

Series VFR2000 Manifold

Manifold Specifications

Base	Wiring	Piping		Stations	Applicable solenoid valve
		A, B port	Port size		
Plug-in style VV5FR2-01□	<ul style="list-style-type: none"> With terminal block With multi-connector With D-sub connector 	Side Bottom ⁽¹⁾	1/4	1/8, 1/4 C6, C8	2 to 15
					2 to 8
Non plug-in style VV5FR2-10	<ul style="list-style-type: none"> DIN connector 				2 to 15

Note 1) Side porting and bottom porting cannot be taken at the same time.

How to Order Manifold

Indicate valve, blank plate and manifold option parts ass'y below manifold base.
Ordering Example:

- Plug-in style with terminal block (6 stations, one-piece style junction cover)
(Manifold base) VV5FR2-01T1-061-02-Q
(2 position single) VFR2100-5FZ-Q 3 pcs.
(2 position double) VFR2200-5FZ-Q 2 pcs.
(Blank plate) VVFS2000-10A 1 pc.
 - Non plug-in style (6 stations)
(Manifold base) VV5FR2-10-061-01-Q
(2 position single) VFR2100-5D-Q 5 pcs.
(3 position exhaust) VFR2410-5D-Q 1 pc.
(Individual EXH spacer) VVFS2000-R-01-2 1 pc.
- *If specific mounting position is desired, use a manifold specification.

SV

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VQC

SQ

VQ

VQ4

VQ5

VQZ

VQD

VFS

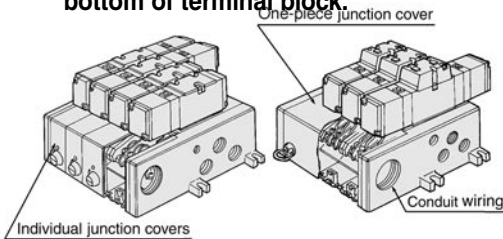
VS

VS7

VQ7

Plug-in: 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.



Series VFR2000 Manifold Plug-in style With terminal block

Ordering Example: VV5FR2-01T1-081-02-Q

Stations: 02 (2 stations), 15 (15 stations)

Symbol: 1 (Side), 2 (Com. Com.), 3 (Com. Indivi.), 4 (Com. Indivi.), 5 (Indivi. Com.), 6 (Indivi. Com.), 7 (Indivi. Indivi.), 8 (Indivi. Indivi.)

Port size: 01 (1/8), 02 (1/4), C6 (ø6 One-touch fittings), C8 (ø8 One-touch fittings), M (Mix)

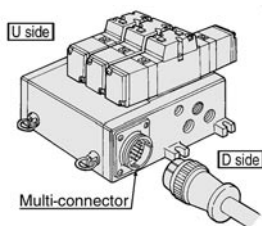
Thread: Rc (PT), G (PF), NPT, NPTF

Ordering source area code: Code (Japan, Asia, Oceania, England; Europe; North America)

Junction cover: 1 (One-piece junction cover)

Plug-in: With Multi-connector (Refer to p.1.8-8 for wiring specifications.)

- Mass-connection of power source and solenoid valves.
- Piping work eliminated.



Series VFR2000 Manifold Plug-in style With multi-connector

Ordering Example: VV5FR2-01CD1-051-01-Q

Mounting direction of connector: D (D side mounting), U (U side mounting)

Stations: 02 (2 stations), 08 (8 stations), *Max: 8 stations

Symbol: 1 (Side), 2 (Com. Com.), 3 (Com. Indivi.), 4 (Com. Indivi.), 5 (Indivi. Com.), 6 (Indivi. Com.), 7 (Indivi. Indivi.), 8 (Indivi. Indivi.)

Port size: 01 (1/8), 02 (1/4), C6 (ø6 One-touch fittings), C8 (ø8 One-touch fittings), M (Mix)

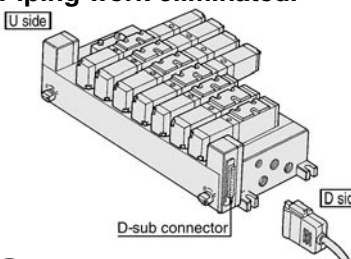
Thread: Rc (PT), G (PF), NPT, NPTF

Ordering source area code: Code (Japan, Asia, Oceania, England; Europe; North America)

Junction cover: 1 (One-piece junction cover)

Plug-in: With D-sub Connector (Refer to p.1.8-8 for wiring specifications.)

- Wide range of interchangeability. (MIL standard 25 pin D-sub connector)
- Piping work eliminated.



Series VFR2000 Manifold Plug-in style With D-sub connector

Ordering Example: VV5FR2-01FU1-061-01-Q

Connector mounting direction: U (U side mounting), D (D side mounting)

Stations: 02 (2 stations), 08 (8 stations), *Max: 8 branches

Symbol: 1 (Side), 2 (Com. Com.), 3 (Com. Indivi.), 4 (Com. Indivi.), 5 (Indivi. Com.), 6 (Indivi. Com.), 7 (Indivi. Indivi.), 8 (Indivi. Indivi.)

Port size: 01 (1/8), 02 (1/4), C6 (ø6 One-touch fittings), C8 (ø8 One-touch fittings), M (Mix)

Thread: Rc (PT), G (PF), NPT, NPTF

Ordering source area code: Code (Japan, Asia, Oceania, England; Europe; North America)

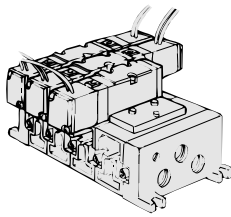
Junction cover: 1 (One-piece junction cover)

Note) P port or EA/EB port of symbol "3" to "8" can be individual port with blank plate. Therefore, if using individual SUP interface or individual EXH interface for individual port, its symbol is "1".

VFR2000

Non Plug-in: DIN Connector

● Individual wiring for every valve



VV5FR2 - 10 - 05 1 - 01 - Q

Series VFR2000 Manifold

Non plug-in

Ordering source area code

Code	areas
—	Japan, Asia Oceania, England
E	Europe
N	North America

Stations

02	2 stations
⋮	⋮
15	15 stations

Symbol

Symbol	SUP/EX		Piping A, B
	P	EA, EB	
1			Side
2	Com.	Com.	Bottom
3			Side
4	Com.	Indivi.	Bottom
5	Indivi.	Com.	Side
6			Bottom
7	Indivi.	Indivi.	Side
8			Bottom

Thread

—	Rc (PT)
F	G (PF)
N	NPT
T	NPTF

Port size

Symbol	P, EA, EB	A, B*
01		1/8
02		1/4
C6	1/4	ø6 One-touch fittings
C8		ø8 One-touch fittings
M		Mix

*Bottom piping: 1/8



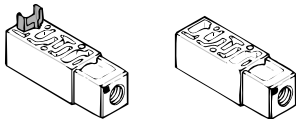
Note) P port or EA/EB port of symbol "3" to "8" can be individual port with block plate. Therefore, if using individual SUP spacer or individual EXH spacer for individual port, its symbol is "1".

Manifold/Option Parts Assembly

Individual SUP spacer

Setting individual SUP spacer on the manifold block enables individual SUP port for each valve.

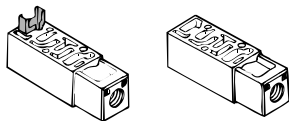
	Body	Plug-in	Non plug-in
Part No.	1/8	VVFS2000-P-01-1	VVFS2000-P-01-2
	1/4	VVFS2000-P-02-1	VVFS2000-P-02-2



Individual EXH spacer

Setting individual EXH spacer on the manifold block enables individual EXH port for each valve.

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



SUP block disc

When supplying manifold with more than two different kinds of pressure, high and low, insert block disc in between stations subjected to different pressures.

Body	Plug-in	Non plug-in
Part No.	AXT625-12A	

EXH block disc

When valve exhaust affects the other stations on the circuit, insert EXH block disc in between stations to separate valve exhaust.

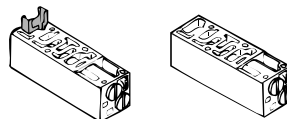
Body	Plug-in	Non plug-in
Part No.	AXT625-12A	



Interface speed control

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

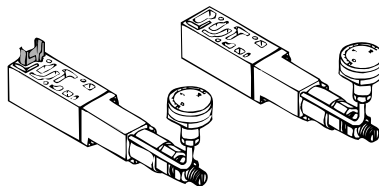
Body	Plug-in	Non plug-in
Part No.	VVFS2000-20A-1	VVFS2000-20A-2



Interface regulator

Interface regulator set on the manifold block can regulate pressure for each valve. (Refer to "Flow Characteristics" on p.1.8-6 before operation.)

Body	Plug-in	Non plug-in
P Regulation	ARBF2000-00-P-1	ARBF2000-00-P-2

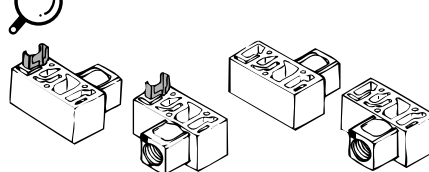


Release valve spacer

Valve VFR21□0 (single) can be used as air release valve by combined with release valve spacer.

Body	Plug-in	Non plug-in
Part No.	VVFS2000-24A-1 _R	VVFS2000-24A-2 _R

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



SUP stop valve spacer ⁽¹⁾

If SUP stop valve spacer is set, valve can be removed for maintenance without stopping air pressure supply for other valves.

Body	Plug-in	Non plug-in
Part No.	VVFS2000-37A-1	VVFS2000-37A-2

(Height will be 23.2mm higher.)

Note 1) Used with manifold base. Contact SMC for details.

Blank plate

When disassembling valve for maintenance purposes or when spare manifold stations are required, install blank plate on the manifold block.

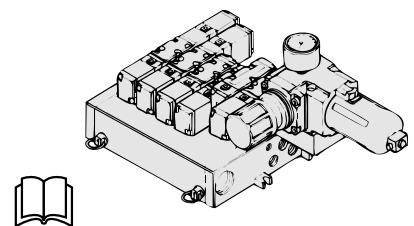
Body	Plug-in	Non plug-in
Part No.	VVFS2000-10A	

Manifold Option

With control unit

Plug-in/Non plug-in

- Filter, regulator, pressure switch and air release valve in one unit.
- Reduces manhours for piping.

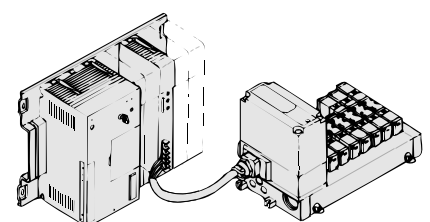


Refer to p.1.8-23 for details.

With serial interface unit for serial transmission

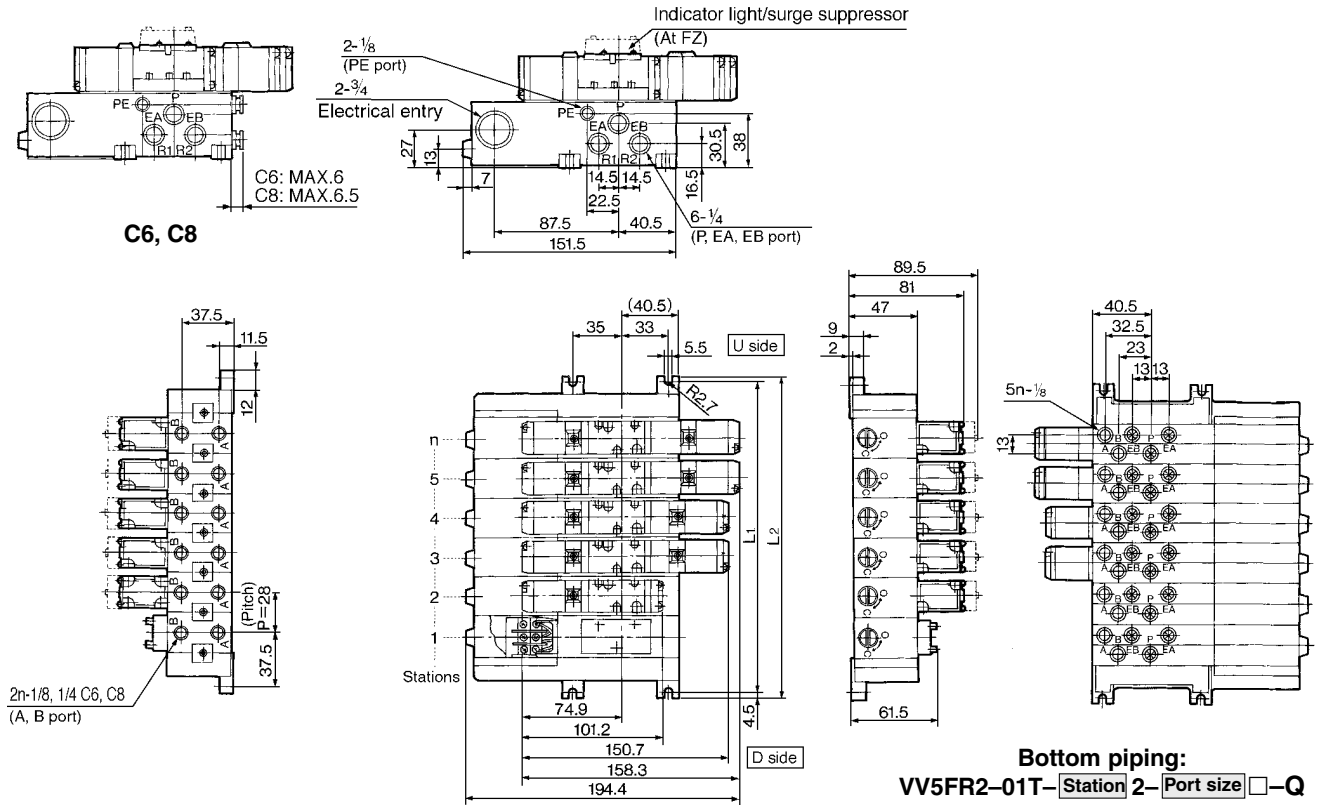
Plug-in

- Considerably reduces solenoid valve wiring process.
- Disperse installation possible. Manifold solenoid valve: Max. 8 stations, 32 places (512 solenoids)
- Easy maintenance.



Manifold Plug-in

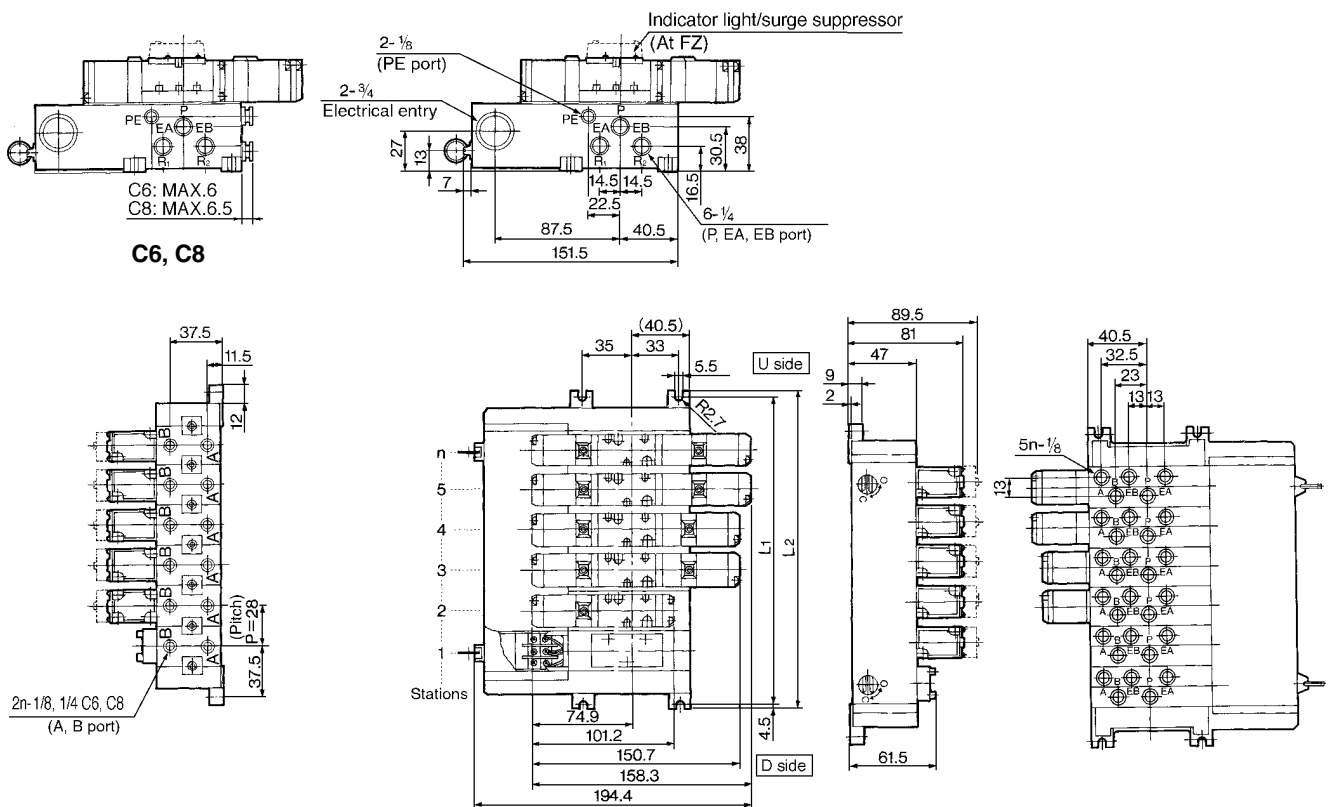
With terminal block(Individual junction cover): VV5FR2-01T- Station 1 - Port size □-Q



- SV
- SY
- SYJ
- SX
- VK
- VZ
- VF
- VFR**
- VP7

VQC

With terminal block(One-piece junction cover): VV5FR2-01T1- Station 1 - Port size □-Q



- SQ
- VQ
- VQ4
- VQ5
- VQZ
- VQD
- VFS
- VS
- VS7
- VQ7

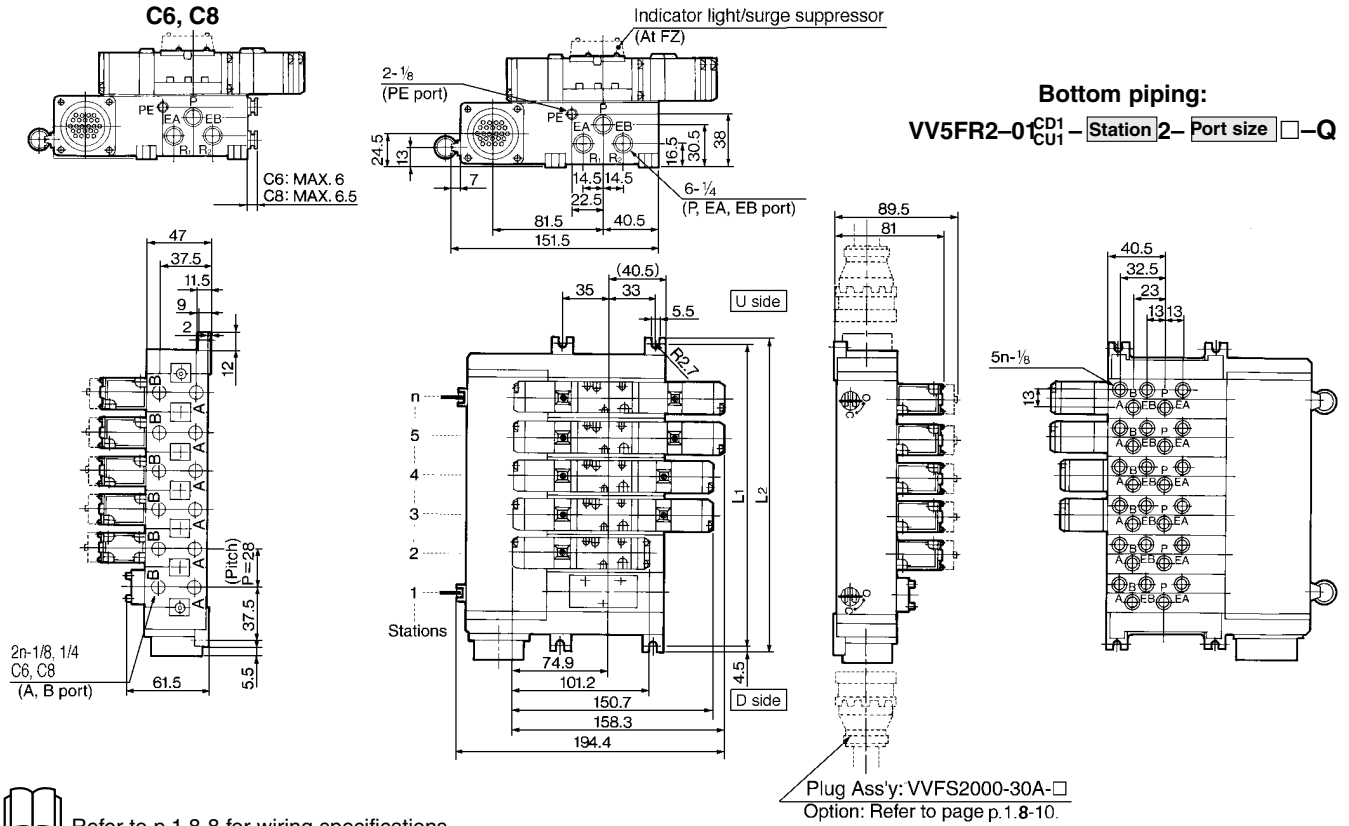
Bottom piping:
VV5FR2-01T1- Station 2 - Port size □-Q

n: Station		1	2	3	4	5	6	7	8	9	10	Equation
L ₁	n	75	103	131	159	187	215	243	271	299	327	L ₁ =28 X n+47
L ₂	n	84	112	140	168	196	224	252	280	308	336	L ₂ =28 X n+56

VFR2000

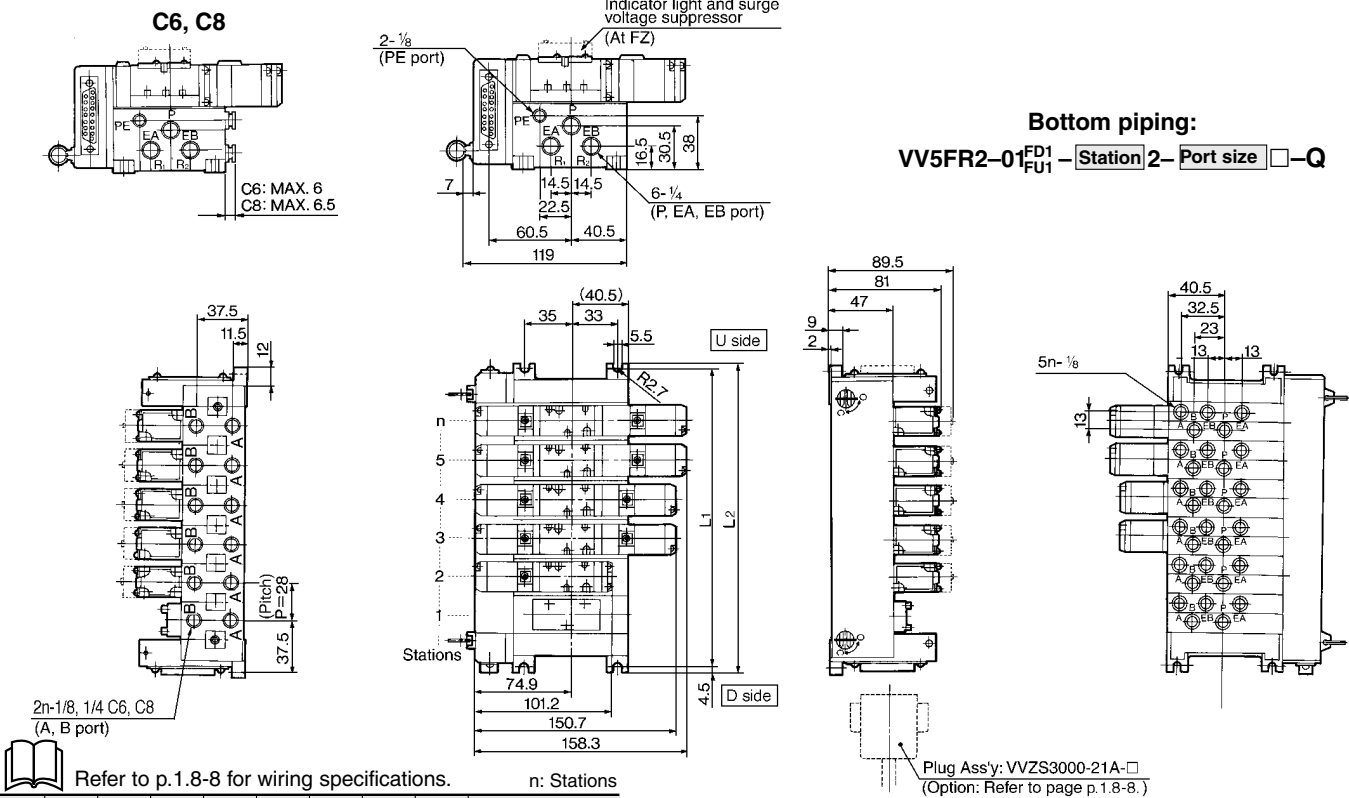
Manifold Plug-in

With multi-connector: VV5FR2-01CD1- Station 1- Port size □-Q , VV5FR2-01CU1- Station 1- Port size □-Q



Refer to p.1.8-8 for wiring specifications.

With D-sub connector: VV5FR2-01FD1- Station 1- Port size □-Q , VV5FR2-01FU1- Station 1- Port size □-Q

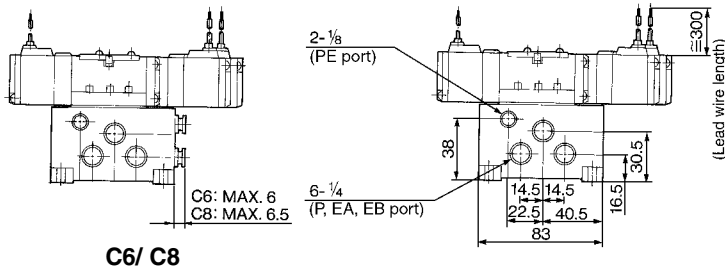


Refer to p.1.8-8 for wiring specifications.

	n: Stations								Equation
L1	75	103	131	159	187	215	243	271	$L_1=28 \times n+47$
L2	84	112	140	168	196	224	252	280	$L_2=28 \times n+56$

Manifold Non Plug-in: VV5FR2-10- Station 1- Port size □-Q

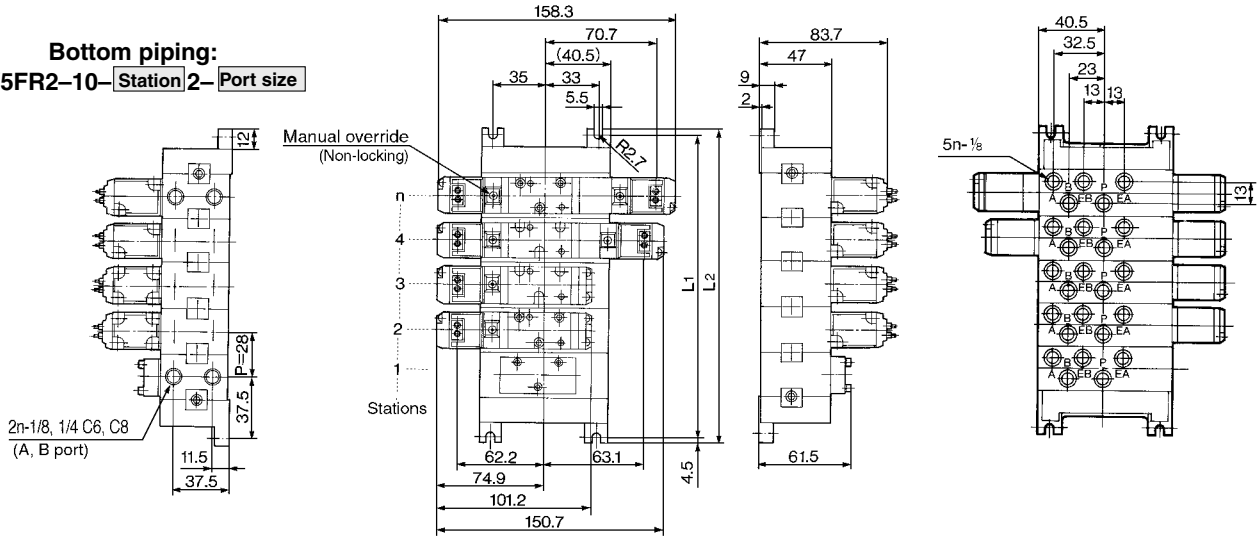
Grommet: G



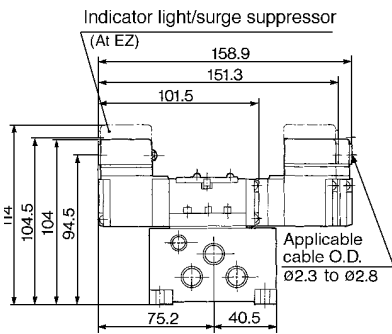
Note: This valve series is now only available with DIN connector.

C6/ C8

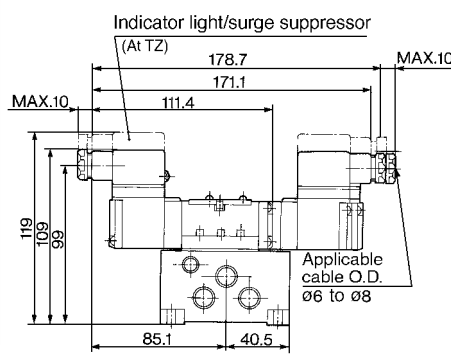
Bottom piping: VV5FR2-10- Station 2- Port size □



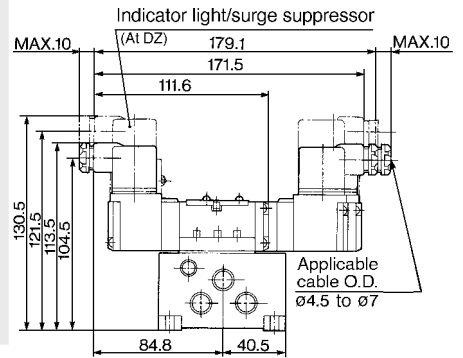
Grommet terminal: E



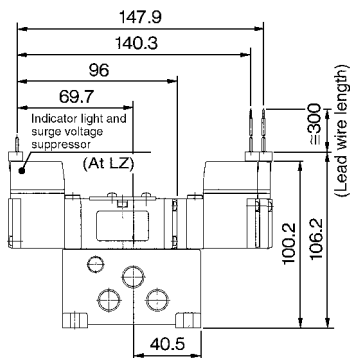
Conduit terminal: T



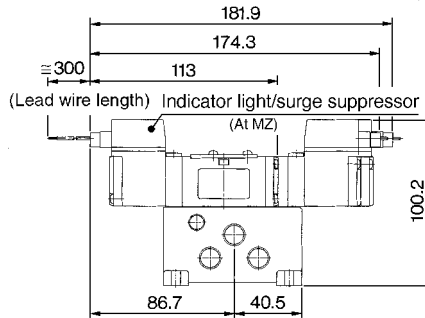
DIN connector: D/Y



L plug connector: L



M plug connector: M



n: Stations

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

SV

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VQC

SQ

VQ

VQ4

VQ5

VQZ

VQD

VFS

VS

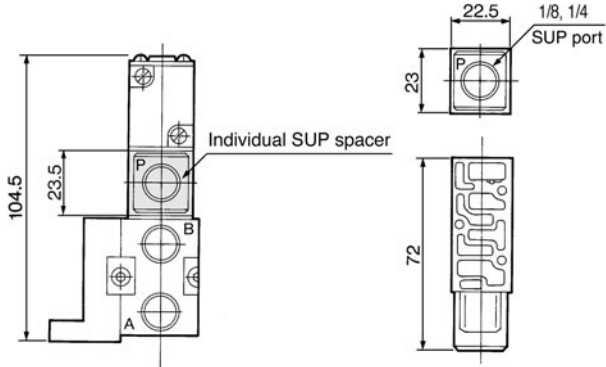
VS7

VQ7

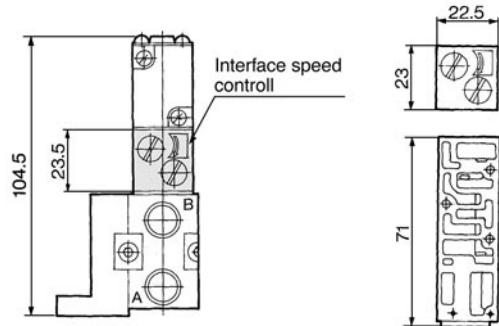
VFR2000

Manifold Option Parts Assembly Plug-in/Non Plug-in

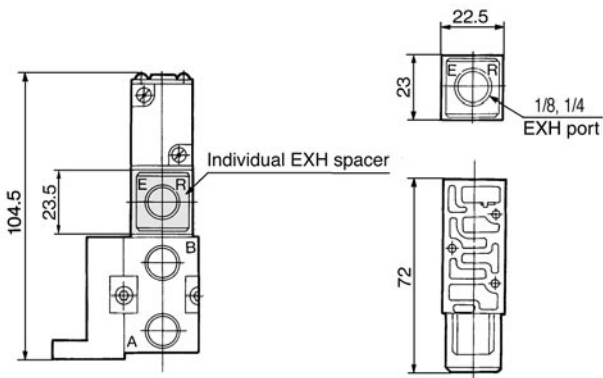
Individual SUP spacer:
 VVFS2000-P-01-1(Plug-in)
 VVFS2000-P-01-2(Non plug-in)



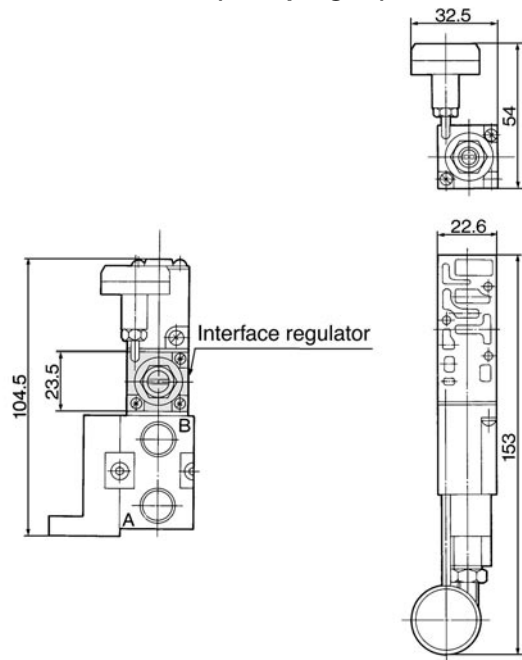
Interface speed control:
 VVFS2000-20A-1(Plug-in)
 VVFS2000-20A-2(Non plug-in)



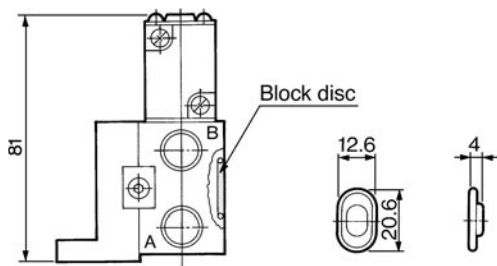
Individual EXH spacer:
 VVFS2000-R-01-1(Plug-in)
 VVFS2000-R-01-2(Non plug-in)



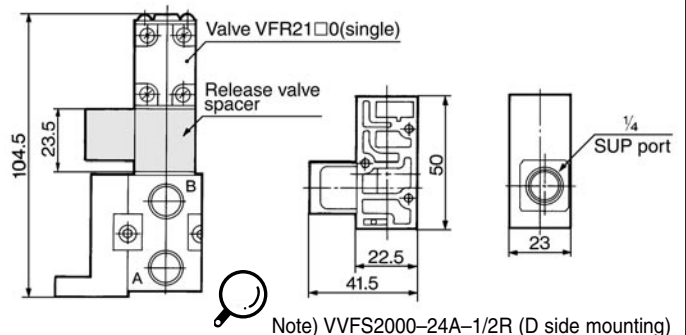
Interface regulator
 ARBF2000-00-P-1(Plug-in)
 ARBF2000-00-P-2(Non plug-in)



SUP block disc: AXT625-12A
EXH block disc: AXT625-12A



Release valve spacer
 VVFS2000-24A-1^R_L(Plug-in)
 VVFS2000-24A-2^R_L(Non plug-in)



Note) VVFS2000-24A-1/2R (D side mounting)