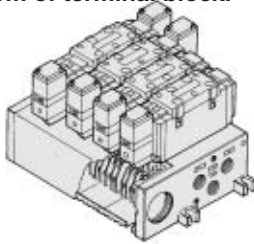


Series VFS5000 Manifold Specifications

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.



VV5FS5 - 01T - 06 1 - 04

Series VFS5000 Manifold
Plug-in type with terminal block

Stations

02	2 stations
⋮	⋮
10	10 stations

Port size

Symbol	P, R1, R2	A, B
04	Rc 3/4	Rc 1/2
06		Rc 3/4
M		Mixed

Thread type

	Rc
Nil	Rc
N*	NPT
T*	NPTF
F*	G

* Option

Symbol

Symbol	Passage		Porting specifications (A, B)
	P	R1, R2	
1	Common	Common	Side
2			Bottom*

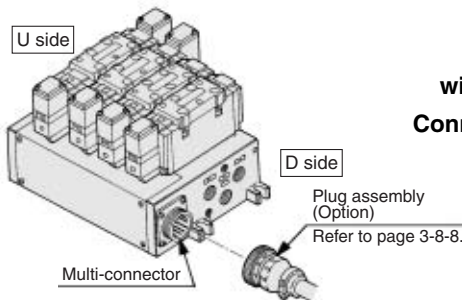
* Option

Port size note: For bottom ported, Rc 1/2 is only available.

- VK
- VZ
- VF
- VFR
- VP4
- VZS
- VFS
- VS4
- VQ7
- EVS
- VFN

Plug-in Type: With Multi-connector (Wiring specifications: Refer to page 3-8-8.)

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



VV5FS5 - 01C D - 05 2 - 04

Series VFS5000 Manifold
Plug-in type with multi-connector

Stations

02	2 stations
⋮	⋮
08*	8 stations
	* Max. 8 stations

Port size

Symbol	P, R1, R2	A, B
04	Rc 3/4	Rc 1/2
06		Rc 3/4
M		Mixed

Thread type

	Rc
Nil	Rc
N*	NPT
T*	NPTF
F*	G

* Option

Symbol

Symbol	Passage		Porting specifications (A, B)
	P	R1, R2	
1	Common	Common	Side
2			Bottom*

* Option

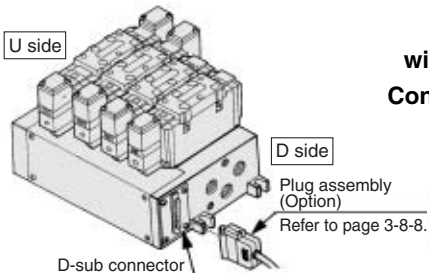
Connector mounting direction

D	D side mounting
U	U side mounting

Port size note: For bottom ported, Rc 1/2 is only available.

Plug-in Type: With D-sub Connector (Wiring specifications: Refer to page 3-8-8.)

- Wide range of interchangeability (MIL Spec. D-sub connector terminal 25 pcs attached.)
- Quick wiring permits easier installation.



VV5FS5 - 01F D - 06 1 - 04

Series VFS5000 Manifold
Plug-in type with D-sub connector

Stations

02	2 stations
⋮	⋮
08*	8 stations
	* Max. 8 stations

Port size

Symbol	P, R1, R2	A, B
04	Rc 3/4	Rc 1/2
06		Rc 3/4
M		Mixed

Thread type

	Rc
Nil	Rc
N*	NPT
T*	NPTF
F*	G

* Option

Symbol

Symbol	Passage		Porting specifications (A, B)
	P	R1, R2	
1	Common	Common	Side
2			Bottom*

* Option

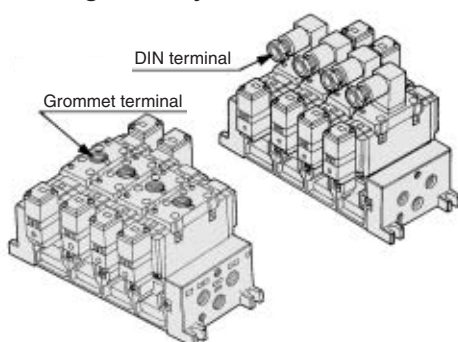
Connector mounting direction

D	D side mounting
U	U side mounting

Port size note: For bottom ported, Rc 1/2 is only available.

Non Plug-in Type: Grommet Terminal, DIN Terminal

- Wiring for every valve.



VV5FS5 - 10 - 05 2 - 04

Series VFS5000 Manifold
Non plug-in type

Stations

02	2 stations
⋮	⋮
10	10 stations

Port size

Symbol	P, R1, R2	A, B
04	Rc 3/4	Rc 1/2
06		Rc 3/4
M		Mixed

Thread type

	Rc
Nil	Rc
N*	NPT
T*	NPTF
F*	G

* Option

Symbol

Symbol	Passage		Porting specifications (A, B)
	P	R1, R2	
1	Common	Common	Side
2			Bottom*

* Option

Port size note: For bottom ported, Rc 1/2 is only available.

Series VFS5000

How to Order Manifold Assembly

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

<Example>

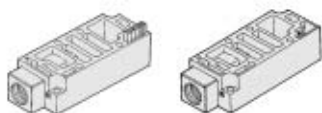
- Plug-in type with terminal block: 6 stations (Manifold base) VV5FS5-01T-061-04 1 (2 position single) VFS5100-5FZ 3 (2 position double) VFS5200-5FZ 2 (Blanking plate) VVFS5000-10A 1
- Non plug-in type: 6 stations (Manifold base) VV5FS5-10-061-04 1 (2 position single) VFS5110-5D 5 (3 position exhaust center) VFS5410-5D ... 1 (Individual EXH center) VVFS5000-R-04-2 1

Manifold Option Parts Assembly

Individual SUP spacer

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

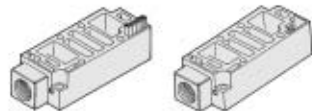
Body type	Plug-in type	Non plug-in type
Part no.	VVFS5000-P-04-1	VVFS5000-P-04-2



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.	VVFS5000-R-04-1	VVFS5000-R-04-2



SUP block disk

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

Body type	Plug-in type	Non plug-in type
Part no.	AXT628-12A	

EXH block disk

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

Body type	Plug-in type	Non plug-in type
Part no.	AXT512-14-1A	



EXH block disk



SUP block disk

Manifold Specifications

Base model	Wiring	Porting specifications	Port size Rc		Stations	Applicable valve model
		A, B port	P, R1, R2	A, B		
Plug-in type VV5FS5-01□	<ul style="list-style-type: none"> • With terminal block • With multi-connector • With D-sub connector 	Side/Bottom	Rc 3/4	Rc 1/2, 3/4	2 to 10*	VFS5□00-□F
Non plug-in type VV5FS5-10	<ul style="list-style-type: none"> • DIN terminal • Grommet terminal 					VFS5□10-□D



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

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

Model	Passage/Stations	Station 1	Station 5	Station 10	
VV5FS5	1 → 4/2 (P → A/B)	C [dm ³ /(s-bar)]	6.0	6.0	6.0
		b	0.20	0.20	0.20
		Cv	1.4	1.4	1.4
	4/2 → 5/3 (A/B → R1/R2)	C [dm ³ /(s-bar)]	7.0	7.0	7.0
		b	0.20	0.20	0.20
		Cv	1.8	1.8	1.8



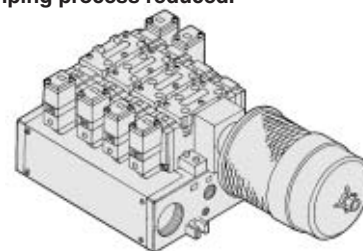
* Port size: Rc 1/2, 3/4

Manifold Option

With exhaust cleaner

Plug-in type/Non plug-in type

- Valve exhaust noise dampening: 35 dB or more.
- Oil mist collection: Rate of collection 99.9% or more.
- Piping process reduced.

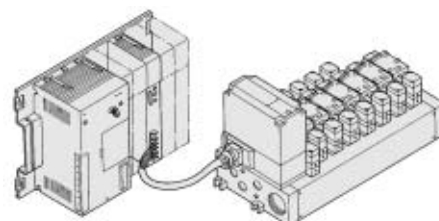


For details, refer to page 3-8-95.

With serial interface unit for serial transmission

Plug-in type

- Solenoid valve wiring process reduced considerably.
- Disperse installation possible. Manifold solenoid valve: 8 stations max. 32 positions (512 solenoids).
- Maintenance and inspection are easy.

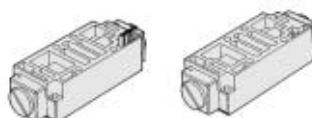


For details, refer to "Serial Transmission" catalog separately.

Throttle valve spacer

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

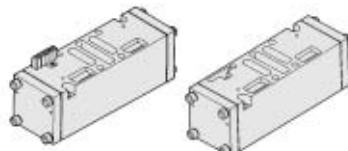
Body type	Plug-in type	Non plug-in type
Part no.	VVFS5000-20A-1	VVFS5000-20A-2



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.	VVFS5000-22A-1	VVFS5000-22A-2

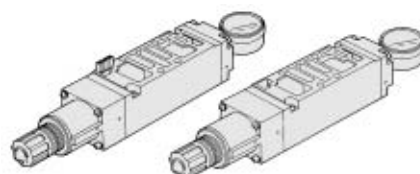


Interface regulator



Interface regulator set on manifold block can regulate the pressure to each valve. (In the event of using, refer to "Flow Characteristics" on page 3-8-6).

Body type	Plug-in type	Non plug-in type
P port regulation	ARBF5050-00-P-1	ARBF5050-00-P-2
A port regulation	ARBF5050-00-A-1	ARBF5050-00-A-2
B port regulation	ARBF5050-00-B-1	ARBF5050-00-B-2



Blanking plate

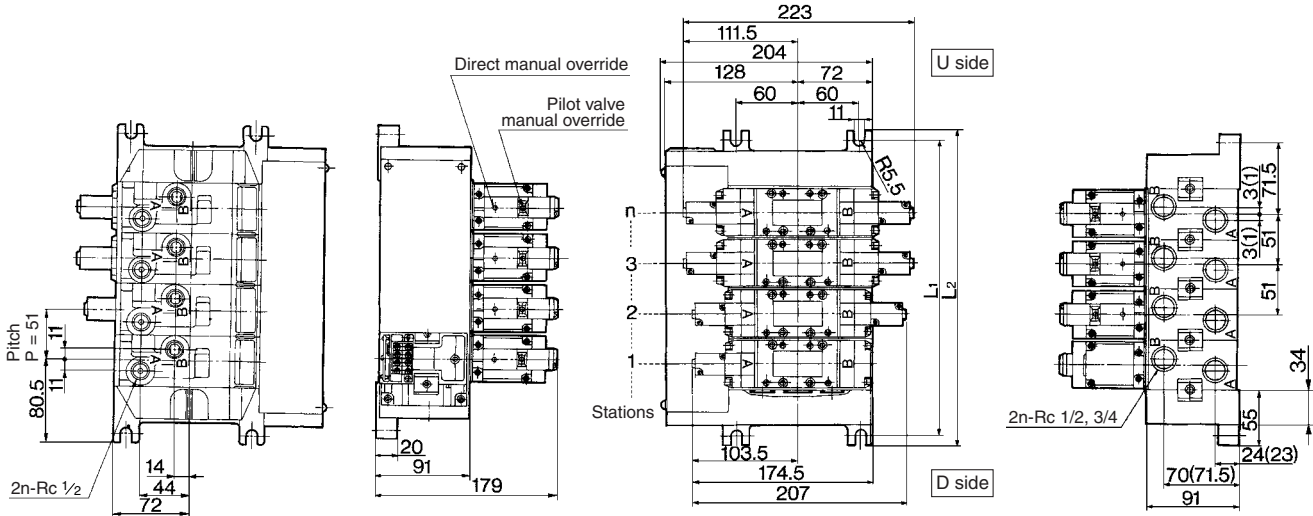
It is used by attaching on the manifold block for being prepared for removing a valve for maintenance reasons or planning to mount a spare valve, etc.

Body type	Plug-in type	Non plug-in type
Part no.	VVFS5000-10A	

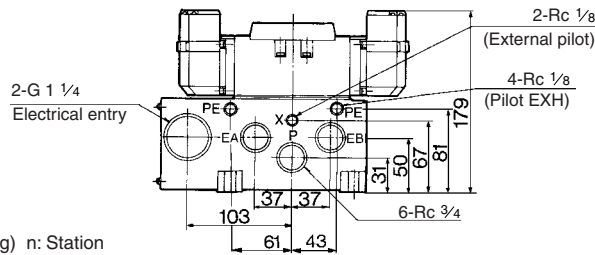
5 Port Pilot Operated Solenoid Valve Metal Seal, Plug-in/Non Plug-in Series VFS5000

Manifold Plug-in type, Non plug-in type

Plug-in type (With terminal block): VV5FS5-01T-Station 1-Port size



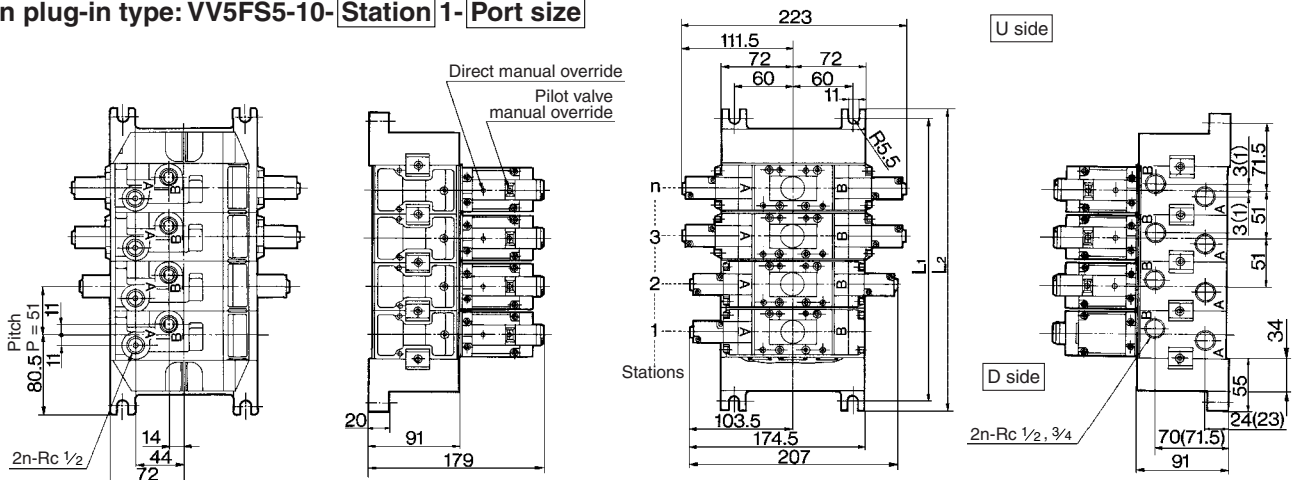
Bottom ported: VV5FS5-01T-Station 2-Port size



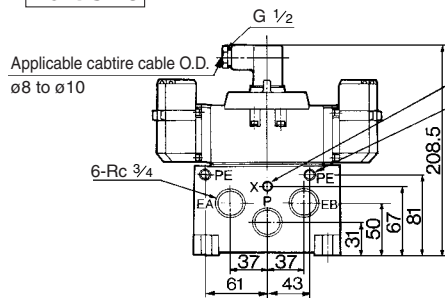
Formula for manifold weight $M = 0.911n + 1.621$ (kg) n: Station

(): 2(B)/4(A) port Rc 3/4

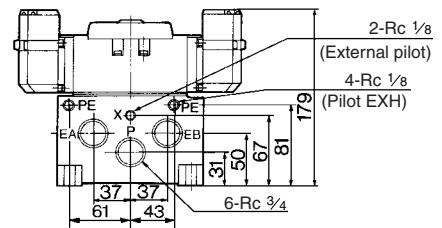
Non plug-in type: VV5FS5-10-Station 1-Port size



DIN terminal VV5FS5-10-Station 2-Port size



Grommet with terminal



Formula for manifold weight $M = 0.811n + 1.231$ (kg) n: Station

Stations	2	3	4	5	6	7	8	9	10	Formula
L ₁	194	245	296	347	398	449	500	551	602	L ₁ = 51 x n + 92
L ₂	212	263	314	365	416	467	518	569	620	L ₂ = 51 x n + 110

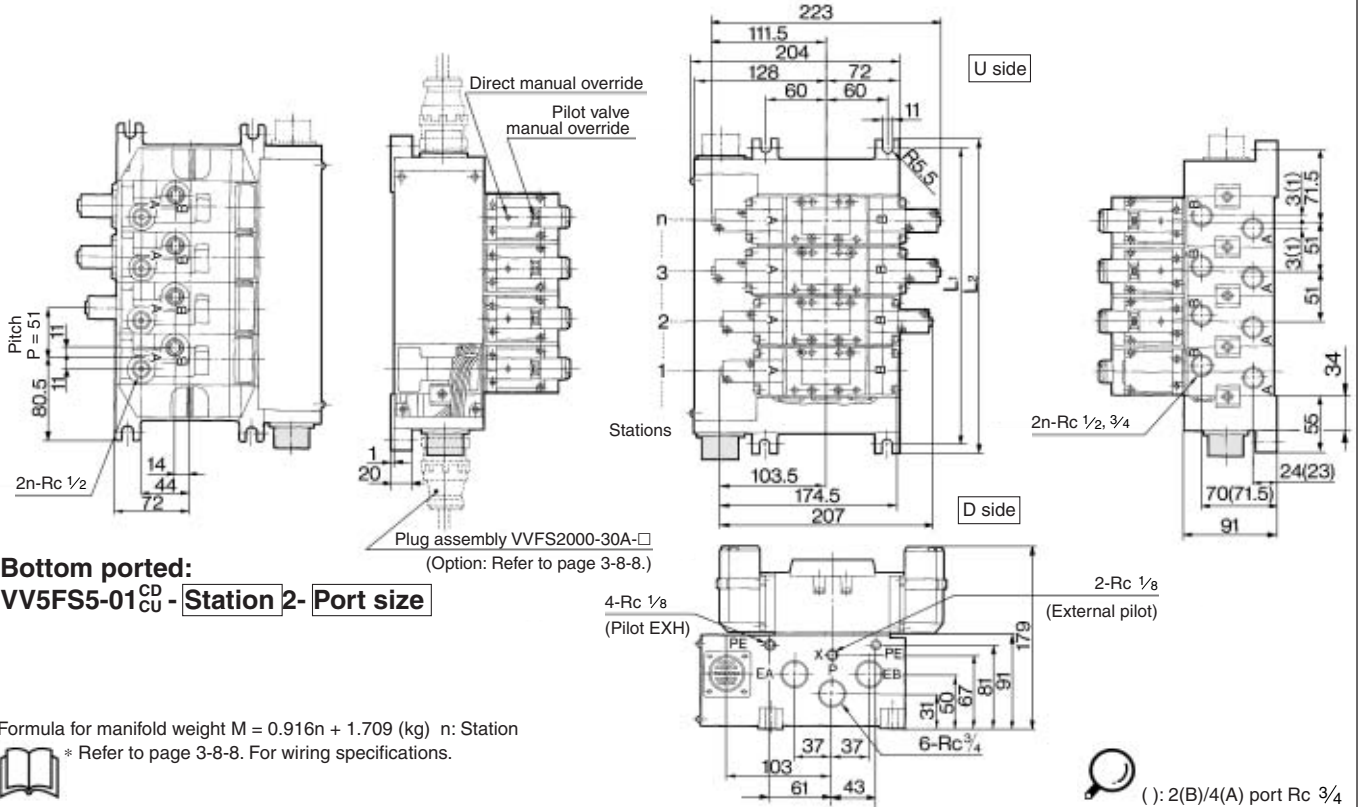
(): 2(B)/4(A) port Rc 3/4

- VK
- VZ
- VF
- VFR
- VP4
- VZS
- VFS
- VS4
- VQ7
- EVS
- VFN

Series VFS5000

Manifold Plug-in type with multi-connector/D-sub connector

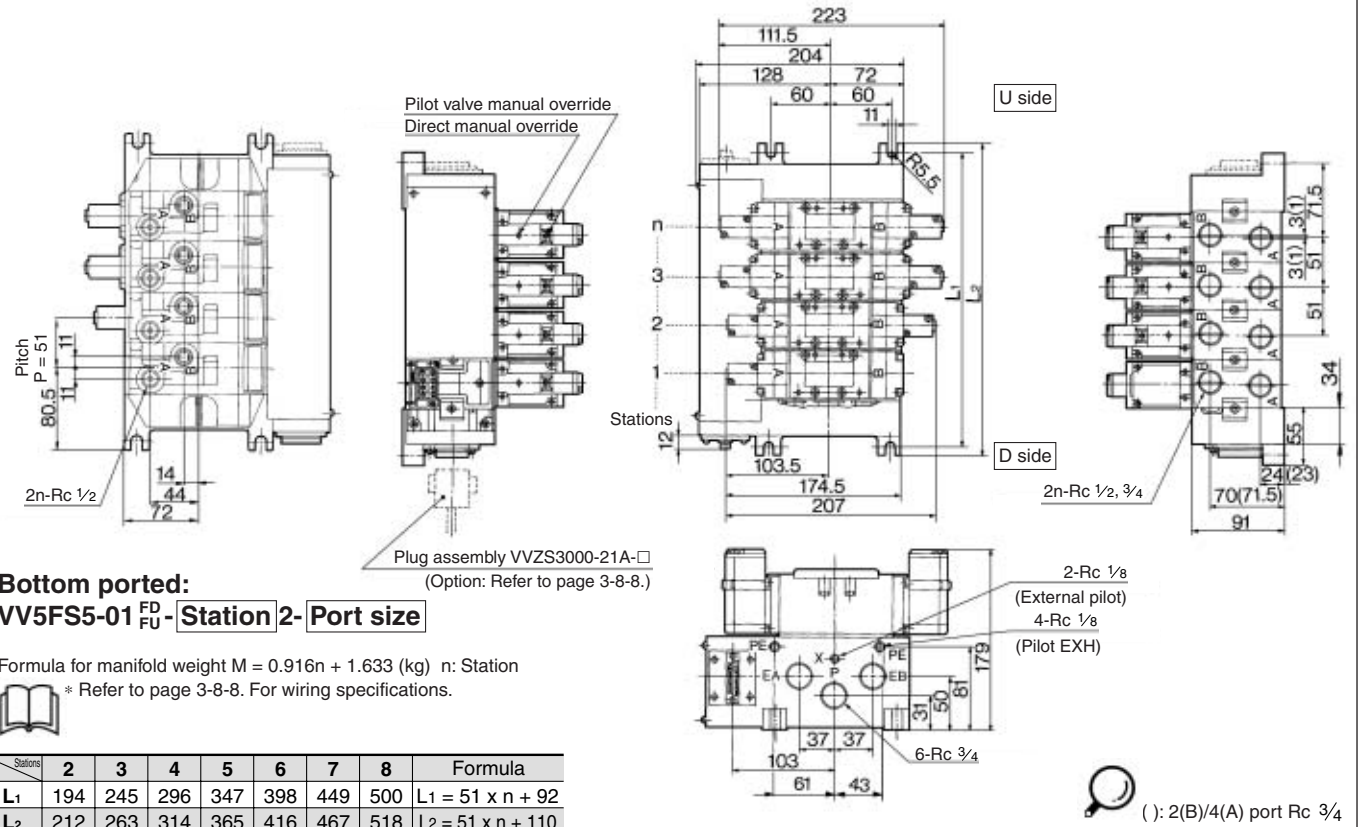
Plug-in type with multi-connector: VV5FS5-01CD - Station 1 - Port size, VV5FS5-01CU - Station 1 - Port size



Formula for manifold weight $M = 0.916n + 1.709$ (kg) n: Station
* Refer to page 3-8-8. For wiring specifications.



Plug-in type with D-sub connector: VV5FS5-01FD - Station 1 - Port size, VV5FS5-01FU - Station 1 - Port size



Formula for manifold weight $M = 0.916n + 1.633$ (kg) n: Station
* Refer to page 3-8-8. For wiring specifications.

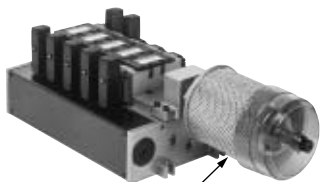


Stations	2	3	4	5	6	7	8	Formula
L1	194	245	296	347	398	449	500	$L1 = 51 \times n + 92$
L2	212	263	314	365	416	467	518	$L2 = 51 \times n + 110$

5 Port Pilot Operated Solenoid Valve Metal Seal, Plug-in/Non Plug-in Series VFS5000

Manifold with Exhaust Cleaner

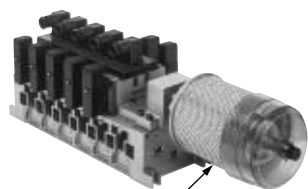
- Serves to protect working environment.
- Valve exhaust noise dampening: 35 dB or more.
- Collection rate of drainage and oil mist: 99.9% or more.
- Piping work is reduced.



Plug-in type

Exhaust cleaner
(Option)

U side



Non plug-in type

Exhaust cleaner
(Option)

D side

Manifold Specifications

Manifold	Plug-in type: VV5FS5-01□	Non plug-in type: VV5FS5-10
Wiring	With terminal blocks With multi-connector With D-sub connector	DIN terminal Grommet terminal
Applicable valve model	VFS5□00-□F	VFS5□10-□D, VFS5□10-□E
Porting specifications Rc	Common SUP/Common EXH	
	2(B), 4(A) port 1(P), 3(R2), 5(R1) port	Side: Rc 1/2, 3/4, Bottom: Rc 1/2 (Option) P: Rc 3/4, EXH: Rc 1 1/2
Stations	2 to 10 ⁽¹⁾	
Applicable exhaust cleaners	AMC810-14 (Connecting port size R 1 1/2) ⁽²⁾	

- Note 1) With multi-connector, or with D-sub connector: 8 stations max.
Note 2) Exhaust cleaner: Not attached.

How to Order

VV5FS5-10-061-04-CD

Series VFS5000
Manifold

Base type/Electrical entry

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	01T, 10
D	D side mounting	01C, 01F
U	U side mounting	01C, 01F

Stations

02	2 stations
⋮	⋮
10	10 stations

Base type 01T, 10: 2 to 10 stations
Base type 01C, 01F: 2 to 8 stations

Exhaust cleaner mounting direction

Symbol	Exhaust cleaner mounting direction
CD	D side / D side mounting
CU	U side / U side mounting

Thread type

Nil	Rc
N*	NPT
T*	NPTF
F*	G

* Option

Port size

Symbol	P	A, B
04		Rc 1/2
06	Rc 3/4	Rc 3/4
M		Mixed

* For bottom ported, Rc 1/2 is only available.

Symbol

Symbol	Passage		Porting specifications (A, B)
	P	R1, R2	
1	Common	Common	Side
2			Bottom*

* Option

Caution

When using an exhaust cleaner, mount it downwards.



* Refer to Best Pneumatics Vol. 5 for Exhaust Cleaner details.

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

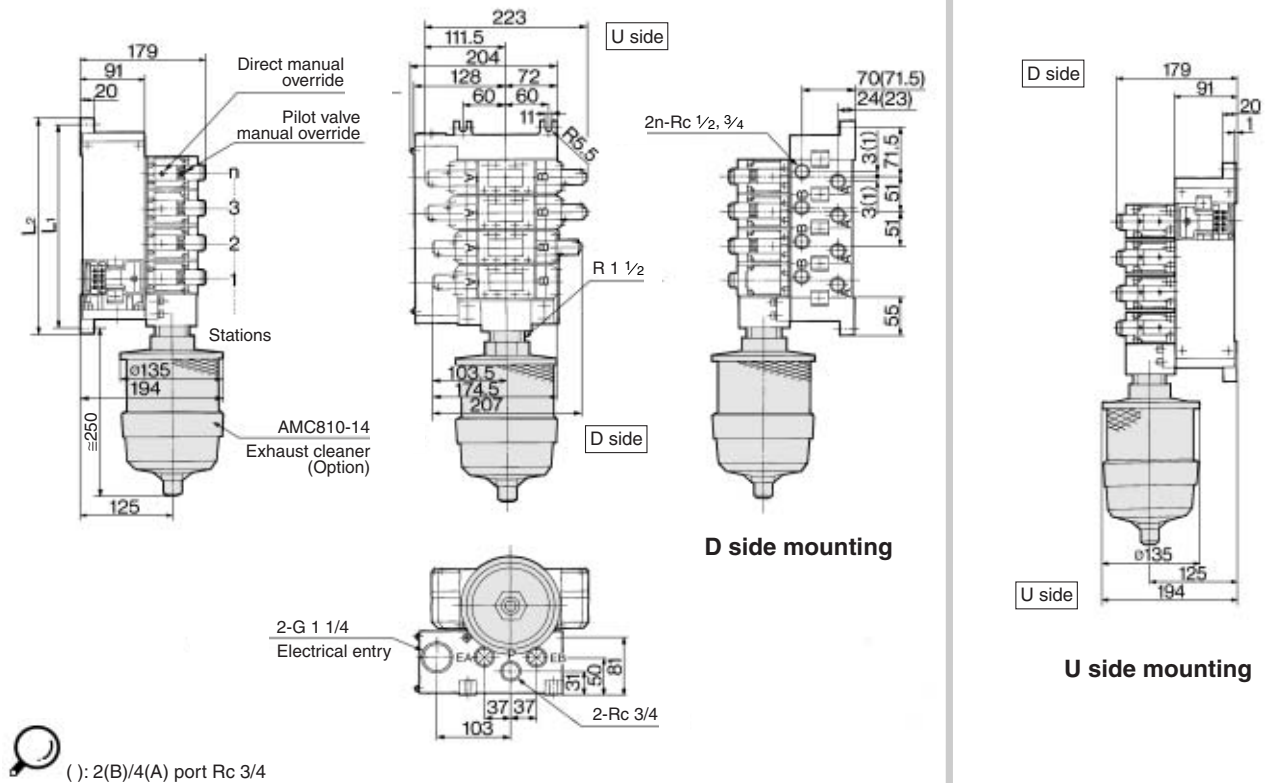
<Example>

- Plug-in type with terminal block (6 stations)
 - (Manifold base) VV5FS5-01T-061-04-CD 1
 - (2 position single) VFS5100-5FZ 3
 - (2 position double) VFS5200-5FZ 2
 - (Blanking plate) VVFS5000-10A 1
 - (Exhaust cleaner) AMC810-14 1
- Non plug-in type (6 stations)
 - (Manifold base) VV5FS5-10-061-04-CU 1
 - (2 position single) VFS5110-5E 3
 - (2 position double) VFS5210-5E 2
 - (Blanking plate) VVFS5000-10A 1
 - (Exhaust cleaner) AMC810-14 1

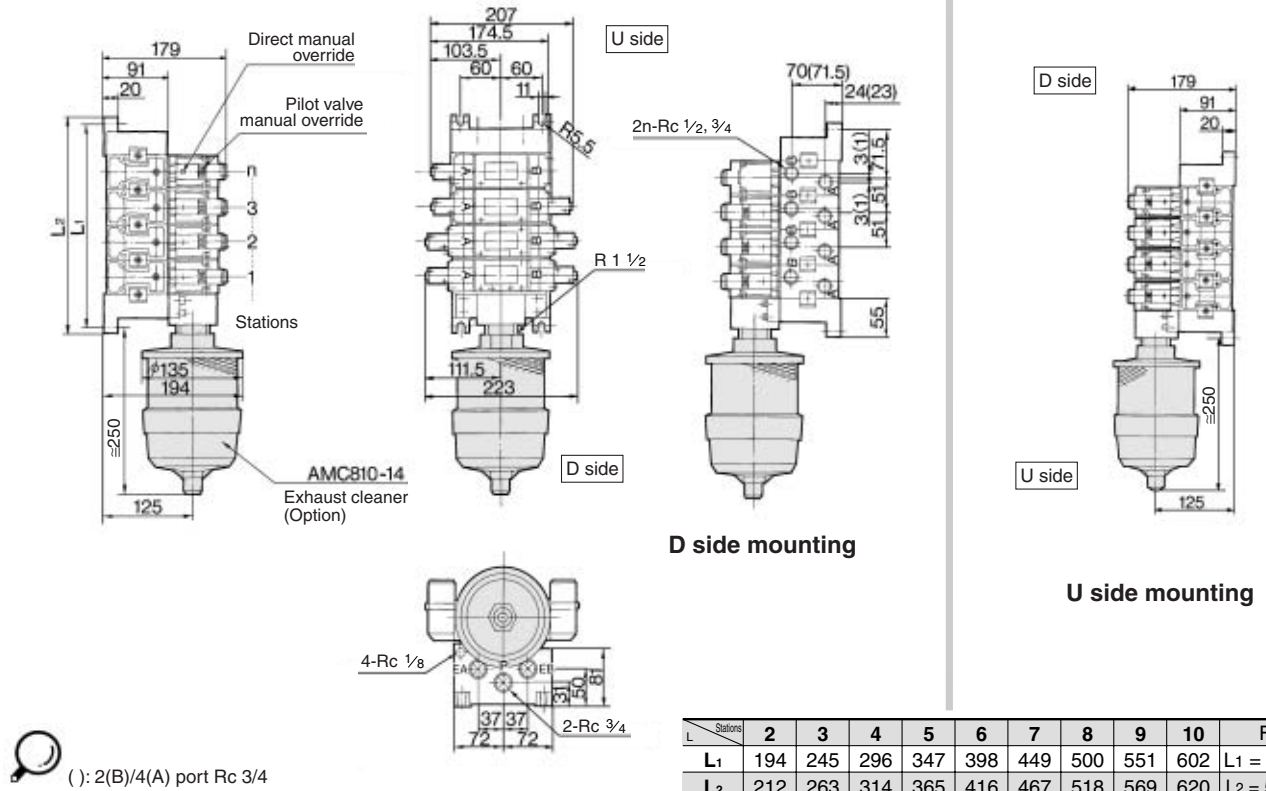
Series VFS5000

Manifold with Exhaust Cleaner Plug-in type, Non plug-in type

Plug-in type: VV5FS5-01T-Station 1-Port size -^{CD}_{CU}



Non plug-in type: VV5FS5-10-Station 1-Port size -^{CD}_{CU}

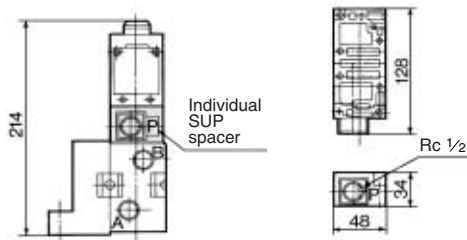


		n: Stations									
		Formula									
L ₁	Stations	2	3	4	5	6	7	8	9	10	L ₁ = 51 x n + 92
L ₂		212	263	314	365	416	467	518	569	620	L ₂ = 51 x n + 110

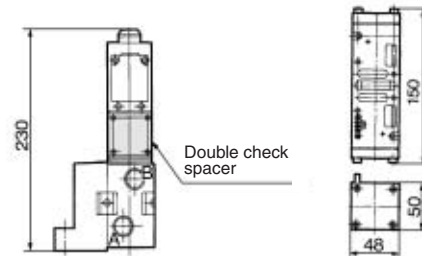
5 Port Pilot Operated Solenoid Valve Metal Seal, Plug-in/Non Plug-in Series VFS5000

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

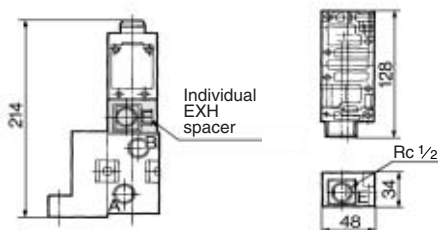
Individual SUP spacer:
VVFS5000-P-04-1 (Plug-in type)
VVFS5000-P-04-2 (Non plug-in type)



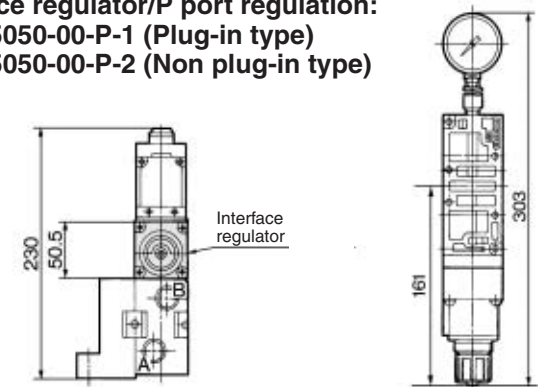
Double check spacer:
VVFS5000-22A-1 (Plug-in type)
VVFS5000-22A-2 (Non plug-in type)



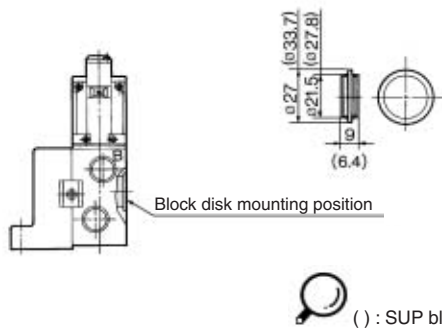
Individual EXH spacer:
VVFS5000-R-04-1 (Plug-in type)
VVFS5000-R-04-2 (Non plug-in type)



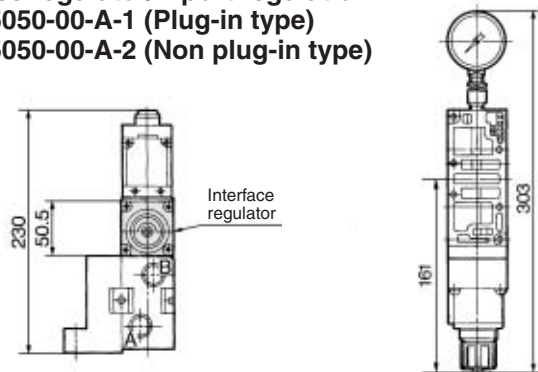
Interface regulator/P port regulation:
ARBF5050-00-P-1 (Plug-in type)
ARBF5050-00-P-2 (Non plug-in type)



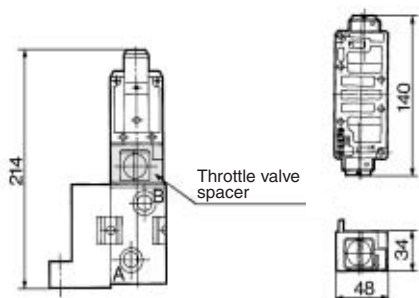
SUP block disk: AXT628-12A
EXH block disk: AXT512-14-1A



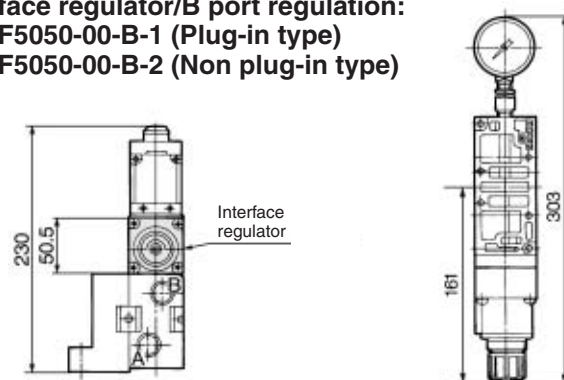
Interface regulator/A port regulation:
ARBF5050-00-A-1 (Plug-in type)
ARBF5050-00-A-2 (Non plug-in type)



Throttle valve spacer:
VVFS5000-20A-1 (Plug-in type)
VVFS5000-20A-2 (Non plug-in type)



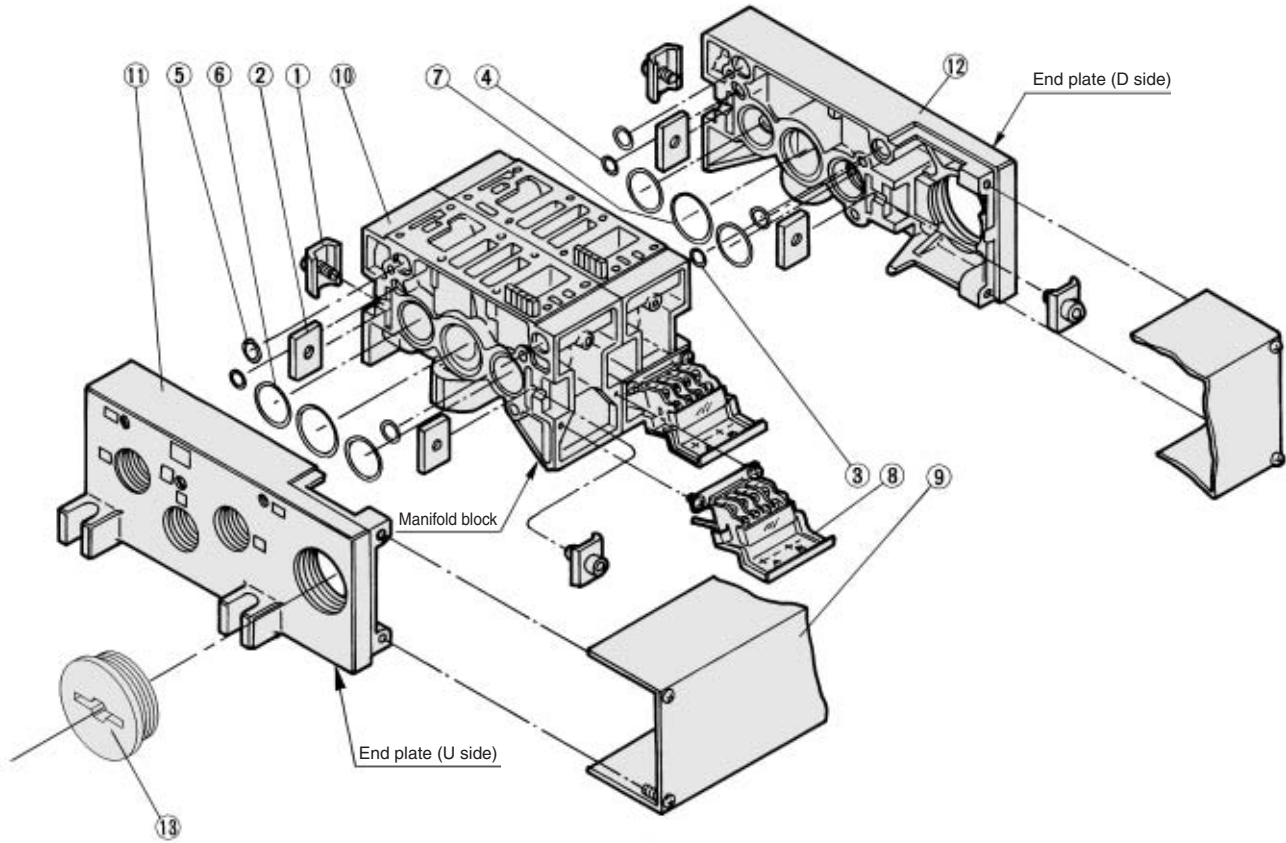
Interface regulator/B port regulation:
ARBF5050-00-B-1 (Plug-in type)
ARBF5050-00-B-2 (Non plug-in type)



- VK
- VZ
- VF
- VFR
- VP4
- VZS
- VFS
- VS4
- VQ7
- EVS
- VFN

Series VFS5000

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



Replacement Parts

No.	Description	Material	Part no.
①	Connection fitting A	Steel plate	AXT628-6-1A
②	Connection fitting B	Steel plate	AXT628-6-2
③	O-ring	NBR	AS568-006
④	O-ring	NBR	AS568-010
⑤	O-ring	NBR	AS568-013
⑥	O-ring	NBR	AS568-022
⑦	O-ring	NBR	AS568-026
⑧	Terminal assembly	—	AXT628-5-1A
⑨	Junction cover assembly	For 01T	VVFS5000-4A- [Stations]
		For 01SU	AZ738-31A- [Stations]
⑬	Rubber plug	NBR	AXT336-9

- For increasing the manifold bases, please order the manifold block assembly number of the principal part assembly ⑩.
For plug-in type: The manifold base with terminal stand (integrated with a junction cover) is required with the ⑨ junction cover assembly.

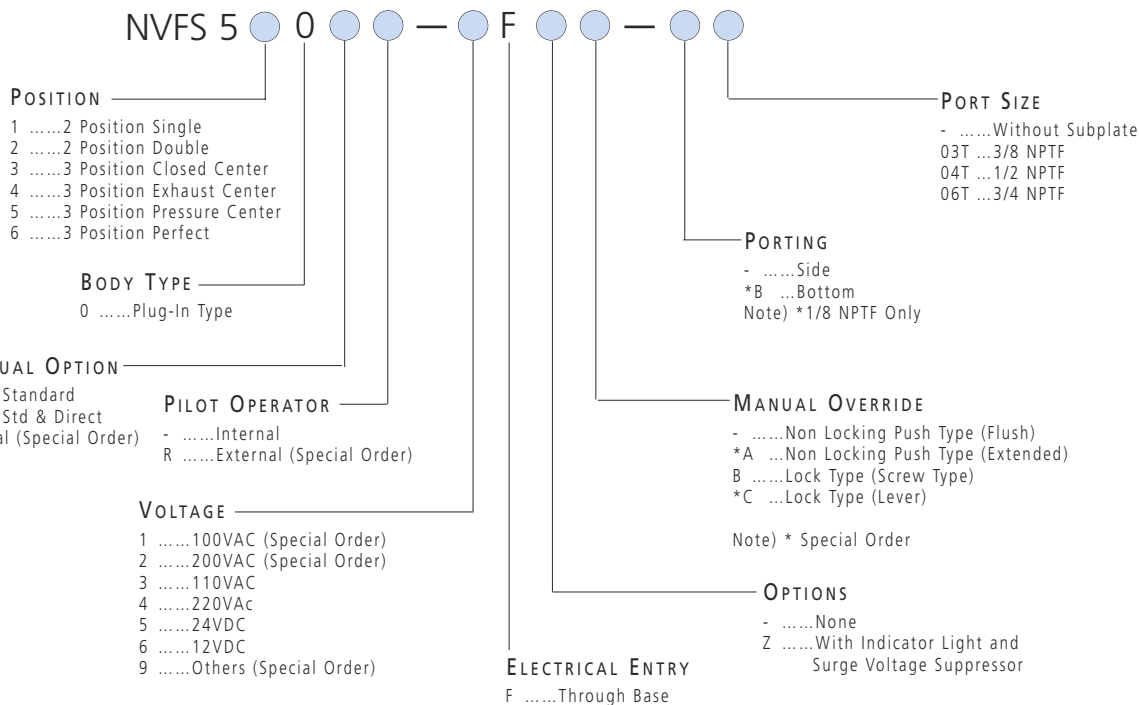
Replacement Parts: Sub Assembly



Note) Manifold Base/Construction: Plug-in type with terminal block.

No.	Description	Assembly part no.	Component parts	Applicable manifold base
⑩	Manifold block assembly	VVFS5000-1A-1- ⁰⁴ / ₀₆	Manifold block ⑩, Metal joint ①, ②, Terminal ⑧, O-ring ③, ④, ⑤, ⑥, ⑦, Receptacle assembly	Plug-in type
		VVFS5000-1A-2- ⁰⁴ / ₀₆	Manifold block ⑩, Metal joint ①, ②, O-ring ③, ④, ⑤, ⑥, ⑦	Non plug-in type
⑪	End plate (U side) assembly	VVFS5000-2A-1	End plate (U) ⑪, Metal joint ①, ②	Plug-in type
		VVFS5000-2A-2	End plate (U) ⑪, Metal joint ①, ②	Non plug-in type
⑫	End plate (D side) assembly	VVFS5000-3A-1	End plate (D) ⑫, Metal joint ①, ②, O-ring ③, ④, ⑤, ⑥, ⑦	Plug-in type
		VVFS5000-3A-2	End plate (D) ⑫, Metal joint ①, ②, O-ring ③, ④, ⑤, ⑥, ⑦	Non plug-in type

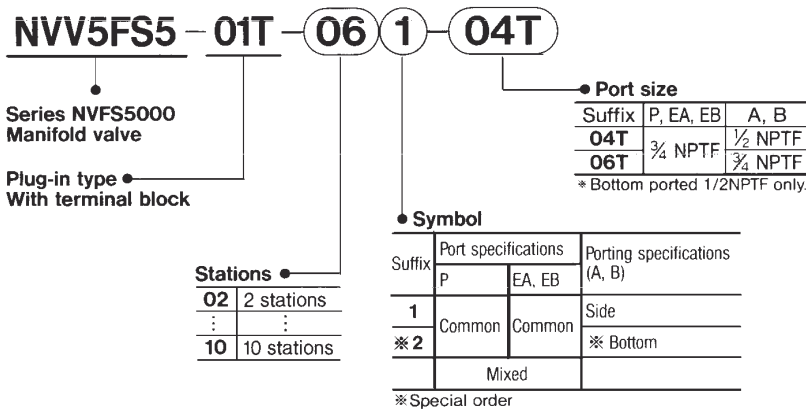
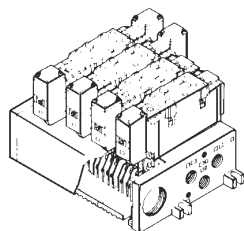
How To
ORDER
NVFS5000



How To
ORDER
MANIFOLD

Plug-in Type: With Terminal Block

● 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.



FOR FURTHER TECHNICAL
DETAILS ON THIS
PRODUCT, REQUEST
CATALOG REFERENCE
N233

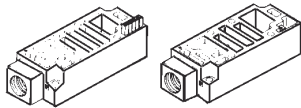
HOW TO
ORDER
MANIFOLD / OPTION PARTS ASSEMBLY

Manifold / Option Part's Ass'y

SUP Relocation spacer

An individual SUP spacer on manifold block can form individual P port for the valve.

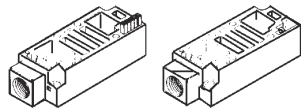
Body type	Plug-in type
Part No.	NVVFS5000-P-04T-1



EXH Relocation spacer

An individual EXH spacer on manifold block can form individual R port for the valve.

Body type	Plug-in type
Part No.	NVVFS5000-R-04T-1



SUP gallery block disc

When supplying manifold with more than one pressure, insert block disc in between stations subjected to different pressures.

Body type	Plug-in type
Part No.	AXT628-12A



SUP block disc

EXH gallery block disc

When valve exhaust affects the other stations on the circuit or when externally piloted, dual pressure valve is used on a standard manifold, insert EXH block disc(s) in between stations to separate valve exhaust.

Body type	Plug-in type
Part No.	AXT512-14-1A

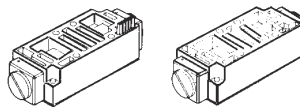


EXH block disc

Interface speed control

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

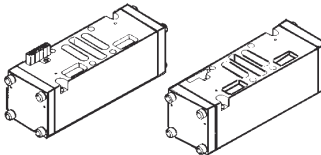
Body type	Plug-in type
Part No.	NVVFS5000-20A-1



Double Check "Perfect" spacer

The concurrent use of perfect spacer with built-in double check valve can stop the cylinder at mid-position and hold for extended time without being affected by normal air leakage across the spool seals.

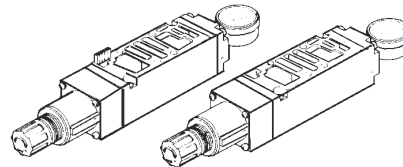
Body type	Plug-in type
Part No.	NVVFS5000-22A-1



Interface regulator

Spacer type regulating valve on manifold block can regulate the pressure to the valve.

Body type	Plug-in type
Pressure Regulation P	NARBF5000-N0-P-1
Pressure Regulation A	NARBF5000-N0-A-1
Pressure Regulation B	NARBF5000-N0-B-1



Blank plate

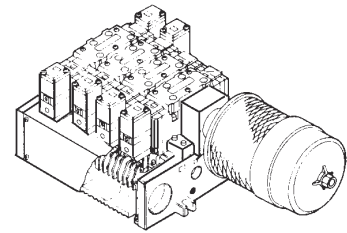
When disassembling valve for maintenance purposes or when spare manifold stations are required, install Blank plate on the manifold block.

Body type	Plug-in type
Part No.	VVFS5000-10A

Manifold Options

With Exhaust Cleaner Plug-in type

- Valve exhaust noise damping: 35dB or more.
- Oil mist collection: Rate of collection 99.9% or more.
- Piping process reduced.



For more information, Please refer to catalog N233

