

5 Port Solenoid Valve Body Ported Series VZ3000

How to Order

Body ported VZ3 1 2 0 5 L [] [] M5 []

Type of actuation

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

Body option

0: Individual exhaust for the pilot valve

3: Common exhaust type for main and pilot valve

Rated voltage

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

* Option

Electrical entry

Grommet	L plug connector	M plug connector		DIN terminal
G: Lead wire length 300 mm 	L: With lead wire (Length 300 mm) 	M: With lead wire (Length 300 mm) 	MN: Without lead wire 	D: With connector
H: Lead wire length 600 mm 	LN: Without lead wire 	LO: Without connector 	MO: Without connector 	DO: Without connector

* Type "LN", "MN": With 2 sockets.

Option

F: With foot bracket (2 position single type only)

U: With silencer

K: With foot bracket and silencer (2 position single only)

Note: The bracket and silencer are not assembled.

4(A), 2(B) port size

M5	M5 x 0.8
C4	One-touch fitting for ø4
C6	One-touch fitting for ø6

Note 1(P), 5(R1), 3(R2) port: M5 x 0.8

Manual override

Nil: Non-locking push type

C: Locking type C (Manual)

B: Locking type B (Slotted)

Light/Surge voltage suppressor

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

* Not available for "GZ", "HZ" and "DOZ"

VK

VZ

VF

VFR

VP4

VZS

VFS

VS4

VQ7

EVS

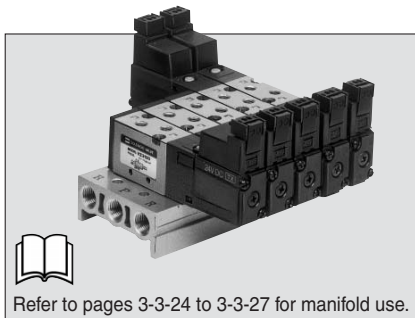
VFN

Series VZ3000

Applicable for cylinder actuation (up to $\phi 40$).

Compact size
(Width: 15 mm)

Low power consumption:
1.8 W DC



Made to Order Specifications
(For details, refer to page 3-3-85.)

Specifications

Fluid	Air	
Operating pressure range (MPa)	2 position single	0.15 to 0.7
	2 position double	0.1 to 0.7
	3 position	0.15 to 0.7
Ambient and fluid temperature (°C)	-10 to 50°C (No freezing. Refer to page 3-13-4.)	
Response time (ms) ⁽¹⁾ (at the pressure of 0.5 MPa)	2 position single, double	20 or less
	3 position	35 or less
Max. operating frequency (Hz)	2 position single, double	10
	3 position	3
Effective area	Refer to the table below.	
Manual override ⁽²⁾	Non-locking push type, Locking slotted type, Locking lever type	
Pilot exhaust method	Individual pilot exhaust type, Common exhaust (pilot and main valve) type	
Lubrication	Not required	
Mounting orientation	Unrestricted	
Impact/Vibration resistance (m/s ²) ⁽³⁾	300/50	
Enclosure	Dustproof	



Note 1) Based on dynamic performance test, JIS B 8375-1981. (Coil temperature: 20°C, at rated voltage, without surge suppressor)

Note 2) When operating the locking type manually, apply torque of 0.2 N·m or less.

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)

Solenoid Specifications

* Option

Electrical entry	Grommet (G)/(H), L plug connector (L), M plug connector (M), DIN terminal (D)		
Coil rated voltage (V)	AC 50/60 Hz	100, 200, 24*, 48*, 110*, 220*	
	DC	24, 6*, 12*, 48*	
Allowable voltage fluctuation (%)	-15 to +10% of rated voltage		
Power consumption (W) ^{Note)} [Current mA]	DC	1.8 (With indicator light 2.1) [24 VDC: 75 (With indicator light 87.5)]	
Apparent power (VA) ^{Note)} [Current mA]	AC	Inrush	4.5/50 Hz, 4.2/60 Hz [100 VAC: 45/50 Hz, 42/60 Hz 200 VAC: 22.5/50 Hz, 21/60 Hz]
		Holding	3.5/50 Hz, 3/60 Hz [100 VAC: 35/50 Hz, 30/60 Hz 200 VAC: 17.5/50 Hz, 15/60 Hz]
Surge voltage suppressor	DC: Diode, AC: ZNR		
Indicator light	DC: LED (Red), AC: Neon bulb		



Note) At rated voltage

Option

Description	Part no.	Note
With foot bracket	DXT170-34-1B	For VZ312 ⁰
Silencer	AN120-M5	Noise reduction: 21dB or more (ø8 x 17 mm)

5 Port Solenoid Valve Body Ported Series VZ3000

Flow Characteristics/Weight

Valve model	Type of actuation		Port size		Flow characteristics ^{Note)}						Weight (g)	
			1, 5, 3 (P, EA, EB)	4, 2 (A, B)	1 → 4/2 (P → A/B)			4/2 → 5/3 (A/B → EA/EB)				
					C [dm ³ /(s·bar)]	b	Cv	C [dm ³ /(s·bar)]	b	Cv		
VZ3□20-□-M5	2 position	Single	M5 x 0.8	M5 x 0.8	0.47	0.41	0.13	0.47	0.41	0.13	Grommet	
		Double										75
	3 position	Closed center			0.49	0.44	0.13	0.44	0.40	0.12		130
		Exhaust center			0.46	0.37	0.12	0.47 [0.39]	0.43 [0.35]	0.13 [0.10]		
VZ3□20-□-C4	2 position	Single	M5 x 0.8	C4 (One-touch fitting for ø4)	0.69	0.39	0.18	0.44	0.39	0.12	Grommet	
		Double										75
	3 position	Closed center			0.69	0.40	0.19	0.43	0.40	0.12		130
		Exhaust center			0.56	0.40	0.15	0.41 [0.41]	0.37 [0.37]	0.10 [0.11]		
VZ3□20-□-C6	2 position	Single	M5 x 0.8	C6 (One-touch fitting for ø6)	0.70	0.36	0.19	0.47	0.40	0.12	Grommet	
		Double										75
	3 position	Closed center			0.72	0.37	0.19	0.44	0.34	0.12		130
		Exhaust center			0.67	0.54	0.19	0.41 [0.41]	0.38 [0.38]	0.11 [0.11]		
		Pressure center			0.82 [0.44]	0.41 [0.39]	0.23 [0.12]	0.41	0.36	0.11		



Note) []: Denotes the normal position. Exhaust center: 4/2 → 5/3, Pressure center: 1 → 4/2

VK

VZ

VF

VFR

VP4

VZS

VFS

VS4

VQ7

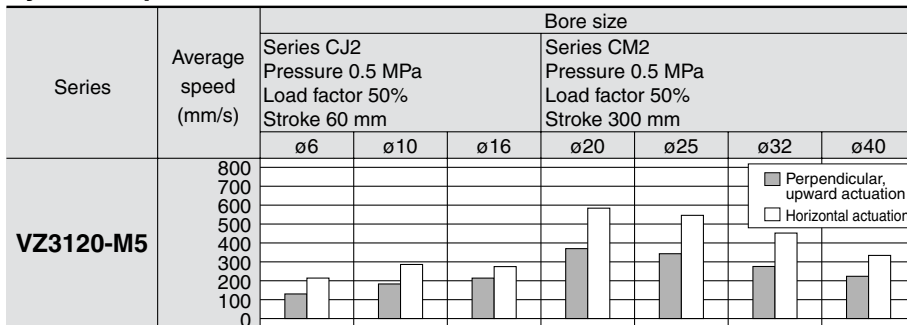
EVS

VFN

Cylinder Speed Chart

Use as a guide for selection.

Please confirm the actual conditions with SMC Sizing Program.



* 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 what the stroke is divided by the total stroke time.

* Load factor: ((Load weight x 9.8)/Theoretical force) x 100%

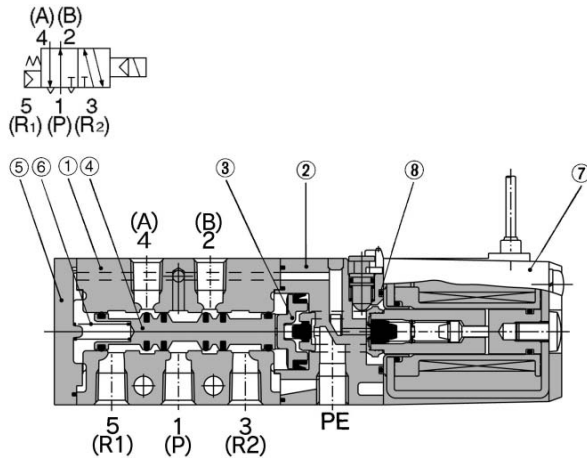
Conditions

Body ported		Series CJ2	Series CM2	Series MB
SZ3120-M5	Tube bore x Length	ø4 x 1 m	ø6 x 1 m	ø8 x 1 m
	Speed controller	AS1301F-04	AS3301F-06	AS3301F-08
	Silencer	AN120-M5	AN110-01	

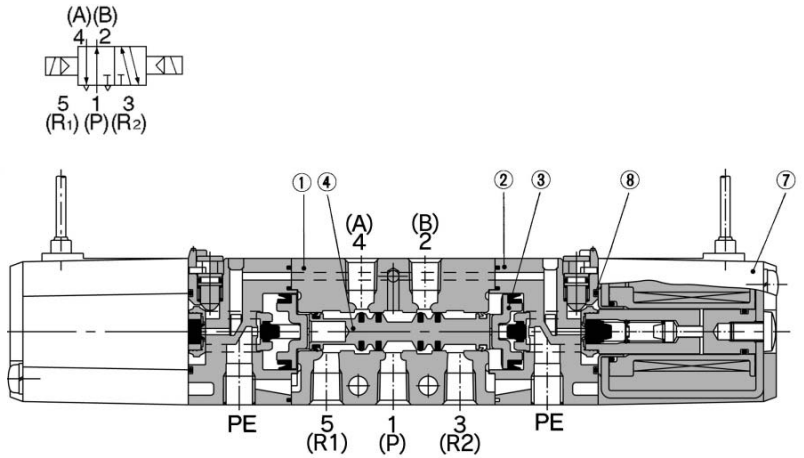
Series VZ3000

Construction

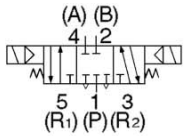
2 position single



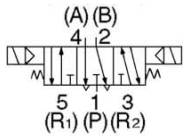
2 position double



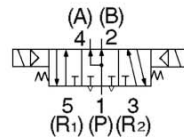
3 position closed center



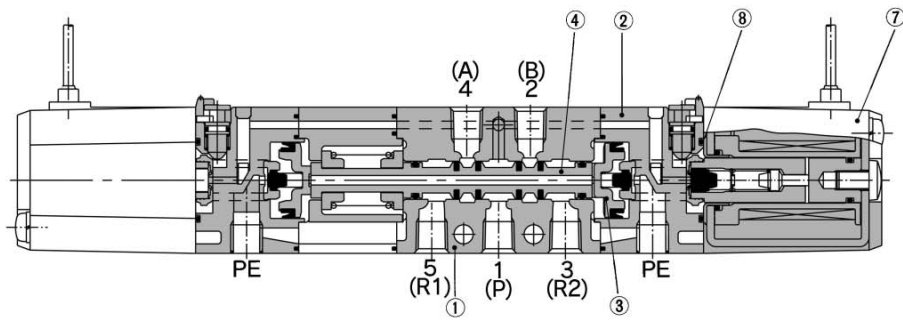
3 position exhaust center



3 position pressure center



3 position closed center/exhaust center/pressure center



(This figure shows a closed center type.)

Component Parts

No.	Description	Material	Note
①	Body	Aluminum die-casted	Platinum silver
②	Piston plate	Resin	Black
③	Piston	Resin	
④	Spool valve	Aluminum, HNBR	
⑤	End cover	Resin	
⑥	Spool spring	Stainless steel	

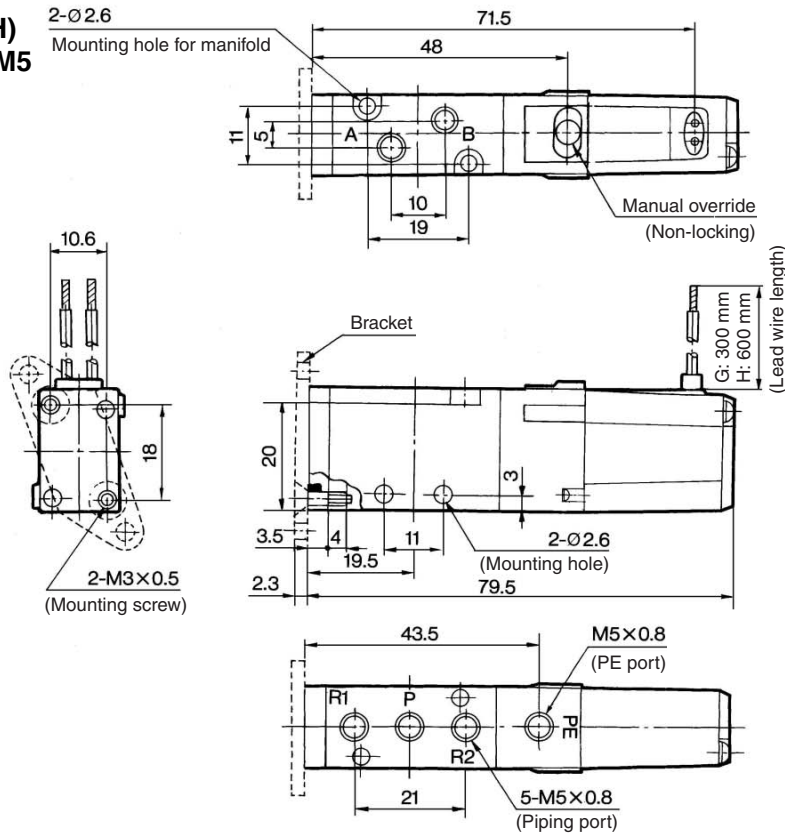
Replacement Parts

No.	Description	Material	Part no.	Note
⑦	Solenoid assembly	Epoxy/Stainless steel	DXT170-C-□□□	
⑧	O-ring	NBR	13 x 11 x 1	Common with Series VZ ₅ 000

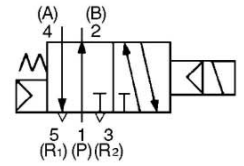
5 Port Solenoid Valve Body Ported Series VZ3000

2 Position Single

Grommet (G), (H)
VZ3120-□G□□-M5



VZ3120



VK

VZ

VF

VFR

VP4

VZS

VFS

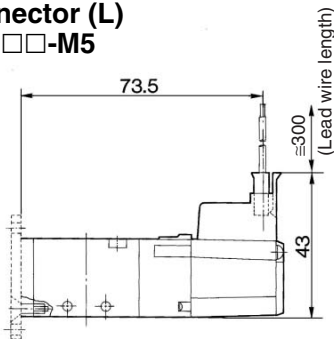
VS4

VQ7

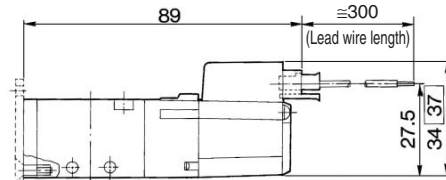
EVS

VFN

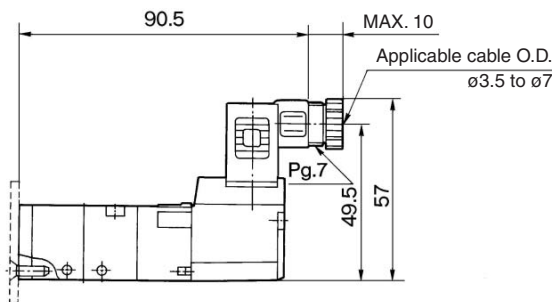
L plug connector (L)
VZ3120-□L□□-M5



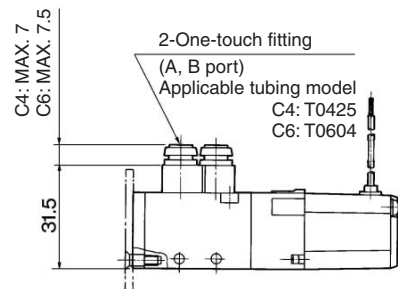
M plug connector (M)
VZ3120-□M□□-M5



DIN terminal (D)
VZ3120-□D□□-M5



Built-in One-touch fittings
VZ3120-□□□□-C4



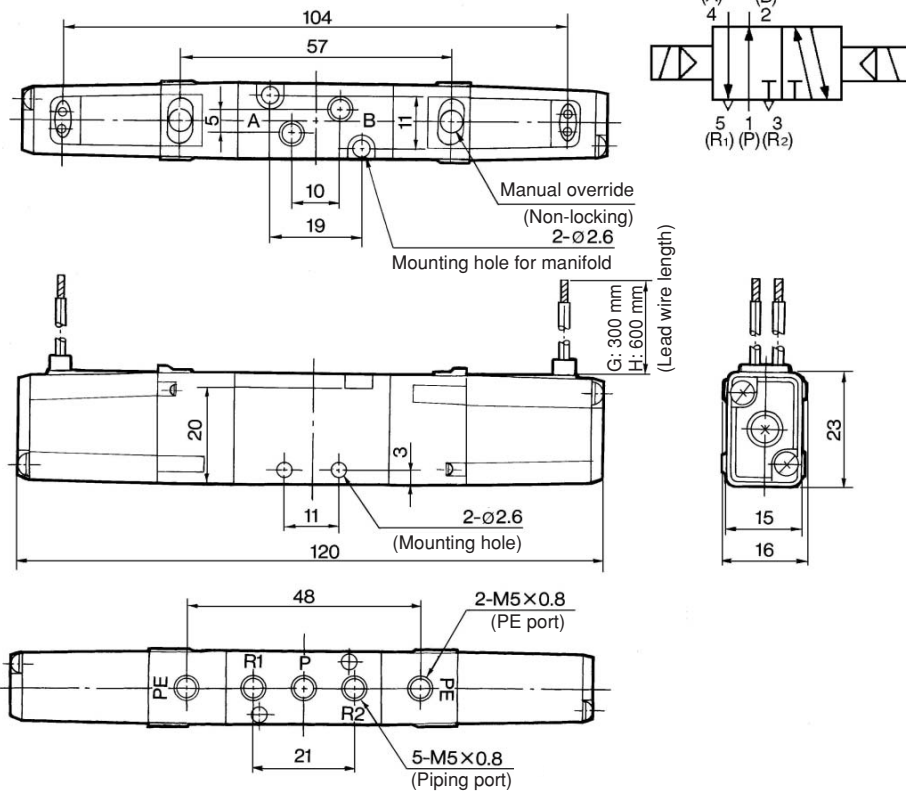
□: With light/surge voltage suppressor

Series VZ3000

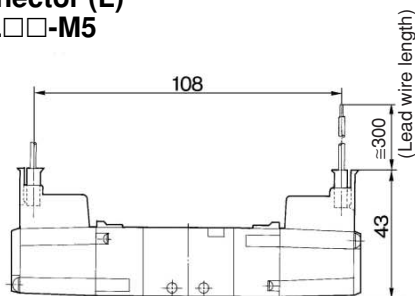


2 Position Double

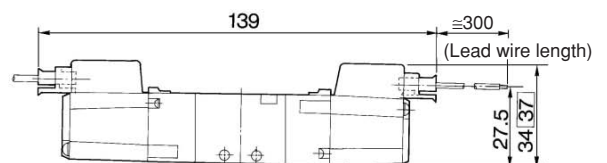
Grommet (G), (H)
VZ3220-□G□□-M5



L plug connector (L)
VZ3220-□L□□-M5

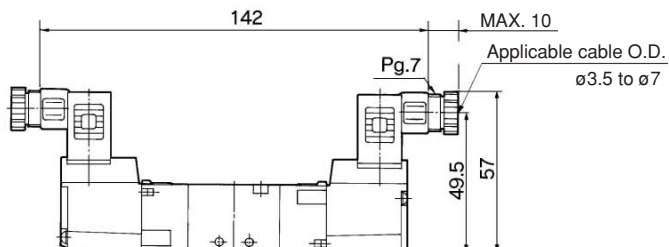


M plug connector (M)
VZ3220-□M□□-M5

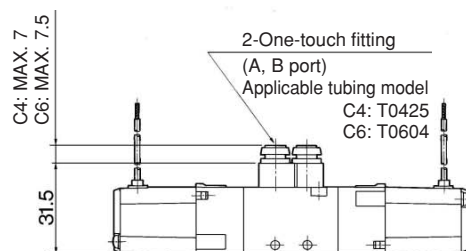


□: With light/surge voltage suppressor

DIN terminal (D)
VZ3220-□D□□-M5



Built-in One-touch fittings
VZ3220-□□□□-C4
C6

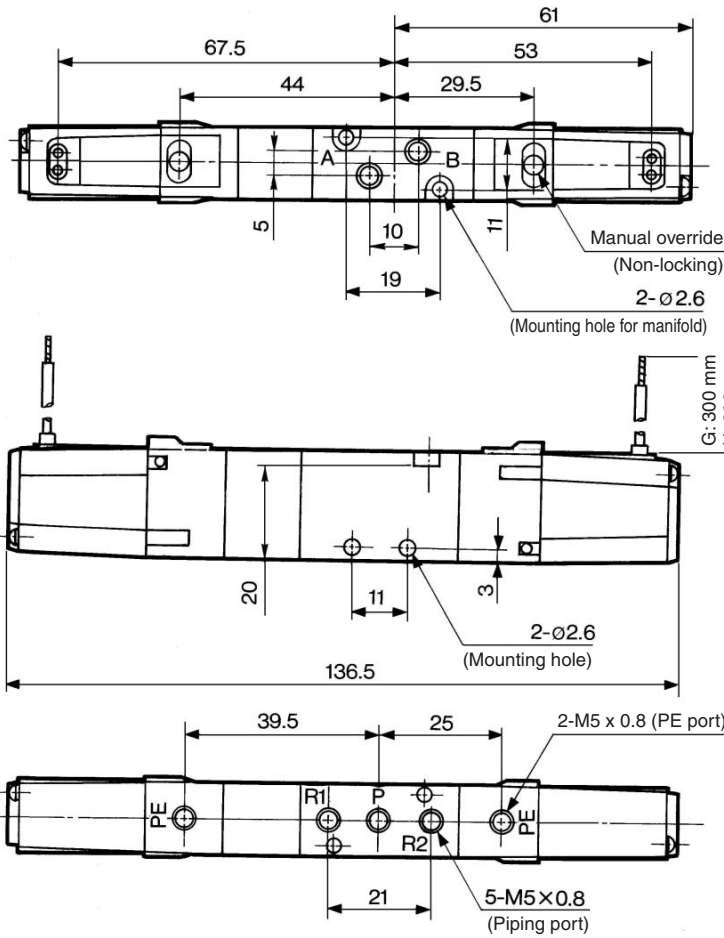


5 Port Solenoid Valve Body Ported Series VZ3000

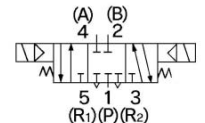
3 Position Closed Center/Exhaust Center/Pressure Center



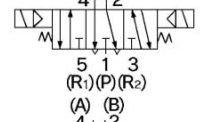
Grommet (G), (H)
VZ3³/₄20-□□□□-M5



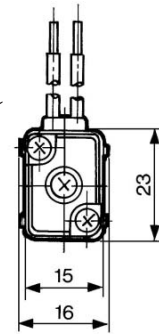
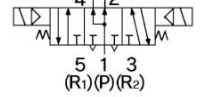
VZ3320



VZ3420



VZ3520



VK

VZ

VF

VFR

VP4

VZS

VFS

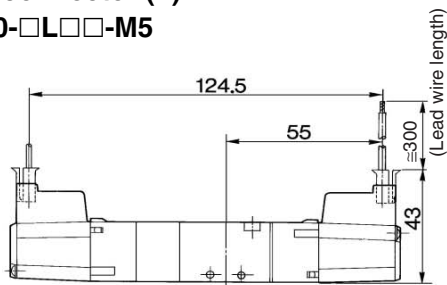
VS4

VQ7

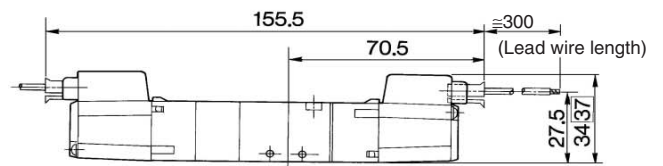
EVS

VFN

L plug connector (L)
VZ3³/₄20-□□□□-M5

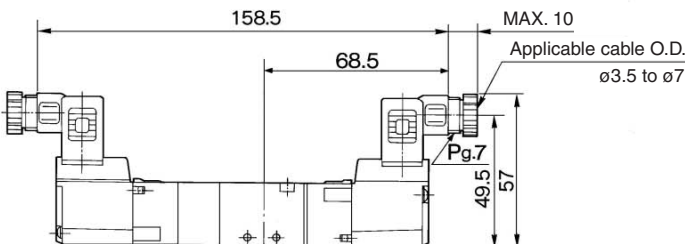


M plug connector (M)
VZ3³/₄20-□□□□-M5

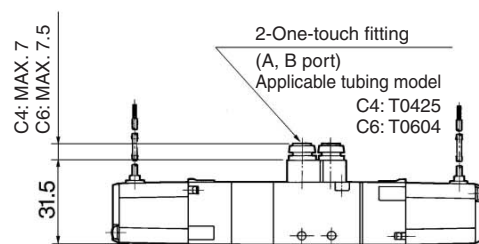


□: With light/surge voltage suppressor

DIN terminal (D)
VZ3³/₄20-□□□□-M5

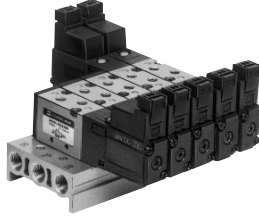


Built-in One-touch fittings
VZ3³/₄20-□□□□-C₄
C₆



Series VZ3000/Body Ported Manifold Specifications

Manifold Standard



Manifold Specifications

Model	Type 20	
Manifold type	Single base/B mount	
P(SUP)/R(EXH)	Common SUP/Common EXH	
Valve stations	2 to 20 stations	
4(A), 2(B) port location	Valve	
Port size	1(P), 3/5(R) port	Rc 1/8
	4(A), 2(B) port	M5 x 0.8, C4, C6

Flow Characteristics

Manifold			Port size		Flow characteristics					
			1(P), 5/3(R) port	2(B), 4(A) port	1 → 4/2 (P → A/B)			4/2 → 5/3 (A/B → R)		
			C [dm ³ /(s·bar)]	b	Cv	C [dm ³ /(s·bar)]	b	Cv		
Body ported For internal pilot	Type VV5Z3-20	VZ3□2□	1/8	M5 x 0.8	0.46	0.39	0.12	0.75	0.32	0.19
			1/8	C4	0.62	0.33	0.16	0.83	0.27	0.20
			1/8	C6	0.79	0.36	0.21	0.91	0.36	0.24

Note) Value at manifold base mounted, 2 position single operating

How to Order Manifold

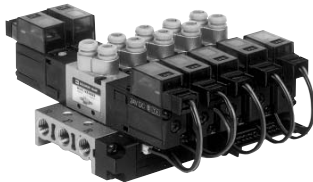
Instruct by specifying the valves and blanking plate assembly to be mounted on the manifold along with the manifold base model no.
 (Example) VV5Z3-20-031..... 1 pc. (Manifold base)
 *VZ3120-5G-M5..... 2 pcs. (Valve)
 *DXT192-13-1A..... 1 pc. (Blanking plate assembly)
 ↳ The asterisk denotes the symbol for assembly. Prefix it to the part nos. of the solenoid valve, etc.

Flat Ribbon Cable Manifold

- One-touch wiring to consolidate connection of external wires.

- Clean appearance

The flat cable provides wiring on a printed circuit board to the individual valves at the manifold base, enabling the consolidation of external wiring at a touch through a 26 pins MIL connector.



Flat Ribbon Cable Manifold Specifications

Model	Type 20P	
Manifold type	Single base/B mount	
P(SUP), R(EXH)	Common SUP/Common EXH	
Valve stations	3 to 12 stations	
4(A), 2(B) port location	Valve	
Port size	1(P), 3/5(R) port	Rc 1/8
	4(A), 2(B) port	M5 x 0.8, C4, C6
Applicable flat ribbon cable connector	Socket: 26 pins MIL, with strain relief (Conforming to MIL-C-83503)	
Internal wiring	+ COM (For – COM specifications, specify them separately.)	
Applicable valve model	VZ3□23- ¹ / ₆ MOZ□- ^{M5} / _{C4}	
Rated voltage	100 VAC 50/60 Hz, 110 VAC 50/60 Hz, 24 VDC, 12 VDC	

Note) Withstand voltage specifications of wiring unit part is equivalent to JIS C 0704 class 1.

Flow Characteristics

Manifold			Port size		Flow characteristics					
			1(P), 5/3(R) port	2(B), 4(A) port	1 → 4/2 (P → A/B)			4/2 → 5/3 (A/B → R)		
			C [dm ³ /(s·bar)]	b	Cv	C [dm ³ /(s·bar)]	b	Cv		
Body ported For internal pilot	Type VV5Z3-20P	VZ3□23	1/8	M5 x 0.8	0.46	0.39	0.12	0.75	0.32	0.19
			1/8	C4	0.62	0.33	0.16	0.83	0.27	0.20
			1/8	C6	0.79	0.36	0.21	0.91	0.36	0.24

Note) Value at manifold base mounted, 2 position single operating

How to Order Manifold

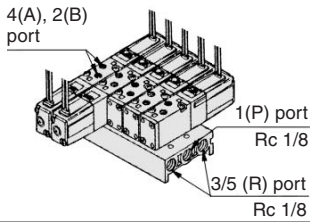
Instruct by specifying the valves, blanking plate assembly and connector assembly to be mounted on the manifold along with the manifold base model no.
 (Example) VV5Z3-20P-07..... 1 pc. (Manifold base)
 *VZ3123-5MOZ-C4..... 3 pcs. (Valve)
 *VZ3223-5MOZ-C4..... 3 pcs. (Valve)
 *DXT192-13-3A..... 1 pc. (Blanking plate assembly)
 *DXT192-52-1-4A..... 3 pcs. (Connector assembly)
 *DXT192-52-2-4A..... 3 pcs. (Connector assembly)
 ↳ The asterisk denotes the symbol for assembly. Prefix it to the part nos. of the solenoid valve, etc.

5 Port Solenoid Valve Body Ported Series VZ3000

Common SUP/Common EXH

Type 20 How to Order

VV5Z3-20-05 1



Stations	
02	2 stations
...	...
20	20 stations

**P, R port
thread type**

Nil	Rc
00F	G
00N	NPT
00T	NPTF

Applicable solenoid valve

VZ3□2□-□^G_M□□-^{M5}_{C4}^{C6}

Applicable blanking plate assembly
DXT192-13-1A

Individual EXH spacer assembly
DXT192-21-1A

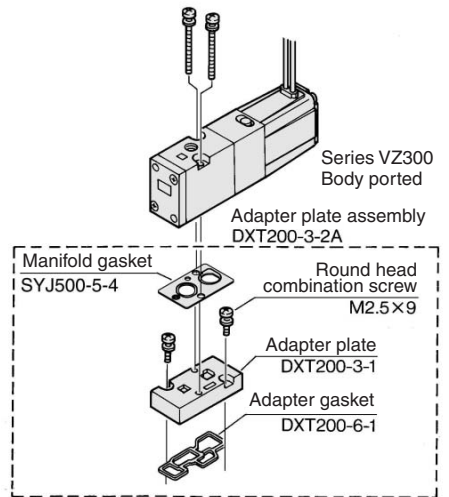
Individual SUP spacer assembly
DXT192-40-2A

Option

Installation of the VZ300 Valve on the VZ3000 Manifold

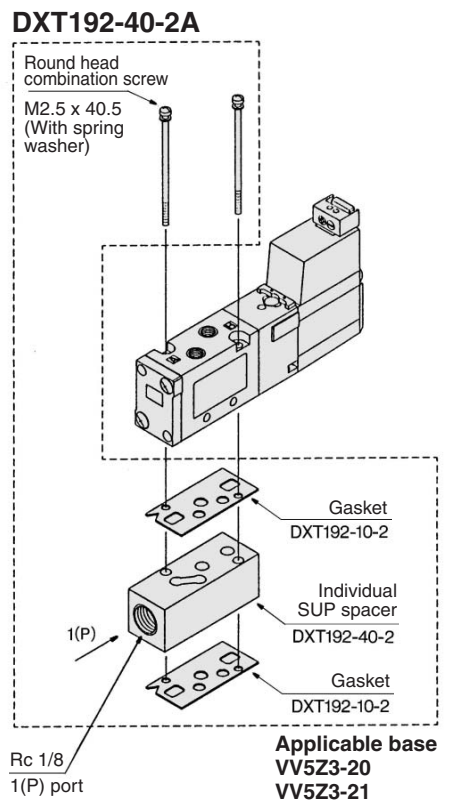
- Use of an adaptor plate makes it possible to mount Series VZ300 on the manifold base of Series VZ3000.
- The mounting direction is shown in the diagram below. Mount the solenoid so that it will be on the same side as the single solenoid of the Series VZ3000.

Adapter plate assembly DXT200-3-2A



Applicable base
VV5Z3-20
VV5Z3-21

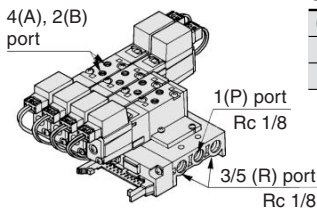
Individual SUP Spacer Assembly DXT192-40-2A



Applicable base
VV5Z3-20
VV5Z3-21

Flat Ribbon Cable Type 20P How to Order

VV5Z3-20P-05



Stations	
03	3 stations
...	...
12	12 stations

**P, R port
thread type**

Nil	Rc
00F	G
00N	NPT
00T	NPTF

Applicable solenoid valve

VZ3□23-¹₀□□□^{M5}_{C4}^{C6}

Applicable blanking plate assembly
DXT192-13-3A

Applicable connector assembly
DXT192-52-1-□A

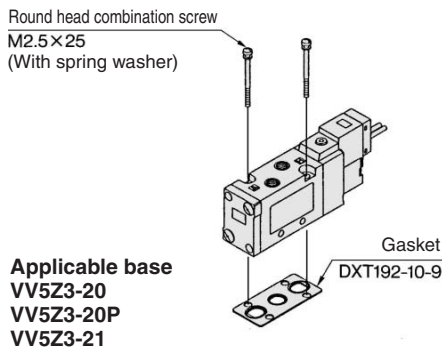
(For 2 position single)
DXT192-52-2-□A

(For 2 position double,
3 position)

Refer to the page 3-10-33 regarding how to order applicable connector assemblies. (1: 100 VAC, 3: 110 VAC, 4: DC).

Option

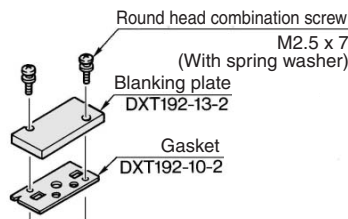
Combinations of Solenoid Valve, Gasket and Manifold Base



Applicable base
VV5Z3-20
VV5Z3-20P
VV5Z3-21

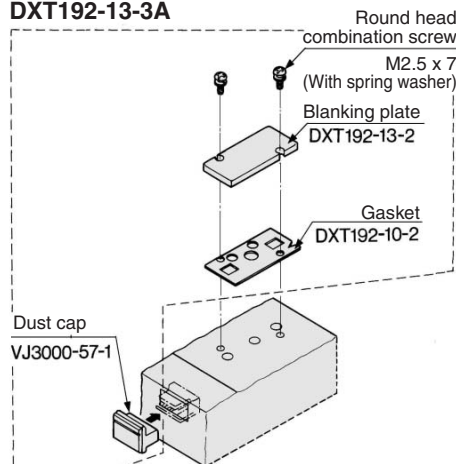
Blanking Plate Assembly DXT192-13-1A

DXT192-13-1A



Applicable base
VV5Z3-20
VV5Z3-21

DXT192-13-3A

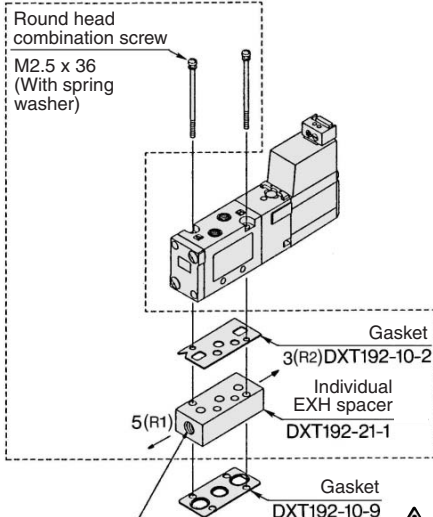


Applicable base VV5Z3-20P

Note) Please contact SMC when using an individual SUP spacer assembly, an individual EXH spacer assembly, or an adapter plate assembly on type 20P.

Individual EXH Spacer Assembly DXT192-21-1A

DXT192-21-1A

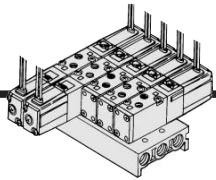


Applicable base
VV5Z3-20
VV5Z3-21

Caution

Mounting Screw Tightening Torques M2.5: 0.45 N·m

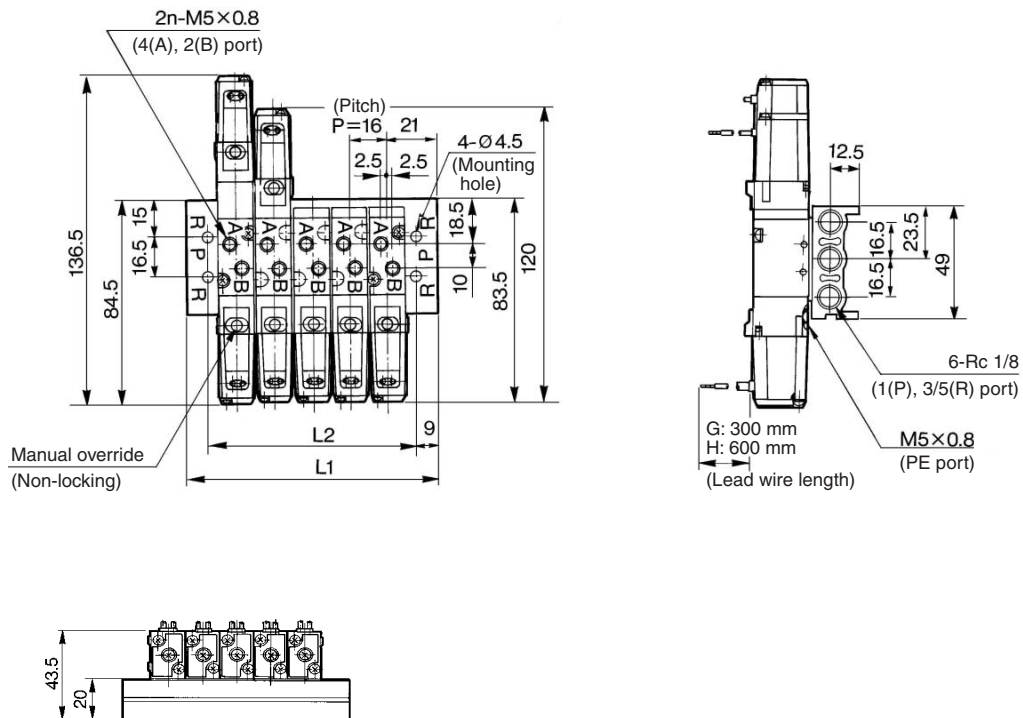
Series VZ3000



Type 20 Manifold

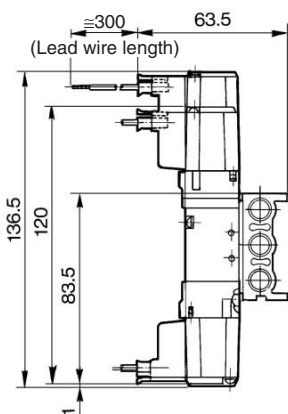
VV5Z3-20-Station 1

Grommet (G), (H)

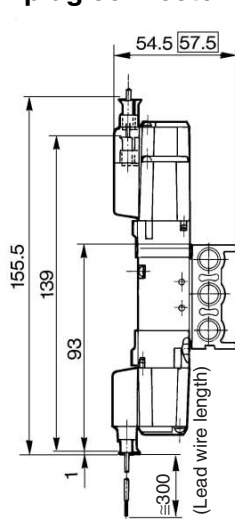


Stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L ₁	58	74	90	106	122	138	154	170	186	202	218	234	250	266	282	298	314	330	346
L ₂	40	56	72	88	104	120	136	152	168	184	200	216	232	248	264	280	296	312	328

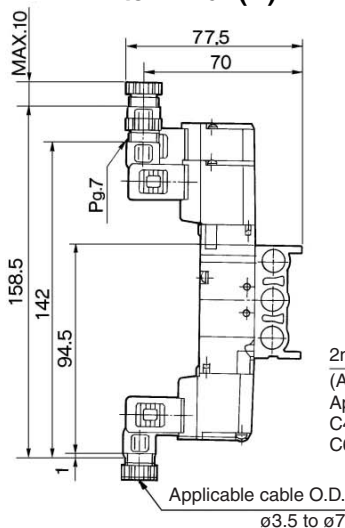
L plug connector (L)



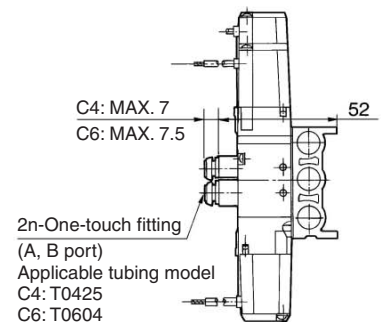
M plug connector (M)



DIN terminal (D)

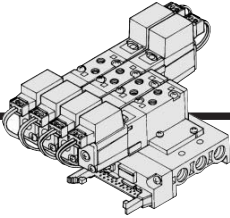


Built-in One-touch fittings



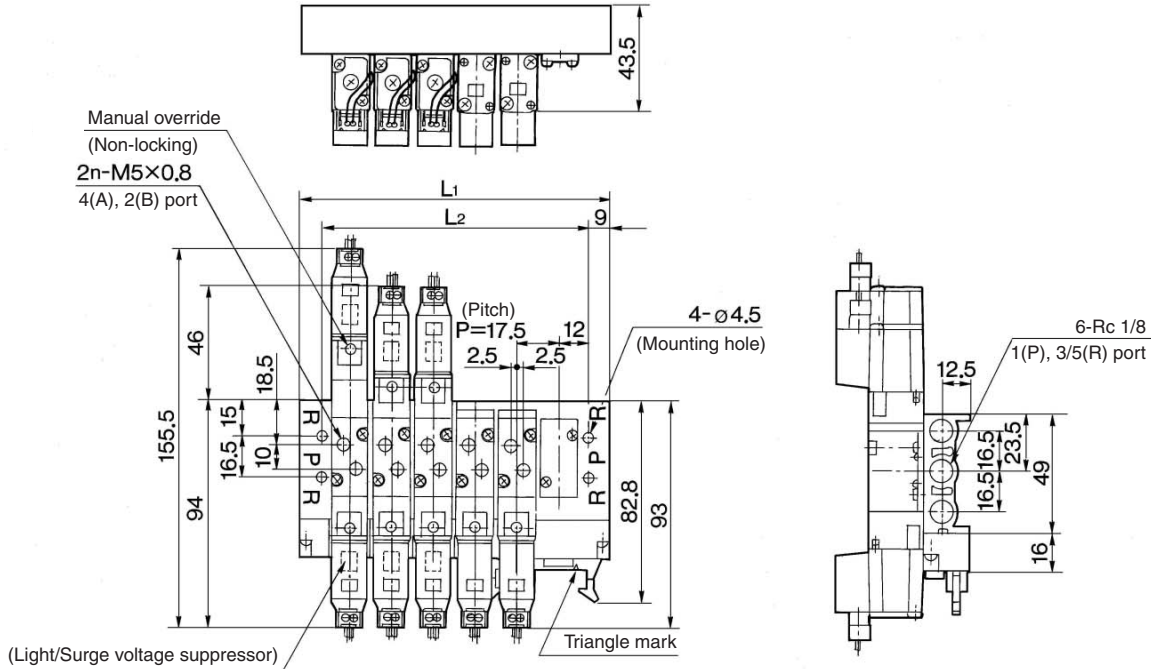
□: With light/surge voltage suppressor

5 Port Solenoid Valve Body Ported Series VZ3000

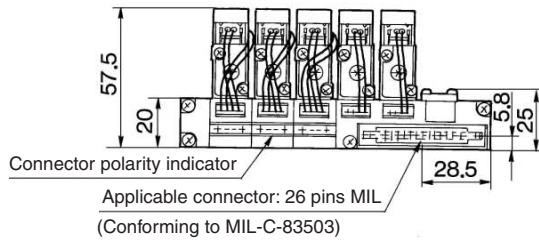


Type 20P Flat Ribbon Cable Manifold

VV5Z3-20P-Station



(Station n).....(Station 1)

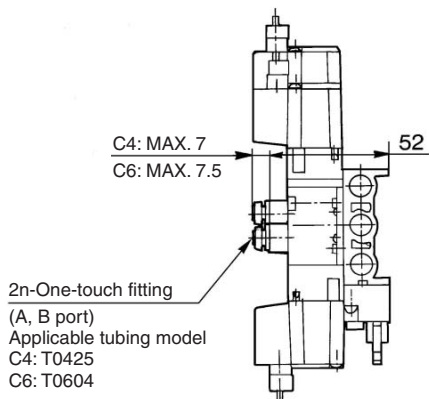


- VK
- VZ**
- VF
- VFR
- VP4
- VZS
- VFS
- VS4
- VQ7
- EVS
- VFN

(mm)

Stations	3	4	5	6	7	8	9	10	11	12
L ₁	77	94.5	112	129.5	147	164.5	182	199.5	217	234.5
L ₂	59	76.5	94	111.5	129	146.5	164	181.5	199	216.5

Built-in One-touch fittings



5 Port Solenoid Valve Base Mounted Series VZ3000

How to Order

Plug-in VZ3 1 4 3 - 5 F Z

Non plug-in VZ3 1 4 0 - 5 L

Type of actuation

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

Body option

- 0: Individual exhaust for the pilot valve
- 3: Common exhaust type for main and pilot valve

Rated voltage

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

* Option

Electrical entry

Grommet	L plug connector	M plug connector	MN: Without lead wire	DIN terminal
G: Lead wire length 300 mm	L: With lead wire (Length 300 mm)	M: With lead wire (Length 300 mm)		D: With connector
H: Lead wire length 600 mm	LN: Without lead wire	LO: Without connector	MO: Without connector	DO: Without connector

Thread type

Nil	Rc
F	G
N	NPT
T	NPTF

Port size

Nil: Without sub-plate 01: Rc 1/8 With sub-plate

Manual override/Plug-in type

Nil: Non-locking push type B: Locking type B (Slotted) C: Locking type C (Manual)

Manual override/Non plug-in type

Nil: Non-locking push type B: Locking type B (Slotted) C: Locking type C (Manual)

Light/Surge voltage suppressor

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

* Not available for "GZ", "HZ" and "DOZ"

Note) Please contact SMC in the case of without indicator light.

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

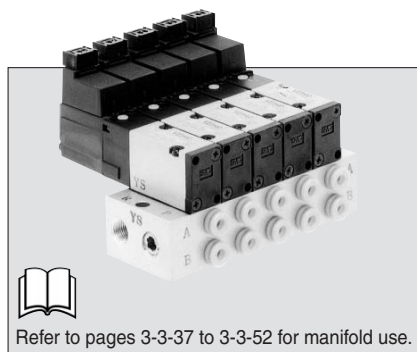
* Type "LN", "MN": With 2 sockets.

Series VZ3000

Applicable for cylinder actuation (up to $\phi 40$).

Compact size
(Width: 15 mm)

Low power consumption:
1.8 W DC



Refer to pages 3-3-37 to 3-3-52 for manifold use.



Made to Order Specifications
(For details, refer to page 3-3-85.)

Specifications

Fluid		Air
Operating pressure range (MPa)	2 position single	0.15 to 0.7
	2 position double	0.1 to 0.7
	3 position	0.15 to 0.7
Ambient and fluid temperature (°C)	-10 to 50°C (No freezing. Refer to page 3-13-4.)	
Response time (ms) ⁽¹⁾ (at the pressure of 0.5 MPa)	2 position single, double	20 or less
	3 position	35 or less
Max. operating frequency (Hz)	2 position single, double	10
	3 position	3
Manual override ⁽²⁾	Non-locking push type, Locking slotted type, Locking lever type	
Pilot exhaust method	Individual pilot exhaust type, Common exhaust (pilot and main valve) type	
Lubrication	Not required	
Mounting orientation	Unrestricted	
Impact/Vibration resistance (m/s ²) ⁽³⁾	300/50	
Enclosure	Dustproof	



Note 1) Based on dynamic performance test, JIS B 8375-1981. (Coil temperature: 20°C, at rated voltage, without surge suppressor)

Note 2) When operating the locking type manually, apply torque of 0.2 N·m or less.

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)

Solenoid Specifications

* Option

Electrical entry	Grommet (G)/(H), L plug connector (L), M plug connector (M), DIN terminal (D)	
Coil rated voltage (V)	AC 50/60 Hz	100, 200, 24*, 48*, 110*, 220*
	DC	24, 6*, 12*, 48*
Allowable voltage fluctuation (%)	-15 to +10% of rated voltage	
Power consumption (W) ⁽¹⁾ [Current mA]	DC	
	1.8 (With indicator light 2.1) [24 VDC: 75 (With indicator light 87.5)]	
Apparent power (VA) ⁽¹⁾ [Current mA] ^{Note)}	AC	Inrush
		Holding
Surge voltage suppressor		DC: Diode, AC: ZNR ⁽²⁾
Indicator light		DC: LED (Red), AC: Neon bulb

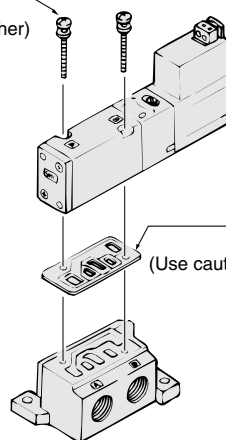


Note 1) At rated voltage

Note 2) Plug-in should be ZNR.

Combinations of Solenoid Valve and Gasket

Round head combination screw
M2.5 x 25
(With spring washer)



Gasket

DXT192-10-5
(Use caution to the orientation.)

5 Port Solenoid Valve Base Mounted Series VZ3000

Flow Characteristics/Weight

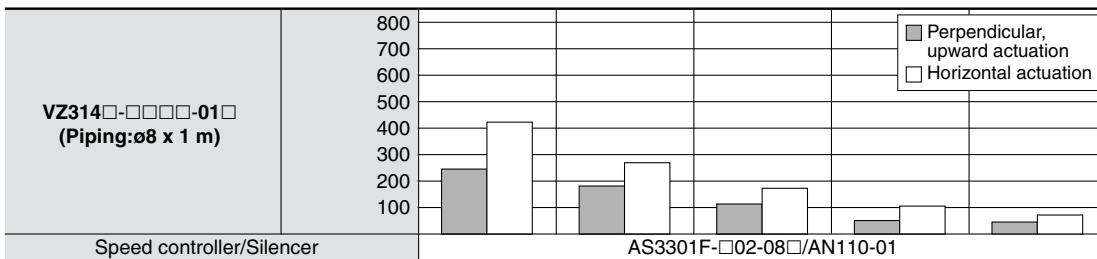
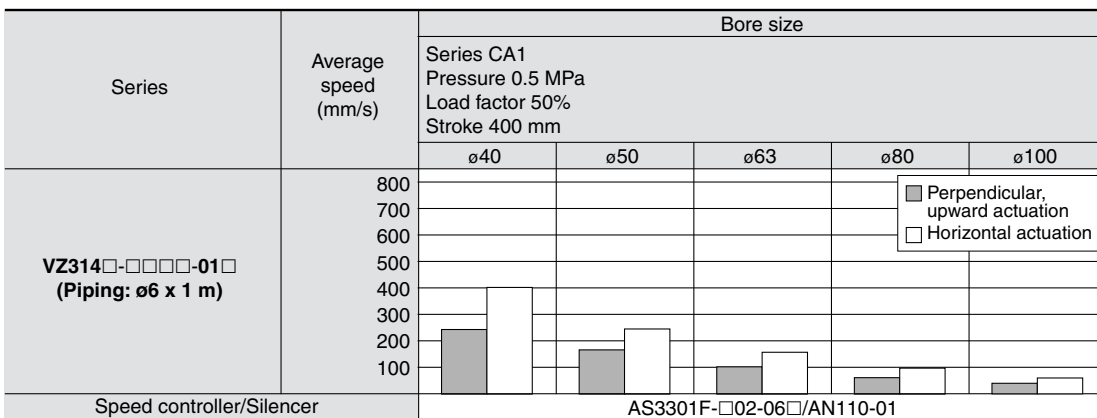
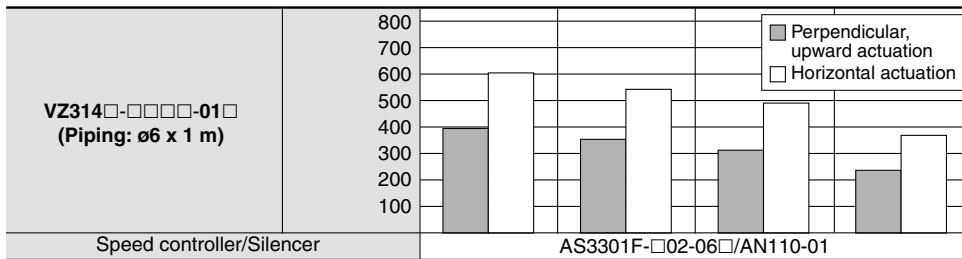
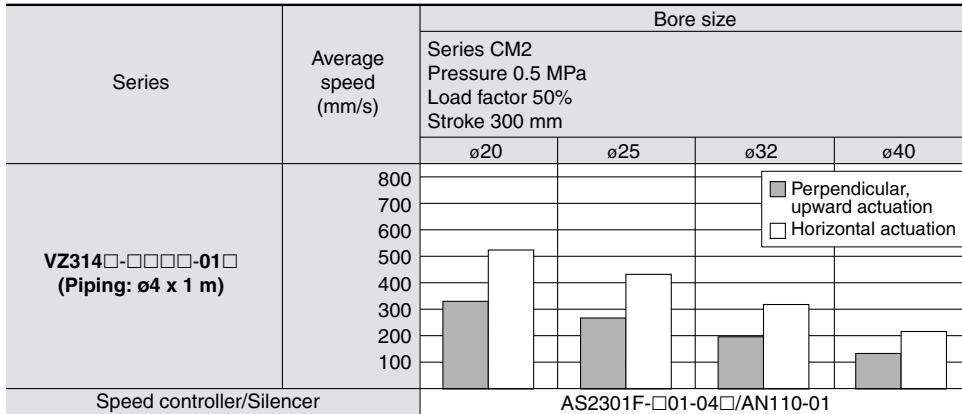
Valve model	Type of actuation		Port size		Flow characteristics ⁽¹⁾						Weight (g)
			1, 5, 3 (P, EA, EB)	4, 2 (A, B)	1 → 4/2 (P → A/B)			4/2 → 5/3 (A/B → EA/EB)			
					C [dm ³ /(s·bar)]	b	Cv	C [dm ³ /(s·bar)]	b	Cv	
VZ3□40-□-01	2 position	Single	Rc 1/8	Rc 1/8	0.79	0.21	0.19	0.83	0.32	0.21	Grommet
		Double									125 (75)
	3 position	Closed center			0.80	0.28	0.18	0.86	0.34	0.20	180 (130)
		Exhaust center			0.71	0.26	0.18	1.1 [0.60]	0.24 [0.44]	0.26 [0.18]	
		Pressure center			0.99 [0.47]	0.29 [0.38]	0.24 [0.12]	0.72	0.38	0.18	



Note 1) []: Denotes the normal position. Exhaust center: 4/2 → 5/3, Pressure center: 1 → 4/2
 Note 2) (): Without sub-plate.

Cylinder Speed Chart

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



* 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 what the stroke is divided by the total stroke time.
 * Load factor: ((Load weight x 9.8)/Theoretical force) x 100%

VK

VZ

VF

VFR

VP4

VZS

VFS

VS4

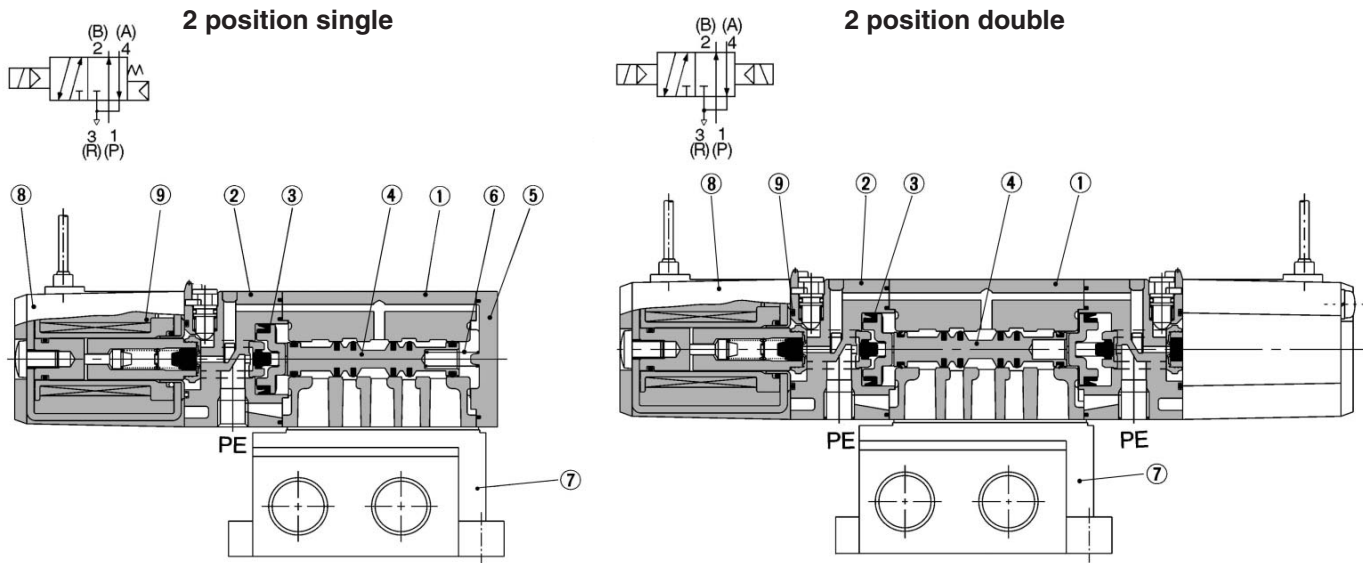
VQ7

EVS

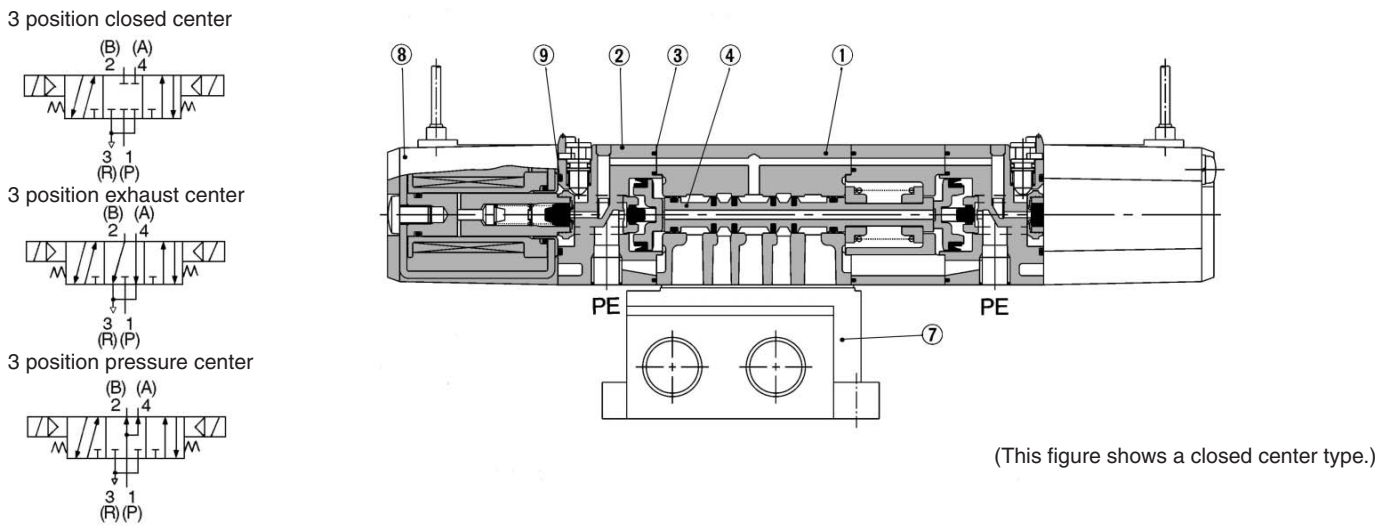
VFN

5 Port Solenoid Valve Base Mounted Series VZ3000

Construction



3 position closed center/exhaust center/pressure center



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

Component Parts

No.	Description	Material	Note
①	Body	Aluminum die-casted	Platinum silver
②	Piston plate	Resin	Black
③	Piston	Resin	
④	Spool valve	Aluminum, HNBR	
⑤	End cover	Resin	
⑥	Spool spring	Stainless steel	

Replacement Parts

No.	Description	Material	Part no.	Note
⑦	Sub-plate	Aluminum die-casted	DXT192-14-1*P	Platinum silver
⑧	Solenoid assembly	Epoxy/Stainless steel	DXT170-C-□□□	
⑨	O-ring	NBR	13 x 11 x 1	Common with Series VZ $\frac{1}{2}$ 000

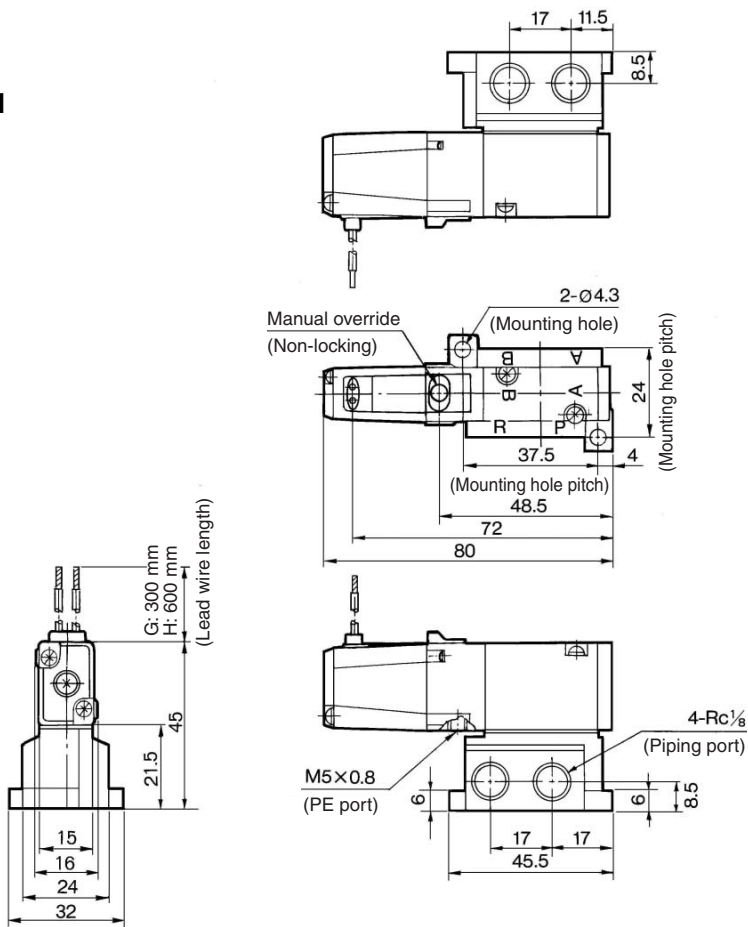
* Thread type
 Nil: Rc
 F: G
 N: NPT
 T: NPTF

Series VZ3000

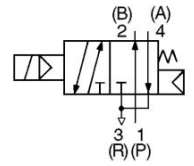


2 Position Single

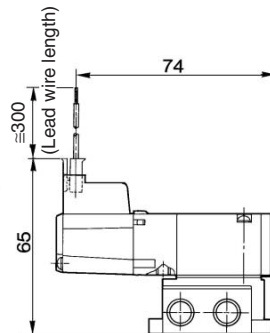
Grommet (G), (H)
VZ3140-□G□□-01



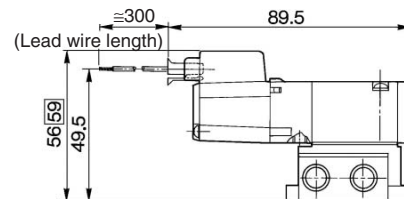
VZ3140



L plug connector (L)
VZ3140-□L□□-01



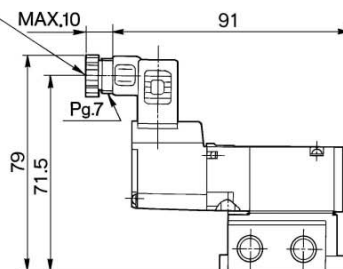
M plug connector (M)
VZ3140-□M□□-01



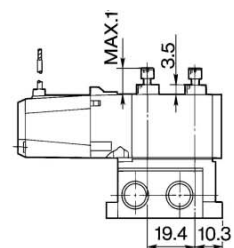
□: With light/surge voltage suppressor

DIN terminal (D)
VZ3140-□D□□-01

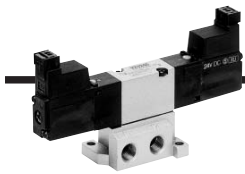
Applicable cable O.D.
 ø3.5 to ø7



Built-in speed controllers
VZ3150-□□□□

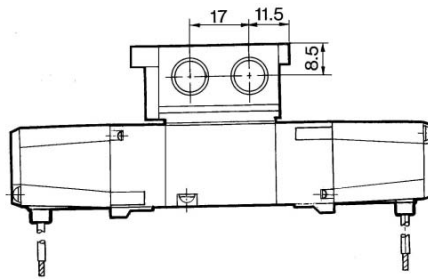


5 Port Solenoid Valve Base Mounted Series VZ3000

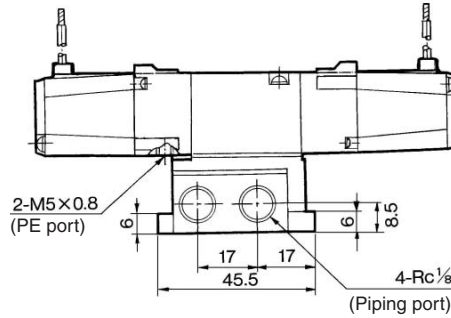
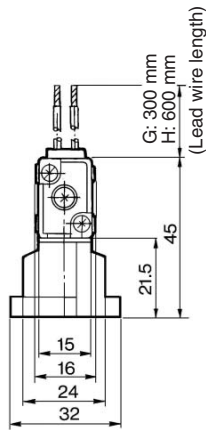
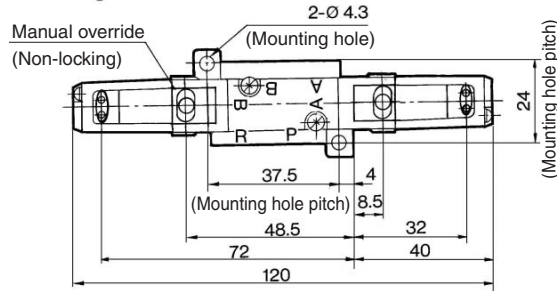
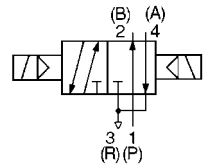


2 Position Double

Grommet (G), (H)
VZ3240-□G□□-01



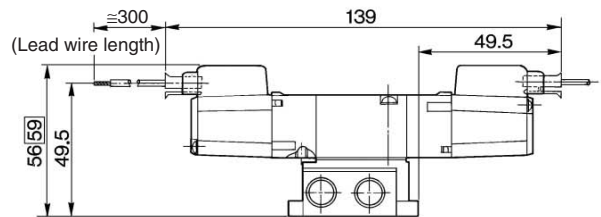
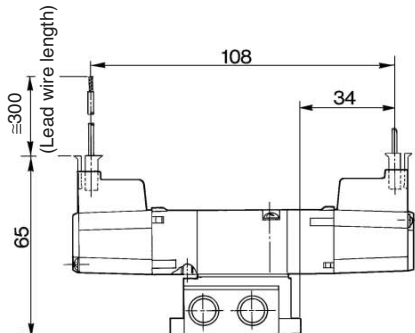
VZ3240



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

L plug connector (L)
VZ3240-□L□□-01

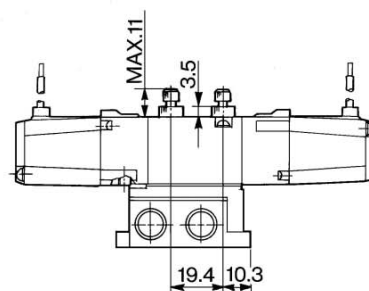
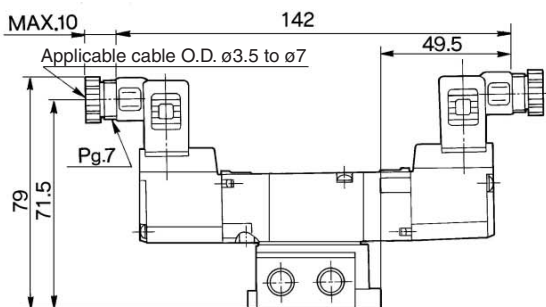
M plug connector (M)
VZ3240-□M□□-01



□: With light/surge voltage suppressor

DIN terminal (D)
VZ3240-□D□□-01

Built-in speed controllers
VZ3250-□□□□

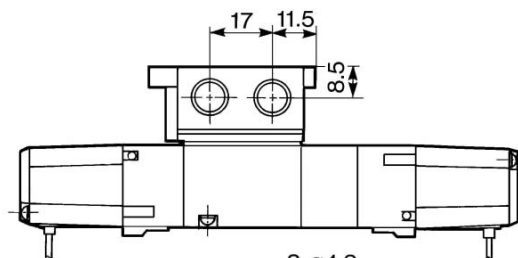


Series VZ3000

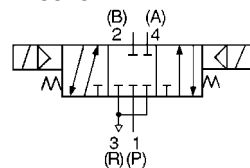


3 Position Closed Center/Exhaust Center/Pressure Center

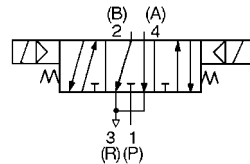
Grommet (G), (H)
VZ3³/₄20-□G□□-01



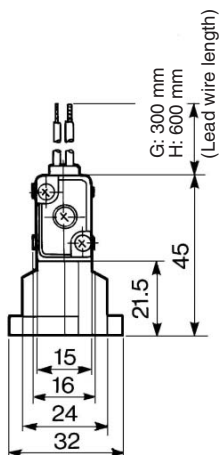
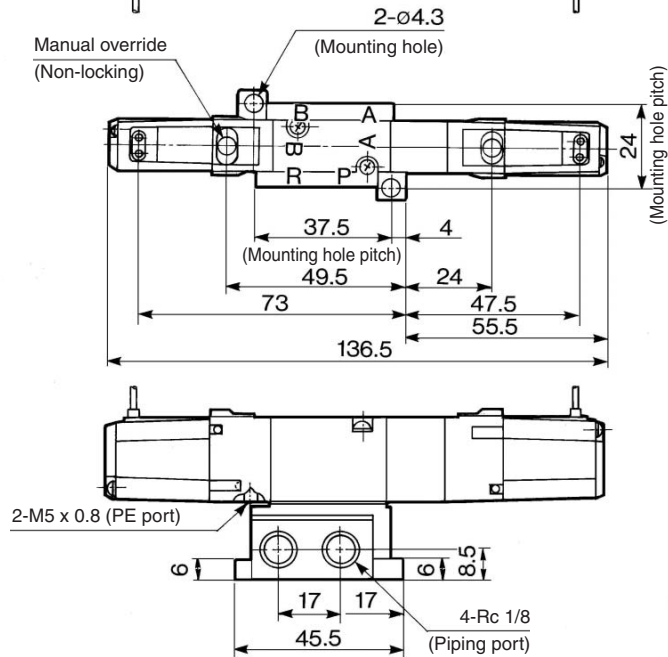
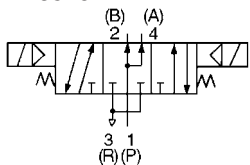
VZ3340



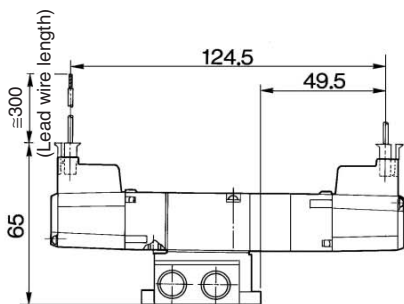
VZ3440



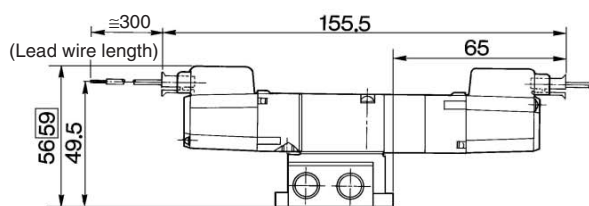
VZ3540



L plug connector (L)
VZ3³/₄40-□L□□-01

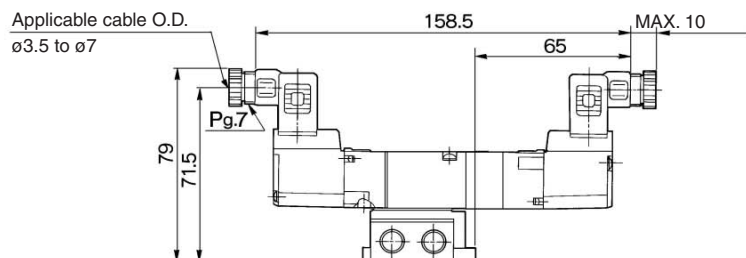


M plug connector (M)
VZ3³/₄40-□M□□-01

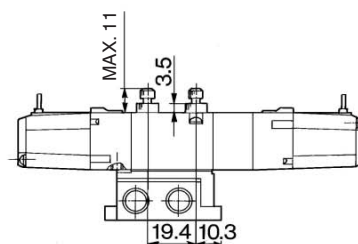


□: With light/surge voltage suppressor

DIN terminal (D)
VZ3³/₄40-□D□□-01



Built-in speed controllers
VZ3³/₄50-□□□□



Series VZ3000/Base Mounted Manifold Specifications

Manifold Standard



Manifold Specifications

Model		Type 40	Type 41	Type 42	Type 43
Manifold type		Single base/B mount			
P(SUP)/R(EXH)		Common SUP/Common EXH			
Valve stations		2 to 20 stations			
4(A), 2(B) port	Position	Base		Base	
	Porting specifications	Bottom		Side	
Port size	1(P), 3/5(R) port	Rc 1/8		Rc 1/4	Rc 1/8
	4(A), 2(B) port	M5 x 0.8		C6 (One-touch fitting for ø6) B7 (One-touch fitting for 1/4")	C4 (One-touch fitting for ø4) B3 (One-touch fitting for 5/32")

Flow Characteristics

Manifold	Port size	Flow characteristics							
		1(P), 5/3(R) port	2(B), 4(A) port	1 → 4/2 (P → A/B)				4/2 → 5/3 (A/B → R)	
				C [dm ³ /(s·bar)]	b	Cv	C [dm ³ /(s·bar)]	b	Cv
VV5Z3-40	1/8	M5 x 0.8	0.55	0.35	0.15	0.64	0.26	0.16	
VV5Z3-41	1/8	M5 x 0.8	0.59	0.35	0.16	0.68	0.23	0.17	
VV5Z3-42-01	1/4	1/8	0.74	0.22	0.18	0.82	0.31	0.21	
VV5Z3-42-C6	1/4	C6	0.71	0.24	0.17	0.80	0.29	0.20	
VV5Z3-43	1/8	C4	0.55	0.29	0.14	0.74	0.32	0.19	



Note) Value at manifold base mounted, 2 position single operating

How to Order Manifold

Instruct by specifying the valves and blanking plate assembly to be mounted on the manifold along with the manifold base model no.

(Example) VV5Z3-40-031-M5.....1 pc. (Manifold base)
 *VZ3140-5G-M5.....2 pcs. (Valve)
 *DXT192-13-1A.....1 pc. (Blanking plate assembly)
 VV5Z3-43-031-C4.....1 pc. (Manifold base)
 *VZ3140-5LZ.....1 pc. (Valve)
 *VZ3240-5LZ.....1 pc. (Valve)
 *DXT192-13-1A.....1 pc. (Blanking plate assembly)

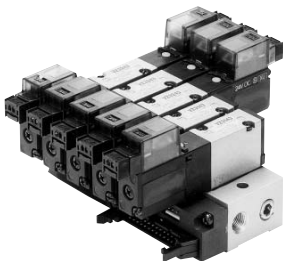
↳The asterisk denotes the symbol for assembly. Prefix it to the part nos. of the solenoid valve, etc.

Flat Ribbon Cable Manifold

- One-touch wiring to consolidate connection of external wires.

- Clean appearance

The flat cable provides wiring on a printed circuit board to the individual valves at the manifold base, enabling the consolidation of external wiring at a touch through a 26 pins MIL connector.



Flat Ribbon Cable Manifold Specifications

Model		Type 41P	Type 43P
Manifold type		Single base/B mount	
P(SUP), R(EXH)		Common SUP/Common EXH	
Valve stations		3 to 12 stations	
4(A), 2(B) port location	Position	Base	
	Direction	Side	
Port size	1(P), 3/5(R) port	Rc 1/8	Rc 1/8
	4(A), 2(B) port	M5 x 0.8	C4 (One-touch fitting for ø4)
Applicable flat ribbon cable connector		Socket: 26 pins MIL, with strain relief (Conforming to MIL-C-83503)	
Internal wiring		+COM specifications (For -COM specifications, specify them separately.)	
Applicable valve model		VZ3□43- $\frac{3}{8}$ MOZ□-VZ3□53- $\frac{1}{8}$ MOZ□	
Rated voltage		100 VAC 50/60 Hz, 110 VAC 50/60 Hz, 24 VDC, 12 VDC	



Note) Withstand voltage specifications of wiring unit part is equivalent to JIS C 0704 class 1.

Flow Characteristics

Manifold	Port size	Flow characteristics							
		1(P), 5/3(R) port	2(B), 4(A) port	1 → 4/2 (P → A/B)				4/2 → 5/3 (A/B → R)	
				C [dm ³ /(s·bar)]	b	Cv	C [dm ³ /(s·bar)]	b	Cv
VV5Z3-41P	1/8	M5 x 0.8	0.59	0.35	0.16	0.68	0.23	0.17	
VV5Z3-43P	1/8	C4	0.59	0.29	0.14	0.74	0.32	0.19	



Note) Value at manifold base mounted, 2 position single operating

How to Order Manifold

Instruct by specifying the valves, blanking plate assembly and connector assembly to be mounted on the manifold along with the manifold base model no.

(Example) VV5Z3-43P-07-C4.....1 pc. (Manifold base)
 *VZ3143-5MOZ.....3 pcs. (Valve)
 *VZ3243-5MOZ.....3 pcs. (Valve)
 *DXT192-13-3A.....1 pc. (Blanking plate assembly)
 *DXT192-52-1-4A.....3 pcs. (Connector assembly)
 *DXT192-52-2-4A.....3 pcs. (Connector assembly)

↳The asterisk denotes the symbol for assembly. Prefix it to the part nos. of the solenoid valve, etc.

VK

VZ

VF

VFR

VP4

VZS

VFS

VS4

VQ7

EVS

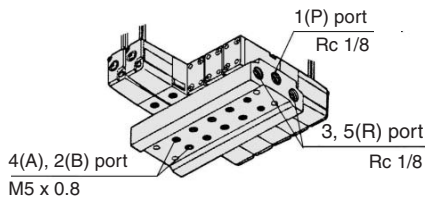
VFN

Series VZ3000

Common SUP/Common EXH

Note) For more than 8 stations, supply air to both sides of 1(P) port and exhaust air from both sides of 3/5(R) port.

Type 40

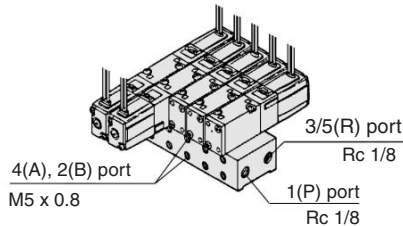


How to Order

VV5Z3-40-05 2-M5

Stations	4(A), 2(B) port size	1(P), 3/5(R) port thread type
02 2 stations	M5 M5 x 0.8	Nil Rc
20 20 stations		F G
		N NPT
		Z NPTE

Type 41



How to Order

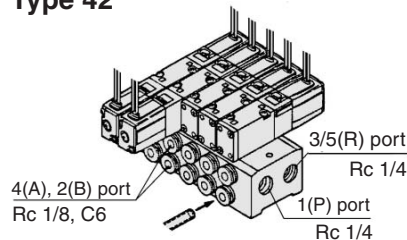
VV5Z3-41-05 1-M5

Stations	4(A), 2(B) port size	1(P), 3/5(R) port thread type
02 2 stations	M5 M5 x 0.8	Nil Rc
20 20 stations		F G
		N NPT
		Z NPTE

Applicable solenoid valve

VZ3□4□-□^G_{LMD}□□
VZ3□5□-□^G_{LMD}□□

Type 42



How to Order

VV5Z3-42-05 1-C6

Stations	4(A), 2(B) port size	1(P), 3/5(R) port thread type
02 2 stations	Rc 1/8	Nil Rc
20 20 stations	C6 One-touch fitting for ø6	F G
	B7 One-touch fitting for 1/4"	N NPT
		Z NPTE

Applicable blanking plate assembly

DXT192-13-1A

Applicable individual EXH spacer assembly

DXT192-21-1A

Applicable individual SUP spacer assembly

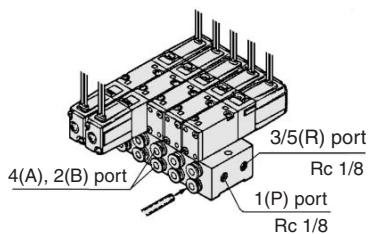
(Except VV5Z3-40 type)

DXT192-40-1A

Applicable interface regulator

ARBZ3000-00-P

Type 43

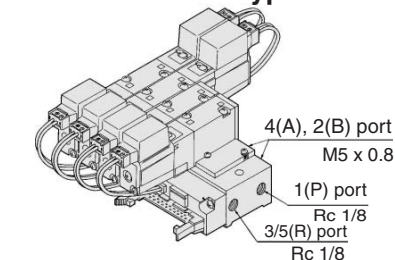


How to Order

VV5Z3-43-05 1-C4

Stations	4(A), 2(B) port size	1(P), 3/5(R) port thread type
02 2 stations	C4 One-touch fitting for ø4	Nil Rc
20 20 stations	B3 One-touch fitting for 5/32"	F G
		N NPT
		Z NPTE

Flat ribbon cable type 41P



How to Order

VV5Z3-41P-05-M5

Stations	4(A), 2(B) port size	1(P), 3/5(R) port thread type
03 3 stations	M5 M5 x 0.8	Nil Rc
12 12 stations		F G
		N NPT
		Z NPTE

Applicable solenoid valve

VZ3□43-¹₃MOZ□
VZ3□53-¹₃MOZ□

Applicable blanking plate assembly

DXT192-13-3A

Applicable connector assembly

DXT192-52-1-≠A

(For 2 position single)

DXT192-52-2-≠A

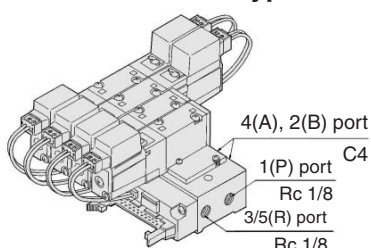
(For 2 position double, 3 position)

* 1: 100 VAC, 3: 110 VAC,

4: DC

For "How to order applicable connector assemblies", refer to page 3-3-7.

Flat ribbon cable type 43P



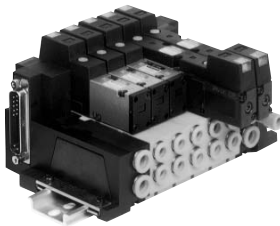
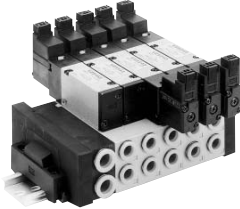
How to Order

VV5Z3-43P-05-C4

Stations	4(A), 2(B) port size	1(P), 3/5(R) port thread type
03 3 stations	C4 One-touch fitting for ø4	Nil Rc
12 12 stations	B3 One-touch fitting for 5/32"	F G
		N NPT
		Z NPTE

5 Port Solenoid Valve Base Mounted Series VZ3000

DIN Rail Manifold



Manifold Specifications

Model		Type 45	Type 45F
Manifold type		Stacking type non plug-in type	Stacking type plug-in type
P(SUP), R(EXH)		Common SUP/Common EXH	
Valve stations		2 to 20 stations	
A, B port	Location	Base	
Porting specifications	Direction	Side	
Port size	1(P), 3/5(R) port	C8 (One-touch fitting for ø8)	
	4(A), 2(B) port	C4 (One-touch fitting for ø4) C6 (One-touch fitting for ø6)	
Connector		—	MIL-C-24308 Applicable for JIS-X-5101 D-sub connector
Internal wiring		—	COM (Note)

Note) It is available at +COM or -COM.

Flow Characteristics

Manifold	Port size	Flow characteristics							
		1(P), 5/3(R) port	2(B), 4(A) port	1 → 4/2 (P → A/B)		4/2 → 5/3 (A/B → R)			
		C [dm ³ /(s·bar)]	b	Cv	C [dm ³ /(s·bar)]	b	Cv		
VV5Z3-45	VZ3□4□	C8	C4	0.59	0.28	0.15	0.83	0.34	0.22
		C8	C6	0.76	0.23	0.18	0.86	0.29	0.22

Note) Value at manifold base mounted, 2 position single operating

How to Order Manifold

Instruct by specifying the valves and blanking plate assembly to be mounted on the manifold along with the manifold base model no.

(Example) VV5Z3-45FD-06-C6C-1 pc. (Manifold base)

*VZ3143-5FZ.....2 pcs. (Valve)

*VZ3243-5FZ.....3 pcs. (Valve)

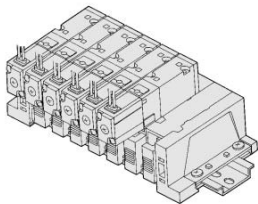
*VZ3000-69-1A.....1 pc. (Blanking plate assembly)

↳The asterisk denotes the symbol for assembly. Prefix it to the part nos. of the solenoid valve, etc.

DIN Rail Manifold

Common SUP/Common EXH

Type 45 (Non plug-in type) How to Order



VV5Z3 - 45 - 05 D - C6 C - []

Stations

02	2 stations
⋮	⋮
20	20 stations

SUP/EXH block mounting position

U	U side: 2 to 10 stations
D	D side: 2 to 10 stations
B	Both sides: 2 to 20 stations
M*	Special specifications

* For special specifications, indicate separately by the manifold specification sheet.

4(A), 2(B) port size

C4	One-touch fitting for ø4
C6	One-touch fitting for ø6
M*	Mixed

* In the case of mixed specifications (M), indicate separately on the manifold specification sheet.

Applicable solenoid valve

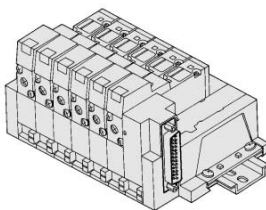
VZ3□4□-□	G L M D	□□
VZ3□5□-□	G L M D	□□

Applicable blanking plate assembly
VZ3000-69-2A

DIN rail length specified

Nil	Standard length	
3	For 3 stations	(Specify a longer rail than the standard length.)
⋮	⋮	
20	For 20 stations	

Type 45F (Plug-in type) How to Order



VV5Z3 - 45F D - 05 [] - C6 C - []

Connector mounting direction

U	U side: 2 to 10 stations
D	D side: 2 to 10 stations
B	Both sides: 11 to 20 stations

Stations

02	2 stations
⋮	⋮
20	20 stations

SUP/EXH block mounting position

Nil	For 2 to 10 stations : One side (Same as direction of connector mount)
B	For 11 to 20 stations: Both sides
M*	Special specifications

* For special specifications, indicate separately by the manifold specification sheet.

4(A), 2(B) port size

C4	One-touch fitting for ø4
C6	One-touch fitting for ø6
M*	Mixed

* In the case of mixed specifications (M), indicate separately on the manifold specification sheet.

Applicable solenoid valve

VZ3□43-□FZ□	□□
-------------	----

Applicable blanking plate assembly
VZ3000-69-1A

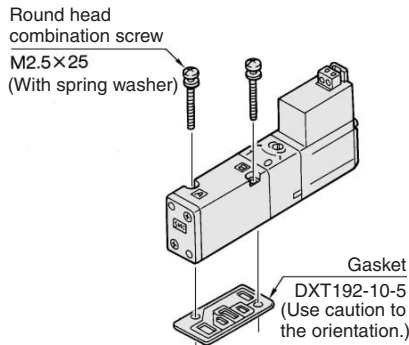
DIN rail length specified

Nil	Standard length	
3	For 3 stations	(Specify a longer rail than the standard length.)
⋮	⋮	
20	For 20 stations	

Series VZ3000

Option/Standard Manifold, Flat Ribbon Cable Manifold

Combinations of Solenoid Valve, Manifold Gasket and Manifold Base

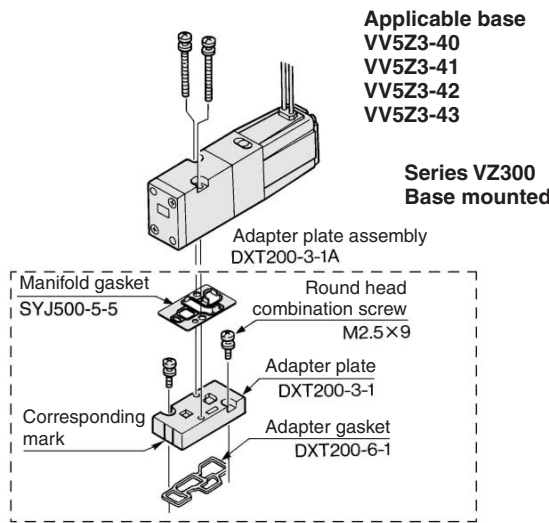


Applicable base
 VV5Z3-40
 VV5Z3-41
 VV5Z3-42
 VV5Z3-43
 VV5Z3-41P
 VV5Z3-43P

Installation of the VZ300 Valve on the VZ3000 Manifold

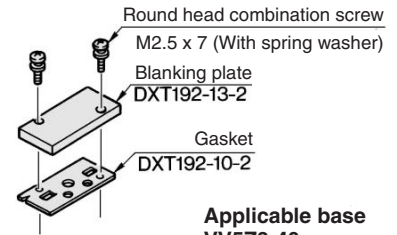
- Use of an adaptor plate makes it possible to mount Series VZ300 on the manifold base of Series VZ3000.
- The mounting direction is shown in the diagram below. Mount the solenoid so that it will be on the same side as the single solenoid of the Series VZ3000.
- 2(A) port of 3 port valve should be 2(B) port of manifold base.

Adapter Plate Assembly DXT200-3-1A



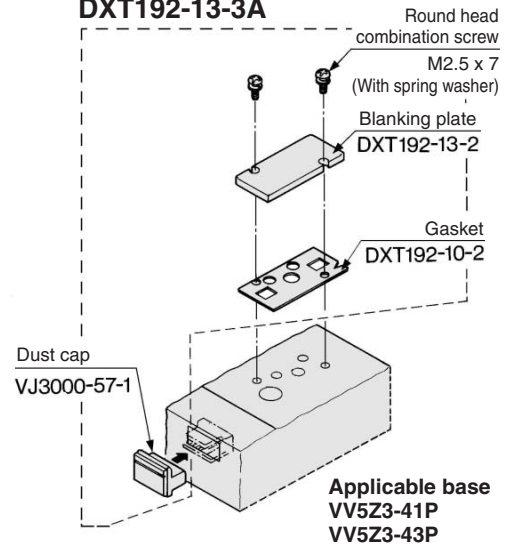
Blanking Plate Assembly

DXT192-13-1A



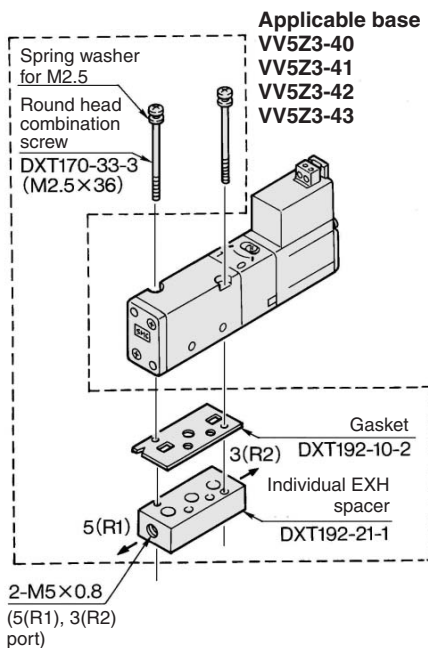
Applicable base
 VV5Z3-40
 VV5Z3-41
 VV5Z3-42
 VV5Z3-43

DXT192-13-3A



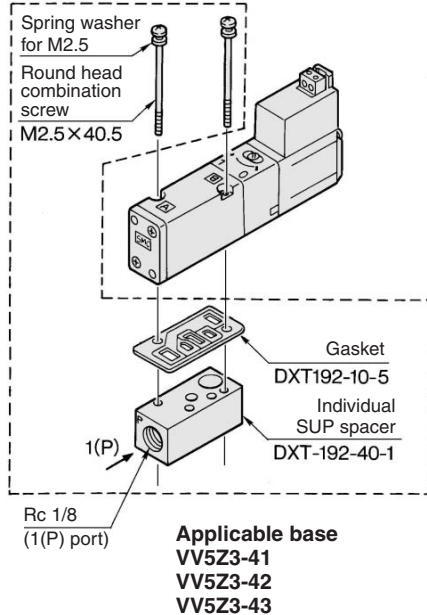
Individual EXH Spacer Assembly

DXT192-21-1A



Individual SUP Spacer Assembly

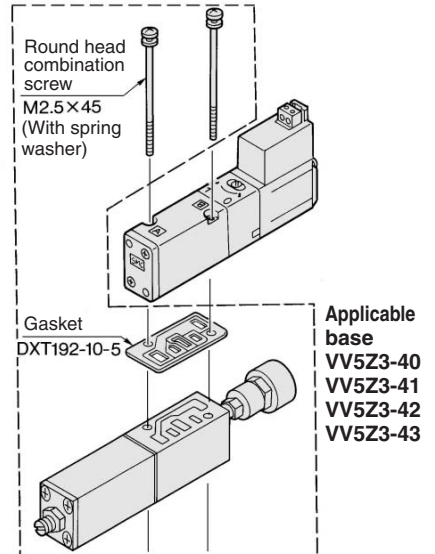
DXT192-40-1A



Interface regulator (P port regulation)

Interface regulator can be placed on top of the manifold base to reduce the pressure of each of the valves.

ARBZ3000-00-P



Before using, refer to page 3-3-8.



Note) Please contact SMC when using an individual EXH spacer assembly, an individual SUP spacer assembly, an adapter plate assembly, or an interface regulator on 41P and 43P types.

⚠ Caution

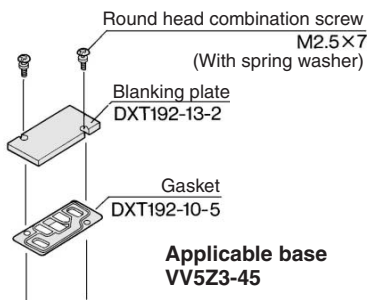
Mounting Screw Tightening Torques M2.5: 0.45 N·m

5 Port Solenoid Valve Base Mounted Series VZ3000

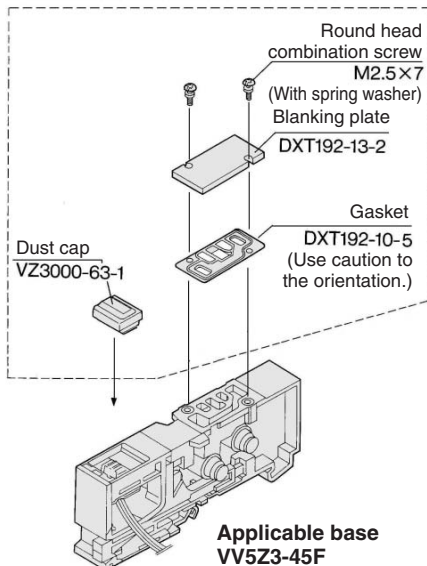
Option/DIN Rail Manifold

Blanking Plate Assembly

VZ3000-69-2A



VZ3000-69-1A

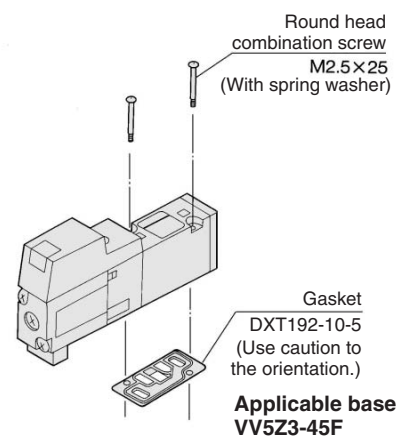
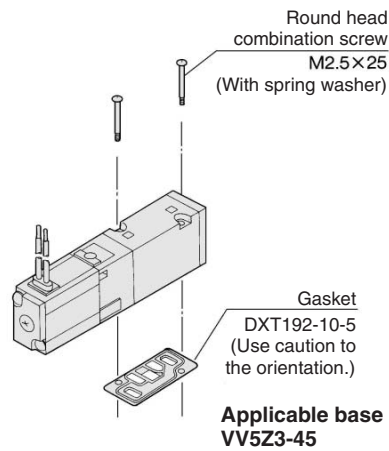


Caution

Mounting Screw Tightening Torques

M2.5: 0.32 N·m
(For stacking type manifold)

Combination of Solenoid Valve, Gasket and Manifold Base



SUP Block Disk

By installing a SUP block disk in the pressure supply passage of a manifold valve, it is possible to supply two or more different high and low pressures to one manifold.

VZ3000-79-1A



EXH Block Disk

By installing an EXH block disk in the exhaust passage of a manifold valve, it is possible to divide the valve's exhaust so that it does not affect another valve.

VZ3000-79-1A



Applicable Plug Assembly (D-sub connector cable assembly)

Cable length	Assembly part no.	Component parts
1.5 m	VVZS3000-21A-1	Plug MIL standard Number of terminals: 25 Cable: 25 cores x 0.3 mm ²
3 m	VVZS3000-21A-2	
5 m	VVZS3000-21A-3	
8 m	VVZS3000-21A-4	



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

VK

VZ

VF

VFR

VP4

VZS

VFS

VS4

VQ7

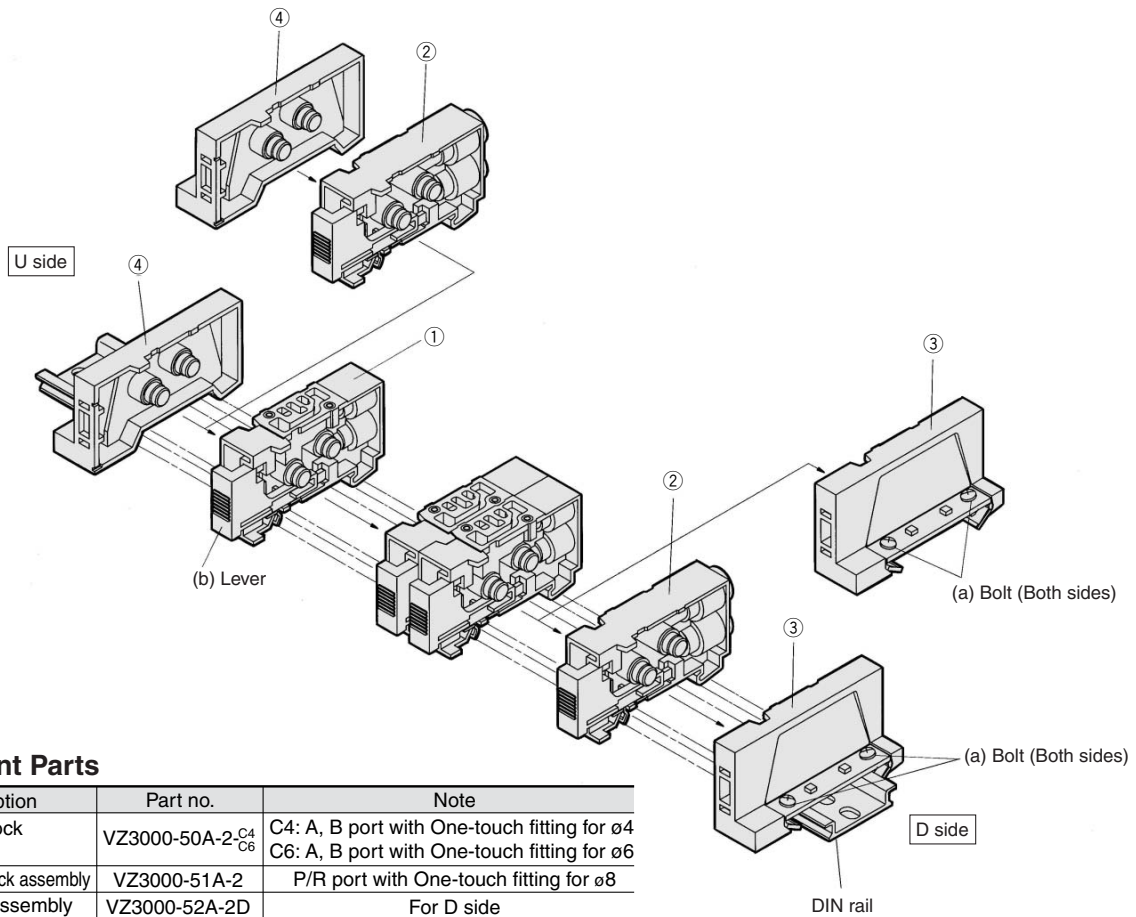
EVS

VFN

Series VZ3000

Exploded View/DIN Rail Manifold

Type 45 Manifold



Replacement Parts

No.	Description	Part no.	Note
①	Manifold block assembly	VZ3000-50A-2-C ₄ C ₆	C4: A, B port with One-touch fitting for $\phi 4$ C6: A, B port with One-touch fitting for $\phi 6$
②	SUP/EXH block assembly	VZ3000-51A-2	P/R port with One-touch fitting for $\phi 8$
③	End block assembly	VZ3000-52A-2D	For D side
④	End block assembly	VZ3000-52A-2U	For U side

How to Increase Manifold Base

Station expansion is possible at any position.

- (1) Loosen (both) bolts (a), which are securing the manifold onto the DIN rail, 1 to 2 turns.
(To remove the manifold base from the DIN rail, loosen the bolts 4 to 5 turns.)
- (2) Press lever (b) to disconnect the manifold block assembly at the location in which you wish to place an additional manifold block assembly. (However, there are no levers between ① and ④ or between ② and ④. They can be disconnected by merely pulling them apart.)
- (3) Mount additional manifold block assembly on the DIN rail as shown in the Fig. (2).
- (4) Press the block assemblies and tighten the bolts (a) to fix them to the DIN rail.


 Note) When there are 10 or fewer manifold block assemblies, and more are added to make a total of 11 or more, a supply/exhaust block assembly must also be added.

Fig. (1)

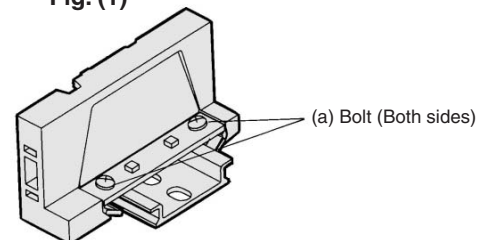
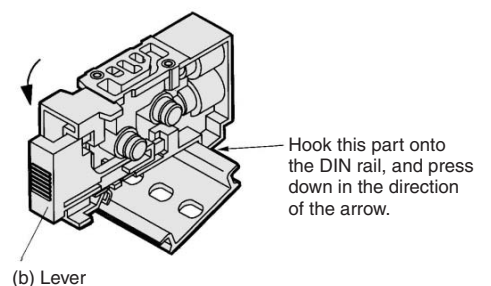
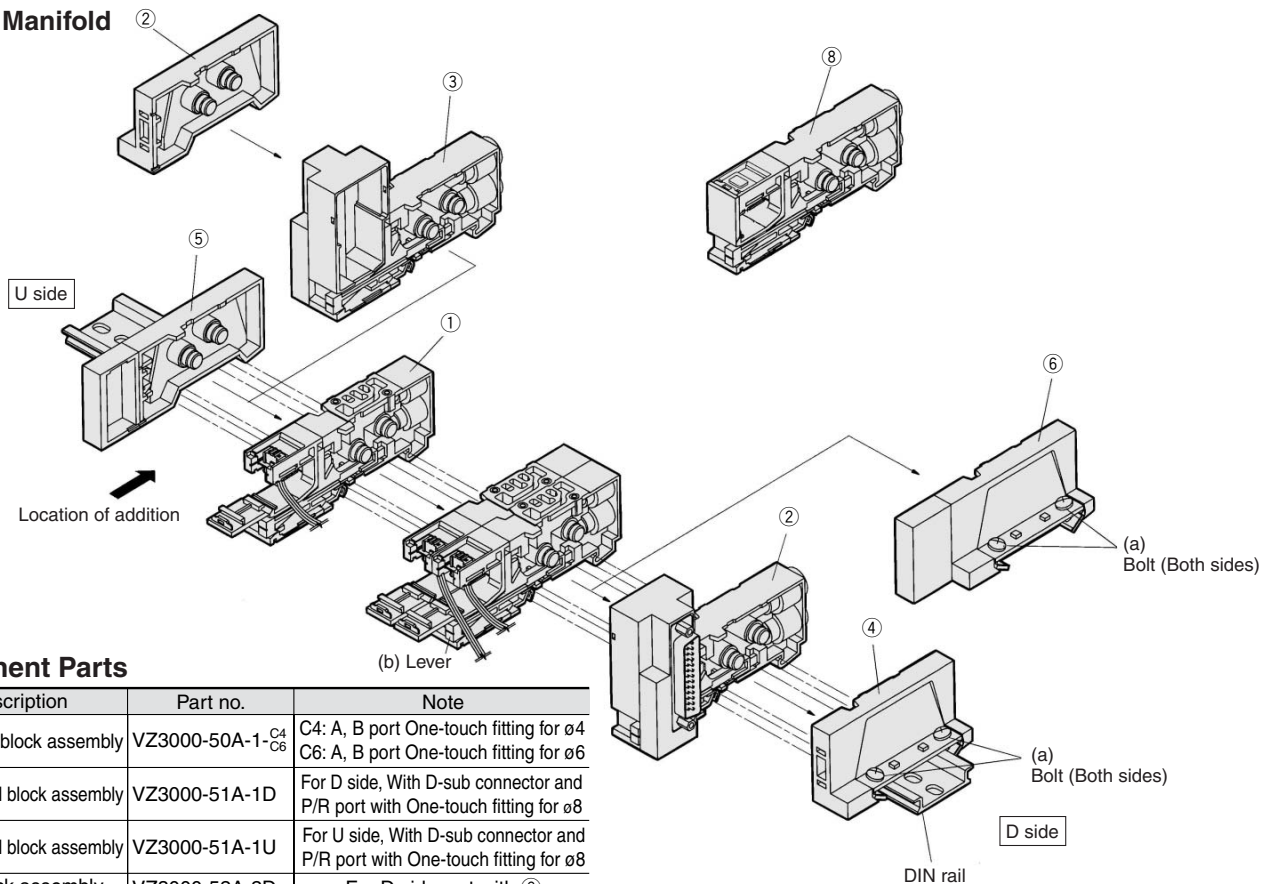


Fig. (2)



Exploded View/DIN Rail Manifold

Type 45F Manifold



Replacement Parts

No.	Description	Part no.	Note
①	Manifold block assembly	VZ3000-50A-1-C ₄ C ₆	C4: A, B port One-touch fitting for ø4 C6: A, B port One-touch fitting for ø6
②	SUP/EXH block assembly	VZ3000-51A-1D	For D side, With D-sub connector and P/R port with One-touch fitting for ø8
③	SUP/EXH block assembly	VZ3000-51A-1U	For U side, With D-sub connector and P/R port with One-touch fitting for ø8
④	End block assembly	VZ3000-52A-2D	For D side, set with ②
⑤	End block assembly	VZ3000-52A-1U	For U side
⑥	End block assembly	VZ3000-52A-1D	For D side
⑦	End block assembly	VZ3000-52A-2U	For U side, set with ③
⑧	SUP/EXH block assembly	VZ3000-51A-1M	Without D-sub connector For indicated location

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

How to Increase Manifold Base

To add a manifold block assembly, add it to the U side so that the terminal number of the D-sub connector and the valve link position will be in accordance with the circuit diagram.

- (1) Loosen (both) bolts (a), which are securing the manifold onto the DIN rail, 1 to 2 turns.
(To remove the manifold base from the DIN rail, loosen the bolts 4 to 5 turns.)
- (2) Using a flat screwdriver, press lever (b) to disengage the link of the manifold block assembly on the U side or the D side from the SUP/EXH block assembly or from the end block assembly. (However, there are no levers between ⑤ and ①. They can be disconnected by merely pulling them apart.)
- (3) Remove the housing cover from the D-sub connector portion of the SUP/EXH block assembly. (Refer to Fig. (1).)
- (4) Following the procedure shown in Fig. (2), mount the manifold block assembly to be added onto the DIN rail. As shown in Fig. (3), insert the pin of the lead wire assembly into the D-sub connector, and attach the round crimped terminal to the screw that connects the wires.
- (5) Press the block assemblies and tighten the bolts (a) to fix them to the DIN rail.

Note) When there are 10 or fewer manifold block assemblies, and more are added to make a total of 11 or more, a supply/exhaust block assembly must also be added.

Fig. (1) Housing cover

Fig. (2) (b) Lever

Hook this part onto the DIN rail and press down until a click is heard.

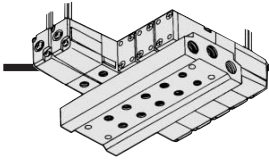
Fig. (3) How to insert lead wire assembly pin

After inserting the pin, lightly pull on the lead wire to verify the lock.

Station	Terminal no.	Lead wire color
1 station (11 stations)	B side coil	1 Black
	A side coil	14 White
2 station (12 stations)	B side coil	2 Black
	A side coil	15 White
3 station (13 stations)	B side coil	3 Black
	A side coil	16 White
4 station (14 stations)	B side coil	4 Black
	A side coil	17 White
5 station (15 stations)	B side coil	5 Black
	A side coil	18 White
6 station (16 stations)	B side coil	6 Black
	A side coil	19 White
7 station (17 stations)	B side coil	7 Black
	A side coil	20 White
8 station (18 stations)	B side coil	8 Black
	A side coil	21 White
9 station (19 stations)	B side coil	9 Black
	A side coil	22 White
10 station (20 stations)	B side coil	10 Black
	A side coil	23 White
	COM	13 Red
	COM	25 Red

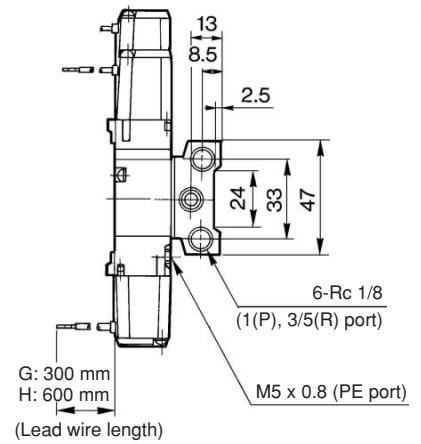
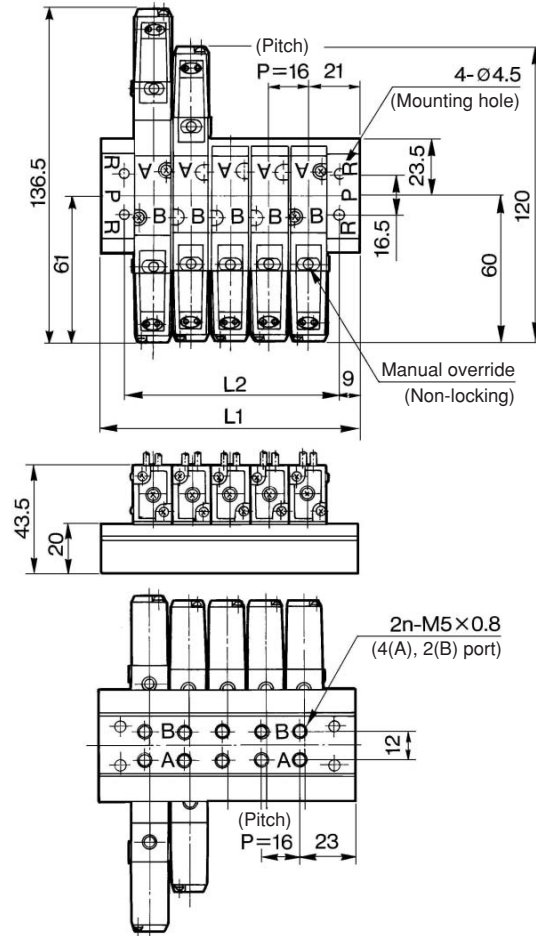
Series VZ3000

Type 40 Manifold: Bottom Ported



VV5Z3-40-Station 2-M5

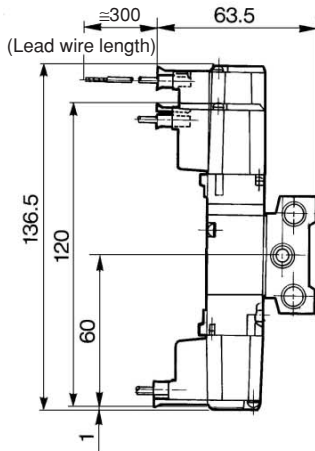
Grommet (G), (H)



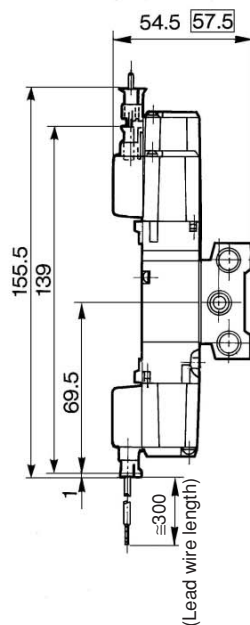
Stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L ₁	58	74	90	106	122	138	154	170	186	202	218	234	250	266	282	298	314	330	316
L ₂	40	56	72	88	104	120	136	152	168	184	200	216	232	248	264	280	296	312	328

(mm)

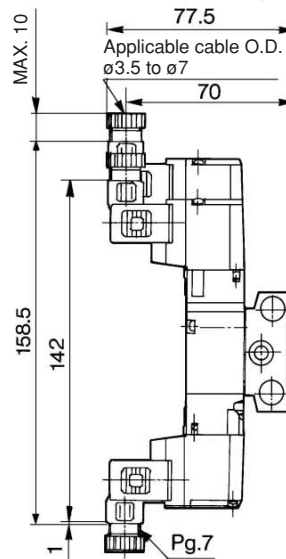
L plug connector (L)



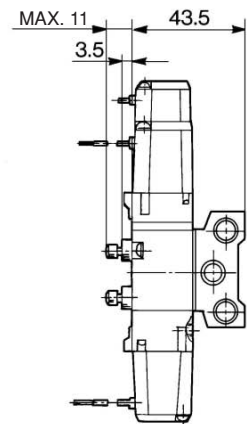
M plug connector (M)



DIN terminal (D)

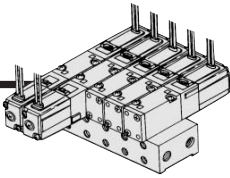


Built-in speed controllers



□: With light/surge voltage suppressor

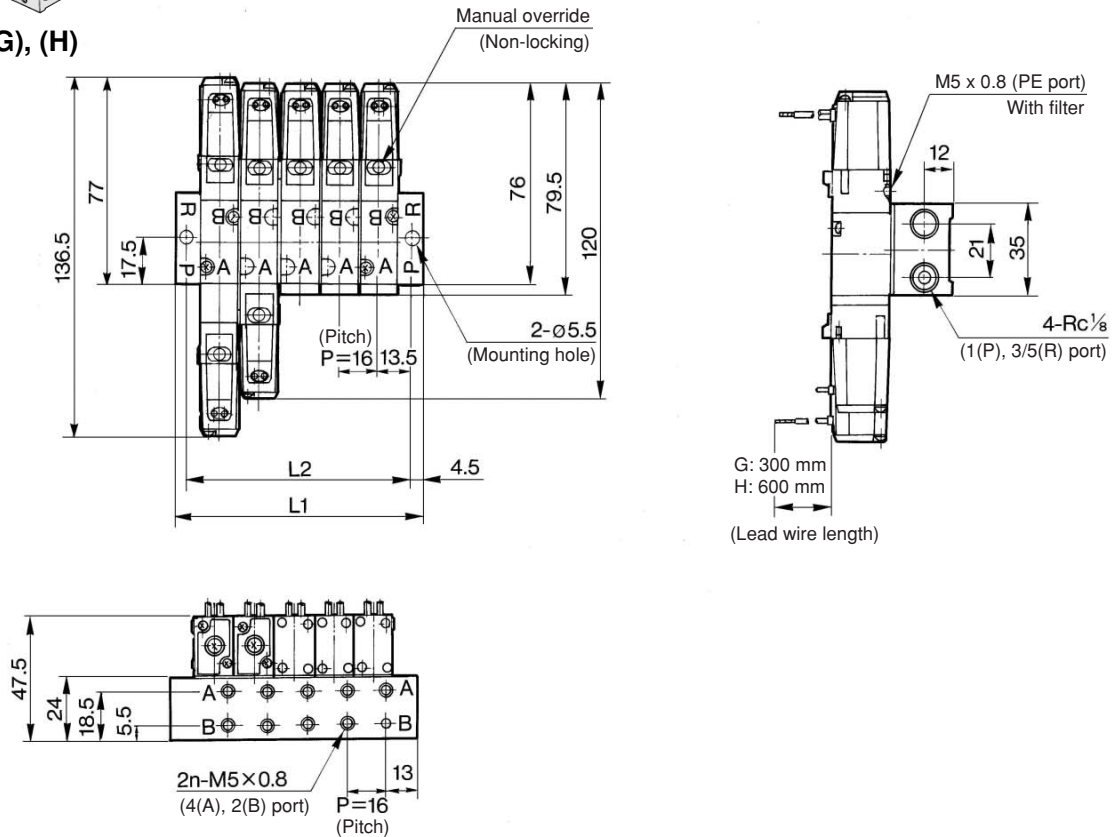
5 Port Solenoid Valve Base Mounted Series VZ3000



Type 41 Manifold: Side Ported

VV5Z3-41- Station 1-M5

Grommet (G), (H)



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

Stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L ₁	52	68	84	100	116	132	148	164	180	196	212	228	244	260	276	292	308	324	340
L ₂	43	59	75	91	107	123	139	155	171	187	203	219	235	251	267	283	299	315	331

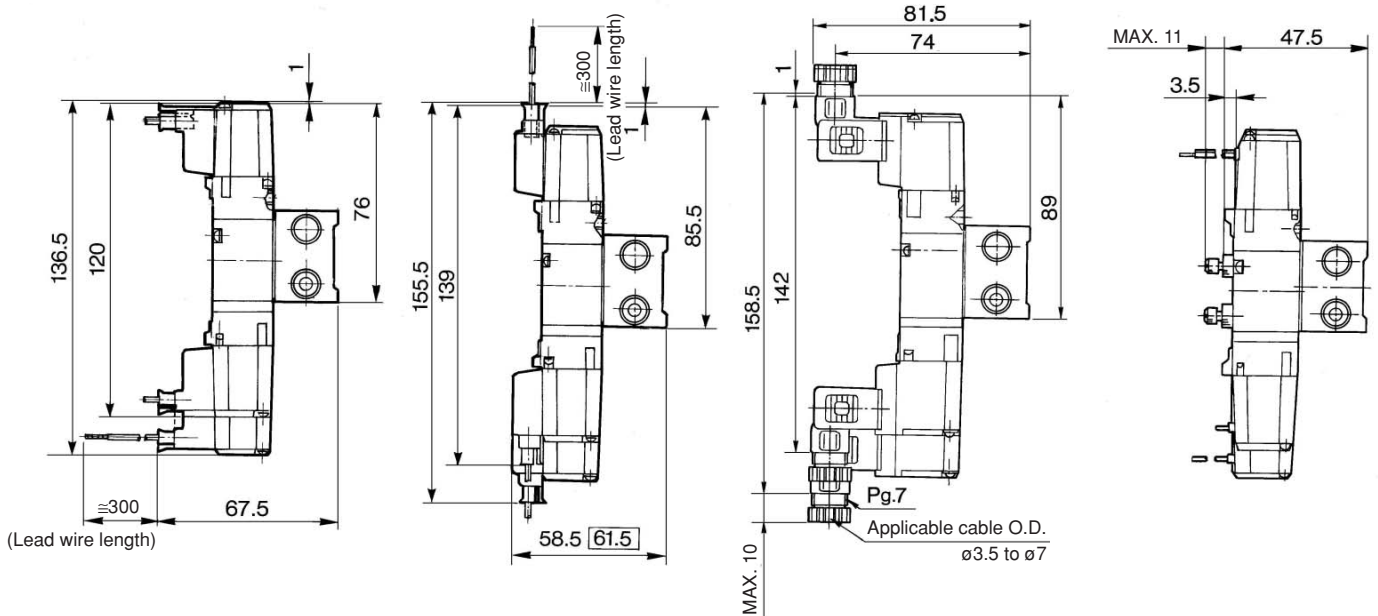
(mm)

L plug connector (L)

M plug connector (M)

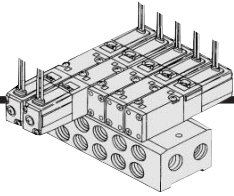
DIN terminal (D)

Built-in speed controllers



□: With light/surge voltage suppressor

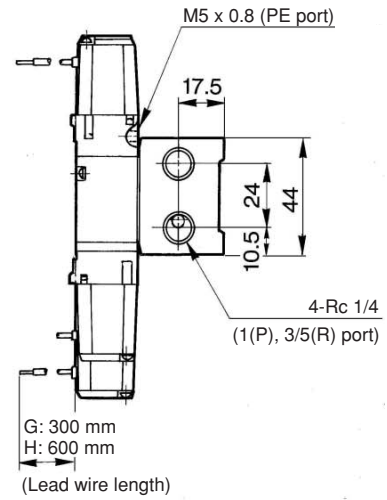
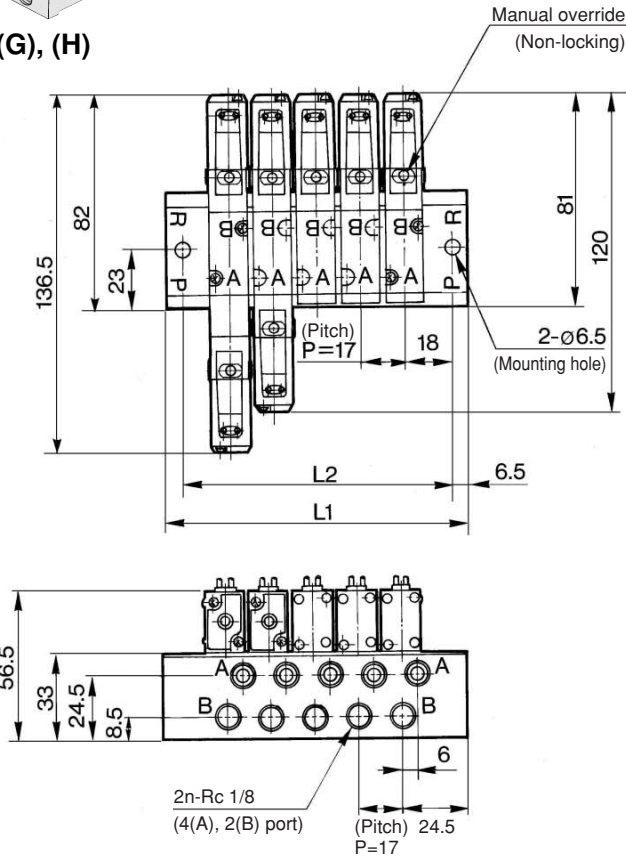
Series VZ3000



Type 42 Manifold: Side Ported

VV5Z3-42- Station 1-01

Grommet (G), (H)



(mm)

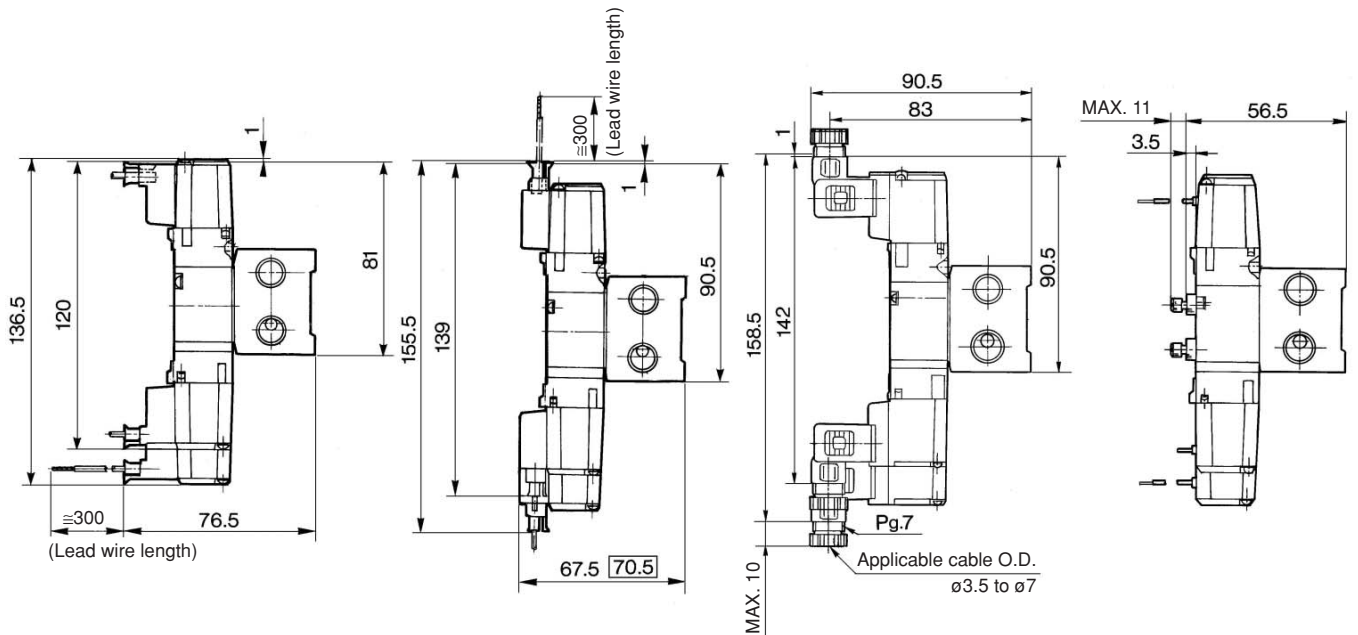
Stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L ₁	66	83	100	117	134	151	168	185	202	219	236	253	270	287	304	321	338	355	372
L ₂	53	70	87	104	121	138	155	172	189	206	223	240	257	274	291	308	325	342	359

L plug connector (L)

M plug connector (M)

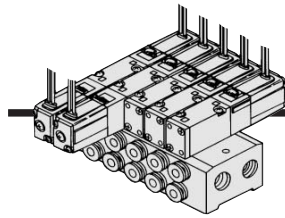
DIN terminal (D)

Built-in speed controllers



□: With light/surge voltage suppressor

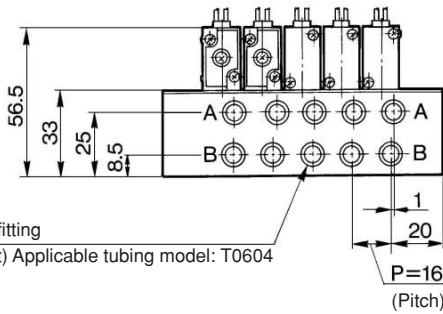
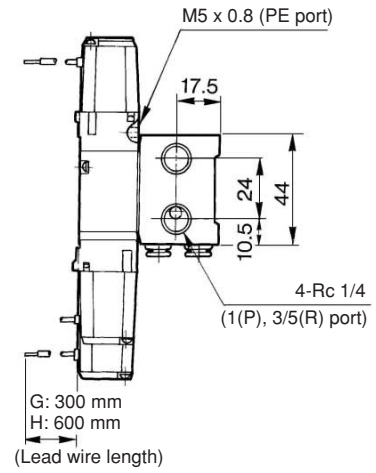
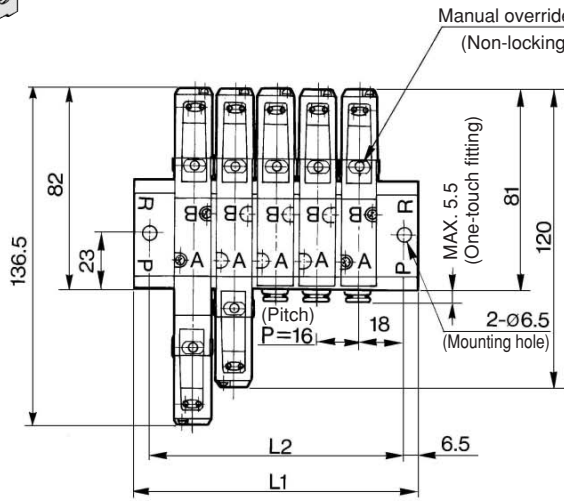
5 Port Solenoid Valve Base Mounted Series VZ3000



Type 42 Manifold: Side Ported

VV5Z3-42- Station 1-C6

Grommet (G), (H)



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

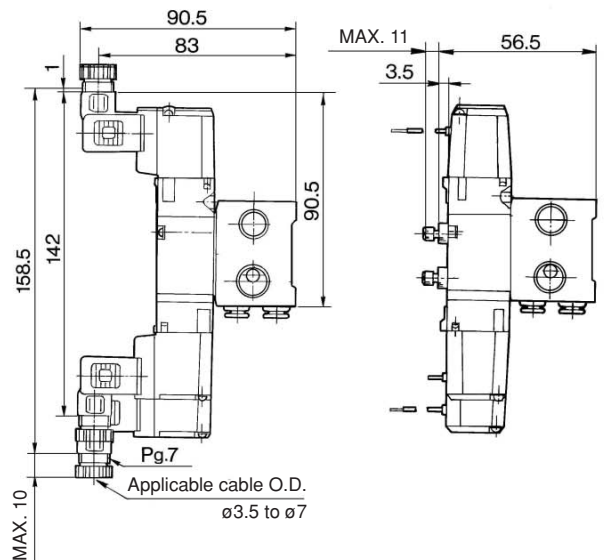
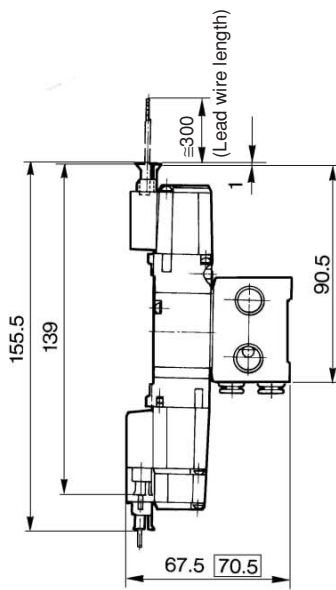
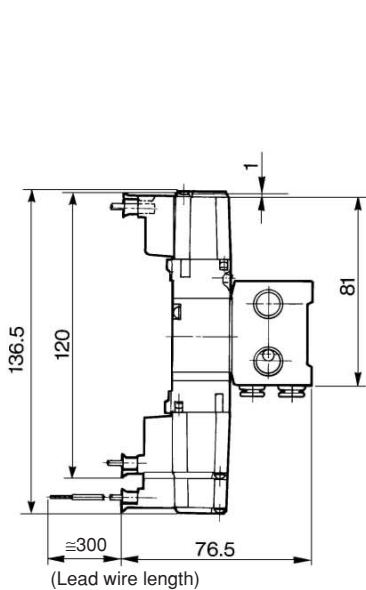
Stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L ₁	65	81	97	113	129	145	161	177	193	209	225	241	257	273	289	305	321	337	353
L ₂	52	68	84	100	116	132	148	164	180	196	212	228	244	260	276	292	308	324	340

L plug connector (L)

M plug connector (M)

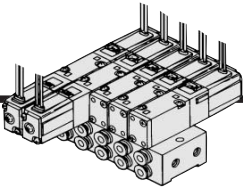
DIN terminal (D)

Built-in speed controllers



□: With light/surge voltage suppressor

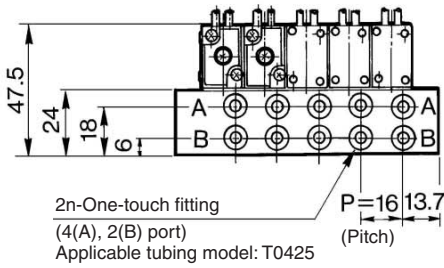
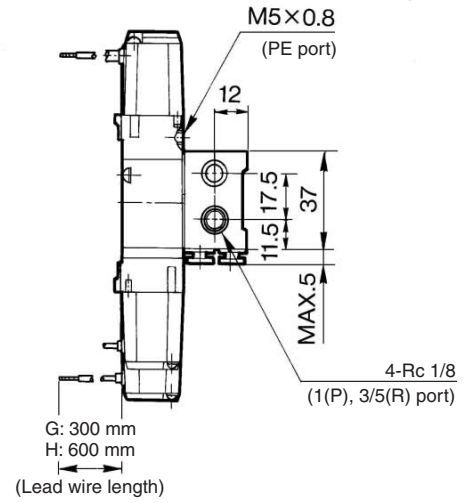
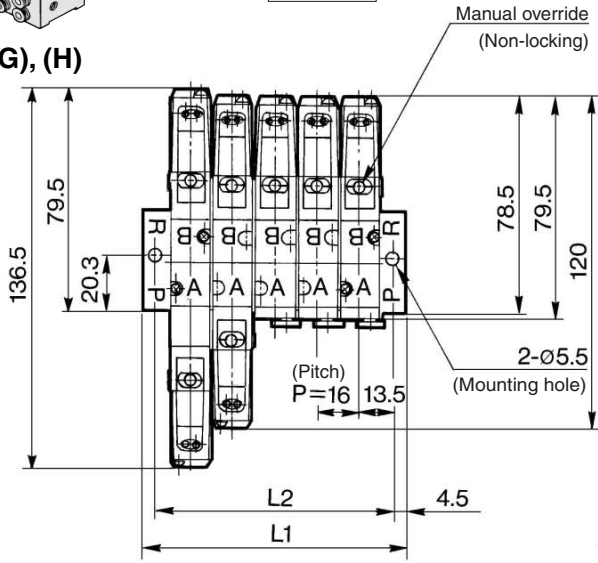
Series VZ3000



Type 43 Manifold: Side Ported

VV5Z3-43- Station 1-C4

Grommet (G), (H)



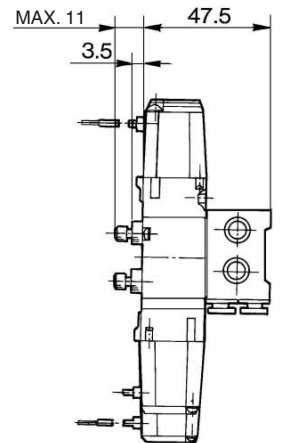
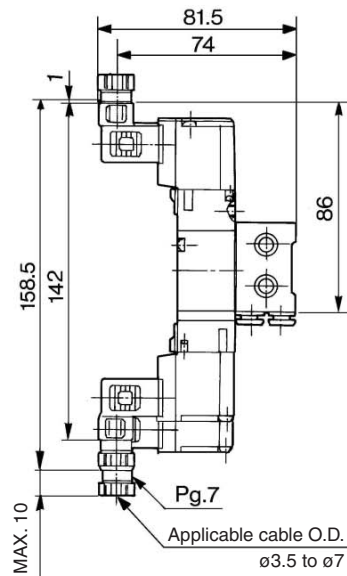
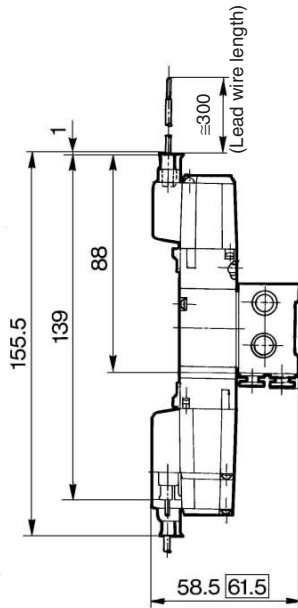
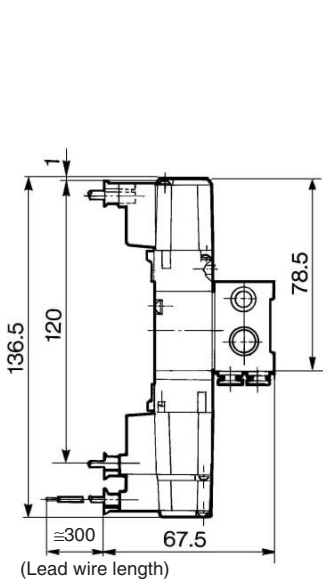
Stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L ₁	52	68	84	100	116	132	148	164	180	196	212	228	244	260	276	292	308	324	340
L ₂	43	59	75	91	107	123	139	155	171	187	203	219	235	251	267	283	299	315	331

L plug connector (L)

M plug connector (M)

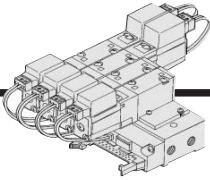
DIN terminal (D)

Built-in speed controllers



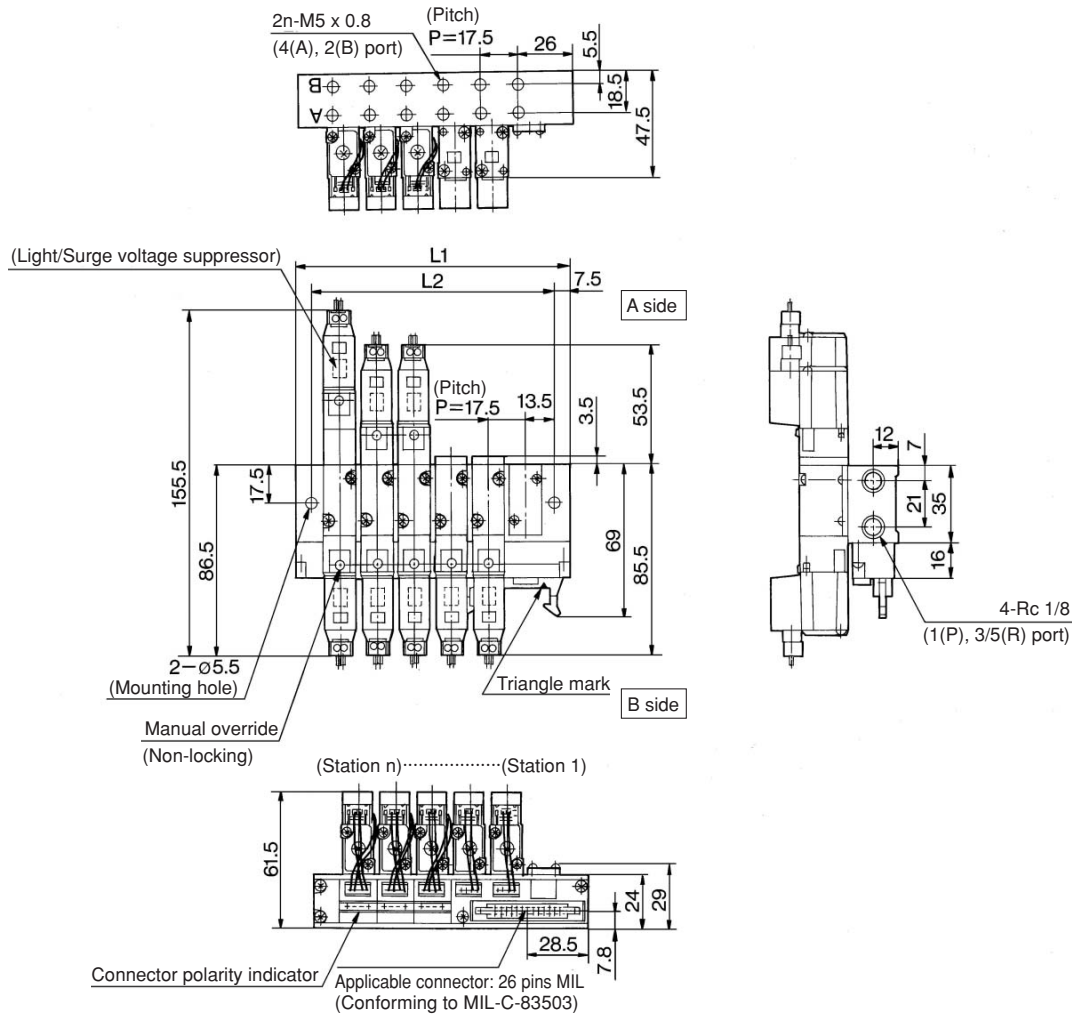
□: With light/surge voltage suppressor

5 Port Solenoid Valve Base Mounted Series VZ3000



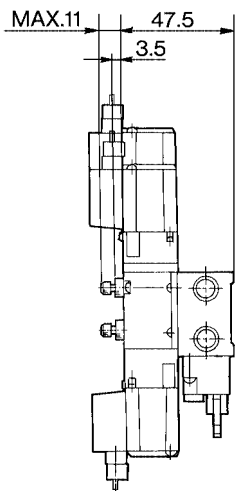
Type 41P Flat Ribbon Cable Manifold: Side Ported

VV5Z3-41P-Station-M5



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

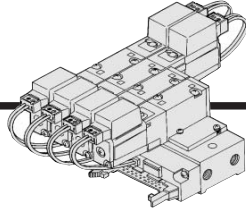
Built-in speed controllers



Stations	3	4	5	6	7	8	9	10	11	12
L ₁	77	94.5	112	129.5	147	164.5	182	199.5	217	234.5
L ₂	62	79.5	97	114.5	132	149.5	167	184.5	202	219.5

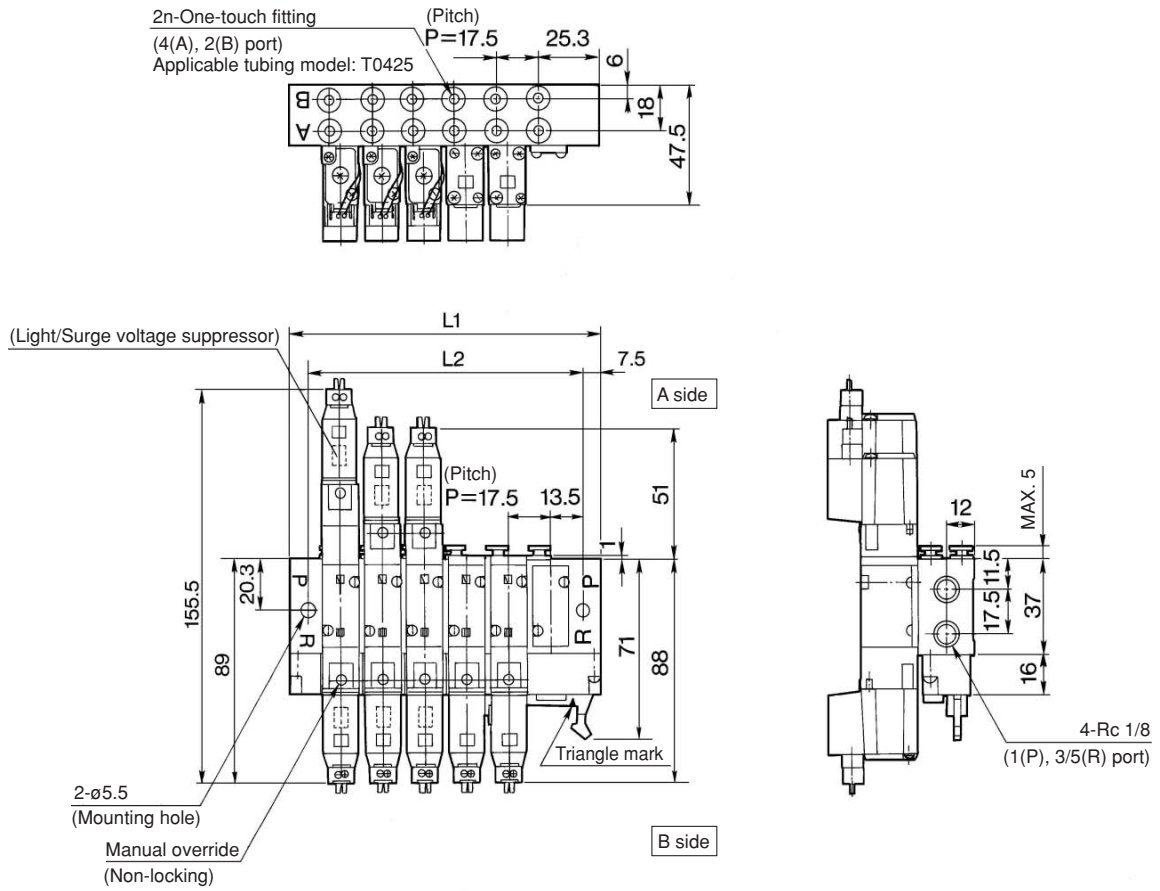
(mm)

Series VZ3000



Type 43P Flat Ribbon Cable Manifold: Side Ported

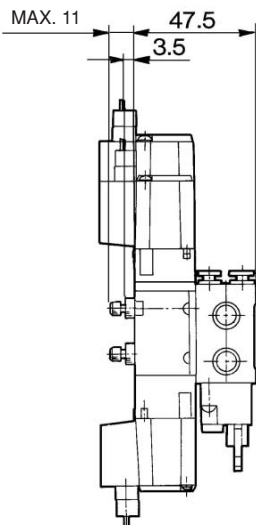
VV5Z3-43P-Station-C4



Built-in speed controllers

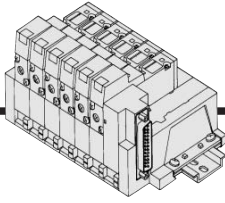
(mm)

Stations	3	4	5	6	7	8	9	10	11	12
L ₁	77	94.5	112	129.5	147	164.5	182	199.5	217	234.5
L ₂	62	79.5	97	114.5	132	149.5	167	184.5	202	219.5

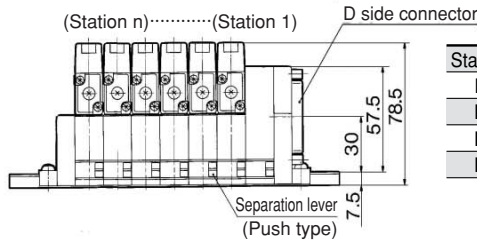
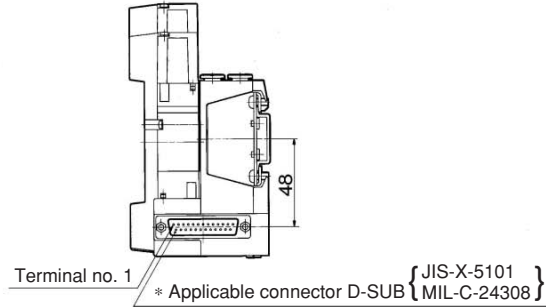
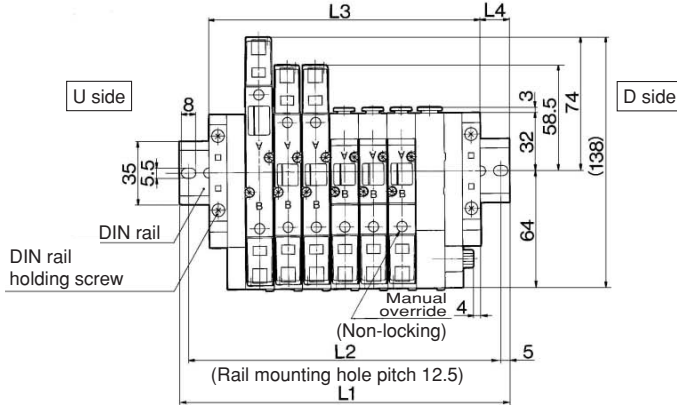
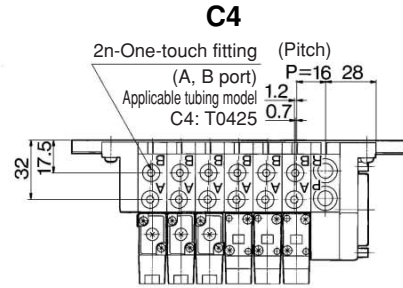
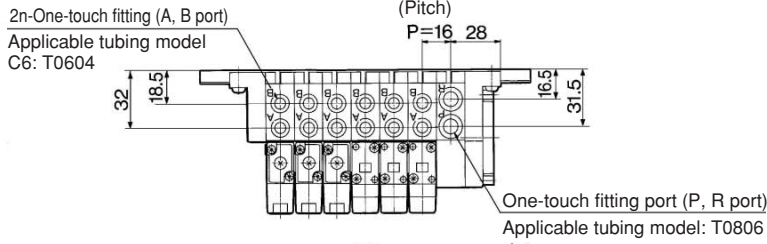


Series VZ3000

Type 45F DIN Rail Manifold (Non Plug-in): Side Ported

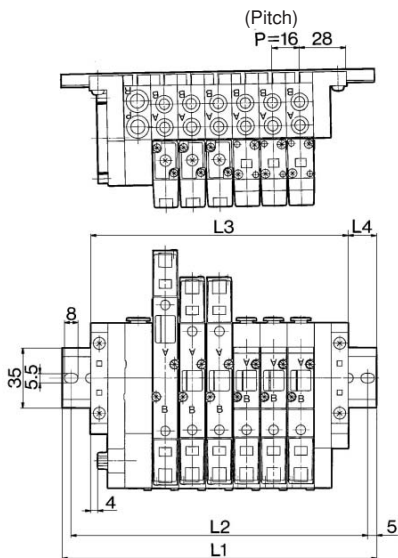


VV5Z3-45FD-Station - C4C
C6C



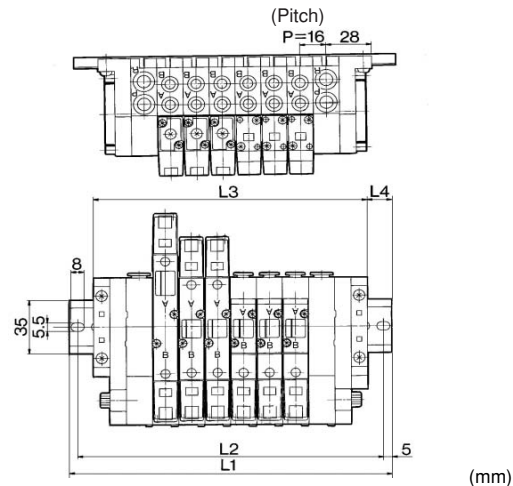
Stations	2	3	4	5	6	7	8	9	10
L ₁	110.5	135.5	148	160.5	185.5	198	210.5	223	248
L ₂	100	125	137.5	150	175	187.5	200	212.5	237.5
L ₃	88	104	120	136	152	168	184	200	216
L ₄	11.5	16	14	12.5	17	15	13.5	11.5	16

VV5Z3-45FU-Station - C4C
C6C



VV5Z3-45FU^U-Station - C4C
C6C (2 to 10 stations)

VV5Z3-45FB-Station - C4C
C6C (11 to 20 stations)



Stations	2	3	4	5	6	7	8	9	10
L ₁	110.5	135.5	148	160.5	185.5	198	210.5	223	248
L ₂	100	125	137.5	150	175	187.5	200	212.5	237.5
L ₃	88	104	120	136	152	168	184	200	216
L ₄	11.5	16	14	12.5	17	15	13.5	11.5	16

Stations	2	3	4	5	6	7	8	9	10
L ₁	135.5	148	160.5	185.5	198	210.5	223	248	260.5
L ₂	125	137.5	150	175	187.5	200	212.5	237.5	250
L ₃	104	120	136	152	168	184	200	216	232
L ₄	16	14	12.5	17	15	13.5	11.5	16	14

Stations	11	12	13	14	15	16	17	18	19	20
L ₁	273	298	310.5	323	335.5	360.5	373	385.5	398	423
L ₂	262.5	287.5	300	312.5	325	350	362.5	375	387.5	412.5
L ₃	248	264	280	296	312	328	344	360	376	392
L ₄	12.5	17	15.5	13.5	12	16.5	14.5	13	11	15.5

Made to Order Specifications:

Please contact SMC for detailed specifications, dimensions, and delivery.

1. Solenoid Valve: External Pilot Specifications

Applicable solenoid valve series

VZ3000/5000

(Non plug-in type only)

Model no.

VZ₃⁵ □ □ 0-□ □ □ □ (-□) - X20

Entry is the same as standard products.

Specifications

Operating pressure range (MPa)	Main pressure	-100 kPa to 0.7
	External pilot pressure	0.15 to 0.7
Pilot exhaust method		Pilot valve individual exhaust

Dimensions

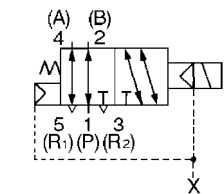
VZ3000: 8 mm longer

VZ5000: 8 mm longer

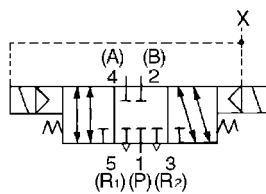
JIS Symbol

Body ported

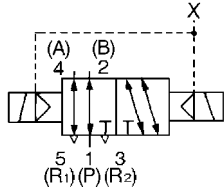
2 position single



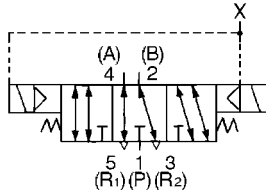
3 position closed center



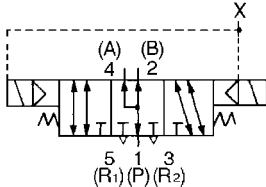
2 position double



3 position exhaust center



3 position pressure center



VK

VZ

VF

VFR

VP4

VZS

VFS

VS4

VQ7

EVS

VFN

Series VZ

Made to Order Specifications:

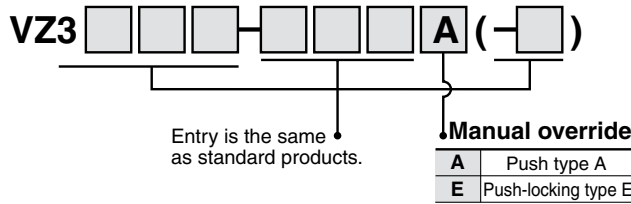
Please contact SMC for detailed specifications, dimensions, and delivery.

2. Solenoid Valve: Special Manual Override

Applicable solenoid valve series

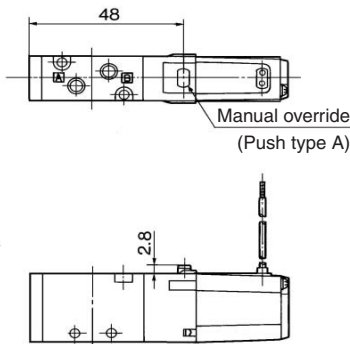
VZ3000
(Non plug-in type only)

Model no.

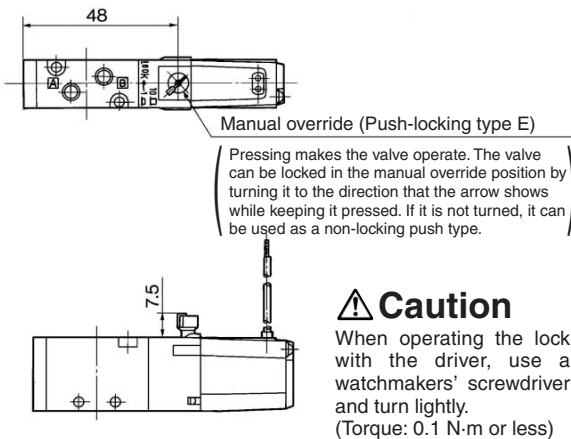


Dimensions: Single

Push type A



Push-locking type E



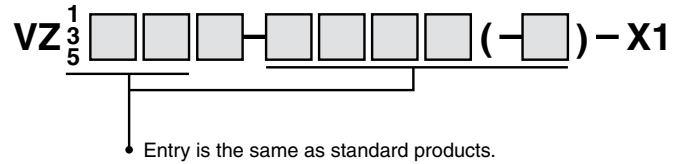
Note) Because the manual override unit protrudes, the manual override could activate unintentionally if the protrusion is touched or an object falls on it. Therefore, take the proper preventative measures.

3. Solenoid Valve: Opposite Mount of Solenoid Assembly

Applicable solenoid valve series

VZ1000/3000/5000
(Non plug-in type only)

Model no.



Dimensions: VZ1120-□G-M5-X1

