

# 5 Port Air Operated Valve

# VFA1000/3000/5000 Series

## Manifold

Body Ported

### How to Order Manifold

Common exhaust

VV5FA 1 - 30 - 04 1 -

Series

1	VFA1000
3	VFA3000
5	VFA5000

Thread type

Nil	Rc
00F	G
00N	NPT
00T	NPTF

Stations

02	2 stations
⋮	⋮
20	20 stations

\* Up to 10 stations for VV5FA5-20, and up to 15 stations for VV5FA5-21.

Manifold model

Symbol	P, R Port size	VFA1000	VFA3000	VFA5000
30	1/8	○	—	—
	1/4	—	○	—
20	3/8	—	—	○
21	1/2	—	—	○

\* The A and B ports are made on the top.

Individual exhaust  
(VFA1000 only)

VV5FA1 - 31 - 04 3 -

Manifold model

Symbol	P, R Port size	EA, EB Port size
31	1/8	M5

Stations

02	2 stations
⋮	⋮
20	20 stations

Thread type

Nil	Rc
00F	G
00N	NPT
00T	NPTF

Note) When placing an order for body ported valve as a single unit, mounting screws for manifold and gasket are not attached. Order them separately, if necessary. (Refer to page 1514 for details.)

### How to Order Valve

VFA 3 1 3 0 - 01 -

Series

1	VFA1000
3	VFA3000
5	VFA5000

Type of actuation

1	2 position single
2	2 position double
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

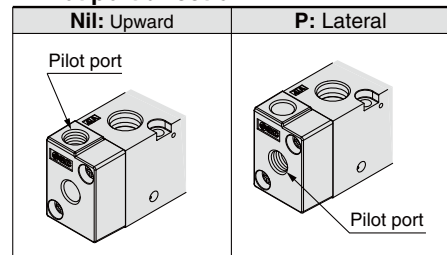
\* Only 1 and 2 are available with the VFA1000.

Body model

Symbol	VFA1000	VFA3000	VFA5000
2	—	—	○
3	○ (Note)	○	—

Note) Manifold only

Pilot port direction



Thread type  
(Including pilot port)

Nil	Rc
F	G
N	NPT
T	NPTF

\* M5 is available with Nil only.

A, B port size

Symbol	Port size	VFA1000	VFA3000	VFA5000
M5	M5 x 0.8	○	—	—
01	1/8	○	○	—
02	1/4	—	○	○
03	3/8	—	—	○

## Manifold Specifications

Series	VFA1000		VFA3000	VFA5000	
Manifold base model	<b>VV5FA1-30</b> 	<b>VV5FA1-31</b> 	<b>VV5FA3-30</b> 	<b>VV5FA5-20</b> 	<b>VV5FA5-21</b> 
	Common EXH 1 (P) port 1/8 5/3 (R) port 1/8	Individual EXH 4 (A), 2 (B) port 1/8 5 (EA), 3 (EB) port M5 x 0.8 1 (P) port 1/8	Common EXH 5 (R), 3 (R) port 1/4 1 (P) port 1/4	Common EXH 4 (A), 2 (B) port 1/4, 3/8 5 (R), 3 (R) port 3/8 1 (P) port 3/8	Common EXH 4 (A), 2 (B) port 1/4, 3/8 1 (P) port 1/2 5 (R), 3 (R) port 1/2
EXH port type	Common EXH	Individual EXH	Common EXH	Common EXH	Common EXH
Applicable valve model	<b>VFA1□30</b>		<b>VFA3□30</b>	<b>VFA5□20</b>	
Applicable stations	2 to 20 stations		2 to 20 stations	2 to 10 stations	2 to 15 stations
Manifold base Weight: W[g] Stations: n	W = 29n + 21	W = 51n + 35	W = 63n + 64	W = 97n + 80	W = 139n + 550

Note) Supply pressure to 1(P) ports and exhaust pressure from R ports on both sides for 10 stations or more (5 stations or more for the VFA5000).

SYA

SYJA

VZA

**VFA**

VFRA

VPA4

SYJA

VZA

VTA

VGA

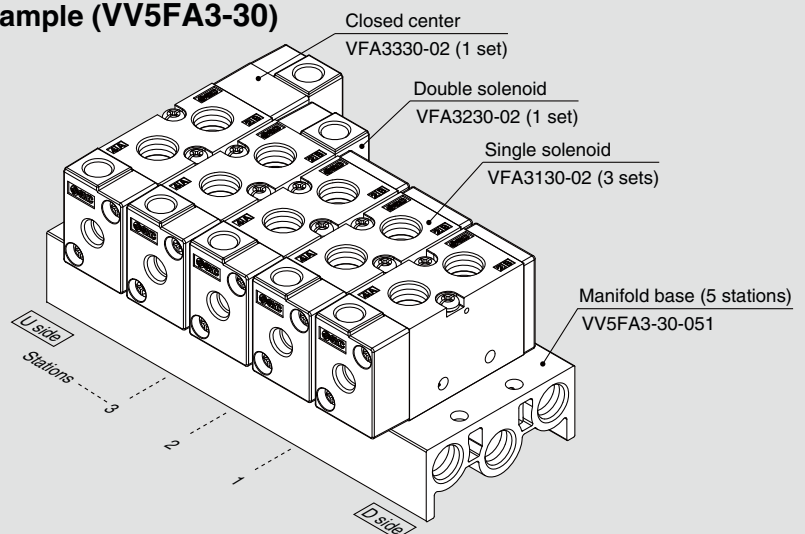
VPA

VPA3

## How to Order Manifold Assembly



### Example (VV5FA3-30)



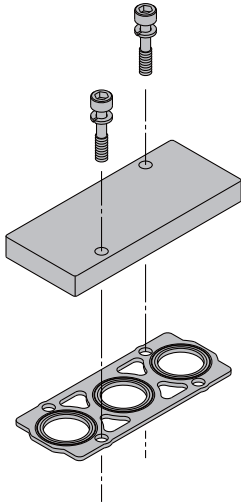
**VV5FA3-30-051....1 set (Type 30, 5-station manifold base part no.)**  
 \* **VFA3130-02.....3 sets (Single part no.)**  
 \* **VFA3230-02.....1 set (Double part no.)**  
 \* **VFA3330-02.....1 set (Closed center part no.)**  
 \* The asterisk denotes the symbol for assembly. Prefix it to the part no. of the valve etc.

- The valve arrangement is numbered as the 1st station from D side.
- Under the manifold base part number, state the valves to be mounted in order from the 1st station as shown in the figure above.

# VFA1000/3000/5000 Series

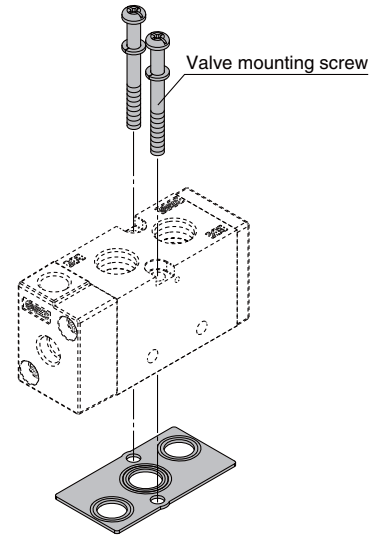
## Manifold Options

### ■ For body ported Blanking plate assembly



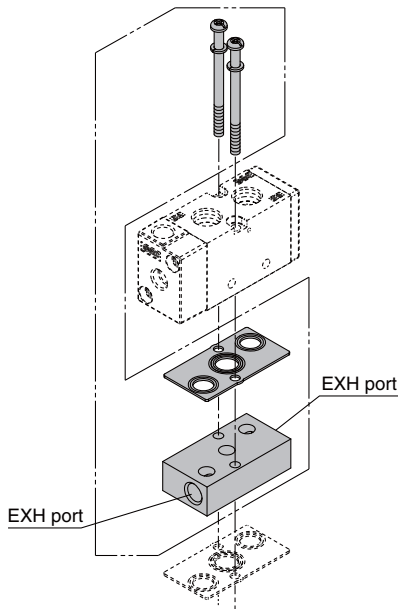
Series	Blanking plate assembly part no.
VFA1000	DXT144-13-3A
VFA3000	DXT031-38-5A
VFA5000	VF5000-70-1A

### ■ Mounting screw, gasket part no.



Series	Valve mounting screw (1 pc.)	Gasket
VFA1000	Round head combination screw DXT031-44-1	DXT144-12-2
VFA3000	(M4 x 39.5, With spring washer)	DXT155-25-7
VFA5000	Hexagon socket head cap screw AXT620-32-1	DXT156-9-6
	(M4 x 48, With spring washer)	

### ■ Individual EXH spacer assembly



### ⚠ Caution

#### Tightening Torque for Mounting Screw

M4: 1.4N·m

### ⚠ Warning

When mounting a valve or spacer on the manifold base or sub-plate, etc., the mounting orientation is already decided. If mounted in a wrong direction, the equipment to be connected may result in a malfunction. Refer to the dimensions for mounting.

VF **3** 000-75-1 **A**

#### • Series

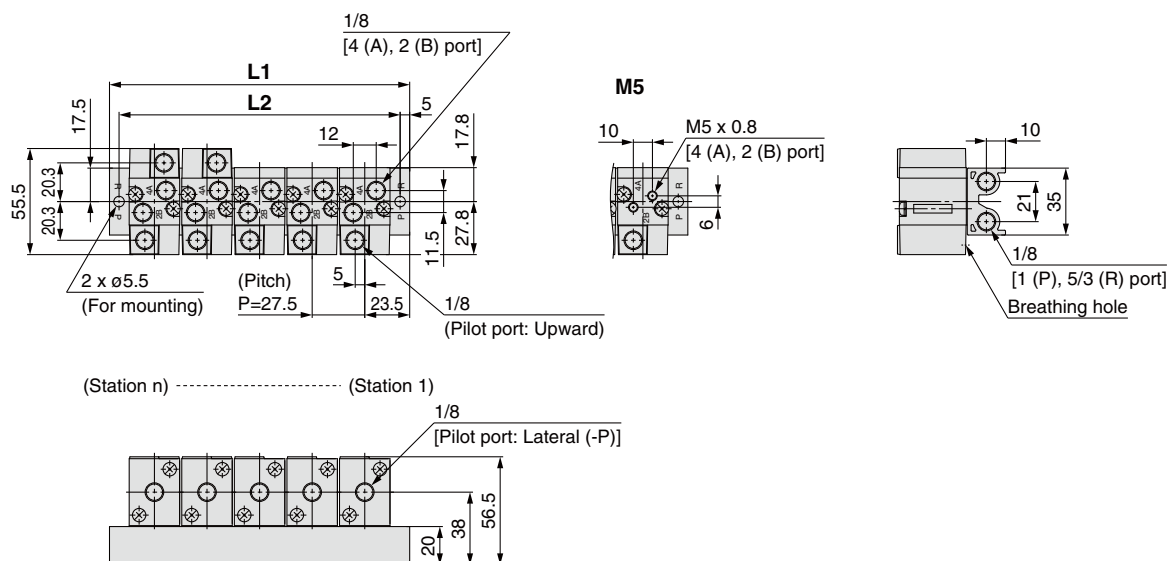
Symbol	Series	Port size
3	VFA3000	1/8
5	VFA5000	1/4

#### • Thread type

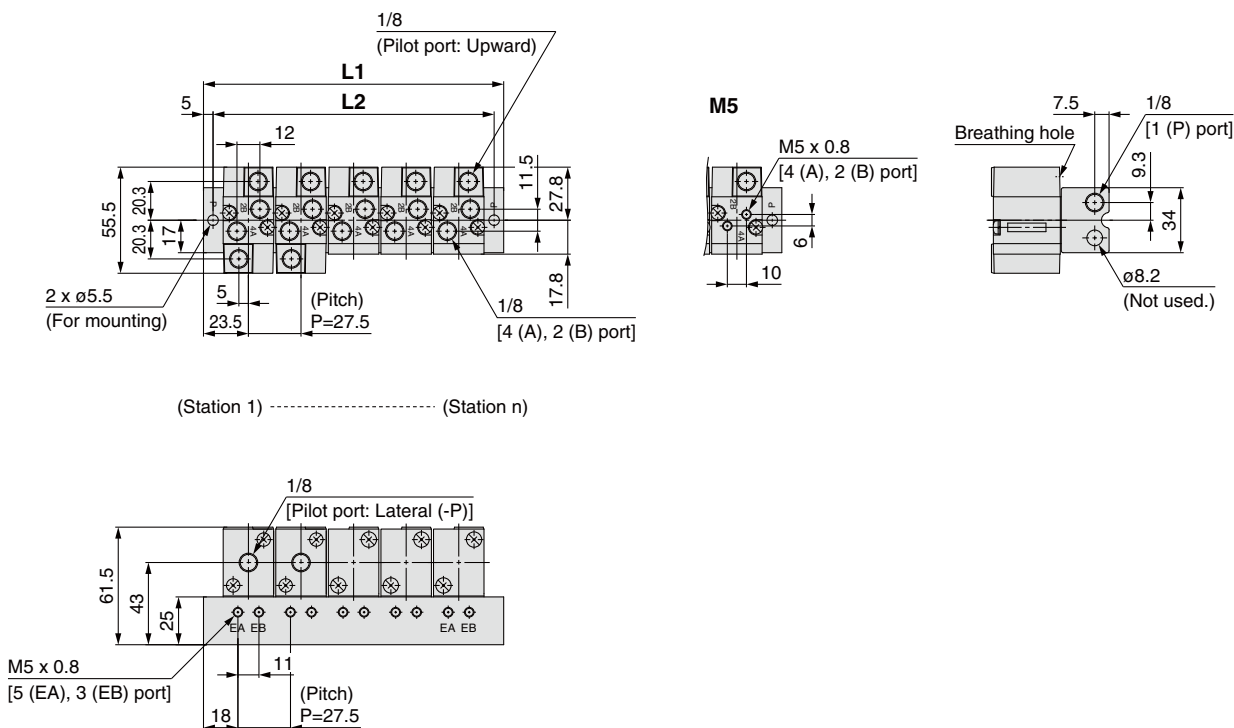
Nil	Rc
F	G
N	NPT
T	NPTF

## Dimensions: VFA1000 Series

### Type 30: VV5FA1-30-□□1-□: Common exhaust



### Type 31: VV5FA1-31-□□3-□: Individual exhaust



## Dimensions (Common to Type 30 and Type 31)

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	74.5	102	129.5	157	184.5	212	239.5	267	294.5	322	349.5	377	404.5	432	459.5	487	514.5	542	569.5
L2	64.5	92	119.5	147	174.5	202	229.5	257	284.5	312	339.5	367	394.5	422	449.5	477	504.5	532	559.5

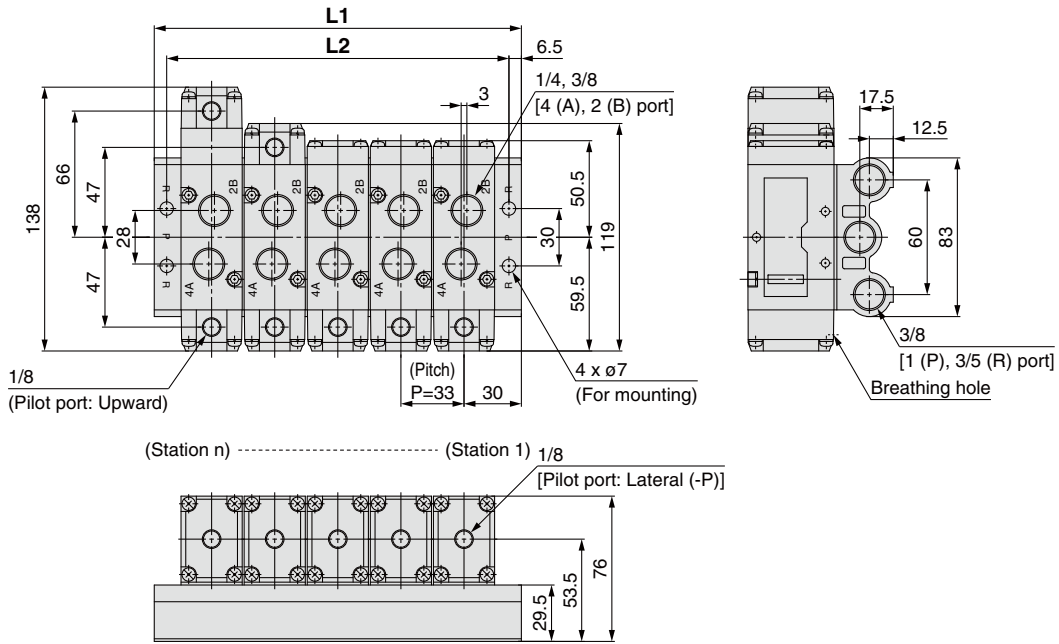
n: Stations

- SYA
- SYJA
- VZA
- VFA**
- VFRA
- VPA4
- SYJA
- VZA
- VTA
- VGA
- VPA
- VPA3



**Dimensions: VFA5000 Series**

**Type 20: VV5FA5-20-□□1-□: Common exhaust**

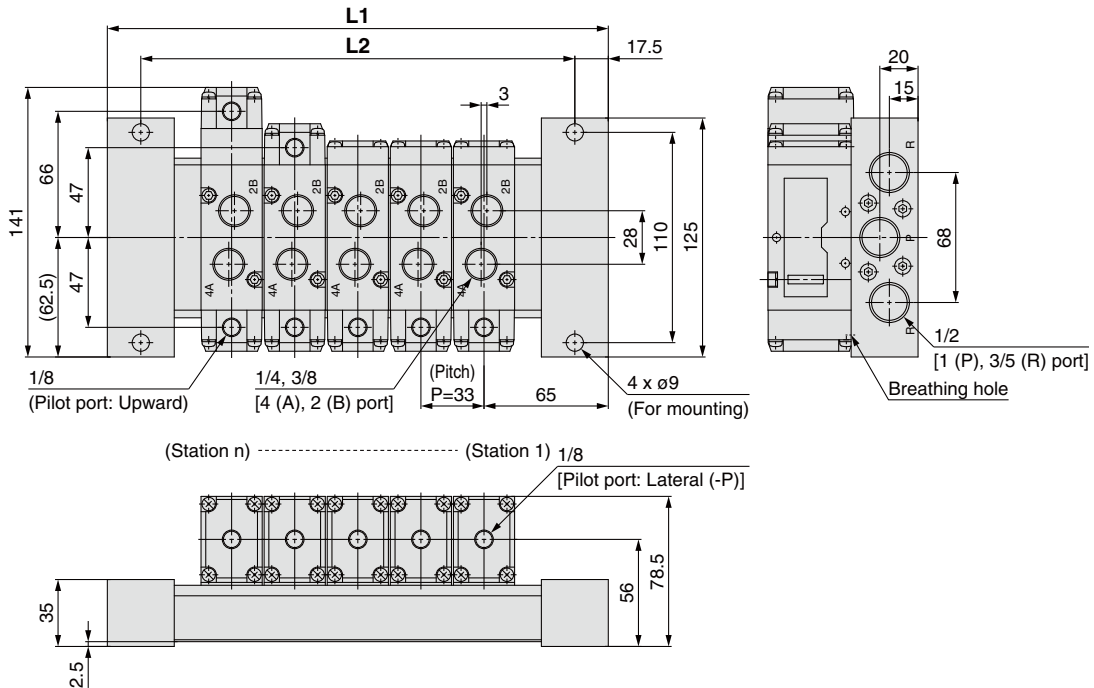


**Dimensions**

		n: Stations								
L \ n	2	3	4	5	6	7	8	9	10	
<b>L1</b>	93	126	159	192	225	258	291	324	357	
<b>L2</b>	80	113	146	179	212	245	278	311	344	

- SYA
- SYJA
- VZA
- VFA**
- VFRA
- VPA4
- SYJA
- VZA
- VTA
- VGA
- VPA
- VPA3

**Type 21: VV5FA5-21-□□1-□: Common exhaust**



**Dimensions**

		n: Stations												
L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15
<b>L1</b>	163	196	229	262	295	328	361	394	427	460	493	526	559	592
<b>L2</b>	128	161	194	227	260	293	326	359	392	425	458	491	524	557