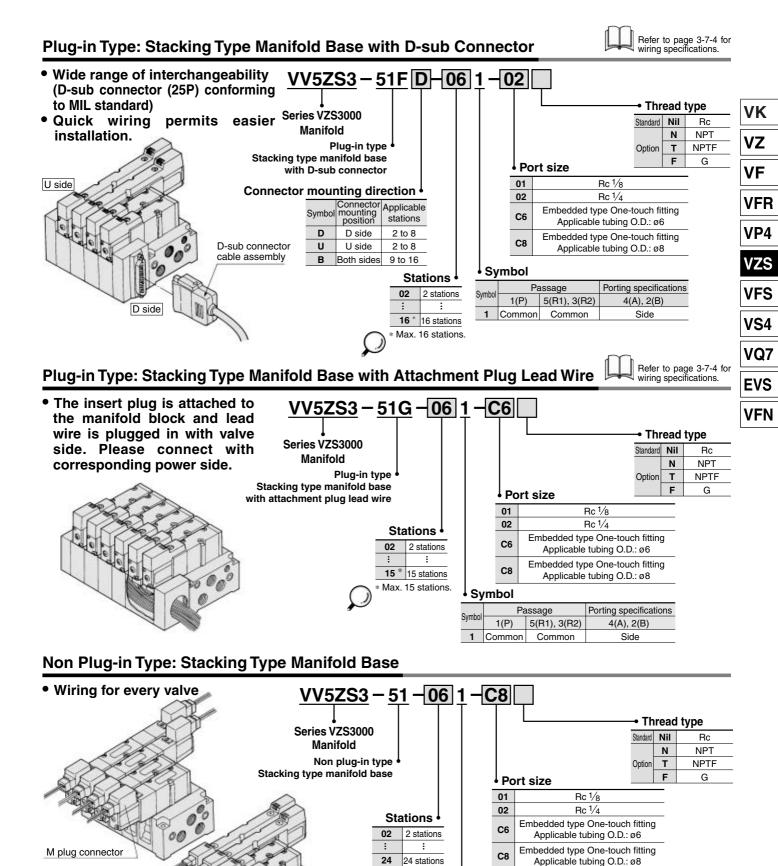
Manifold Specifications



K plug connector

Max. 24 stations

Symbol

Passage

1 Common Common

1(P) 5(R1), 3(R2)

Porting specifications

4(A), 2(B) Side

Manifold Specifications

Base model	Wiring	Porting specifications 4(A), 2(B) Port	Port size 1(P), 5(R1) 3(R2)	4(A) 2(B)	Stations	Applicable valve model
Plug-in type VV5ZS3-51F VV5ZS3-51G	With D-sub connector With attachment plug lead wire		/	1/8, 1/4	2 to 16 stations	VZS3□50-□FZ
Non plug-in type VV5ZS3-51	Grommet L plug connector M plug connector K plug connector DIN terminal	Side	1/4	C4 C6	2 to 24 stations	G L VZS3□50-□ M KZ D



* With attachment plug lead wire teminal: 15 stations max.

Flow Characteristics at the Number of Manifold Stations (Operated single/double type individually)

Passage	e/Stations	Station 1	Station 5	Station 10	Station 15	Station 20
1 → 4/2	C [dm ³ /(s·bar)]	2.7	2.7	2.7	2.7	2.6
$(P \rightarrow A/B)$	b	0.15	0.16	0.16	0.15	0.20
$(P \rightarrow A/B)$	Cv	0.62	0.61	0.61	0.61	0.63
4/2 → 5/3	C [dm ³ /(s·bar)]	2.8	2.8	2.9	2.9	2.9
$(A/B \rightarrow R1/R2)$	b	0.10	0.12	0.12	0.12	0.12
(A/D → N I/N2)	Cv	0.65	0.66	0.66	0.66	0.66

How to Order Manifold Assembly

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

(Example)

- Plug-in type (At 6 stations) (Manifold base) VV5ZS3-51FD-061-01······1 (2 position single) VZS3150-5FZ-----3 (2 position double) VZS3250-5FZ2 (Blanking plate) VVZS3000-10A-1 ······1
- Non plug-in type (At 6 stations) (Manifold base) VV5ZS3-51-061-01.....1 (2 position single) VZS3150-5G-----5 (3 position exhaust center) VZS3450-5G....1 (Individual EXH spacer) VVZS3000-R-02-2...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	Rc1/8	VVZS3000-P-01-1	VVZS3000-P-01-2		
no.	Rc 1/4	VVZS3000-P-02-1	VVZS3000-P-02-2		





Individual EXH spacer

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

Body type		Plug-in type	Non plug-in type
Part no.	Rc 1/4	VVZS3000-R-02-1	VVZS3000-R-02-2





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 typ		
Part no.	AXT625-12A		
1/22/01			



EXH block disk

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 disk in between stations to separate valve exhaust.

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



Interface regulator (P port regulation)

Spacer Interface regulators can be placed on top of the manifold block to reduce the pressure of each of the valves.

Body type	Plug-in type	Non plug-in type
Part no.	ARBZS3000-00-P-1	ARBZS3000-00-P-2



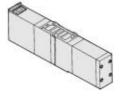
Note). Apply pressure from the P port of the base to operate the interface regulator.

To use concurrently with a double check spacer, assemble in the following order: the valve, the interface regulator, and the double check spacer.

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.	VVZS3000-22A-1	VVZS3000-22A-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.	VVZS3000-10A-1	VVZS3000-10A-2

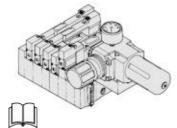


Manifold Option

With control unit

Plug-in base type/Non plug-in base type

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

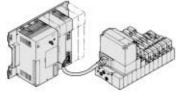


For details, refer to pages 3-7-35 and 3-7-36.

With serial interface unit for serial transmission

Plug-in base type

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

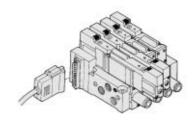


For details, please contact SMC.

With coaxial fitting

Plug-in base type/Non plug-in base type

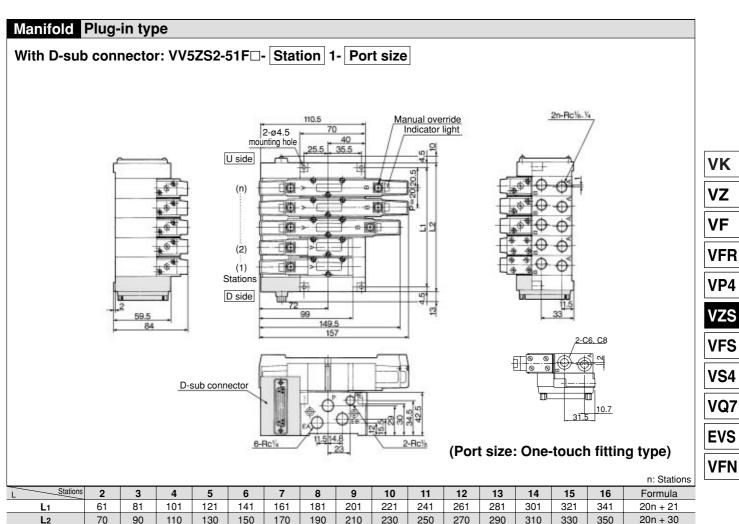
- Piping man-hours reduced
- One-touch piping
- 1/2 the number of tubes

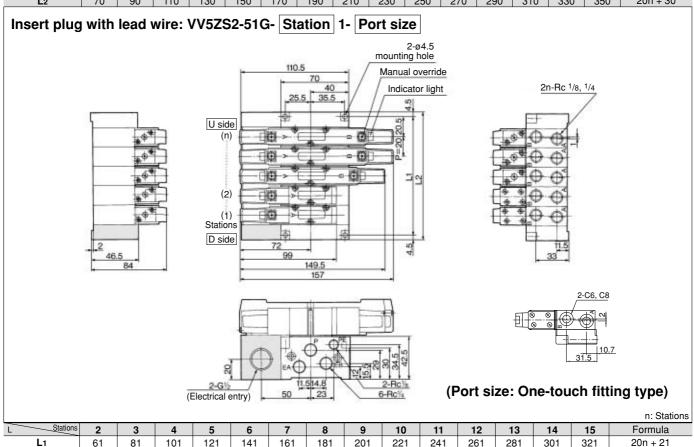


For details, please contact SMC.



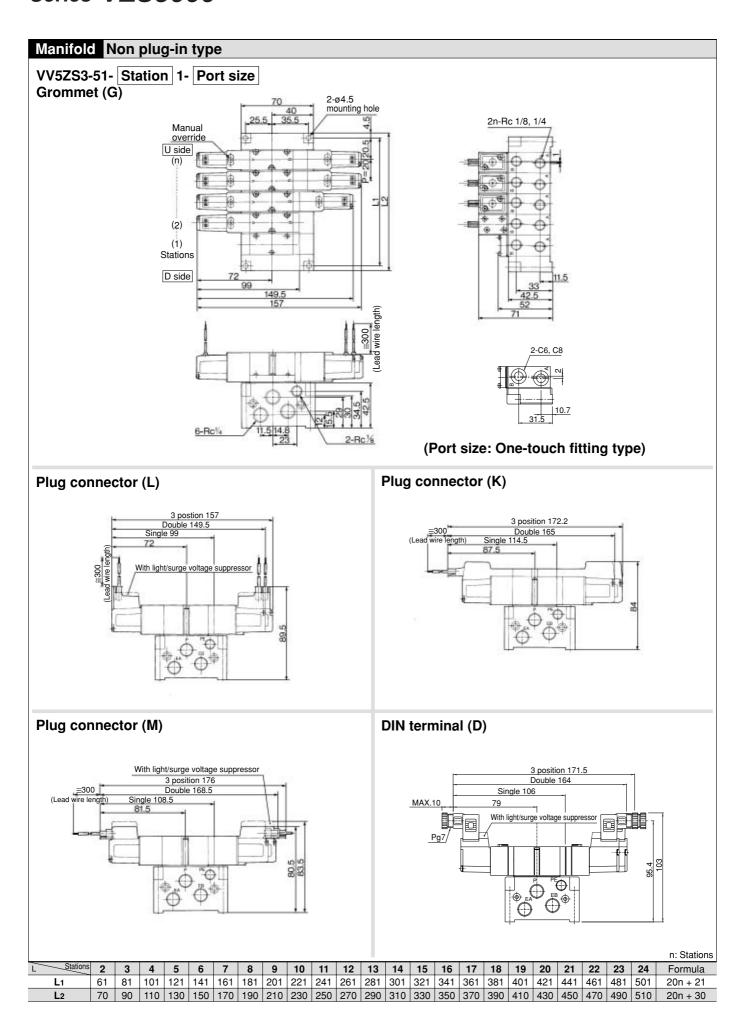
5 Port Pilot Operated Solenoid Valve Metal Seal, Plug-in/Non Plug-in Series VZS3000





L2

20n + 30



Manifold with Control Unit

- Control unit (Filter, Regulator, Pressure switch, Air release valve) are all standardized in 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 override drain, mount the filter vertically.

Manifold Specifications

Base model	\\/ivin a	Porting specifications	cifications Port size	Stations	Applicable	
base model	Wiring	A, B port	P, EA, EB	A, B	Stations	valve model
Plug-in type VV5ZS3-51F VV5ZS3-51G	With D-sub connector With attachment plug lead wire			Rc 1/8, 1/4	2 to 16 stations	VZS3□50-□FZ
Non plug-in type VV5ZS3-51	Grommet L plug connector M plug connector K plug connector	Side	Rc 1/4	C6 C8	2 to 24 stations	G VZS3□50-□ <mark>M</mark> KZ

* With attachment plug lead wire: 15 stations max.

Control Unit Specifications

Air filter (With auto-drain	/With manual drain)		
Filtration degree	5 μm		
Regulator			
Set pressure (Outlet pressure)	0.05 to 0.85 MPa		
Pressure switch			
Set pressure range: OFF	0.1 to 0.4 MPa		
Differential pressure	0.08 MPa		
Contact	1a		
Max. switch capacity	2 VA AC, 2 W DC		
Max. operating current	24 VAC, DC or less: 50 mA 100 VAC, DC: 20 mA		
Operating voltage	100 VAC, DC or less		
Air release valve (Single only)			
Operating pressure range	0.1 to 1.0 MPa		

Control Unit/Option

Control Onit/Option			
	MP2-2		
	(With control unit/Filter regulator)		
Blanking	VVZS2000-15A		
plate	(With pressure switch)		
	VVZS3000-24A-10-1		
	(Release valve)		
Filter element	111511-5B		
	Plug-in type		
Pressure	VVZS2000-14A		
switch	Non plug-in type		
	IS1000-00-X204		

۷K

٧Z

VF

VFR

VP4

VZS

VFS

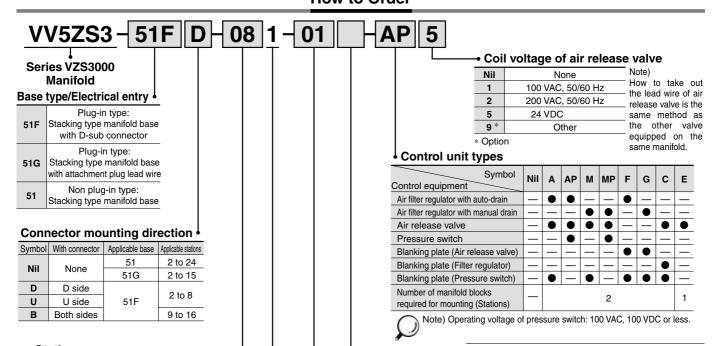
VS4

VQ7

EVS

VFN

How to Order



Stations •

02	2 stations
:	:
24	24 stations

Note) Maximum stations
51F…16 stations
51G…15 stations

51 ···· 24 stations

↓ Thread type

Standard	Nil	Rc
Option	N	NPT
	Т	NPTF
	F	G

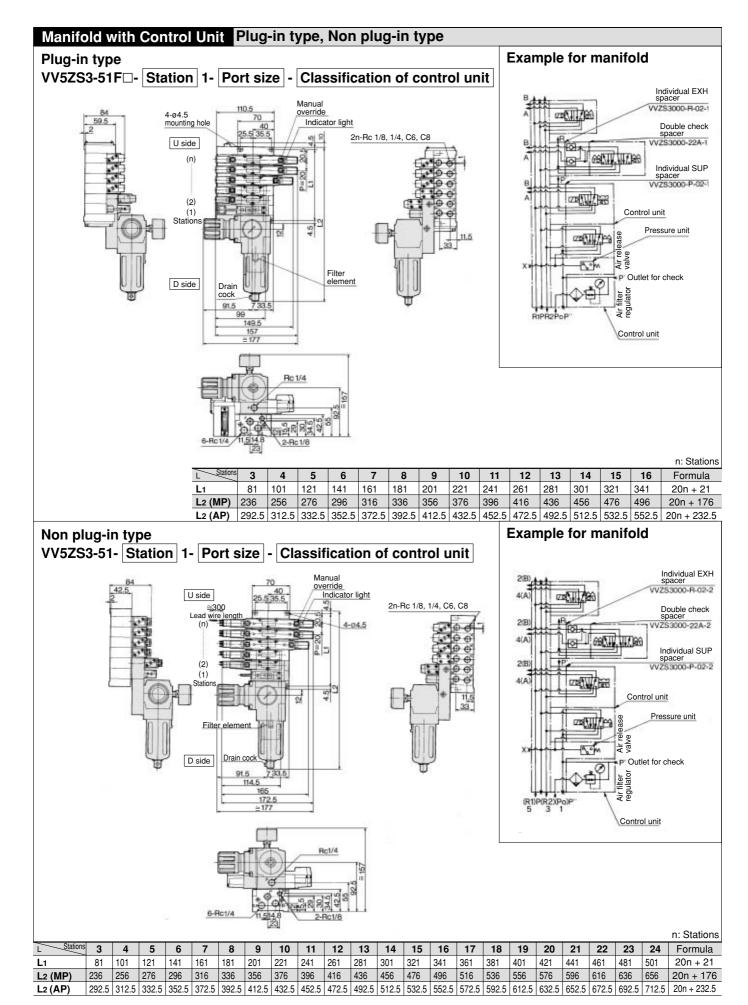
Port size

01	Rc 1/8
02	Rc 1/4
C6	Embedded type One-touch fitting Applicable tubing O.D.: ø6
C8	Embedded type One-touch fitting Applicable tubing O.D.: ø8

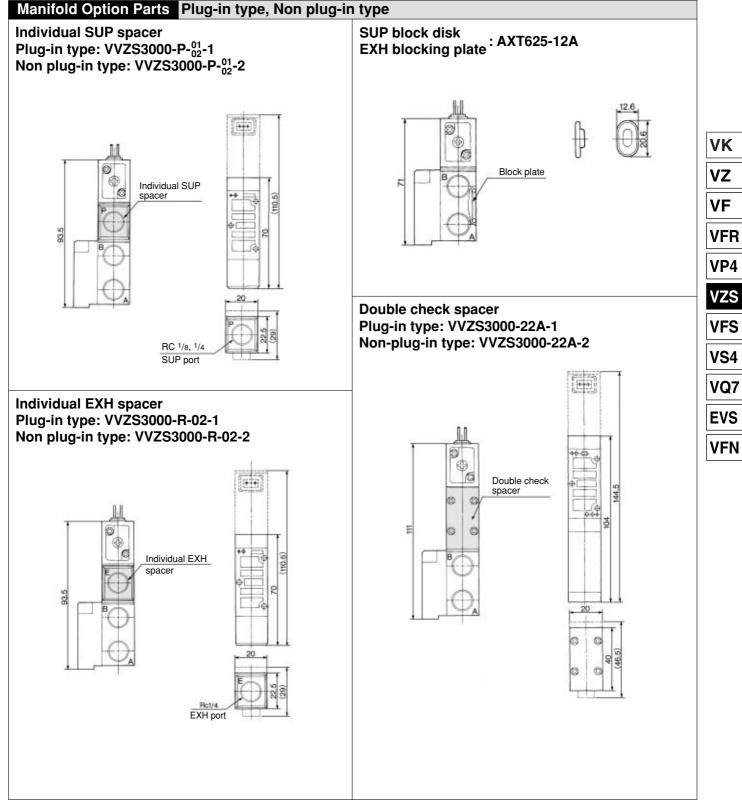
Please indicate manifold base type, corresponding valve, and option parts.

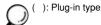
- <Example>
- Plug-in type with D-sub connector
 (Manifold base) VV5ZS3-51FD-091-01-MP5····1
 (2 position single) VZS3150-5FZ······5
 (2 position double) VZS3250-5FZ·······2
- * 2 stations are needed to mount control unit.
- Non plug-in type (Manifold base)
 VV5ZS3-50
- (Manifold base)
 VV5ZS3-50-071-01-M5······· 1

 (2 position single)
 VZS3150-5G·············
- * 2 stations are needed to mount control unit.



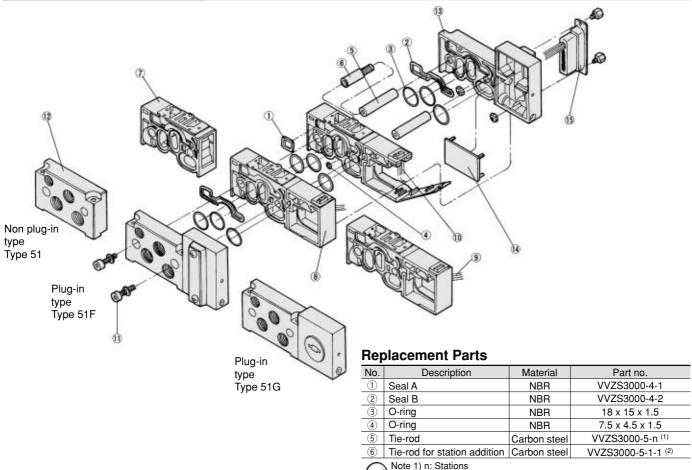
5 Port Pilot Operated Solenoid Valve Metal Seal, Plug-in/Non Plug-in Series VZS3000







Exploded View of Manifold



Note 1) n: Stations

Note 2) Manifold block assembly is attached with tie-rod for increasing stations.

Description	Applicable manifold base	Assembly part no.	Component parts
Manifold block assembly	Plug-in type With attachment plug lead wire: Type 51G		Manifold block ①, Junction box ⑧, Lead wire assembly ⑨ Tie-rod ⑥, O-ring ③, ④, Seal A ①
	Non plug-in base type: Type 51	VVZS3000-1A-2-Port size (1)	Manifold block ⑦, Tie-rod ⑥, O-ring ③, ④, Seal A ①
	Plug-in type With D-sub connector: Type 51F*		Manifold block ⑦, Junction box ⑧, Lead wire assembly ⑩ Tie-rod ⑥, O-ring ③, ④, Seal A ①

Note 1) Bore -01: Rc ¹/₈, -C6: Embedded type One-touch fitting for ø6, -C8: Embedded type One-touch fitting for ø8. Note 2) Refer to page 3-7-5 for the model of D-sub connector type manifold block assembly.

How to Increase Manifold Base

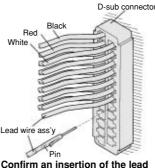
Arrange an applied manifold block assembly

- 1. Loosen the bolt ① and remove the end plate ② or ③ in the side added with manifold block.
- Joint the tie-rod (§) to increase stations and add manifold block assembly.
 (Put packing B (②) on the surface contacting to the end plate.)
- For a style with a D-sub connector, open the cover (1) and insert the pin of lead wire assembly (1) as shown in the right figure.
 - 4. Mount the end plate ② and ③ and tighten the bolt ①.)
 - Note 1) Be careful that the packing and the O-ring do not fall out of the groove.

Note 2) The tightening torque of bolt 11 should be 2 to 2.2 N.

Insertion Method for Pin of D-Sub Connector

D-sub connector

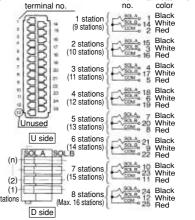


Confirm an insertion of the lead wire assembly after the insertion of pin by light pulling of the lead wire.

Note 1) Regardless of the D-sub connector mounting position, stations are to be counted from D side

be confided from D side as the 1st one.

Note 2) D-sub connector can use up to 8 stations in on side fitting (Type F_U^D). More than 9 stations are for both sides fitting (Type FB).



Terminal Lead wire

() is for the case of a D-sub connector for both sides (Type FB).

