

# 5 Port Pilot Operated Solenoid Valve Metal Seal, Plug-in/Non Plug-in

## Series VFS2000



### Model

Type of actuation	Model		Port size Rc	Flow characteristics						Max. operating cycle (cpm) <sup>(1)</sup>	Response time (ms) <sup>(2)</sup>	Mass (kg) <sup>(3)</sup>	
	Plug-in	Non plug-in		1 → 4/2(P → A/B)			4/2 → 5/3(A/B → R1/R2)						
				C [dm <sup>3</sup> /(s·bar)]	b	Cv	C [dm <sup>3</sup> /(s·bar)]	b	Cv				
2 position	Single	VFS2100	VFS2110	1/8	2.4	0.16	0.55	2.8	0.20	0.65	1200	15 or less	0.34
				1/4	2.5	0.18	0.58	2.8	0.21	0.65			
	Double	VFS2200	VFS2210	1/8	2.4	0.16	0.55	2.8	0.20	0.65	1200	13 or less	0.42
				1/4	2.5	0.18	0.58	2.8	0.21	0.65			
3 position	Closed center	VFS2300	VFS2310	1/8	2.3	0.14	0.53	2.6	0.20	0.61	600	20 or less	0.43
				1/4	2.5	0.18	0.58	2.6	0.23	0.62			
	Exhaust center	VFS2400	VFS2410	1/8	2.4	0.15	0.54	2.7	0.25	0.63	600	20 or less	0.43
				1/4	2.5	0.20	0.60	2.7	0.24	0.63			
	Pressure center	VFS2500	VFS2510	1/8	2.5	0.11	0.55	2.7	0.20	0.62	600	20 or less	0.43
				1/4	2.8	0.17	0.63	2.7	0.22	0.63			
	Double check	VFS2600	VFS2610	1/8	1.2	–	–	1.3	–	–	600	25 or less	0.6
				1/4	1.2	–	–	1.3	–	–			

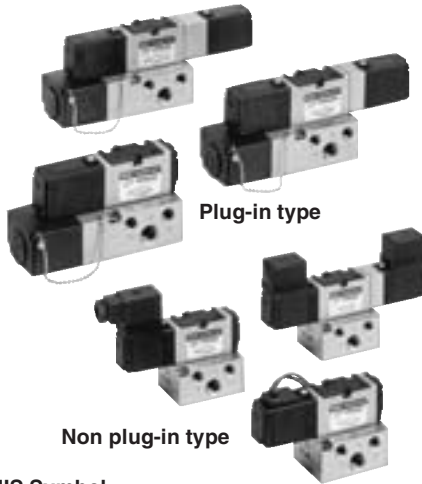
Note 1) Based on JIS B 8375 (Once per 30 days) for the minimum operating frequency. Note 2) Based on JIS B 8375-1981 (The value at supply press. 0.5 MPa).  
Note 3) Values for VFS2□00-□FZ-01. Note 4) Factors of "Note 1)" and "Note 2)" are ones achieved in controlled clean air.

**Compact yet provides a large flow capacity**  
1/4: C: 2.8 dm<sup>3</sup>/(s·bar)

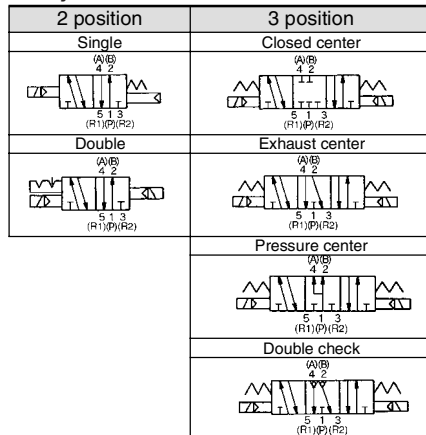
**Low power consumption: 1.8 W DC**

**Easy maintenance**

2 types of sub-plates:  
Plug-in and non plug-in



### JIS Symbol



### Standard Specifications

Valve specifications	Fluid		Air/Inert gas	
		<b>Maximum operating pressure</b>		1.0 MPa
	<b>Min. operating pressure</b>	2 position	0.1 MPa	
		3 position	0.15 MPa	
	<b>Proof pressure</b>		1.5 MPa	
	<b>Ambient and fluid temperature</b>		-10 to 60°C <sup>(1)</sup>	
	<b>Lubrication</b>		Non-lube <sup>(2)</sup>	
	<b>Pilot valve manual override</b>		Non-locking push type (Flush)	
	<b>Shock/Vibration resistance</b>		150/50 m/s <sup>2</sup> <sup>(3)</sup>	
	<b>Enclosure</b>		Type G, E: Dustproof (Class 0), Type F, T, D: Splashproof (Class 4) <sup>(4)</sup>	
Electricity specifications	<b>Coil rated voltage</b>		100, 200 VAC, 50/60 Hz; 24 VDC	
	<b>Allowable voltage fluctuation</b>		-15 to +10% of rated voltage	
	<b>Coil insulation type</b>		Class B or equivalent (130°C) <sup>(5)</sup>	
	<b>Apparent power (Power consumption) AC</b>	<b>Inrush</b>	5.6 VA/50 Hz, 5.0 VA/60 Hz	
		<b>Holding</b>	3.4 VA (2.1 W)/50 Hz, 2.3 VA (1.5 W)/60 Hz	
	<b>Power consumption DC</b>		1.8 W (2.04 W: With light/surge voltage suppressor)	
<b>Electrical entry</b>	Plug-in type	Conduit terminal		
	Non plug-in type	Grommet terminal, DIN terminal		

Note 1) Use dry air at low temperatures.  
Note 2) Use turbine oil Class 1 (ISO VG32), if lubricated.  
Note 3) Impact resistance: No malfunction occurred when it is tested with a drop tester in the axial direction and at the right angles to the main valve and armature in both energized and de-energized states every once for each condition. (Values at the initial period)  
Vibration resistance: No malfunction occurred in a one-sweep test between 45 and 2000 Hz. Test was performed at both energized and de-energized states in the axial direction and at the right angles to the main valve and armature. (Values at the initial period)  
Note 4) Based on JIS C 0920. Note 5) Based on JIS C 4003.

### Option Specifications

<b>Pilot type</b>	External pilot <sup>(Note)</sup>
<b>Manual override</b>	Non-locking push type (Extended), Locking type (Tool required), Locking type (Lever)
<b>Coil rated voltage</b>	110 to 120, 220, 240 VAC, 50/60 Hz 12, 100 VDC
<b>Porting specifications</b>	Bottom ported
<b>Option</b>	With light/surge voltage suppressor

Note) Operating pressure: 0 to 1.0 MPa  
Pilot pressure 2 position: 0.1 to 1.0 MPa 3 position: 0.15 to 1.0 MPa

### Compact, lightweight type sub-plate


Compared with the standard type, this is the sub-plate having the reduced external dimensions and lighter weight. But, use caution that Cv factor or piping port position is different from the standards. For details, refer to page 1161.

Sub-plate	L (mm)	Mass (kg)	Sonic conductance* C [dm <sup>3</sup> /(s·bar)]
Standard type	31.0	0.2	2.2
Compact type	25.5	0.13	2.8


\* 2 position single Rc 1/4

# 5 Port Pilot Operated Solenoid Valve Metal Seal, Plug-in/Non Plug-in *Series VFS2000*

## How to Order



With attachment plug lead wire



With terminal block

**Porting specifications**

Nil	Side ported
B*	Bottom ported


\* Option

**Option**

Nil	None
Z	With light/surge voltage suppressor


**Body type**

O: Plug-in type sub-plate



**Electrical entry**

F: Plug-in type



**Port size**

Nil		Without sub-plate
01	Rc 1/8	Plug-in type conduit terminal (With terminal block) Standard type
02	Rc 1/4	Standard type
Note) P01	Rc 1/8	Plug-in type grommet (With attachment plug lead wire) Compact type
Note) P02	Rc 1/4	Compact type

**Thread type**

Nil	Rc
N*	NPT
T*	NPTF
F*	G

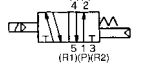

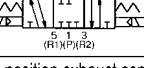
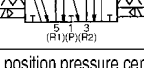
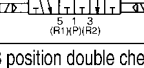
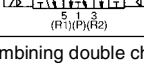
\* Option

Note) Please note Cv factor and piping port location of compact sub-plate is different from standard. Refer to page 1161 for details.

**Plug-in** VFS2 2 00 [ ] - 5 F [ ] [ ] - [ ] 01 [ ] - [ ]

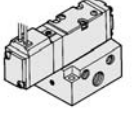
**Non plug-in** VFS2 2 10 [ ] - 1 E [ ] [ ] - [ ] 02 [ ] - [ ]

**Symbol**

1	2 position single	
2	2 position double	
3	3 position closed center	
4	3 position exhaust center	
5	3 position pressure center	
6*	3 position double check	

**Body type**

1: Non plug-in type sub-plate



**Pilot type**

Nil	Internal pilot
R*	External pilot

\* Option: External pilot is possible only to the one with sub-plate.

**Coil rated voltage**

1	100 VAC, 50/60 Hz
2	200 VAC, 50/60 Hz
3*	110 to 120 VAC, 50/60 Hz
4*	220 VAC, 50/60 Hz
5	24 VDC
6*	12 VDC
7*	240 VAC, 50/60 Hz
9*	Other

\* Option

**CE-compliant**

Nil	—
Q	CE-compliant

**Port size**

Nil		Without sub-plate
01	Rc 1/8	Non plug-in type, Standard type
02	Rc 1/4	Standard type
Note) S01	Rc 1/8	Non plug-in type, Compact type
Note) S02	Rc 1/4	Compact type

Note) Please note Cv factor and piping port location of compact sub-plate are different from standard. Refer to page 1161 for details.

**Pilot valve manual override**

Nil: Non-locking push type (Flush)	B*: Locking type (Tool required)
A*: Non-locking push type (Extended)	C*: Locking type (Lever)

\* Option

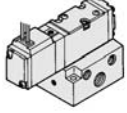
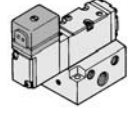
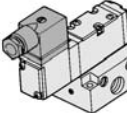
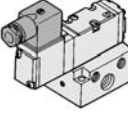
**Option**

Nil	None
Z	With light/surge voltage suppressor
S*	With surge voltage suppressor

\* Grommet type is available only w/ surge voltage suppressor, not w/ indicator light.

**Electrical entry**

G: Grommet	E: Grommet terminal	T: Conduit terminal	D, Y: DIN terminal
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## How to Order Pilot Valve Assembly

SF4 - 1 DZ [ ] - 20

Coil rated voltage		Electrical entry, Light/Surge voltage suppressor		Manual override	
1	100 VAC, 50/60 Hz	F	Plug-in	YO	DIN terminal*
2	200 VAC, 50/60 Hz	G	Grommet	YOZ	DIN terminal with light/surge voltage suppressor*
3*	110 to 120 VAC (50/60 Hz)	GS	Grommet with surge voltage suppressor	T	Conduit terminal
4*	220 VAC, 50/60 Hz	D	DIN terminal	TZ	Conduit terminal with light/surge voltage suppressor
5	24 VDC	DO	DIN terminal with light/surge voltage suppressor	E	Grommet terminal
6*	12 VDC	DOZ	DIN terminal with light/surge voltage suppressor*	EZ	Grommet terminal with light/surge voltage suppressor
7*	240 VAC, 50/60 Hz	Y	DIN terminal		
9*	Other	YZ	DIN terminal with light/surge voltage suppressor		

\* Option

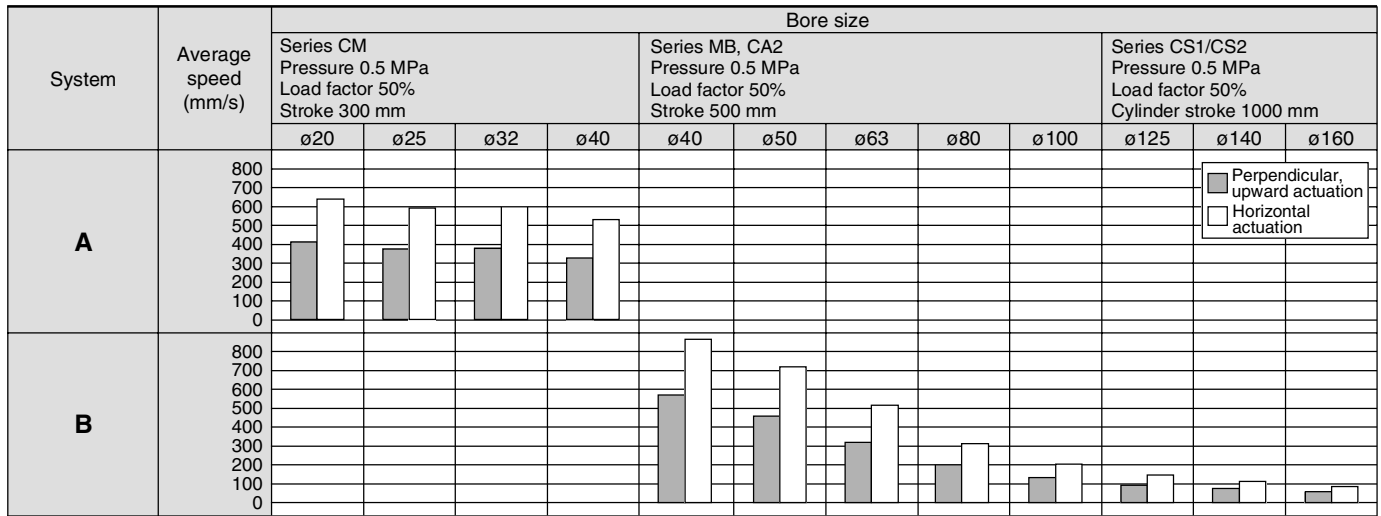
\* DIN connector is not attached.  
\*\* Refer to page 1223 for voltage conversion.  
\*\*\* Y: Conforming to DIN43650B standard

\* Option

# Series VFS2000

## Cylinder Speed Chart

Use as a guide for selection.  
Please confirm the actual conditions with SMC Sizing Program.



### System Components

System	Solenoid valve	Speed controller	Silencer	Tube bore x Length
A	Series VFS2000 Rc 1/8	AS3000-02 (S = 12 mm <sup>2</sup> )	AN110-01 (S = 35 mm <sup>2</sup> )	T0604 x 1 m
B	Series VFS2000 Rc 1/4	AS4000-02 (S = 21 mm <sup>2</sup> )	AN110-01 (S = 35 mm <sup>2</sup> )	T1075 x 1 m

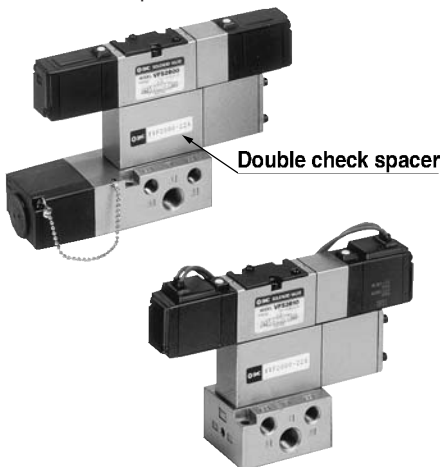


- \* It is when the cylinder is extending that is meter-out controlled by speed controller which is directly connected with cylinder, and its needle valve with being fully open.
- \* The average velocity of the cylinder is the value that the stroke is divided by the total stroke time.
- \* Load factor: ((Load weight x 9.8)/Theoretical force) x 100%

## Double Check Spacer/Specifications

### Can hold an intermediate cylinder position for an extended time

If the double check spacer with a built-in double check valve is combined, it will enable the cylinder to stop in the intermediate stroke and maintain its position for a long time without being affected by the leakage between the spools.



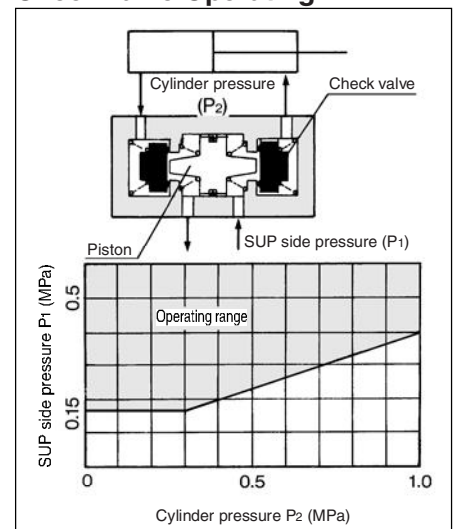
### Specifications

Double check spacer part no.	Plug-in type	Non plug-in type
	VVFS2000-22A-1	VVFS2000-22A-2
Applicable valve model	VFS2400-□F	VFS2410-□ G E T D

### ⚠ Caution

- In the case of 3 position double check valve (VFS26□0), check the leakage from piping and fittings in between valve and cylinder by means of synthetic detergent solutions, and ensure that there is no such leakage found there. Also check the leakage from cylinder seal and piston seal. If there is any leakage, sometimes the cylinder, when valve is de-energized, can move without stopping at intermediate position.
- Be aware that if the exhaust side is restricted excessively, the intermediate stopping accuracy will decrease and will lead to improper intermediate stops.
- Combining double check spacer with external pilot will not work.

### Check Valve Operating

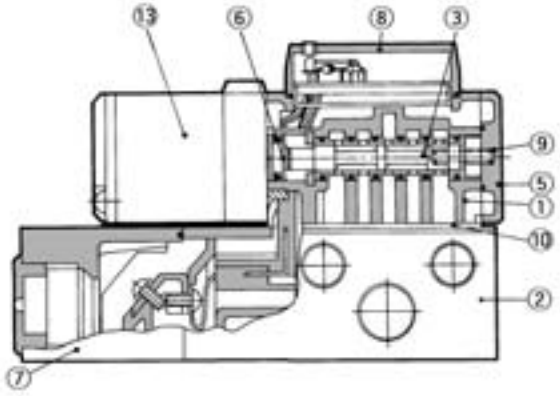
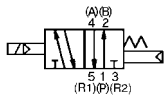


- The combination of VFS21<sup>0</sup><sub>10</sub>, VFS22<sup>0</sup><sub>10</sub> and a double check spacer can be used as prevention of falling at the stroke end but cannot hold the intermediate position of the cylinder.

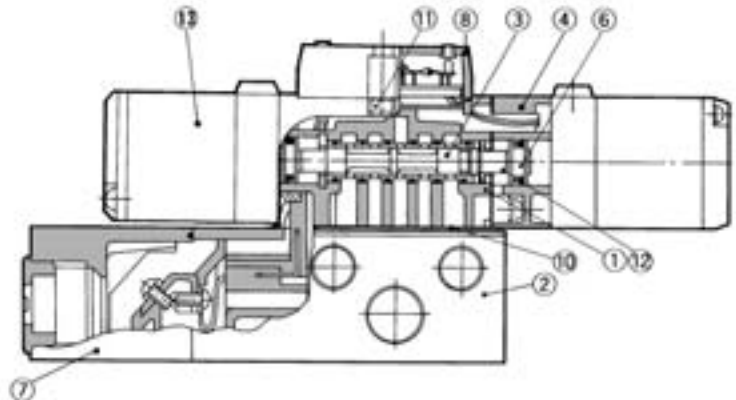
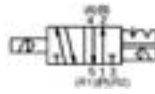
# 5 Port Pilot Operated Solenoid Valve Metal Seal, Plug-in/Non Plug-in **Series VFS2000**

## Construction

**2 position single**

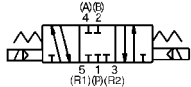


**2 position double**

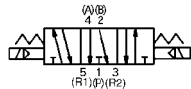


**3 position closed center/exhaust center/pressure center**

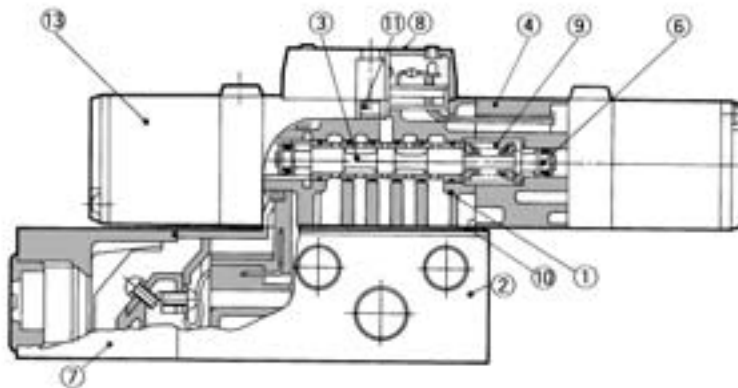
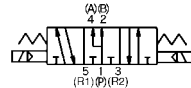
**Closed center**



**Exhaust center**



**Pressure**



### Component Parts

No.	Description	Material	Note
1	Body	Aluminum die-casted	Platinum silver
2	Sub-plate	Aluminum die-casted	Platinum silver
3	Spool/Sleeve	Stainless steel	—
4	Adapter plate	Resin	Black
5	End plate	Resin	Black
6	Piston	Resin	—
7	Junction cover	Resin	—
8	Cover	Resin	—
9	Return spring	Stainless steel	—
10	Gasket	NBR	—
11	Hexagon socket head screw	Steel	—
12	Detent assembly	—	—
13	Pilot valve assembly	—	—

\* Refer to "How to Order Pilot Valve Assembly" on page 1139.

### Sub-plate Assembly (Standard) Part No.

Plug-in	VFS2000-LP-R <sup>01</sup> <sub>02</sub>
Non plug-in	VFS2000-LS-R <sup>01</sup> <sub>02</sub>



\* Mounting bolt and gasket are not included.

### Sub-plate Assembly (For External Pilot) Part No.

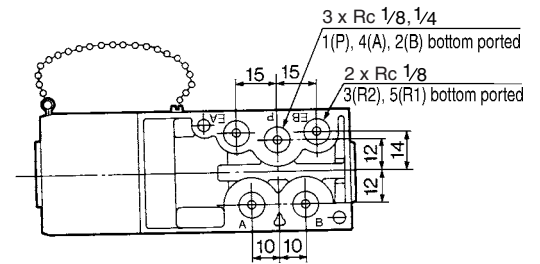
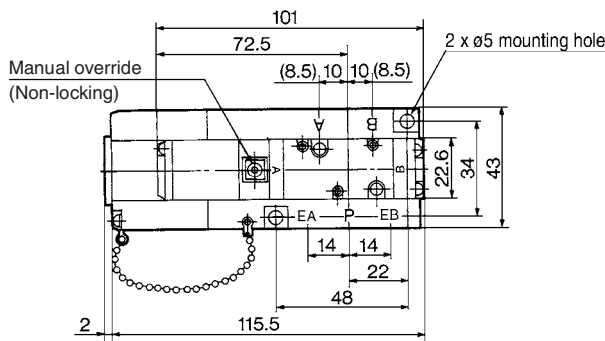
Plug-in	VFS2000-LP-R <sup>01</sup> <sub>02</sub>
Non plug-in	VFS2000-LS-R <sup>01</sup> <sub>02</sub>

Part no. for mounting bolt and gasket
<b>BG-VFS2000</b>

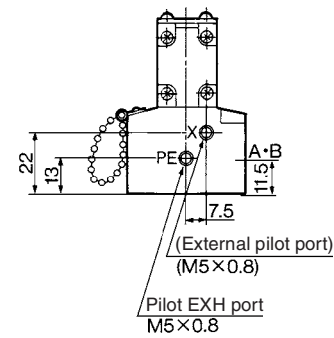
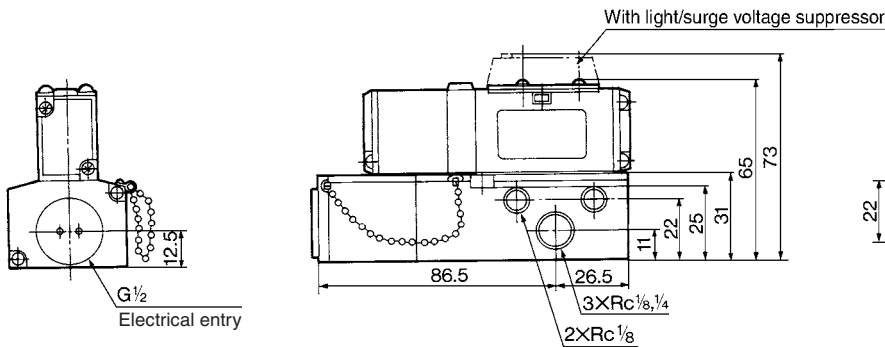
# Series VFS2000

## Plug-in — 2 Position single/Double/3 Position closed center/Exhaust center/Pressure center/Double check

2 position single: VFS2100-□F-01



Bottom ported



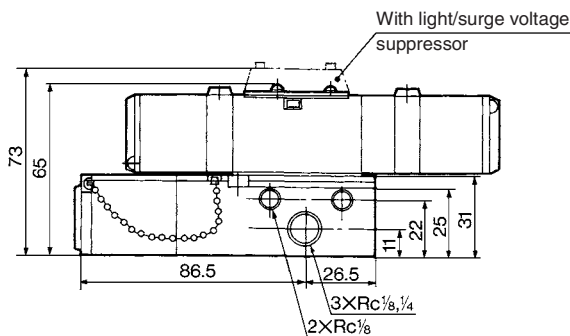
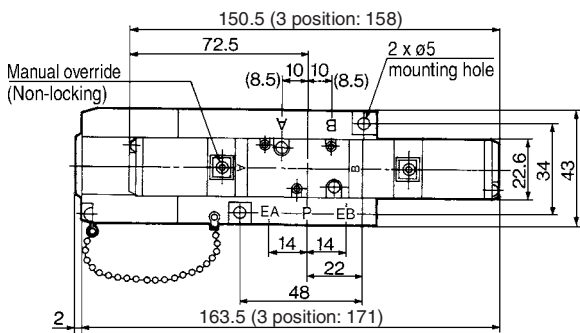
( ): Rc 1/8

2 position double: VFS2200-□F-01

3 position closed center: VFS2300-□F-01

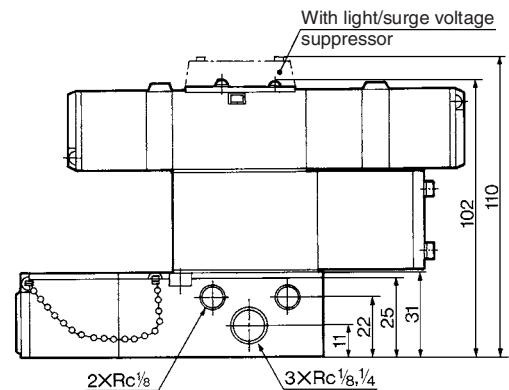
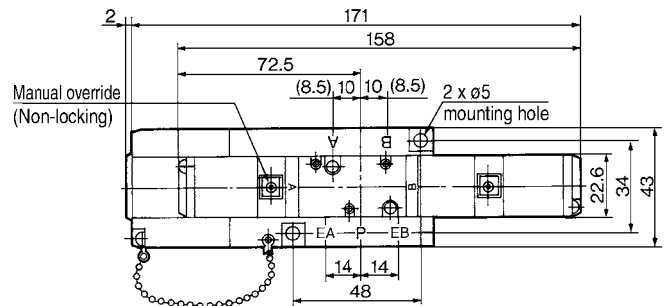
3 position exhaust center: VFS2400-□F-01

3 position pressure center: VFS2500-□F-01



( ): Rc 1/8

3 position double check: VFS2600-□F-01

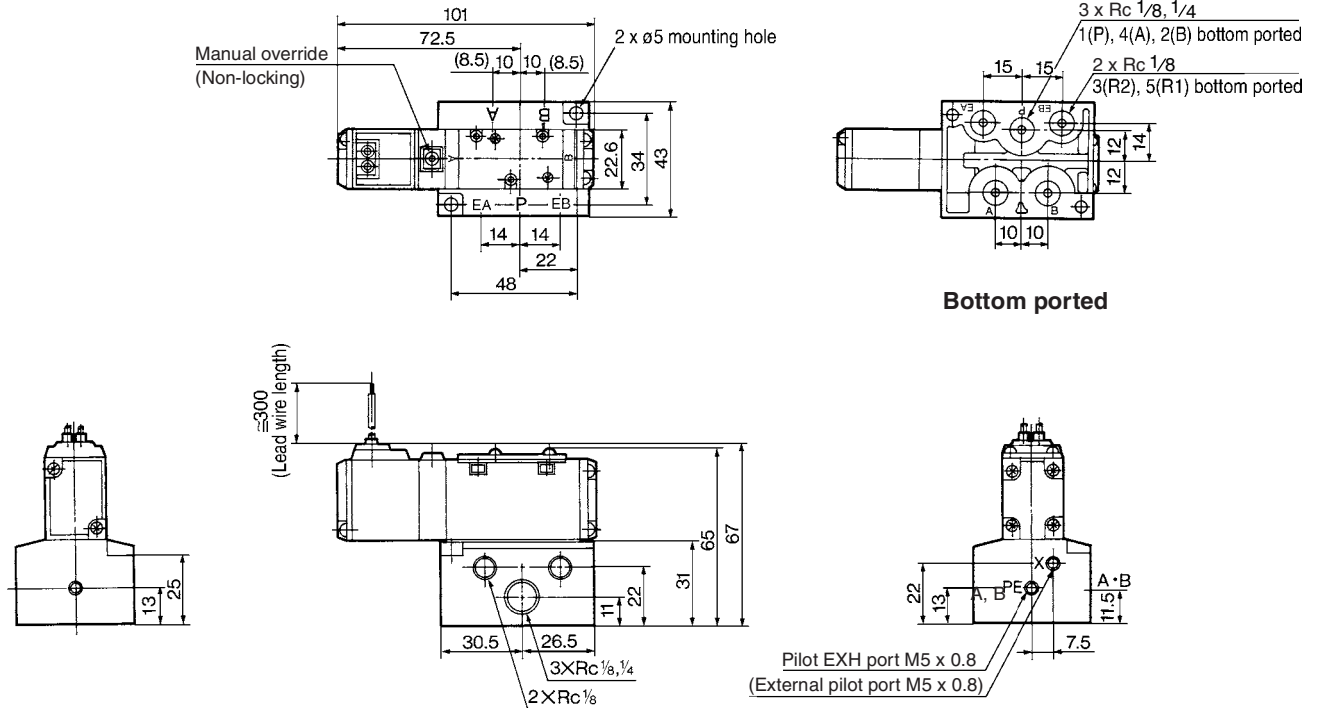


( ): Rc 1/8

# 5 Port Pilot Operated Solenoid Valve Metal Seal, Plug-in/Non Plug-in **Series VFS2000**

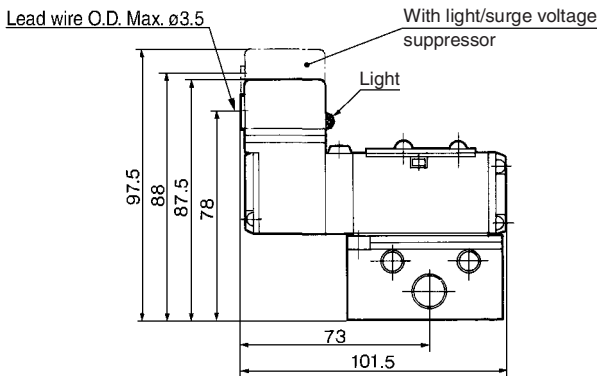
## Non Plug-in — 2 Position single

Grommet: VFS2110-□G-01

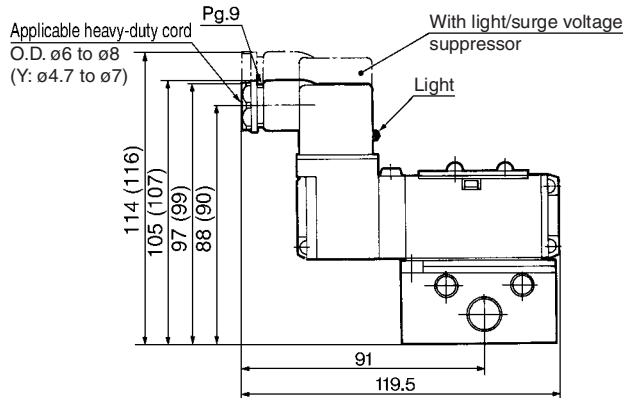


( ): Rc 1/8

Grommet terminal: VFS2110-□E-01

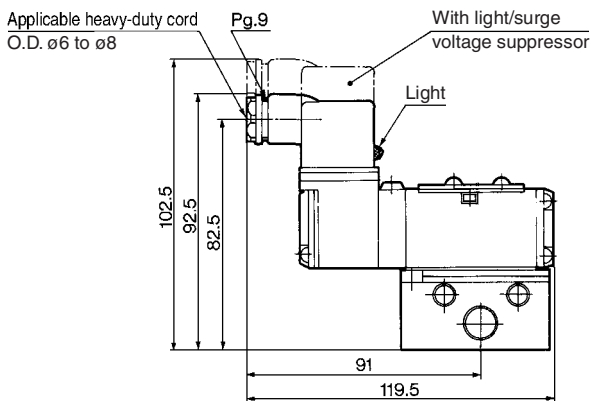


DIN terminal: VFS2110-□D-01



( ): Y, YZ

Conduit terminal: VFS2110-□T-01

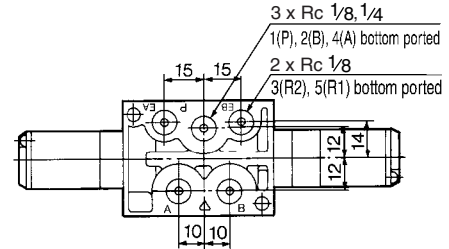
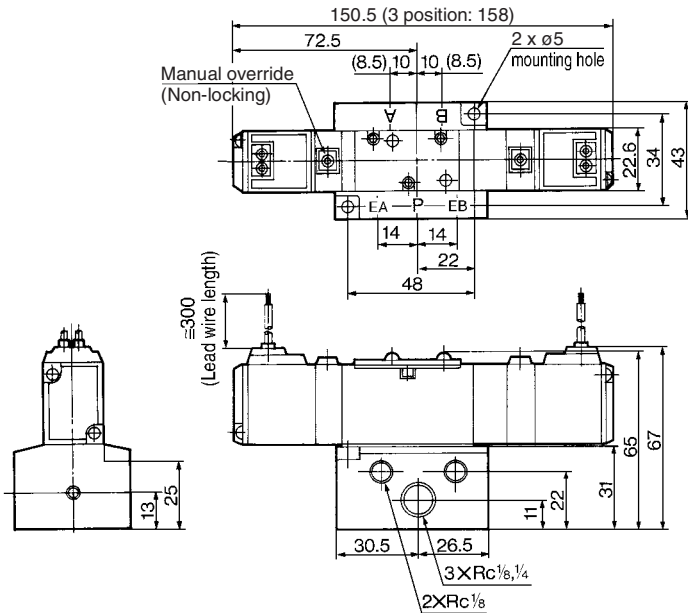


# Series VFS2000

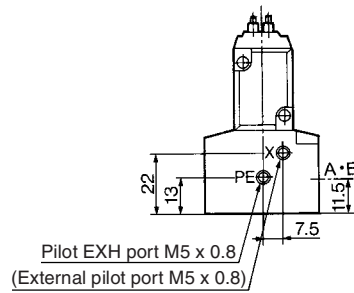
## Non Plug-in — 2 Position double/3 Position closed center/Exhaust center/Pressure center

Grommet: Double VFS2210-□G-01/02

Closed center VFS2310-□G-01/02, Exhaust center VFS2410-□G-01/02, Pressure center VFS2510-□G-01/02



Bottom ported



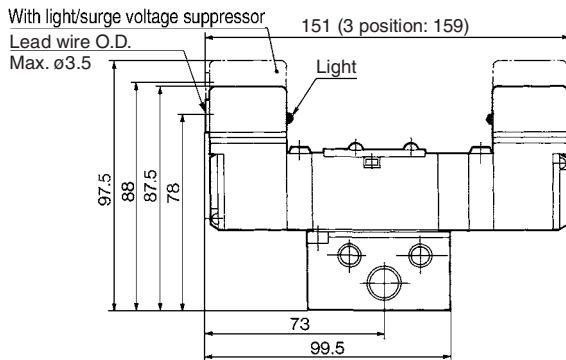
( ): Rc 1/8

Grommet terminal: Double VFS2210-□E-01/02

Closed center VFS2310-□E-01/02

Exhaust center VFS2410-□E-01/02

Pressure center VFS2510-□E-01/02

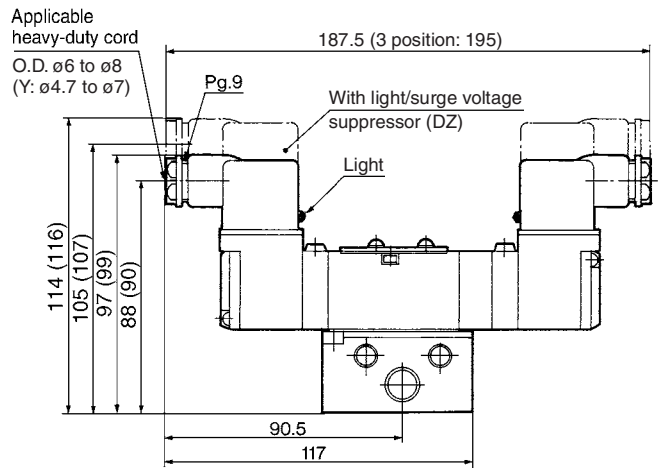


DIN terminal: Double VFS2210-□D-01/02

Closed center VFS2310-□D-01/02

Exhaust center VFS2410-□D-01/02

Pressure center VFS2510-□D-01/02

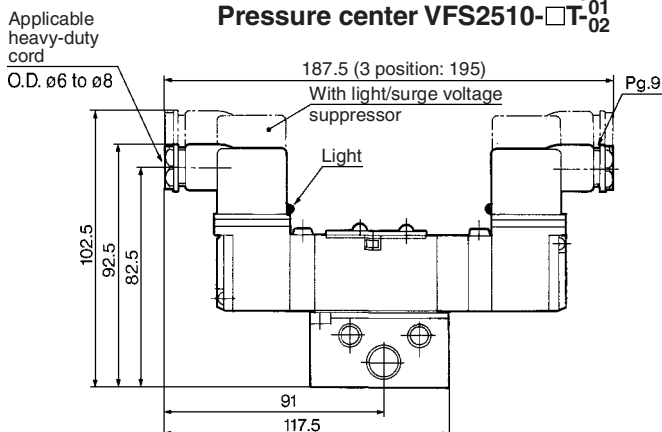


Conduit terminal: Double VFS2210-□T-01/02

Closed center VFS2310-□T-01/02

Exhaust center VFS2410-□T-01/02

Pressure center VFS2510-□T-01/02

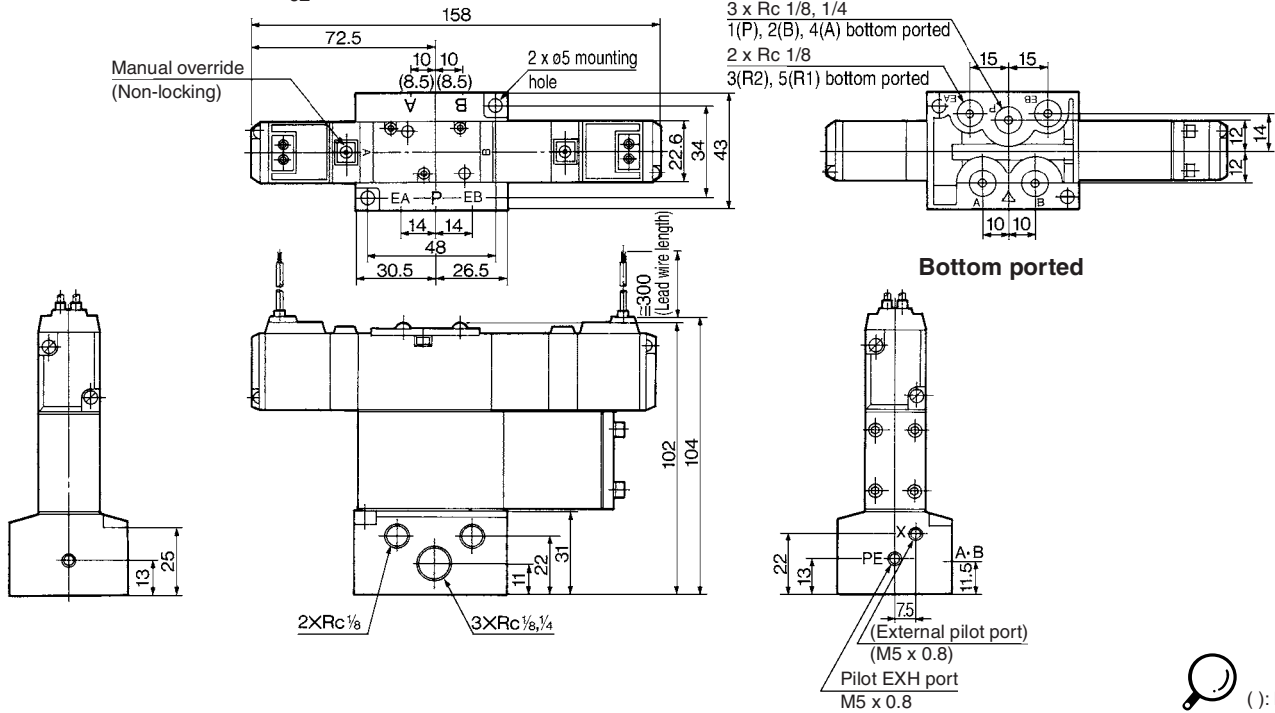


( ): Y, YZ

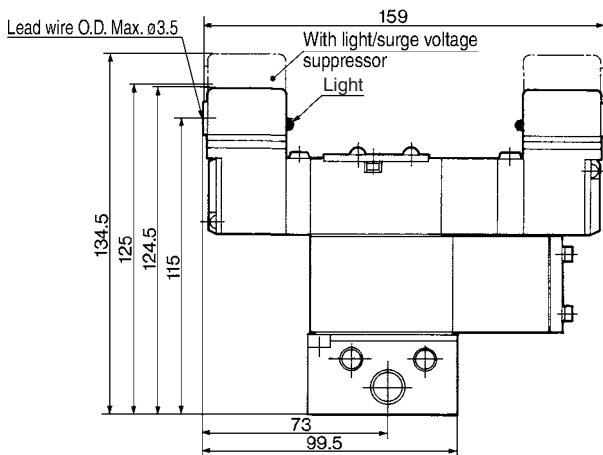
# 5 Port Pilot Operated Solenoid Valve Metal Seal, Plug-in/Non Plug-in **Series VFS2000**

## Non Plug-in — 3 Position double check

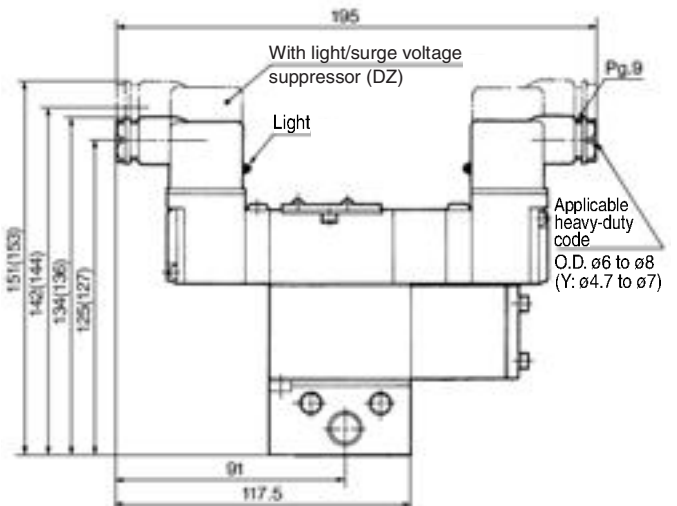
Grommet: VFS2610-□G-01



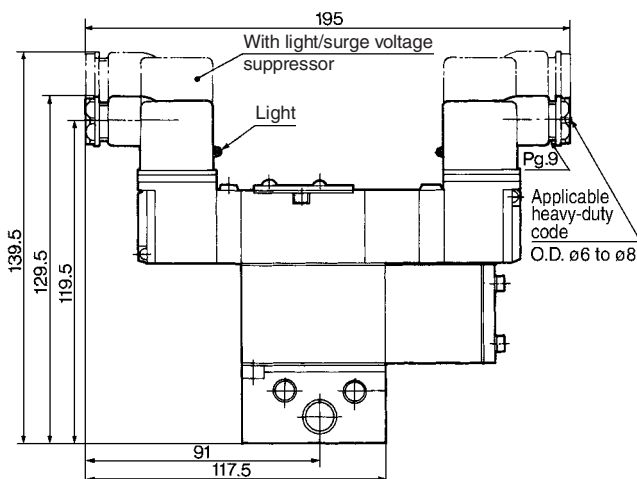
Grommet terminal: VFS2610-□E-01



DIN terminal: VFS2610-□D-01



Conduit terminal: VFS2610-□T-01



( ): Y, YZ

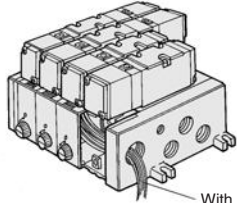


# Series VFS2000

# Manifold Specifications

## Plug-in Type: With Attachment Plug Lead Wire

The insert plug is attached to the manifold block and lead wire is plugged into the valve side. Please connect with corresponding power side.



With attachment plug lead wire

**VV5FS2-01-06 1-01**

Series VFS2000 Manifold  
Plug-in type  
With attachment plug lead wire

Stations

02	2 stations
...	...
16	16 stations

Symbol

Symbol	Passage P	EA, EB	Porting specifications A, B
1			Side
2*	Common	Common	Bottom
3*	Common	Individual	Side
4*	Common	Individual	Bottom
5*	Individual	Common	Side
6*	Individual	Common	Bottom
7*	Individual	Individual	Side
8*	Individual	Individual	Bottom

Port size

Symbol	P, EA, EB	A, B
01	Rc	Rc 1/8
02	Rc 1/4	Rc 1/4
M		Mixed

\* For bottom ported, Rc 1/8 is only available.

CE-compliant

Nil	—
Q	CE-compliant

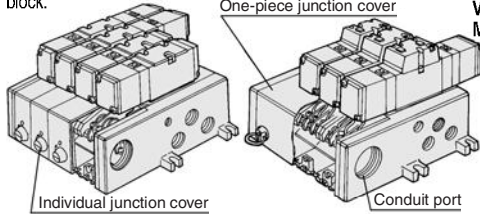
Thread type

Nil	Rc
N*	NPT
T*	NPTF
F*	G

\* Option

## Plug-in Type: With Terminal Block

Since lead wires of solenoid valve are connected with the terminals on upper surface of terminal block, corresponding lead wires from power source can be wired at the bottom of terminal block.



Individual junction cover

One-piece junction cover

Conduit port

**VV5FS2-01T 1-08 1-02**

Series VFS2000 Manifold  
Plug-in type  
With terminal block

Junction cover

Nil	Separate junction cover
1	One-piece junction cover

Stations

02	2 stations
...	...
16	16 stations

Symbol

Symbol	Passage P	EA, EB	Porting specifications A, B
1			Side
2*	Common	Common	Bottom
3*	Common	Individual	Side
4*	Common	Individual	Bottom
5*	Individual	Common	Side
6*	Individual	Common	Bottom
7*	Individual	Individual	Side
8*	Individual	Individual	Bottom

Port size

Symbol	P, EA, EB	A, B
01	Rc	Rc 1/8
02	Rc 1/4	Rc 1/4
M		Mixed

\* For bottom ported, Rc 1/8 is only available.

CE-compliant

Nil	—
Q	CE-compliant

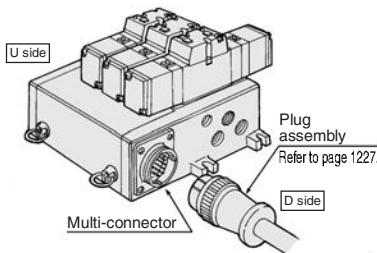
Thread type

Nil	Rc
N*	NPT
T*	NPTF
F*	G

\* Option

## Plug-in Type: With Multi-connector (Wiring specifications: Refer to page 1227.)

- Master connection of power and solenoid valves.
- Quick wiring permits ease of installation.



U side

Plug assembly  
Refer to page 1227.

Multi-connector

D side

**VV5FS2-01C D 1-05 2-01**

Series VFS2000 Manifold  
Plug-in type  
With multi-connector

Connector mounting direction

D	D side mounting
U	U side mounting

Junction cover

1	One-piece junction cover
---	--------------------------

Stations

02	2 stations
...	...
08	8 stations

\* Max. 8 stations

Symbol

Symbol	Passage P	EA, EB	Porting specifications A, B
1			Side
2*	Common	Common	Bottom
3*	Common	Individual	Side
4*	Common	Individual	Bottom
5*	Individual	Common	Side
6*	Individual	Common	Bottom
7*	Individual	Individual	Side
8*	Individual	Individual	Bottom

Port size

Symbol	P, EA, EB	A, B
01	Rc	Rc 1/8
02	Rc 1/4	Rc 1/4
M		Mixed

\* For bottom ported, Rc 1/8 is only available.

CE-compliant

Nil	—
Q	CE-compliant

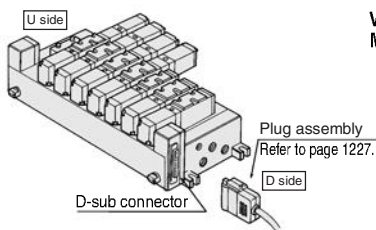
Thread type

Nil	Rc
N*	NPT
T*	NPTF
F*	G

\* Option

## Plug-in Type: With D-sub Connector (Wiring specifications: Refer to page 1227.)

- Wide range of interchangeability (D-sub connector (25P) conforming to MIL standard)
- Quick wiring permits easier installation.



U side

Plug assembly  
Refer to page 1227.

D-sub connector

D side

**VV5FS2-01F U 1-06 1-01**

Series VFS2000 Manifold  
Plug-in type  
With D-sub connector

Connector mounting direction

D	D side mounting
U	U side mounting

Junction cover

1	One-piece junction cover
---	--------------------------

Stations

02	2 stations
...	...
08	8 stations

\* Max. 8 stations

Symbol

Symbol	Passage P	EA, EB	Porting specifications A, B
1			Side
2*	Common	Common	Bottom
3*	Common	Individual	Side
4*	Common	Individual	Bottom
5*	Individual	Common	Side
6*	Individual	Common	Bottom
7*	Individual	Individual	Side
8*	Individual	Individual	Bottom

Port size

Symbol	P, EA, EB	A, B
01	Rc	Rc 1/8
02	Rc 1/4	Rc 1/4
M		Mixed

\* For bottom ported, Rc 1/8 is only available.

CE-compliant

Nil	—
Q	CE-compliant

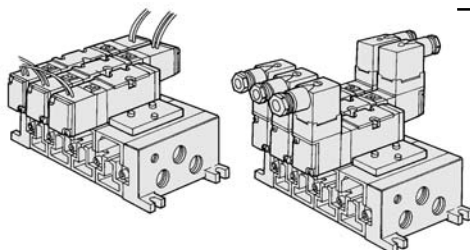
Thread type

Nil	Rc
N*	NPT
T*	NPTF
F*	G

\* Option

## Non Plug-in Type: Grommet, Grommet Terminal, Conduit Terminal, DIN Terminal

- Wiring for every valve



**VV5FS2-10-05 2-01**

Series VFS2000 Manifold  
Non plug-in type

Stations

02	2 stations
...	...
16	16 stations

Symbol

Symbol	Passage P	EA, EB	Porting specifications A, B
1			Side
2*	Common	Common	Bottom
3*	Common	Individual	Side
4*	Common	Individual	Bottom
5*	Individual	Common	Side
6*	Individual	Common	Bottom
7*	Individual	Individual	Side
8*	Individual	Individual	Bottom

Port size

Symbol	P, EA, EB	A, B
01	Rc	Rc 1/8
02	Rc 1/4	Rc 1/4
M		Mixed

\* For bottom ported, Rc 1/8 is only available.

CE-compliant

Nil	—
Q	CE-compliant

Thread type

Nil	Rc
N*	NPT
T*	NPTF
F*	G

\* Option

Note) The individual specification of the P port at the composition symbol 3 to 8 or the EA, EB, ports should be taken as individual port using a block plate. Therefore, if an individual port is using a single SUP spacer of option or a single EXH spacer, the composition symbol mark is "1".

# 5 Port Pilot Operated Solenoid Valve Metal Seal, Plug-in/Non Plug-in *Series VFS2000*

## How to Order Manifold Assembly

Please indicate manifold base type, corresponding valve, and option parts.

### <Example>

- Plug-in type with terminal block  
(6 stations, one-piece style junction cover)  
**(Manifold base) VV5FS2-01T1-061-02.... 1**  
**(2 position single) VFS2100-5FZ .....3**  
**(2 position double) VFS2200-5FZ.....2**  
**(Blanking plate) VVFS2000-10A..... 1**
- Non plug-in type (6 stations)  
**(Manifold base) VV5FS2-10-061-01..... 1**  
**(2 position single) VFS2110-5D..... 3**  
**(3 position exhaust center) VFS2410-5D..... 1**  
**(Individual EXH spacer) VVFS2000-R-01-2...1**

## Manifold Specifications

Base model	Wiring	Porting specifications		Port size Rc		Stations	Applicable valve model
		A, B port	P, EA, EB	A, B	A, B		
Plug-in type <b>VV5FS2-01</b> □	<ul style="list-style-type: none"> <li>• With attachment plug lead wire</li> <li>• With terminal block</li> <li>• With multi-connector</li> <li>• With D-sub connector</li> </ul>	Side/Bottom	1/4	1/8, 1/4	2 to 15*	VFS2□00-□F	
Non plug-in type <b>VV5FS2-10</b>	<ul style="list-style-type: none"> <li>• Grommet</li> <li>• Grommet terminal</li> <li>• Conduit terminal</li> <li>• DIN terminal</li> </ul>					VFS2□10-□G VFS2□10-□E VFS2□10-□T VFS2□10-□D	



\* With multi-connector, with D-sub connector: 8 stations at the maximum.

## Flow Characteristics at the Number of Manifold Stations (Operated individually)

Model	Passage/Stations		Station 1	Station 5	Station 10
VVFS2	1 → 4/2 (P → A/B)	C [dm <sup>3</sup> /(s·bar)]	2.4	2.4	2.4
		b	0.14	0.14	0.14
		Cv	0.50	0.50	0.50
	4/2 → 5/3 (A/B → R1/R2)	C [dm <sup>3</sup> /(s·bar)]	2.5	2.5	2.5
		b	0.18	0.18	0.18
		Cv	0.60	0.60	0.60



\* Port size Rc 1/4

# Series VFS2000

## Manifold Option Parts Assembly

### Individual SUP spacer

An individual SUP spacer set on manifold block can form SUP port for every valve.

Body type	Plug-in type	Non plug-in type
Part no. Rc 1/8	VVFS2000-P-01-1	VVFS2000-P-01-2
Rc 1/4	VVFS2000-P-02-1	VVFS2000-P-02-2



### Individual EXH spacer

An individual EXH spacer set on manifold block can form EXH port for every valve. (Common EXH type)

Body type	Plug-in type	Non plug-in type
Part no. Rc 1/8	VVFS2000-R-01-1	VVFS2000-R-01-2
Rc 1/4	VVFS2000-R-02-1	VVFS2000-R-02-2



### SUP block plate

When supplying manifold with more than two different pressures, high and low, insert a block plate in between stations subjected to different pressures.

Body type	Plug-in type	Non plug-in type
Part no.	AXT625-12A	

### EXH block plate

When valve exhaust affects the other stations on the circuit or when the reverse pressure valve is used to standard manifold valve, insert EXH block plate in between stations to separate valve exhaust.

Body type	Plug-in type	Non plug-in type
Part no.	AXT625-12A	



### Throttle valve spacer

Needle valve set on the manifold block can control cylinder speed by throttling exhaust.

Body type	Plug-in type	Non plug-in type
Part no.	VVFS2000-20A-1	VVFS2000-20A-2



### Interface regulator (P port regulation)



Interface regulator set on manifold block can regulate the pressure to each valve. Refer to "Flow Characteristics" on page 1225.

Body type	Plug-in type	Non plug-in type
P port regulation	ARBF2000-00-P-1	ARBF2000-00-P-2



### Air shutoff valve spacer

When stopping supply air and releasing residual pressure after completion of work, actuators may move from original position. Air shut off valve spacer makes it possible to stop actuators in original position for extended periods.

Body type	Plug-in type	Non plug-in type
Part no.	VVFS2000-21A-1	VVFS2000-21A-2



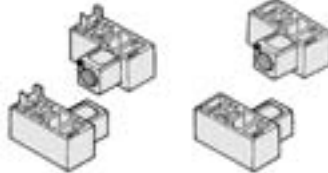
\* Not mountable for standard type sub-plate.

### Air release valve spacer

The concurrent use of air release valve spacer with VFS21□□ (single) can release air.

Body type	Plug-in type	Non plug-in type
Part no.	VVFS2000-24A-1 L/R	VVFS2000-24A-2 L/R

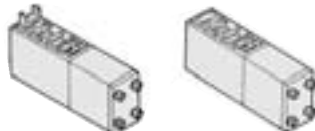
Note) L: U side mount R: D side mount



### Double check spacer

If the double check spacer with a built-in double check valve is combined, it will enable the cylinder to stop in the intermediate stroke and maintain its position for a long time without being affected by the leakage between the spools.

Body type	Plug-in type	Non plug-in type
Part no.	VVFS2000-22A-1	VVFS2000-22A-2



### Blanking plate

It is used by attaching on the manifold block for being prepared for removing a valve for maintenance reasons or planning to mount a spare valve, etc.

Body type	Plug-in type	Non plug-in type
Part no.	VVFS2000-10A	

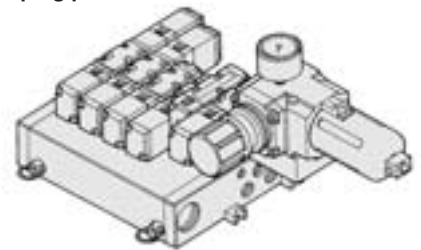
### Accessory

One pair of gasket and mounting thread is attached to every option parts assembly.

## Manifold Option

### With control unit Plug-in type/Non plug-in type

- Filter, regulation valve, pressure switch and air release valve are all combined to form one unit.
- Piping processes are eliminated.



For details, refer to page 1153.

### Dripproof Manifold

#### Plug-in type

- Equivalent to IP65



For details, refer to page 1155.

### Made to Order

#### Manifold with serial transmission kit Plug-in type

- Solenoid valve wiring process reduced considerably.

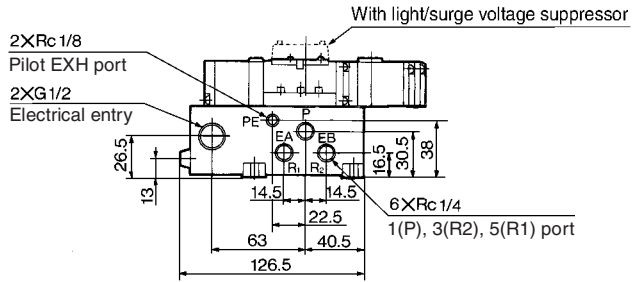
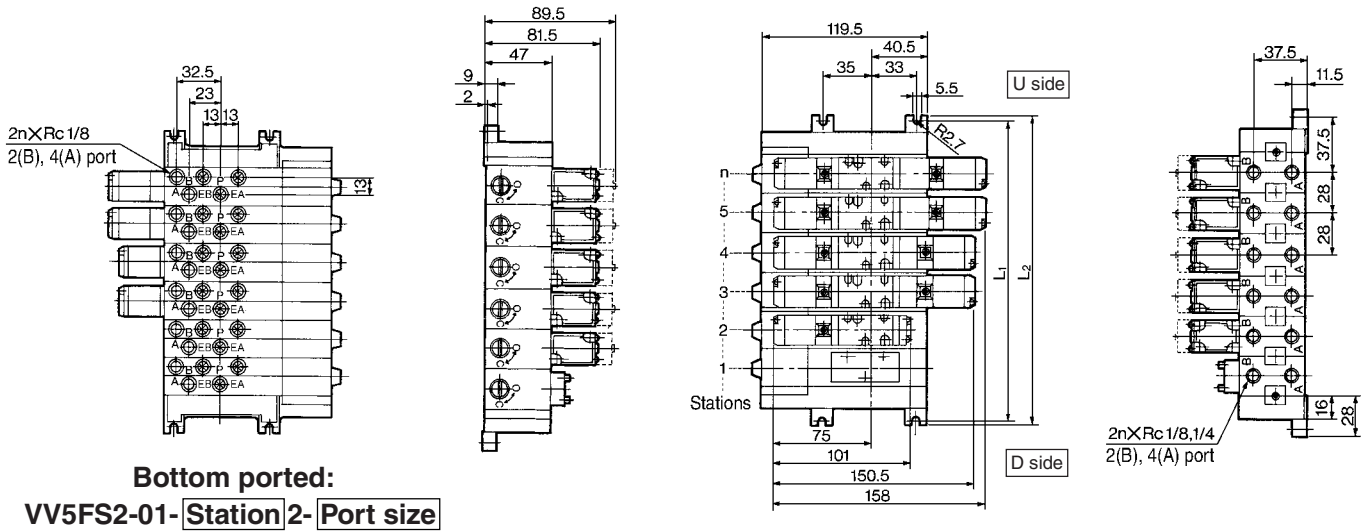


For details, refer to page 1158.

# 5 Port Pilot Operated Solenoid Valve Metal Seal, Plug-in/Non Plug-in *Series VFS2000*

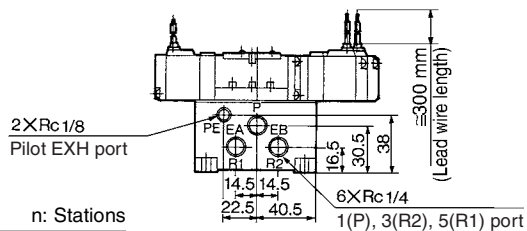
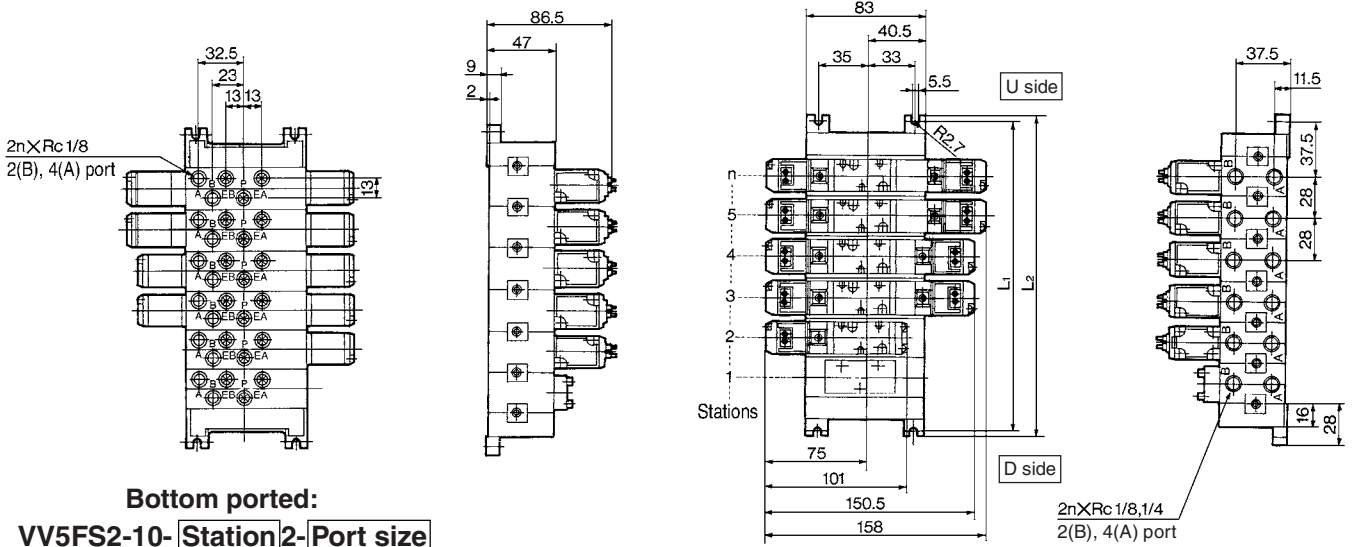
## Manifold — Plug-in type, Non plug-in type

### Plug-in type (Insert plug with lead wire): VV5FS2-01-Station 1-Port size



Formula for manifold weight  $M = 0.201n + 0.299$  (kg) n: Station

### Non plug-in type: VV5FS2-10-Station 1-Port size



Formula for manifold weight  $M = 0.174n + 0.218$  (kg)

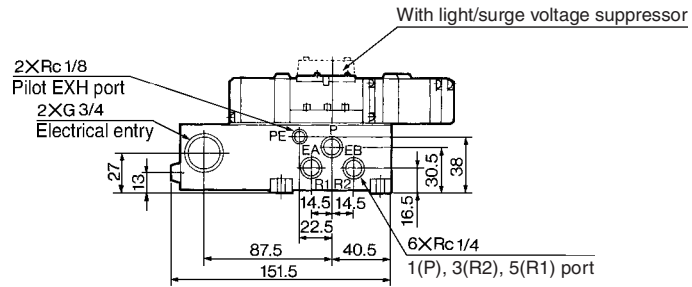
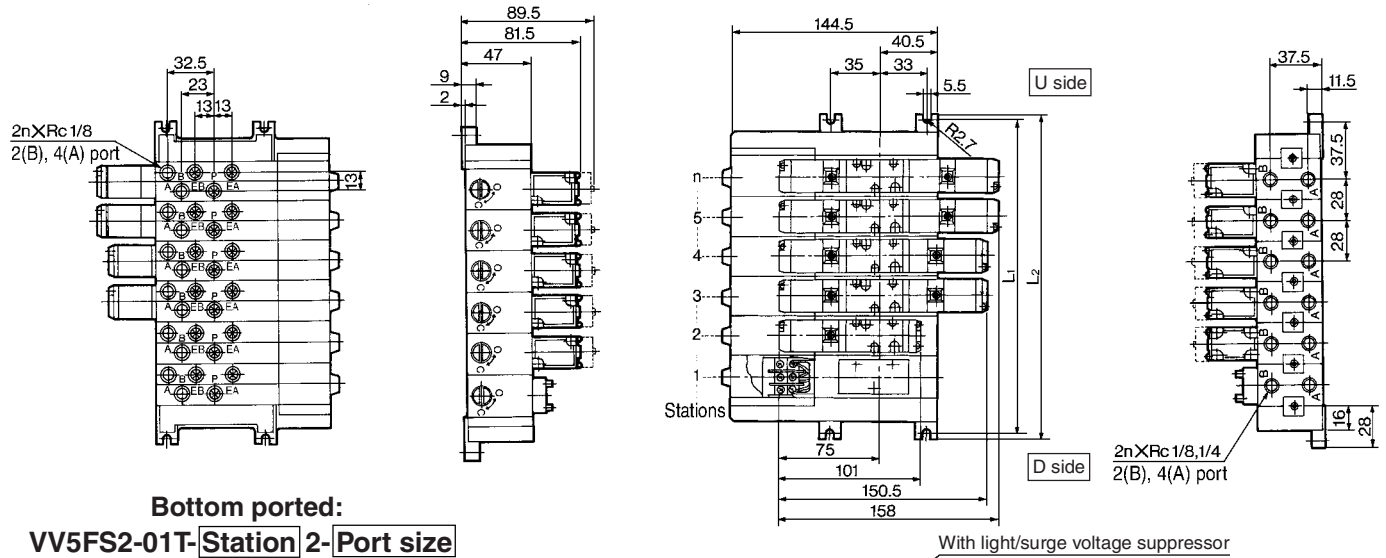
n: Stations

Stations	1	2	3	4	5	6	7	8	9	10	Formula
L <sub>1</sub>	75	103	131	159	187	215	243	271	299	327	L <sub>1</sub> = 28 x n + 47
L <sub>2</sub>	84	112	140	168	196	224	252	280	308	336	L <sub>2</sub> = 28 x n + 56

# Series VFS2000

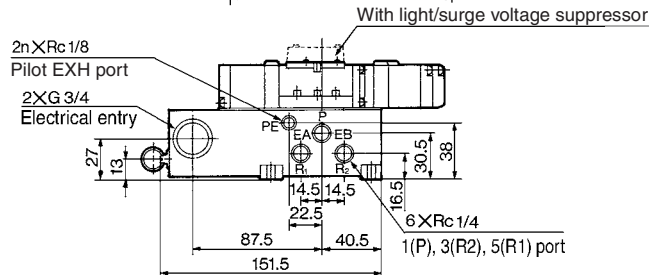
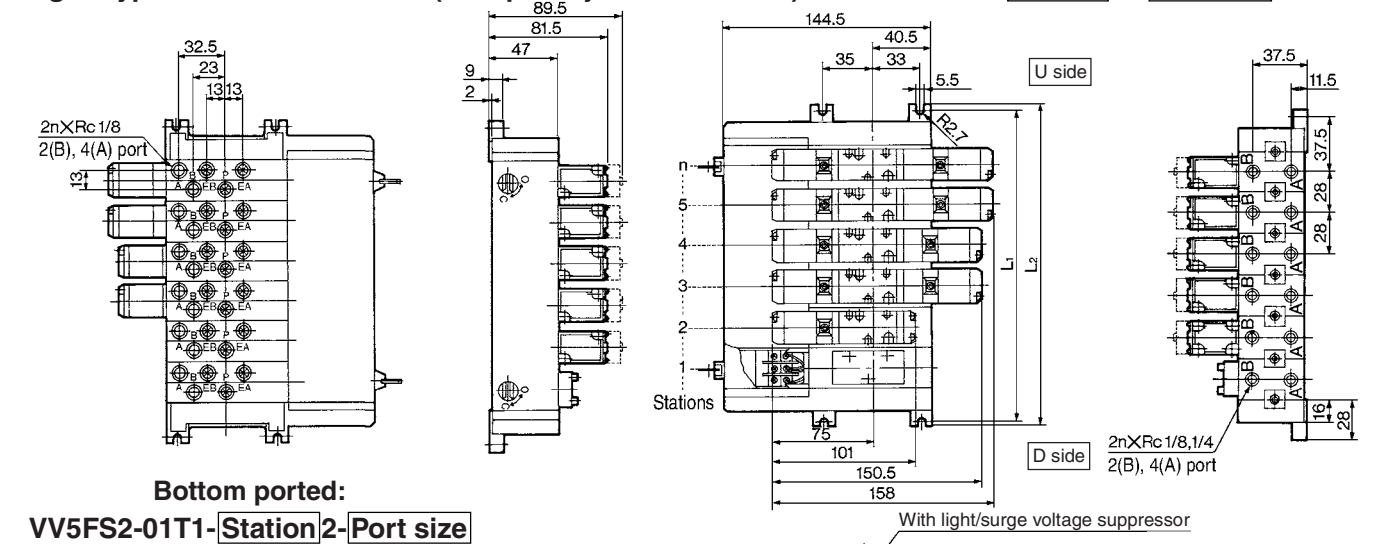
## Manifold — Plug-in type: Individual/One-piece junction cover

### Plug-in type with terminal block (Individual junction covers): VV5FS2-01T- Station 1- Port size



Formula for manifold weight  $M = 0.215n + 0.35$  (kg) n: Station

### Plug-in type with terminal block (One-piece junction covers): VV5FS2-01T1- Station 1- Port size



Formula for manifold weight  $M = 0.236n + 0.354$  (kg)

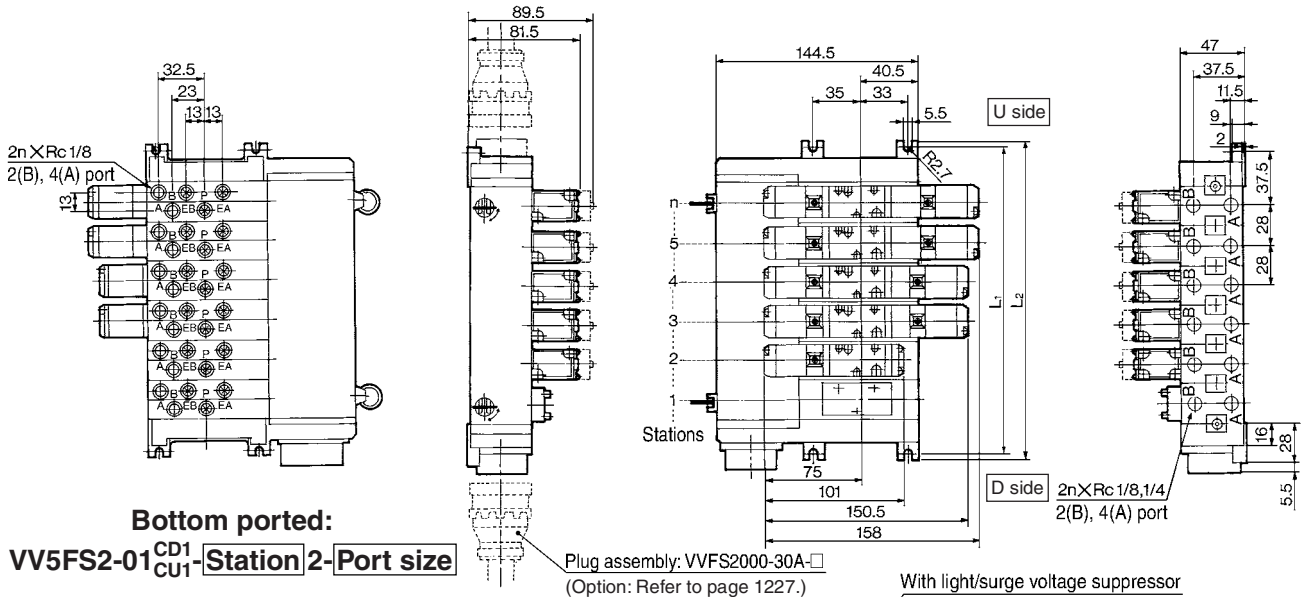
n: Station

Stations	1	2	3	4	5	6	7	8	9	10	Formula
L <sub>1</sub>	75	103	131	159	187	215	243	271	299	327	L <sub>1</sub> = 28 x n + 47
L <sub>2</sub>	84	112	140	168	196	224	252	280	308	336	L <sub>2</sub> = 28 x n + 56

# 5 Port Pilot Operated Solenoid Valve Metal Seal, Plug-in/Non Plug-in *Series VFS2000*

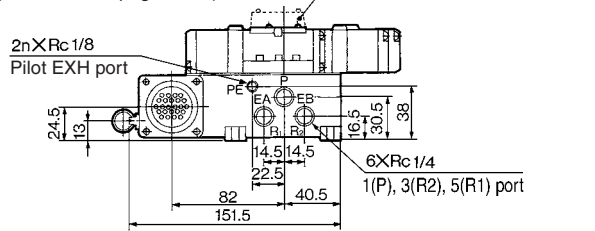
## Manifold — Plug-in with multi-connector/with D-sub connector

Plug-in with multi-connector: **VV5FS2-01CD1-Station 1-Port size**, **VV5FS2-01CU1-Station 1-Port size**

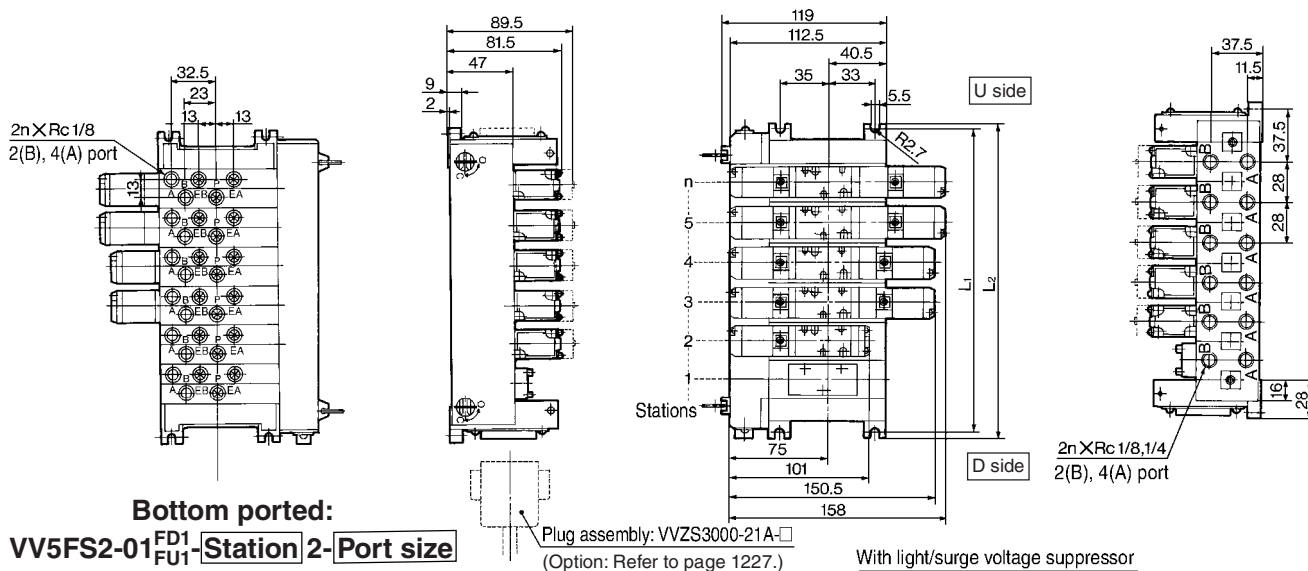


Formula for manifold weight  $M = 0.211n + 0.442$  (kg) n: Station

\* Wiring specifications: Refer to page 1227.



Plug-in type with D-sub connector: **VV5FS2-01FD1-Station 1-Port size**, **VV5FS2-01FU1-Station 1-Port size**



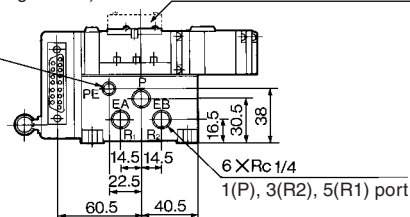
Formula for manifold weight  $M = 0.178n + 0.378$  (kg)

\* Wiring specifications: Refer to page 1227.



n: Stations

Stations	1	2	3	4	5	6	7	8	Formula
L <sub>1</sub>	75	103	131	159	187	215	243	271	L <sub>1</sub> = 28 x n + 47
L <sub>2</sub>	84	112	140	168	196	224	252	280	L <sub>2</sub> = 28 x n + 56



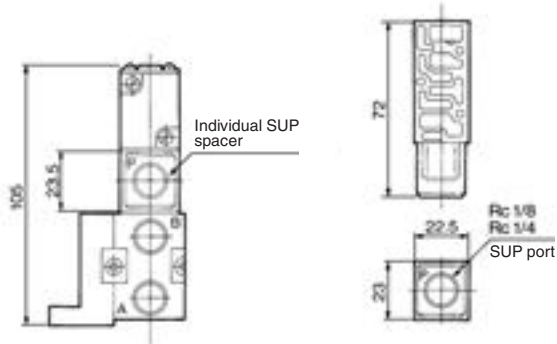
# Series VFS2000

## Manifold Option Parts — Plug-in type, Non plug-in type

Individual SUP spacer:

VVFS2000-P-01-1 (Plug-in type)

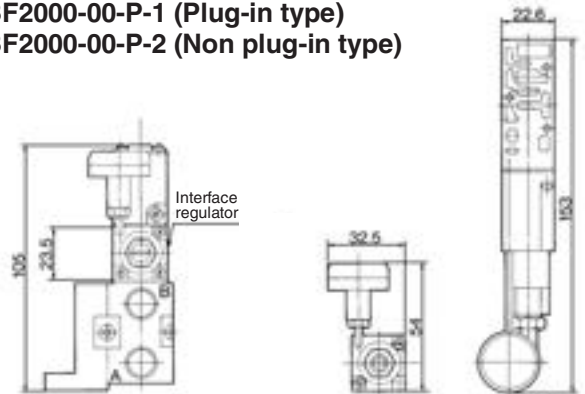
VVFS2000-P-01-2 (Non plug-in type)



Interface regulator:

ARBF2000-00-P-1 (Plug-in type)

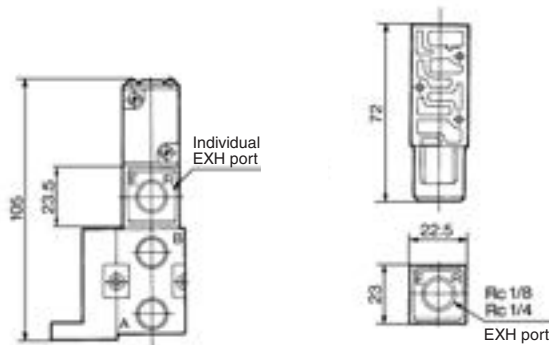
ARBF2000-00-P-2 (Non plug-in type)



Individual EXH spacer:

VVFS2000-R-01-1 (Plug-in type)

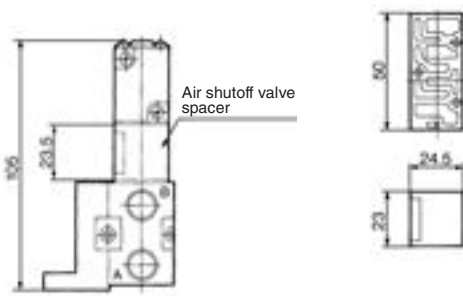
VVFS2000-R-01-2 (Non plug-in type)



Air shutoff valve spacer:

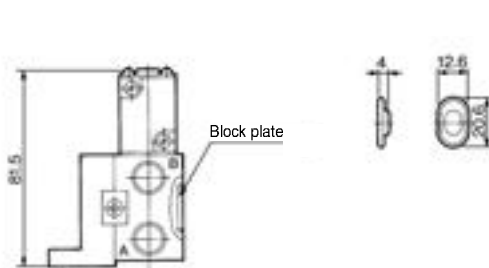
VVFS2000-21A-1 (Plug-in type)

VVFS2000-21A-2 (Non plug-in type)



SUP block plate: AXT625-12A

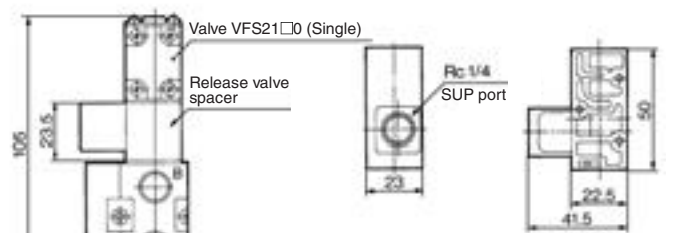
EXH block plate: AXT625-12A



Release valve spacer:

VVFS2000-24A-1<sup>R</sup> (Plug-in type)

VVFS2000-24A-2<sup>L</sup> (Non plug-in type)

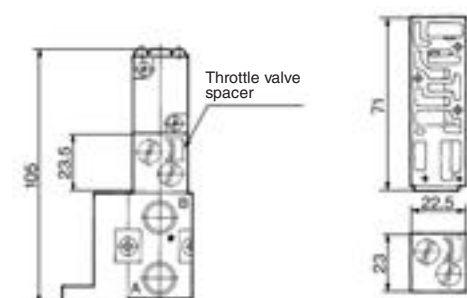


Note) VVFS2000-24A-12<sup>1</sup>/<sub>2</sub> R. D-side mounting.

Throttle valve spacer:

VVFS2000-20A-1 (Plug-in type)

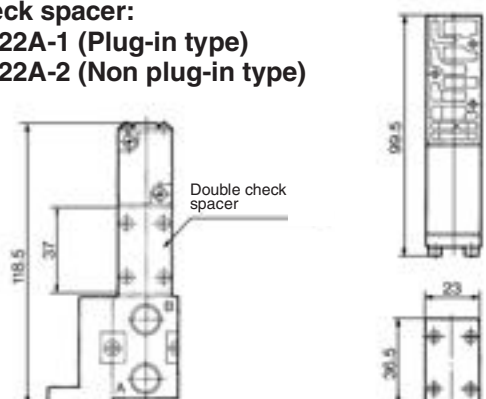
VVFS2000-20A-2 (Non plug-in type)



Double check spacer:

VVFS2000-22A-1 (Plug-in type)

VVFS2000-22A-2 (Non plug-in type)

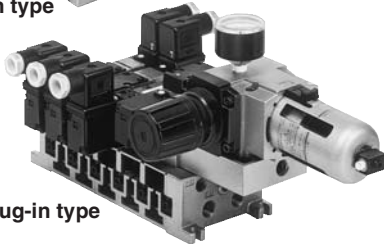


## Manifold with Control Unit

- Control unit (Filter, Regulator, Pressure switch, Air release valve) are all standardized to the one unit, and can be mounted on the manifold base without any attachments.
- Piping processes are eliminated.



Plug-in type



Non plug-in type

### ⚠ Caution

When using an air filter with auto-drain or manual drain, mount the filter vertically.

### Manifold Specifications

Manifold	Plug-in type: VV5FS2-01□	Non plug-in type: VV5FS2-10
<b>Wiring</b>	Plug-in with attachment plug lead wire With terminal block With multi-connector With D-sub connector	Grommet Grommet terminal Conduit terminal DIN terminal
<b>Applicable valve model</b>	VFS2□00-□F	VFS2□10-□G, VFS2□10-□E VFS2□10-□T, VFS2□10-□D
<b>Porting specifications Rc</b>	Common SUP, Common EXH	
	2(B), 4(A) port 1 (P), 3(R2), 5(R1) port	Side: Rc 1/8, 1/4, Bottom: Rc 1/8 (Option) Side: Rc 1/4, 1/8, Bottom: Rc 1/8 (Option)
<b>Stations</b>	2 to 15 stations*	

\* With multi-connector, or D-sub connector: 8 stations max.

### Control Unit Specifications

<b>Air filter (With auto-drain/With manual drain)</b>	
<b>Filtration degree</b>	5 μm
<b>Regulator</b>	
<b>Set pressure (Outlet pressure)</b>	0.05 to 0.85 MPa
<b>Pressure switch <sup>(1)</sup></b>	
<b>Set pressure range: OFF</b>	0.1 to 0.6 MPa
<b>Differential</b>	0.08 MPa or less
<b>Contact</b>	1a
<b>Indicator light</b>	LED (RED)
<b>Max. switch capacity</b>	2 VA AC, 2 W DC
<b>Max. operating current</b>	24 VAC/DC or less: 50 mA 100 VAC/DC: 20 mA
<b>Air release valve (Single only)</b>	
<b>Operating pressure range</b>	0.1 to 1.0 MPa

### Control Unit/Option

<b>Air release valve spacer <sup>(2)</sup></b>	<Plug-in type> VVFS2000-24A-1R (D side mounting) VVFS2000-24A-1L (U side mounting)	
	<Non plug-in type> VVFS2000-24A-2R (D side mounting) VVFS2000-24A-2L (U side mounting)	
<b>Pressure switch <sup>(3)</sup></b>	IS1000P-2-1	
<b>Blanking plate</b>	With control unit/Filter regulator	MP2-2
	Pressure switch	MP3-2
	Release valve	AXT625-18A
<b>Filter element</b>	111511-5B	



Note 1) Voltage: 24 VDC to 100 VAC  
Inner voltage drop: 4 V



Note 2) Refer to manifold option parts on page 1148.

Note 3) The non plug-in type cannot be mounted afterwards.

### How to Order

Note) The manifold of plug-in type with attachment plug lead wire is applied to individual type only. Non plug-in type has no junction cover.

**VV5FS2-10-081-01-AP-AP** • CE-compliant

Series VFS2000 Manifold

Base type/Electrical entry

01	Plug-in type with attachment plug lead wire
01T	Plug-in type with terminal block
01C	Plug-in type with multi-connector
01F	Plug-in type with D-sub connector
10	Non plug-in type

Connector mounting direction

Symbol	With connector	Applicable base
Nil	None	01, 01T, 10
D	D side mounting	01C, 01F
U	U side mounting	

Junction cover

Nil	Stacking type
1	Integrated type

Note) Stacking type:  
Base type 01, 01T  
Integrated type:  
Base type 01T, 01C, 01F

Stations

02	2 stations
⋮	⋮
15*	15 stations

\* Base type  
01, 01T, 10 — 2 to 15 stations  
01C, 01F — 2 to 8 stations

Symbol

Symbol	Passage		Porting specifications
	P	EA, EB	
1	Common	Common	Side
2*			Bottom
3*	Common	Individual	Side
4*			Bottom
5*	Individual	Common	Side
6*			Bottom
7*	Individual	Individual	Side
8*			Bottom

\* Option  
The individual specification of the P port in the composition symbol marks 3 to 8 or EA, EB ports should be taken as individual port using a block plate. Therefore, if an individual port is taken using a single SUP spacer of option or a single EXH spacer, the composition symbol mark is "1".

Control unit type

Symbol	Nil	A	AP	M	MP	F	G	C	E
Control equipment									
Air filter with auto-drain		●	●			●			
Air filter with manual drain				●	●		●		
Regulator		●	●	●	●	●	●		
Air release valve		●	●	●	●			●	●
Pressure switch			●		●				
Blanking plate (Air release valve)						●	●		
Blanking plate (Filter, Regulator)								●	
Blanking plate (Pressure switch)		●	●		●	●	●		
Number of manifold blocks required for mounting (stations)	2	2	2	2	2	2	2	2	1

Air release valve coil rating

Nil	None (F, G type only)
1	100 VAC, 50/60 Hz
5	24 VDC
9	Other

Thread type

Nil	Rc
N*	NPT
T*	NPTF
F*	G

\* Option

Port size

Symbol	P, EA, EB	B, A
01	Rc	Rc 1/8
02	Rc 1/4	Rc 1/4
M		Mixed

How to Order Manifold Assembly [Example]

Add the valve and option part numbers in order starting from the first station on the D side.

<Example>

- Plug-in type with terminal block  
(Manifold base) VV5FS2-01T1-091-02-MP5 ..... 1  
(2 position single) \* VFS2100-5FZ ..... 5  
(2 position double) \* VFS2200-5FZ ..... 2  
\* 2 stations are needed to mount control unit.
- Non plug-in type  
(Manifold base) VV5FS2-10-071-01-M ..... 1  
(2 position single) \* VFS2110-5D ..... 5  
\* 2 stations are needed to mount control unit.

The asterisk denotes the symbol for assembly. Prefix it to the part numbers of the solenoid valve.



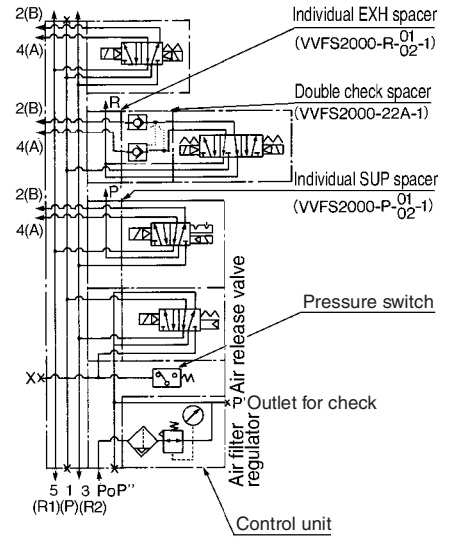
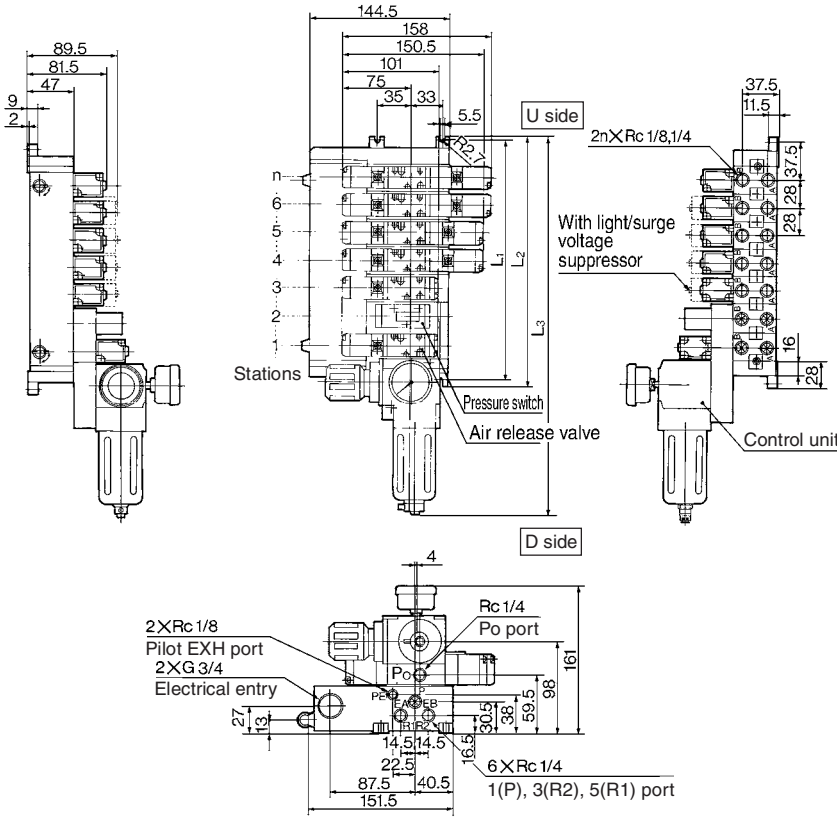
# Series VFS2000

## Manifold with Control Unit — Plug-in type, Non plug-in type

Plug-in type:

VVFS2-01T-Station 1- Port size- Control unit Voltage for release valve

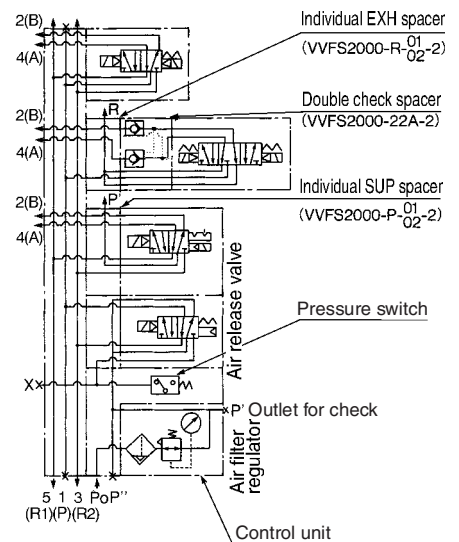
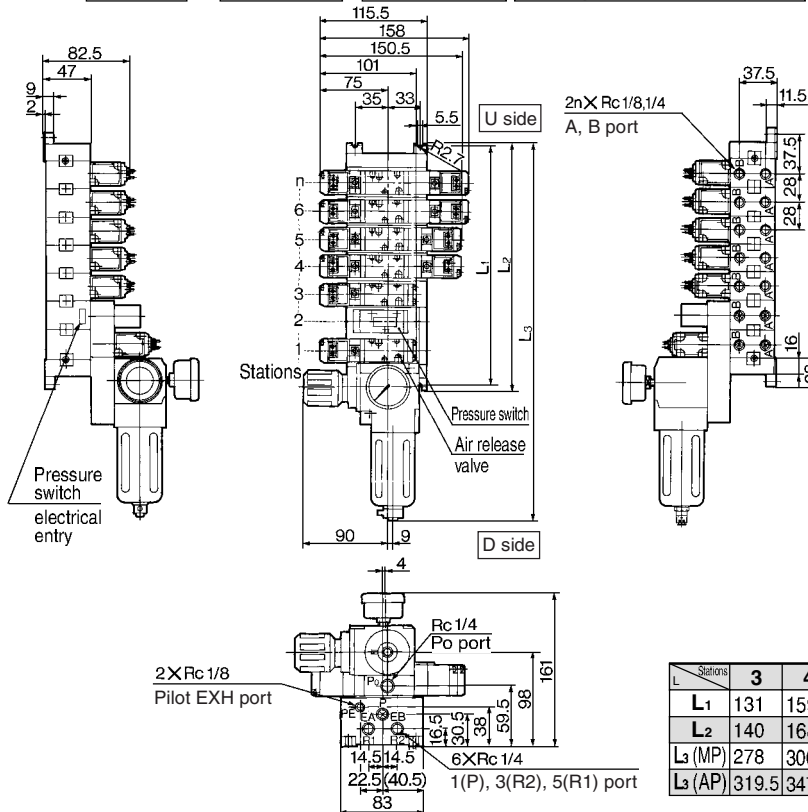
Example for manifold



Non plug-in type:

VVFS2-10-Station 1- Port size - Control unit Voltage for release valve

Example for manifold



n: Stations

Stations	3	4	5	6	7	8	9	10	Formula
L <sub>1</sub>	131	159	187	215	243	271	299	327	L <sub>1</sub> = 28 x n + 47
L <sub>2</sub>	140	168	196	224	252	280	308	336	L <sub>2</sub> = 28 x n + 56
L <sub>3</sub> (MP)	278	306	334	362	390	418	446	474	L <sub>3</sub> = 28 x n + 194
L <sub>3</sub> (AP)	319.5	347.5	375.5	403.5	431.5	459.5	487.5	515.5	L <sub>3</sub> = 28 x n + 235.5

## Dripproof Manifold (Equivalent to IP65)

### Manifold Specifications

Manifold	VV5FS2-01WTB <sub>U</sub>	VV5FS2-01W
Wiring	Common terminal box	Attachment plug lead wire
Applicable value model	VFS2□00-□F-X54	
Porting specifications	Common SUP, Common EXH	
	2(B), 4(A) port	Side: Rc 1/8, 1/4, Bottom: Rc 1/8 (Option)
	1(P), 3(R2), 5(R1) port	Side: Rc 1/4
Stations	2 to 10 stations	2 to 15 stations

### How to Order

#### How to order manifold

VV5FS2 - **01WTBU** - **08** **1** - **02** - **□**

Plug-in dripproof manifold  
(Equivalent to IP65)

<b>01WTBU</b>	Common terminal box (U side mounting)
<b>01WTBD</b>	Common terminal box (D side mounting)
<b>01W</b>	Attachment plug lead wire

• CE-compliant

Nil	—
Q	CE-compliant

• Port size

Symbol	P, R1, R2	A, B
<b>01</b>	Rc 1/8	Rc 1/8
<b>02</b>	Rc 1/4	Rc 1/4
<b>M</b>		Mixed

\* For bottom ported, A/B port is available only with Rc 1/8.

• Stations

<b>02</b>	2 stations
⋮	⋮
<b>15</b>	15 stations

• Symbol

Symbol	Passage	Porting specifications
	P, R1, R2	A, B
<b>1</b>	Common	Side
<b>2*</b>		Bottom

\* Option

#### How to order valves

VFS2 **1** **00** **□** - **5** **F** **□** **□** - **X54** - **□**

• Symbol

<b>1</b>	2 position single
<b>2</b>	2 position double
<b>3</b>	3 position closed center
<b>4</b>	3 position exhaust center
<b>5</b>	3 position pressure center
<b>6</b>	3 position double check

• Pilot type

Nil	Internal pilot
<b>R*</b>	External pilot

\* Option

• CE-compliant

Nil	—
Q	CE-compliant

• Dripproof

• Pilot valve manual override

Nil	Non-locking push type (Flush)
<b>A*</b>	Non-locking push type (Extended)
<b>B*</b>	Locking type (Tool required)
<b>C*</b>	Locking type (Lever)

\* Option

• Option

Nil	None
<b>Z</b>	With light/surge voltage suppressor

• Coil rated voltage

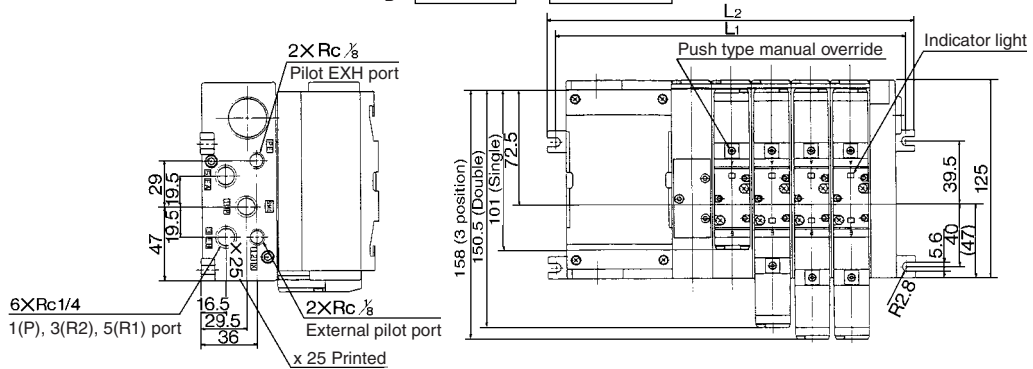
<b>1</b>	100 VAC, 50/60 Hz
<b>2</b>	200 VAC, 50/60 Hz
<b>3*</b>	110 to 120 VAC, 50/60 Hz
<b>4*</b>	220 VAC, 50/60 Hz
<b>5</b>	24 VDC
<b>6*</b>	12 VDC
<b>7*</b>	240 VAC, 50/60 Hz
<b>9*</b>	Other

\* Option

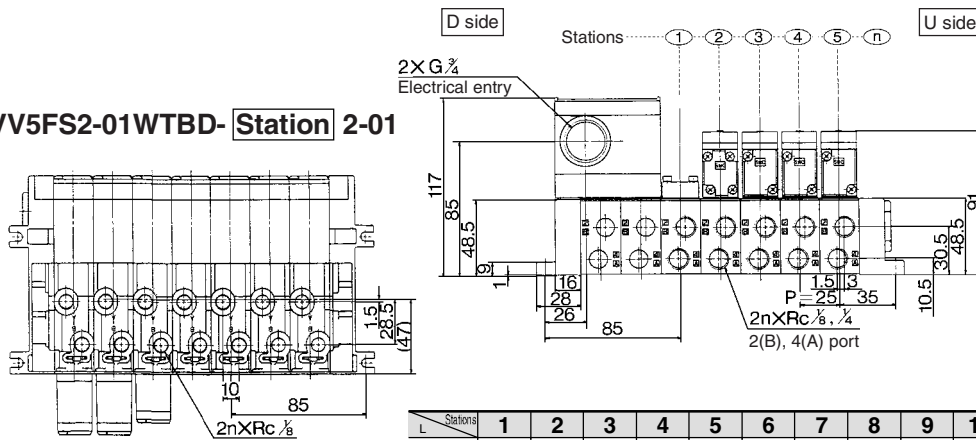
# Series VFS2000

## Dripproof Manifold

With common terminal box: VV5FS2-01WTB<sub>D</sub> - Station 1- Port size



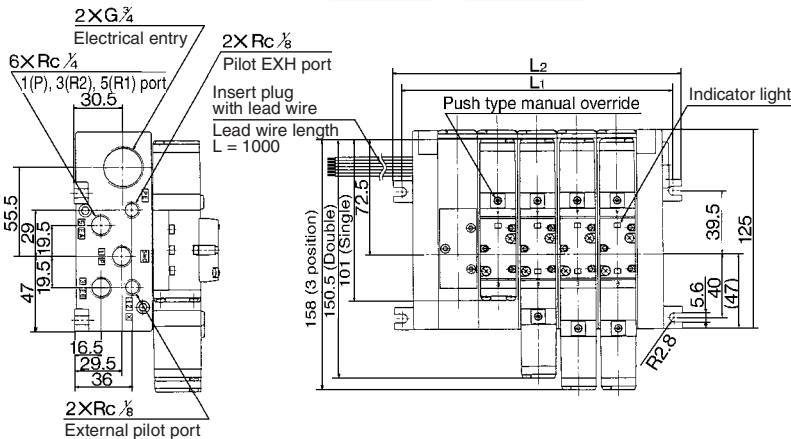
Bottom ported: VV5FS2-01WTBD - Station 2-01



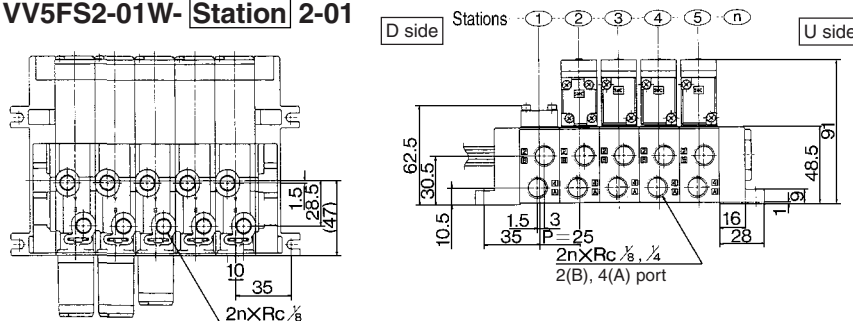
\* Terminal mounting stations are not included. Indicates Solenoid valve mounting stations.

Stations	1	2	3	4	5	6	7	8	9	10	Formula
L <sub>1</sub>	120	145	170	195	220	245	270	295	320	345	L <sub>1</sub> = 25 x n + 95
L <sub>2</sub>	131	156	181	206	231	256	281	306	331	356	L <sub>2</sub> = 25 x n + 106

With attachment plug lead wire: VV5FS2-01W - Station 1- Port size



Bottom ported: VV5FS2-01W - Station 2-01



Stations	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Formula
L <sub>1</sub>	70	95	120	145	170	195	220	245	270	295	320	345	370	395	420	L <sub>1</sub> = 25n + 45
L <sub>2</sub>	81	106	131	156	181	206	231	256	281	306	331	356	381	406	431	L <sub>2</sub> = 25n + 56





# Made to Order

Serial Transmission Kit Manifold: EX123/124 Integrated Type (For Output)  
Serial Transmission System

## How to Order

### How to Order Manifold

**VV5FS2 - 01S V - 01 - 02 - X460**

Plug-in type  
Serial transmission kit

Stations

3	3 stations
⋮	⋮
18	18 stations

Note 1) Max. 18 stations. Add 2 stations for serial unit mounting.

Note 2) Max. 18 stations for all-single wiring. (No. of valves: 16)

For the standard double wiring, the maximum number of stations is 10. (No. of valves: 8)

Port size

Symbol	P, R1, R2	A, B
01	Rc 1/4	Rc 1/8
02		Rc 1/4
M	Mixed	

\* For bottom ported: Rc 1/8 only

Thread type

Nil	Rc
N	NPT
T	NPTF
F	G

Combination symbol

Symbol	Port specification		Piping specification A, B
	P	R1, R2	
1			Side
2*	Common	Common	Bottom
3*	Common	Individual	Side
4*			Bottom
5*	Individual	Common	Side
6*			Bottom
7*	Individual	Individual	Side
8*			Bottom

\* Option

Refer to pages 1653 to 1655 for the details of the EX123/124 integrated type (for output) serial transmission system.

Applicable models

Symbol	SI unit part no.	Description
0	—	Without SI unit
F1	EX123U-SUW1	NKE Corporation: Uni-wire System (16 outputs)
H	EX123U-SUH1	NKE Corporation: Uni-wire H System (16 outputs)
J1	EX123U-SSL1	SUNX Corporation: S-LINK System (16 outputs)
J2	EX123U-SSL2	SUNX Corporation: S-LINK System (8 outputs)
Q	EX124U-SDN1	DevieNet (2 power supply systems)
R1	EX124U-SCS1	OMRON Corporation: CompoBus/S (16 outputs) (2 power supply systems)
R2	EX124U-SCS2	OMRON Corporation: CompoBus/S (8 outputs) (2 power supply systems)
V	EX124U-SMJ1	CC-Link (2 power supply systems)

Compatible with SI unit U side  
mounting only

### Correspondence of SI unit output numbers and solenoid valve coils

<Wiring Example 1> Double wiring (Standard)

D side		U side	
SI unit output no.	1 2 3 4 5 6 7 8 9 10	SI unit	
	Double Double Single Single Single Double Single Single		
	AB AB AB AB AB AB AB AB		
	01 23 45 67 89 1011 1213 1415		

<Wiring Example 2> Single/Double mixed wiring (Option)

D side		U side	
SI unit output no.	1 2 3 4 5 6 7 8 9 10 11 12	SI unit	
	Double Double Single Single Single Double Single Double Single Single		
	AB AB A A A AB A AB A A		
	01 23 4 5 6 78 9 1011 11 12		

\* Mixed wiring is available as an option. Use the manifold specification sheet to specify this.

### How to Order Valves

**VFS2 - 00 - 5 F -**

Symbol

1	2 position single
2	2 position double
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center
6	3 position double check

Pilot type

Nil	Internal pilot
R	External pilot

24 VDC

Pilot valve manual override

Nil	Non-locking push type (Flush)
A	Non-locking push type (Extended)
B	Locking type (Tool required)
C	Locking type (Lever)

Option

Nil	None
Z	With light/surge voltage suppressor

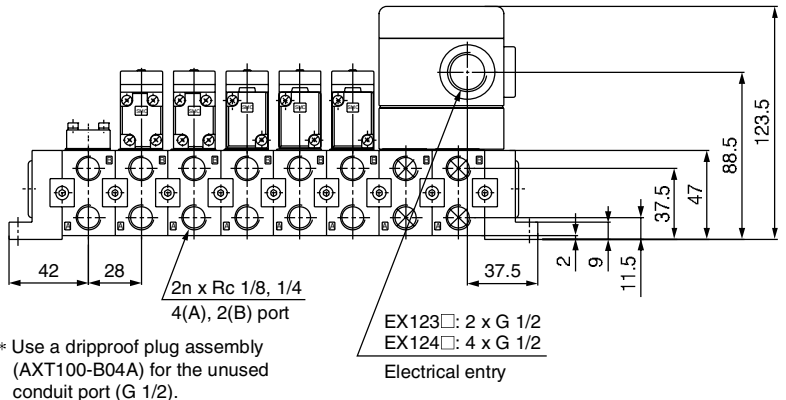
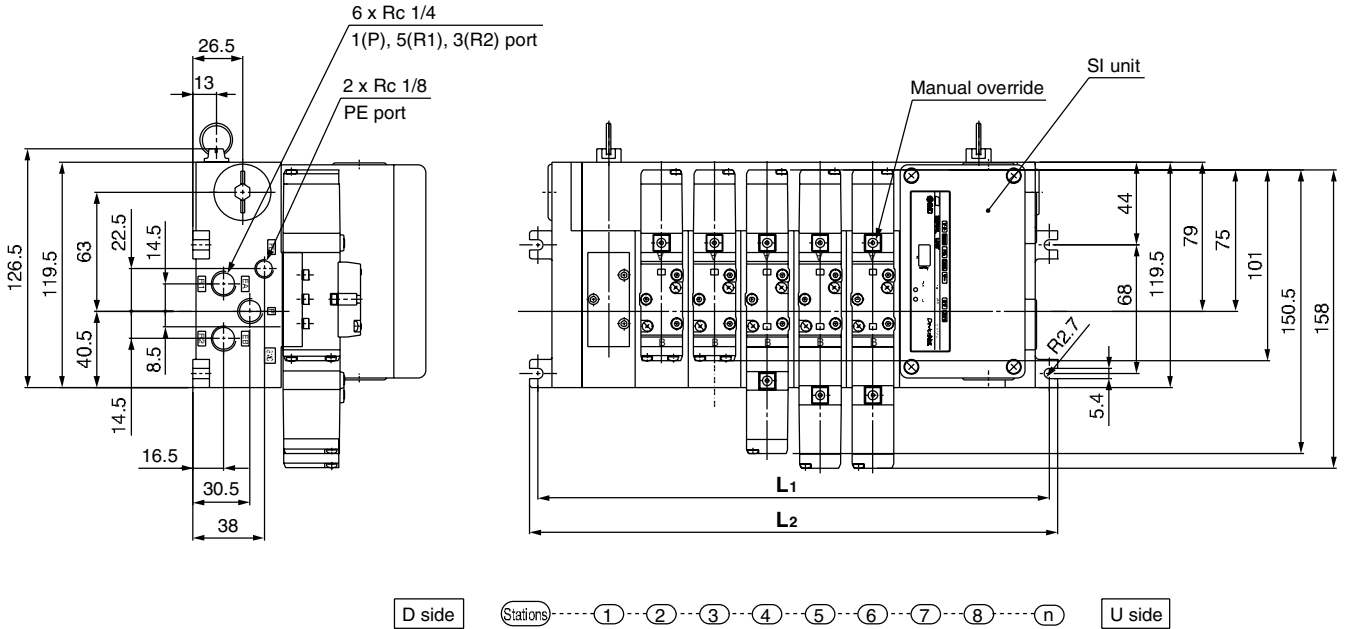
Coil rated voltage

Nil	None
-----	------

# 5 Port Pilot Operated Solenoid Valve Metal Seal, Plug-in/Non Plug-in **Series VFS2000**

## Serial Transmission Kit Manifold: EX123/124 Integrated Type (For Output) Serial Transmission System

VV5FS2-01S **Model** - **Stations** **Symbol** - **Port size** -X460



Formula  $L_1 = 28n + 47$   $L_2 = 28n + 56$   
n: Stations (Max. 18 stations)

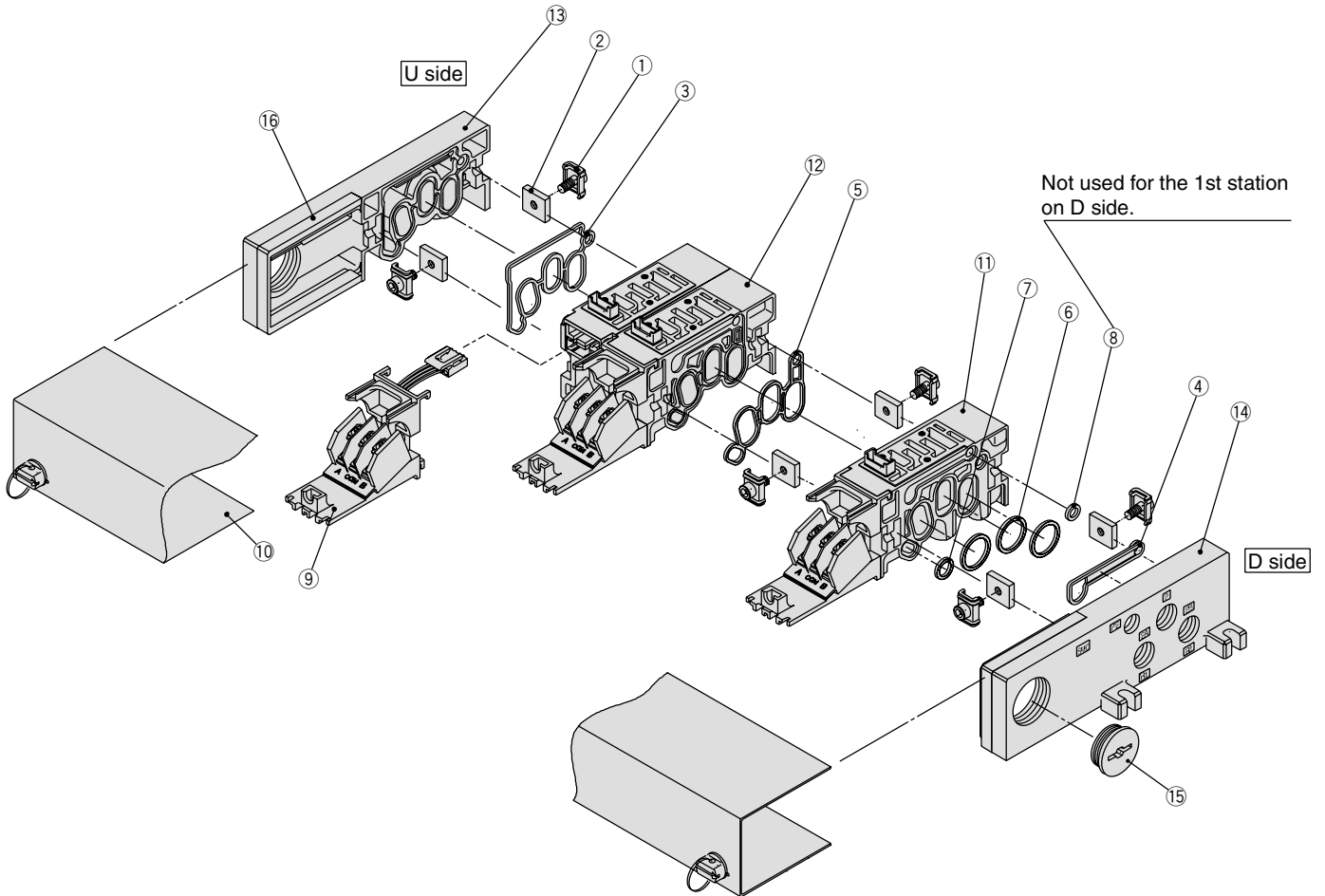
**Dimensions**

n	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
<b>L<sub>1</sub></b>	131	159	187	215	243	271	299	327	355	383	411	439	467	495	523	551
<b>L<sub>2</sub></b>	140	168	196	224	252	280	308	336	364	392	420	448	476	504	532	560

Note) Actual number of manifold base stations: Add 2 SI unit mounting stations to the number of valve stations.

# Series VFS2000

## Manifold Base Construction — Plug-in type, Non plug-in type



\* Manifold Base/Construction: Plug-in type with terminal block (01T1).

• For increasing the manifold bases, please order the manifold block assembly number of the principle number assembly ⑪ and ⑫.  
For plug-in type: The manifold base with terminal stand (integrated with a junction cover) is required with the ⑩ junction cover assembly.

• Manifold base is consisted of the junction of 2 and 3 station bases.

Example) U side (n) ⑥ ⑤ ④ ③ ② ① D side

<5 stations (Odd number)>      2 stations | 2 stations | 1 station

<6 stations (Even number)>    2 stations | 2 stations | 1 station | 1 station


# 5 Port Pilot Operated Solenoid Valve Metal Seal, Plug-in/Non Plug-in *Series VFS2000*

## Replacement Parts

No.	Description	Material	Part no.	
1	Connection fitting assembly	Steel plate		AXT625-4-1A
2	Connection fitting B	Steel plate		AXT625-5
3	Gasket A	NBR		AXT625-17
4	Gasket B	NBR		AXT625-16
5	Gasket	HNBR		VVFS2000-32-1H
6	O-ring	NBR		18 x 15 x 1.5
7	O-ring	NBR		10.5 x 7.5 x 1.5
8	O-ring	NBR		8 x 5 x 1.5
9	Adapter plate	Resin	For 01	AXT625-6
	Adapter plate assembly	—	For 01T	AXT625-28-13A (Terminal section with adapter plate and lead wire assembly)
			For 01T1	
	Adapter plate	Resin	For 01C	AXT625-28-1
			For 01F	VVF2000-26-6
For 01S□			AXT625-6	
10	Junction cover assembly	—	For 01	AXT625-7A
			For 01T	AXT625-28-3A
			For 01T1	AXT625-28-7A-[Stations]
			For 01C	
			For 01F	VVF2000-26-5A-[Stations]
			For 01S□	AZ738-10A-[Stations]
15	Rubber plug	NBR	For 01	AXT333-12
	Plug	—	For 01T(1) 01S□	AXT625-22
			For 01W	EXP22S
16	Guard	Resin	For 01T(1)	AXT625-28-4

## Replacement Parts: Sub Assembly

No.	Description	Part no.	Component parts	Applicable manifold base
11	Manifold block assembly (for 1 station)	AXT625-01A- $\frac{1}{2}$ (-B) <sup>Note</sup>	Manifold block ⑪, Metal joint ①, ②, O-ring ⑥, ⑦, ⑧, Junction cover ⑩, Adapter plate ⑨, Pin housing, Guide, Insert plug lead wire	Plug-in type With attachment plug lead wire
		AXT625-20A- $\frac{1}{2}$ (-B) <sup>Note</sup>	Manifold block ⑪, Metal joint ①, ②, O-ring ⑥, ⑦, ⑧, Junction cover ⑩, Adapter plate assembly (with terminal) ⑨, Pin housing, Guide	Plug-in type With terminal block
		AXT625-10A- $\frac{1}{2}$ (-B) <sup>Note</sup>	Manifold block ⑪, Metal joint ①, ②, O-ring ⑥, ⑦, ⑧	Non plug-in type
12	Manifold block assembly (for 2 stations)	AXT625-01A $\frac{2}{2}$ - $\frac{1}{2}$ <sup>Note</sup>	Manifold block ⑫, Metal joint ①, ②, Gasket ⑤, Junction cover ⑩, Adapter plate ⑨, Pin housing, Guide, Insert plug lead wire	Plug-in type With attachment plug lead wire
		AXT625-20A $\frac{2}{2}$ - $\frac{1}{2}$ <sup>Note</sup>	Manifold block ⑫, Metal joint ①, ②, Gasket ⑤, Junction cover ⑩, Adapter plate assembly (with terminal) ⑨, Pin housing, Guide	Plug-in type With terminal block
		AXT625-10A $\frac{2}{2}$ - $\frac{1}{2}$ <sup>Note</sup>	Manifold block ⑪, Metal joint ①, ②, Gasket ⑤	Non plug-in type
13	End plate (U side) assembly	AXT625-2A	End plate (U) ⑬, Metal joint ①, ②, Gasket A ③, Guard ⑯	Plug-in type With attachment plug lead wire
		AXT625-2A-20	End plate (U) ⑬, Metal joint ①, ②, Gasket A ③, Guard ⑯	Plug-in type With terminal block
		AXT625-2A-10	End plate (U) ⑬, Metal joint ①, ②, Gasket A ③	Non plug-in type
14	End plate (D side) assembly	AXT625-3A	End plate (D) ⑭, Metal joint ①, ②, Gasket B ④, Guard ⑯, Steel ball	Plug-in type With attachment plug lead wire
		AXT625-3A-20	End plate (D) ⑭, Metal joint ①, ②, Gasket B ④, Guard ⑯, Steel ball	Plug-in type With terminal block
		AXT625-3A-10	End plate (D) ⑭, Metal joint ①, ②, Gasket B ④, Steel ball	Non plug-in type

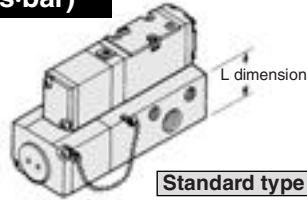
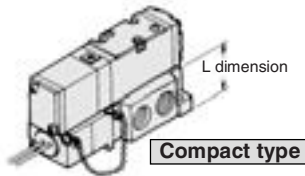
 Note) 1: A, B port size Rc 1/8, 2: A, B port size Rc 1/4, (-B): A, B port bottom ported



**Light Compact Type Sub-plate/C: 2.8 dm<sup>3</sup>/(s·bar)**

**C: 2.2 dm<sup>3</sup>/(s·bar)**

**C: 2.8 dm<sup>3</sup>/(s·bar)**



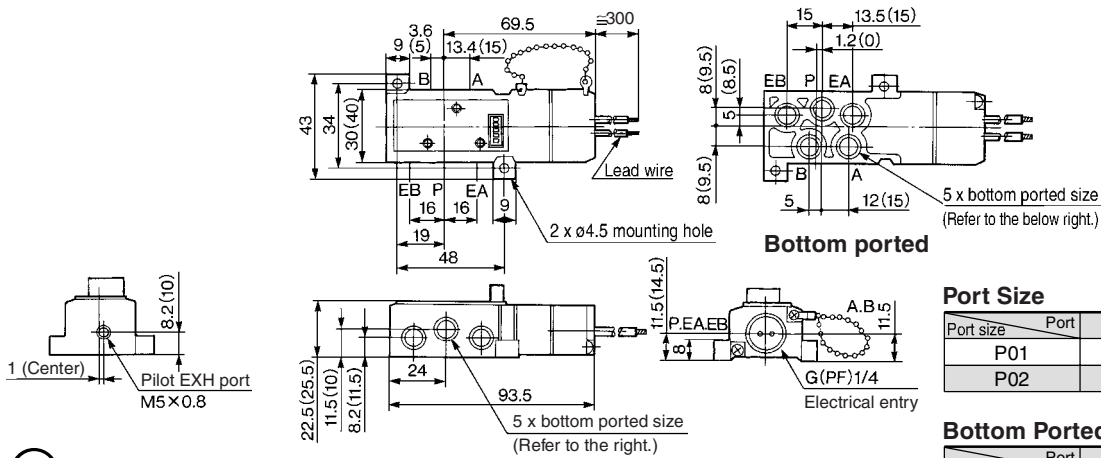
**Sub-plate**

Type	L dimension (mm)	Mass (kg)
Compact type	25.5	0.13
Standard type	31	0.2

**Sub-plate — Compact: Plug-in, Grommet (With attachment plug lead wire)**

VFS2□00-□F-(B) P01 P02

Sub-plate assembly part no.: VFS2000-CP-(B) 01 02 (01: Rc 1/8, 02: Rc 1/4)



**Port Size**

Port size	Port	P, A, B	EA, EB
P01		Rc 1/8	Rc 1/8
P02		Rc 1/4	Rc 1/8

**Bottom Ported Size**

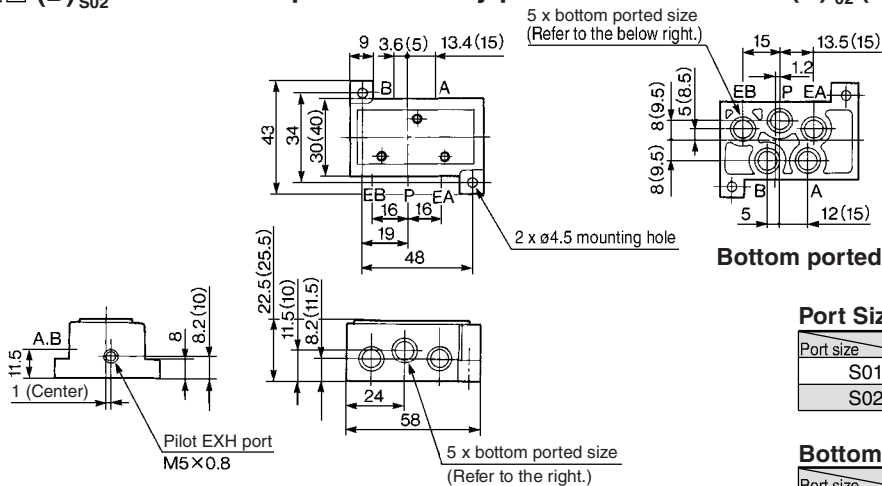
Port size	Port	P, A, B	EA, EB
BP02		Rc 1/8, 1/4	Rc 1/8

( ): Port size P02

**Sub-plate — Compact: Non plug-in**

VFS2□10-□□-(B) S01 S02

Sub-plate assembly part no.: VFS2000-CS-(B) 01 02 (01: Rc 1/8, 02: Rc 1/4)



**Port Size**

Port size	Port	P, A, B	EA, EB
S01		Rc 1/8	Rc 1/8
S02		Rc 1/4	Rc 1/8

**Bottom Ported Size**

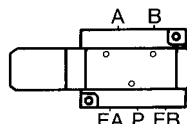
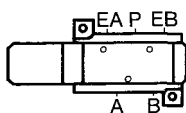
Port size	Port	P, A, B	EA, EB
BS02		Rc 1/8 1/4	Rc 1/8

( ): Port size S02

**Precautions** Please pay attention to piping port location of sub-plate.

VFS2□□0-□□-P01/02, S01/02: Compact type

VFS2□□0-□□-01 02: Standard type



**Electrical Connection**

**Compact type, plug-in type grommet sub-plate (With attachment plug lead wire)**

- The attachment plug lead wire is attached to the manifold block and lead wire is plugged in with valve side as shown in the following list. Please connect with corresponding power side.

Solenoid	A side	B side
Lead wire color	Red Black	Brown White

- There is no polarity.