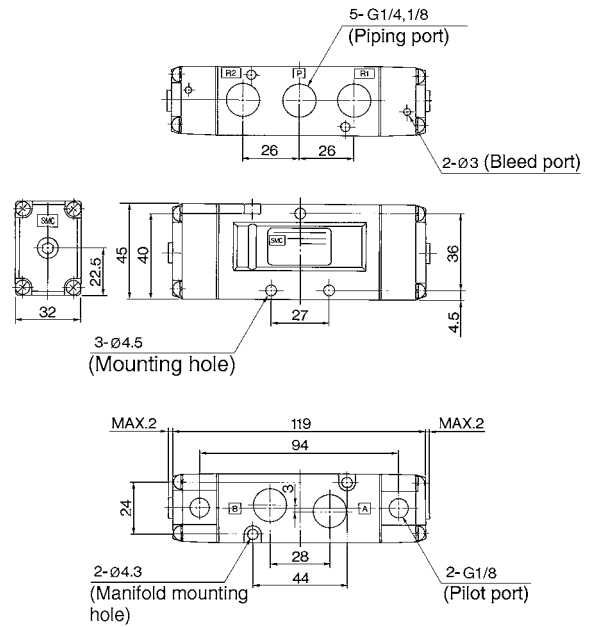
<Example> VV5FA5-20-051 .....1 pc.  
VFA5120-03 .....2 pcs.  
VFA5220-03 .....2 pcs.  
DXT156-19-1A .....1 pc.

## Dimensions/Body Ported

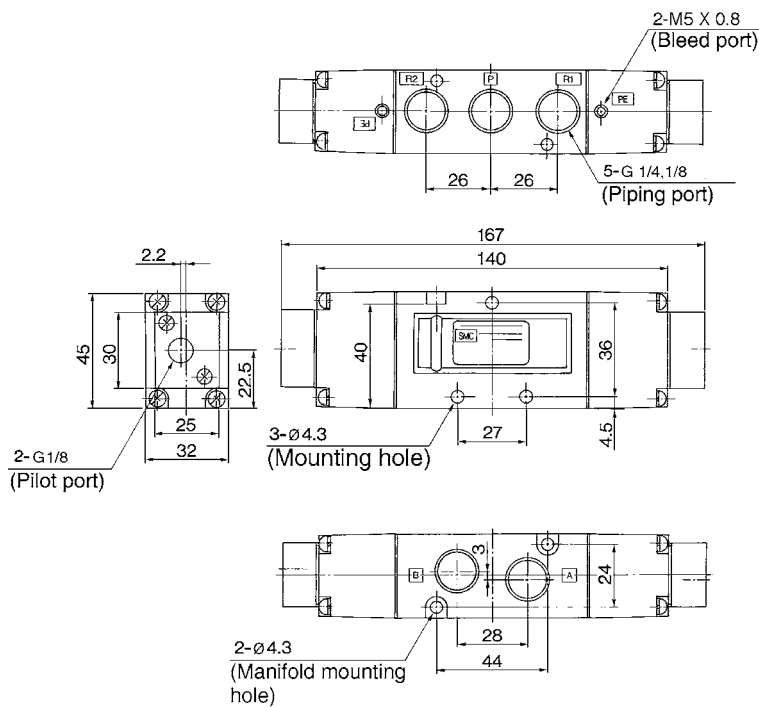
2 position single: EVFA5120-<sup>02F</sup>/<sub>03F</sub>



2 position double: EVFA5220-<sup>02F</sup>/<sub>03F</sub>



3 position closed centre/exhaust centre/pressure centre: EVFA5<sup>3</sup>/<sub>4</sub>20-<sup>02F</sup>/<sub>03F</sub>-X1



S□A

V□A

S□A

V□A

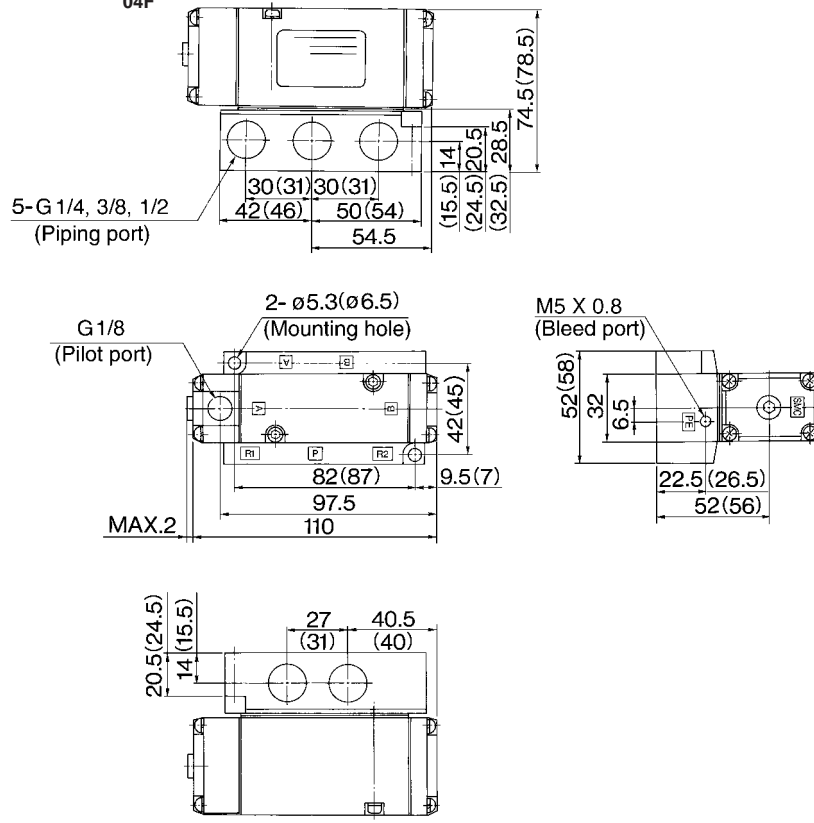
VM/VR

VH

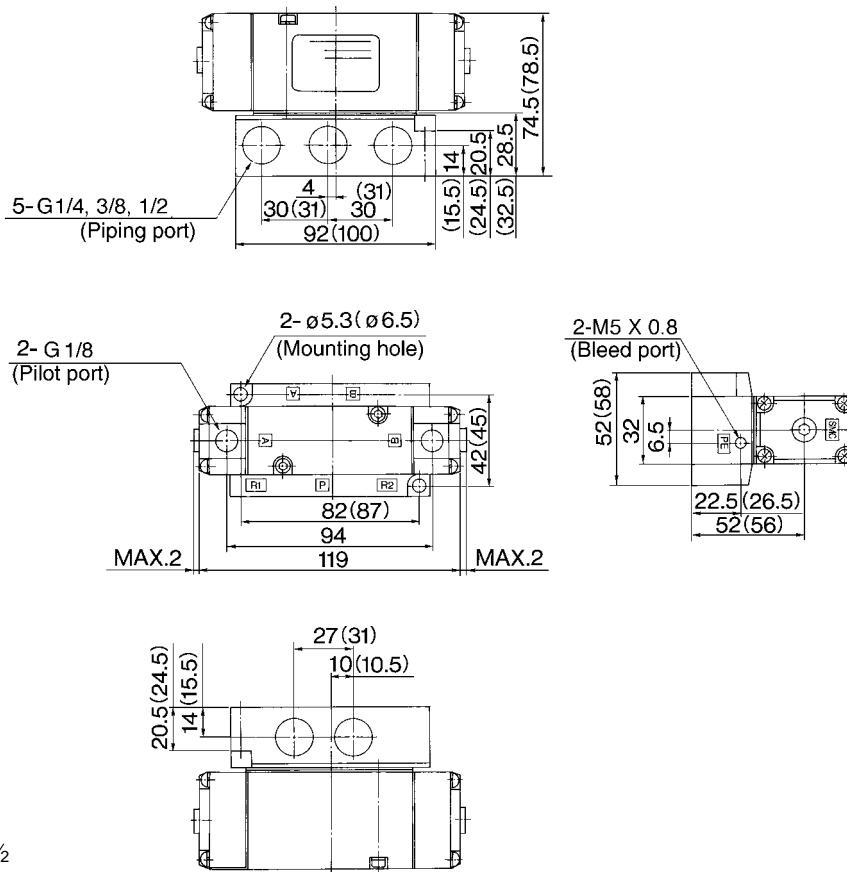
# VFA5000

## Dimensions/Base Mounted

### 2 position single: EVFA5144-<sup>02F</sup> <sup>03F</sup> <sup>04F</sup>

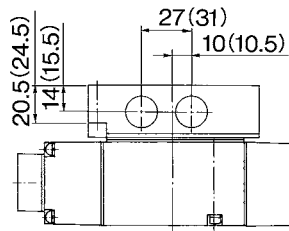
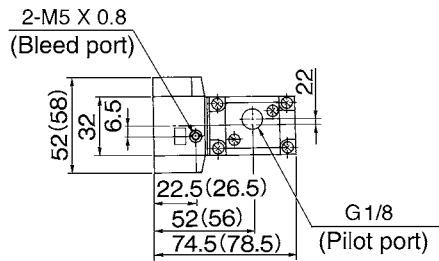
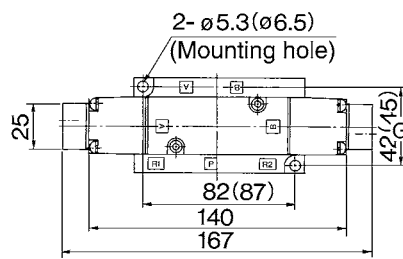
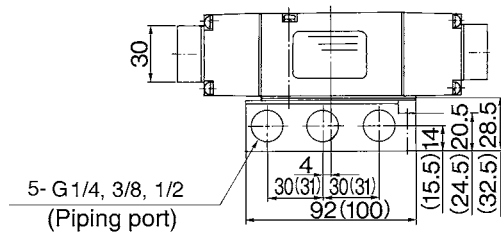


### 2 position double: EVFA5244-<sup>02F</sup> <sup>03F</sup> <sup>04F</sup>



## Dimensions/Base Mounted

3 position closed centre/exhaust centre/pressure centre: EVFA5 <sup>3</sup>/<sub>4</sub> 44- <sup>02F</sup>/<sub>03F</sub>/<sub>04F</sub> -X1



( ): Value for G 1/2

S□A

V□A

S□A

V□A

VM/VR

VH