Series VZ3000/Body Ported **Manifold Specifications**

Manifold Standard



Manifold Specifications

| Model | | Туре 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 s | ize | Flow characteristics | | | | | | |
|---|----------|--------|--------------|-----------------|---|------|---|------|------|------|--|
| | | | 1(P), 5/3(R) | 2(B), 4(A) | $1 \rightarrow 4/2 \ (P \rightarrow A/B)$ | | $4/2 \rightarrow 5/3 \ (A/B \rightarrow R)$ | | | | |
| | | port | port | C [dm³/(s·bar)] | b | Cv | C [dm³/(s·bar)] | b | Cv | | |
| Body ported | Turne | | 1/8 | M5 x 0.8 | 0.46 | 0.39 | 0.12 | 0.75 | 0.32 | 0.19 | |
| Body ported Type For internal pilot VV5Z3-20 | | VZ3□2□ | 1/8 | C4 | 0.62 | 0.33 | 0.16 | 0.83 | 0.27 | 0.20 | |
| For internal pilot | VV5Z3-20 | | 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. مناحما ام (Exampl

| DIE) VV5Z3-20-031 | i pc. (ivianifoid base) |
|-------------------|---|
| WIZO100 EC ME | $\Omega = \Omega = (1/\alpha) (\alpha)$ |

*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 loo | cation | Valve | | | |
| Port size | 1(P), 3/5(R) port | Rc 1/8 | | | |
| 1 011 3120 | 4(A), 2(B) port | M5 x 0.8, C4, C6 | | | |
| Applicable flat rib | bon | Socket: 26 pins MIL, with strain relief | | | |
| cable connector | | (Conforming to MIL-C-83503) | | | |
| Internal wiring | | + COM (For – COM specifications, specify them separately.) | | | |
| Applicable valve r | nodel | VZ3□23- ¹ ₃ ₆ MOZ□- ^{M5} _{C4} _{C6} | | | |

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) | 2(B), 4(A) | $1 \rightarrow 4/2 \ (P \rightarrow A/B)$ $4/2 \rightarrow 5/3 \ (A/B \rightarrow I)$ | | | | | \rightarrow R) | |
| | | port | port | C [dm³/(s·bar)] | b | Cv | C [dm³/(s·bar)] | b | Cv | | |
| | _ | | 1/8 | M5 x 0.8 | 0.46 | 0.39 | 0.12 | 0.75 | 0.32 | 0.19 | |
| | Body ported Type V | | 1/8 | C4 | 0.62 | 0.33 | 0.16 | 0.83 | 0.27 | 0.20 | |
| For internal pilot | VV5Ž3-20P | | 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

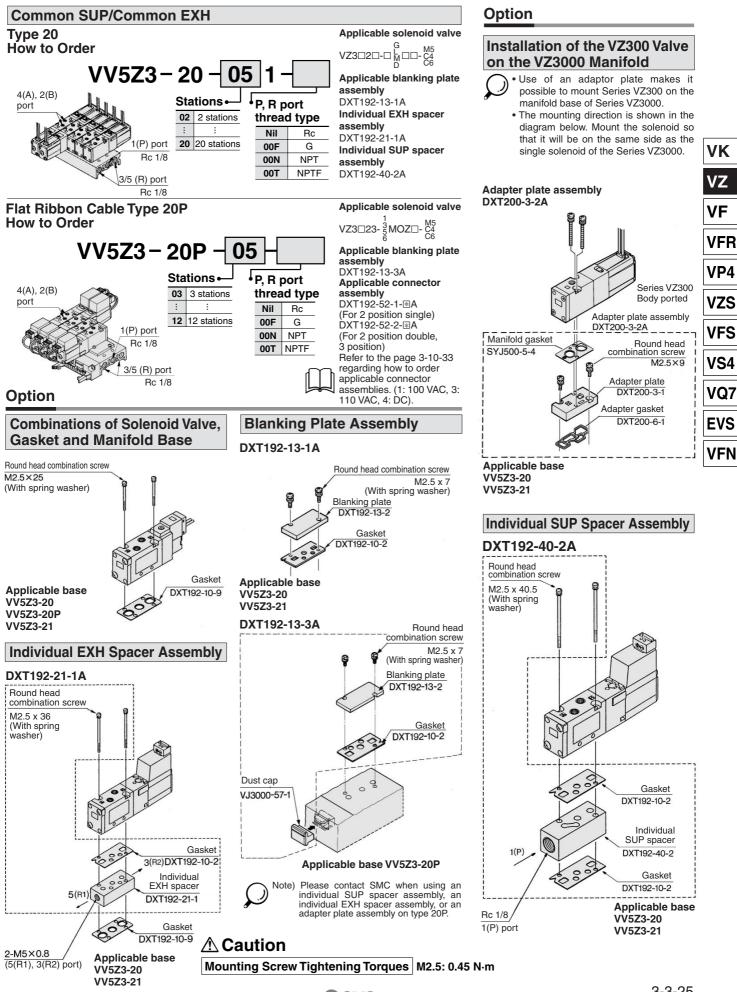
Instruct by specifying the valves, blanking plate assembly and connector assembly to be mounted

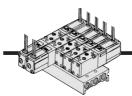
- *DXT192-52-2-4A...... 3 pcs. (Connector assembly)

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

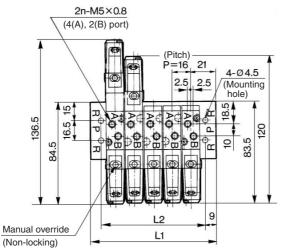


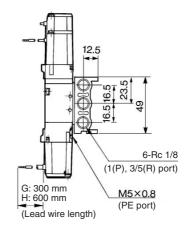


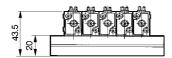
Type 20 Manifold

VV5Z3-20-Station 1

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 | 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)

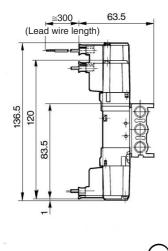
M plug connector (M)

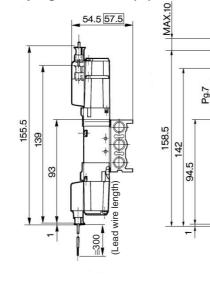
DIN terminal (D)

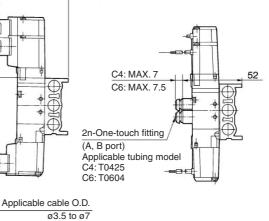
77,5

70

Built-in One-touch fittings

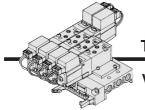






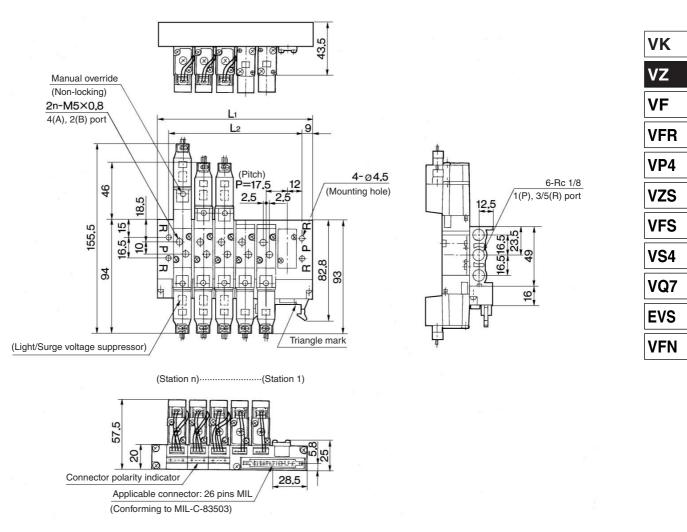
SMC

5 Port Solenoid Valve Body Ported Series VZ3000



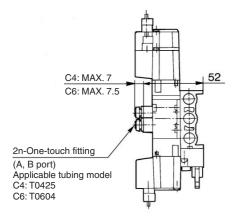
Type 20P Flat Ribbon Cable Manifold

VV5Z3-20P- Station



| | | | | | | | | | | (mm) |
|----------------|----|------|-----|-------|-----|-------|-----|-------|-----|-------|
| Stations | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| L1 | 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



Series VZ3000/Base Mounted **Manifold Specifications**

Manifold Standard



Manifold Specifications

| Мо | del | 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 | Direction | Bottom | | Side | | | | |
| | 1(P), 3/5(R) port | Rc | 1/8 | Rc 1/4 | Rc 1/8 | | | |
| Port size | 4(A), 2(B) port | M5 x | x 0.8 | $\begin{array}{c} \text{Rc 1/8} \\ \text{C6} \left(\begin{smallmatrix} \text{One-touch} \\ \text{fitting for } _{\text{$ 0 $ P $}} \end{smallmatrix}\right) \\ \text{B7} \left(\begin{smallmatrix} \text{One-touch} \\ \text{fitting for } _{\text{$ 1/4^* $}} \end{smallmatrix}\right) \end{array}$ | $\begin{array}{c} C4 \left(\begin{matrix} \text{One-touch} \\ \text{fitting for } \text{ø4} \end{matrix} \right) \\ B3 \left(\begin{matrix} \text{One-touch} \\ \text{fitting for } \text{5/32}^* \end{matrix} \right) \end{array}$ | | | |

Flow Characteristics

| | Port | size | Flow characteristics | | | | | | |
|-------------|--------------|------------|----------------------|---|------|------|---|------|------|
| Manifo | 1(P), 5/3(R) | 2(B), 4(A) | $1 \rightarrow 4/2$ | $1 \rightarrow 4/2 (P \rightarrow A/B)$ | | | $4/2 \rightarrow 5/3 (A/B \rightarrow R)$ | | |
| | | port | port | C [dm³/(s·bar)] | b | Cv | C [dm³/(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 | VZ3□4□ | 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. (Value) *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

| Mc | odel | 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 | Position | Ba | se | | |
| location | Direction | Si | de | | |
| Port size | 1(P), 3/5(R) port | Rc 1/8 | Rc 1/8 | | |
| FUITSIZE | 4(A), 2(B) port | M5 x 0.8 | C4 (One-touch fitting for ø4) | | |
| Applicable flat ribbo | on cable connector | Socket: 26 pins MI (Conforming to | | | |
| Internal wiring | | +COM specifications (For -COM specifications, specify them separately.) | | | |
| Applicable valve m | odel | VZ3□43- ¹ / ₅ MOZ□-VZ3□53- ¹ / ₅ MOZ□ | | | |
| Rated voltage | | 100 VAC 50/60 Hz, 110 VAC 50/60 Hz, 24 VDC, 12 VDC | | | |
| Note) Withsta | and voltage specifica | tions of wiring unit part is equivale | nt to JIS C 0704 class 1. | | |

()

Flow Characteristics

| Manifold | | Port | size | Flow characteristics | | | | | | |
|---|---------|--------------|------------|----------------------|---------------------|------|-----------------------|--------|------|--|
| | | 1(P), 5/3(R) | 2(B), 4(A) | $1 \rightarrow 4/2$ | $(P \rightarrow I)$ | A/B) | $4/2 \rightarrow 5/3$ | (A/B - | → R) | |
| | | | port | C [dm³/(s·bar)] | b | Cv | C [dm3/(s·bar)] | b | Cv | |
| VV5Z3-41P | SYJ5⊡43 | 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

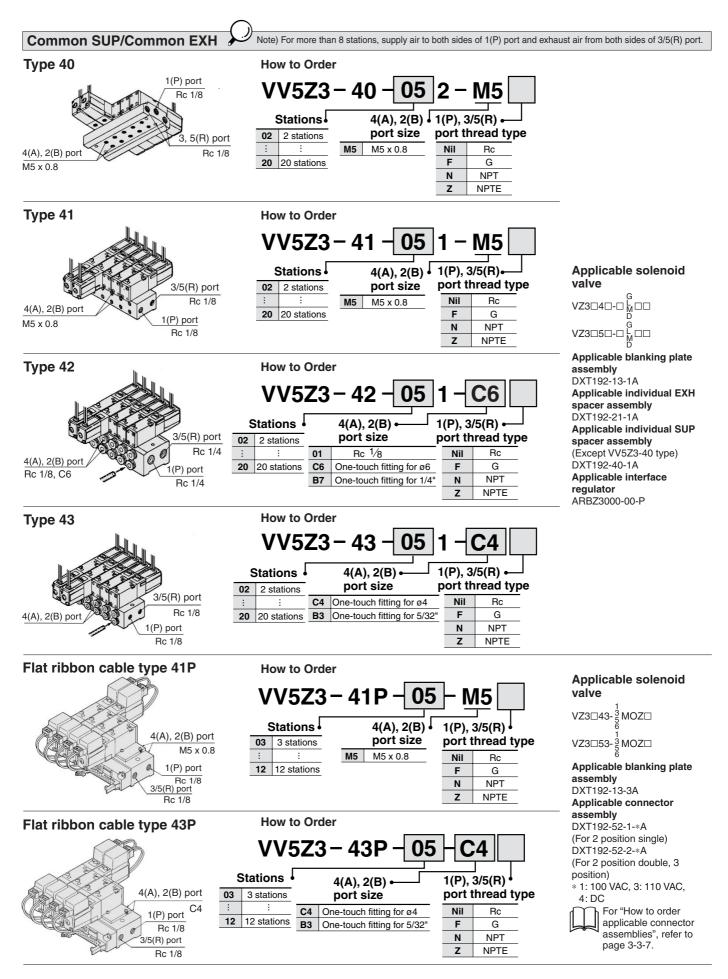
Instruct by specifying the valves, blanking plate assembly and connector assembly to be mounted

(Example) VV5Z3-43P-07-C4----1 pc. (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.







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 | Si | de | | | | |
| | 1(P), 3/5(R) port | C8 (One-touch | n fitting for ø8) | | | | |
| Port size | 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 | ternal wiring — COM Note) | | | | | | |

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

Flow Characteristics

| Manifold | | Port | size | Flow characteristics | | | | | | | | |
|---|--------|--------------|------------|----------------------|------------------|------|---|------|------|---|--|--|
| | | 1(P), 5/3(R) | 2(B), 4(A) | $1 \rightarrow 4/2$ | $(P \rightarrow$ | A/B) | $4/2 \rightarrow 5/3 (A/B \rightarrow R)$ | | | | | |
| | | | | C [dm³/(s·bar)] | b | Cv | C [dm³/(s·bar)] | b | Cv | Ľ | | |
| 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 | | | | | | | | | | | | |

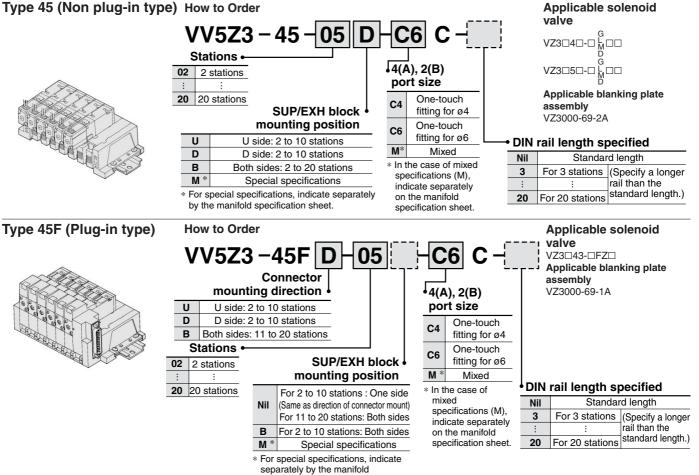
How to Order Manifold

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) *VZ3000-69-1A1 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



VFR VP4 VZS VFS VS4 VQ7 EVS

VFN

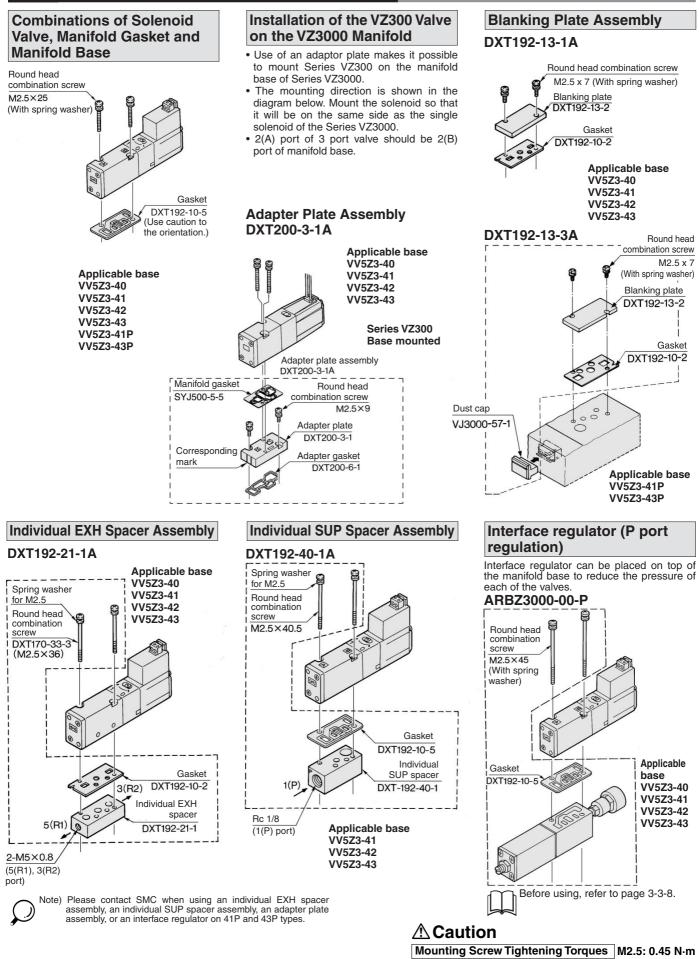
VK

٧Z

VF

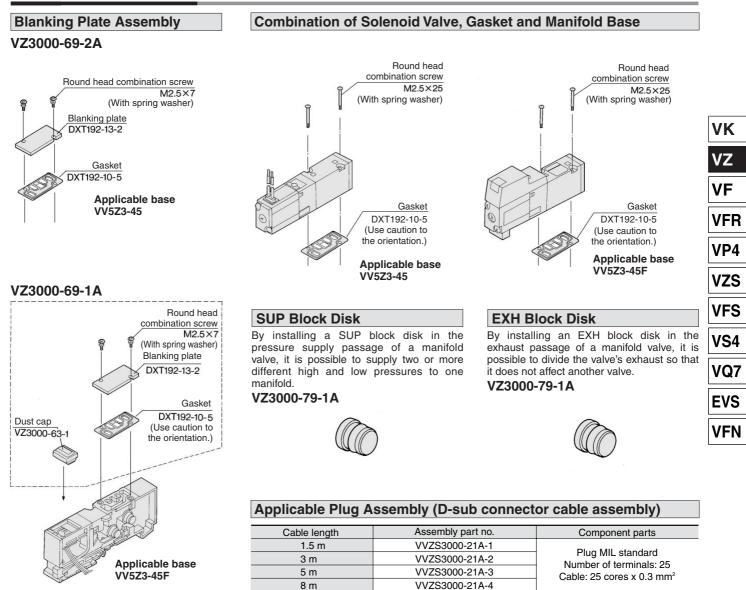
specification sheet.

Option/Standard Manifold, Flat Ribbon Cable Manifold



*∕∂*SMC

Option/DIN Rail Manifold

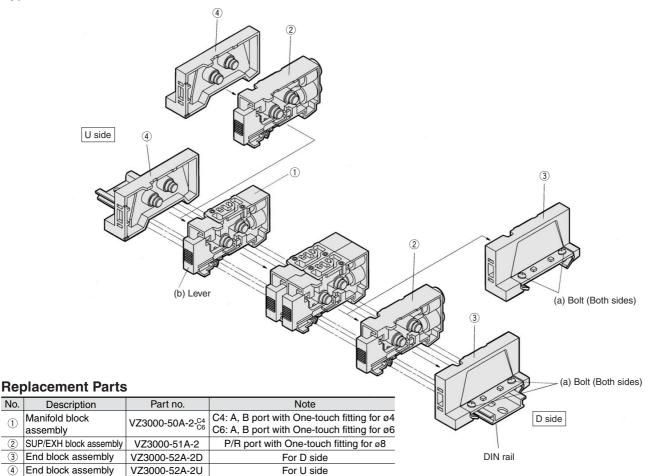


A Caution

Mounting Screw Tightening Torques M2.5: 0.32 N·m (For stacking type manifold) For details, refer to page 3-3-8.

Exploded View/DIN Rail Manifold

Type 45 Manifold

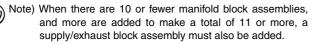


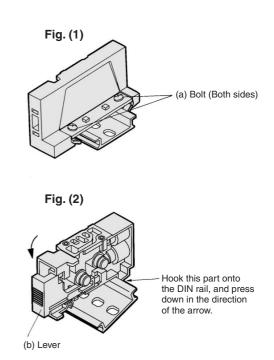
How to Increase Manifold Base

No.

1

- (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.

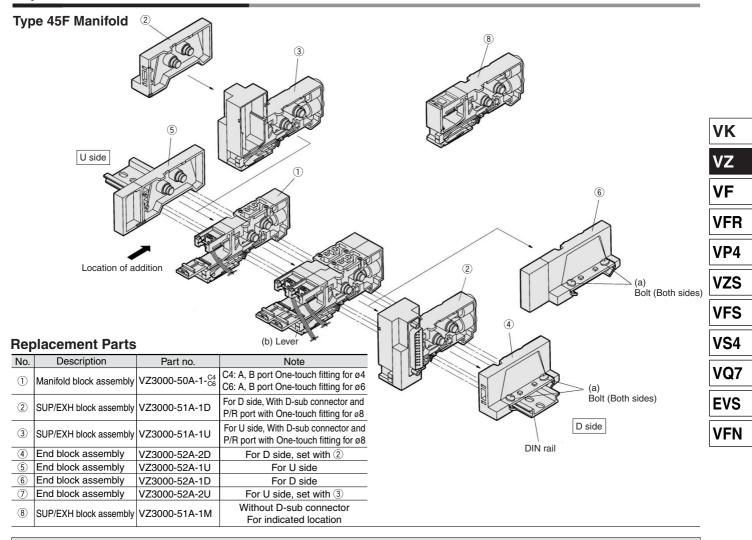




Station expansion is possible at any position.



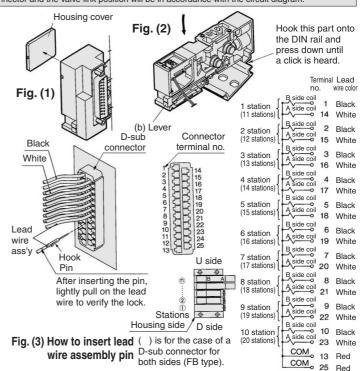
Exploded View/DIN Rail Manifold

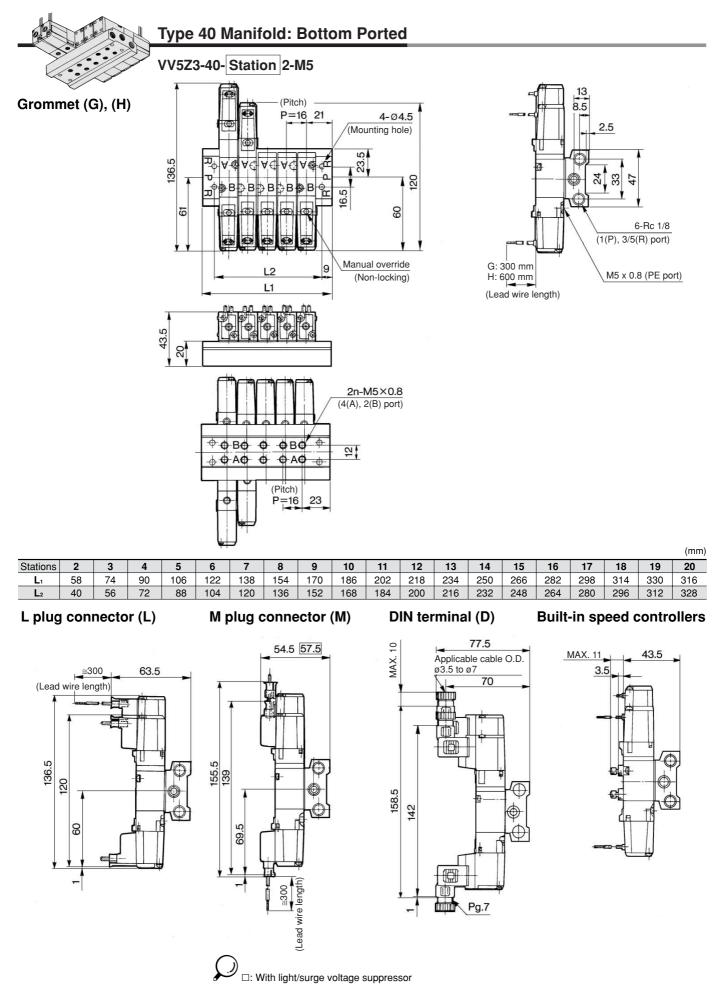


How to Increase Manifold Base

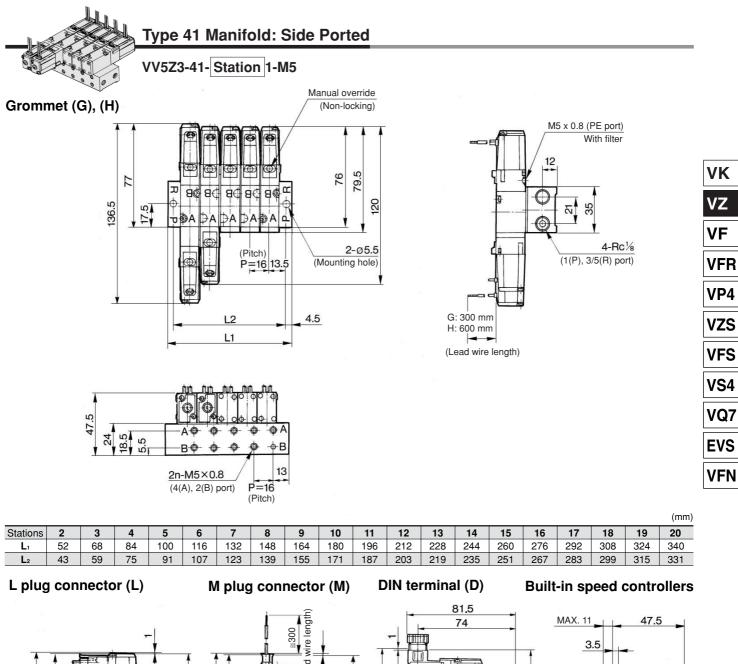
To add a manifold block assembly, add it to the U side so that the terminal number of the D-sub connector and the valve link position will be in accordance with the circuit diagram.

- (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.









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Pg.7

Applicable cable O.D.

ø3.5 to ø7

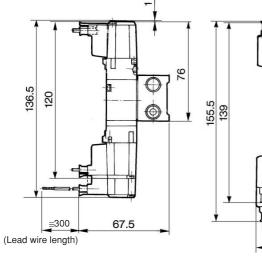
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MAX. 10

89

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: With light/surge voltage suppressor

58.5 61.5



85.5

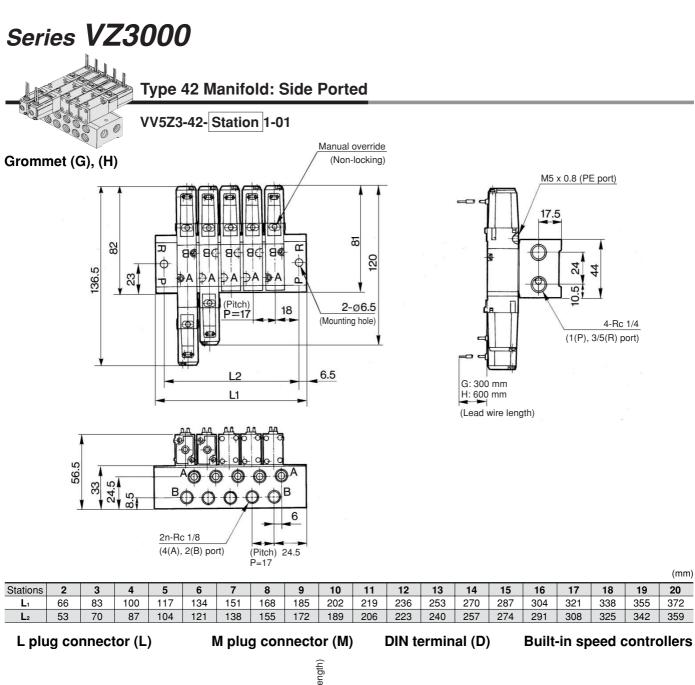
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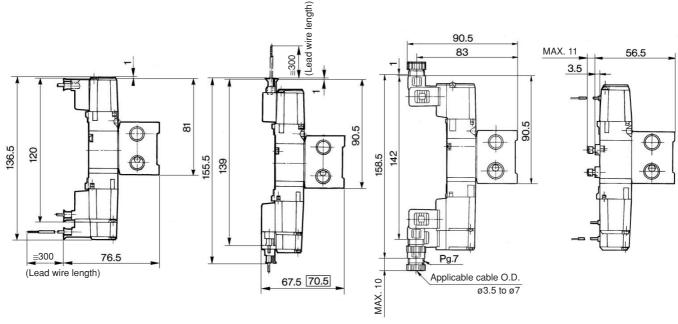
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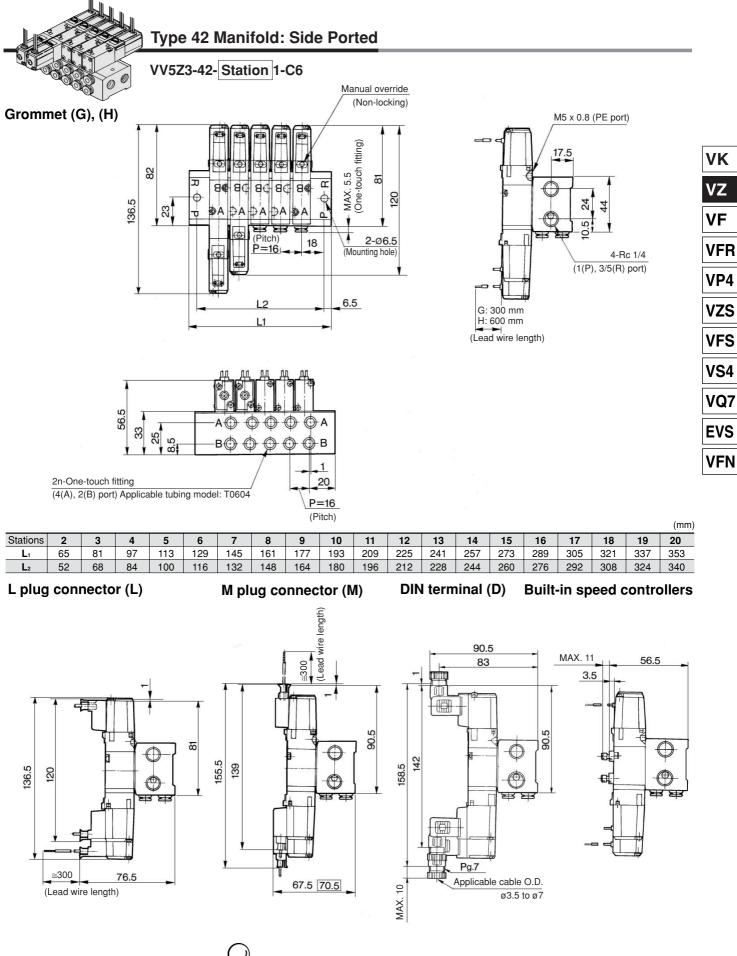
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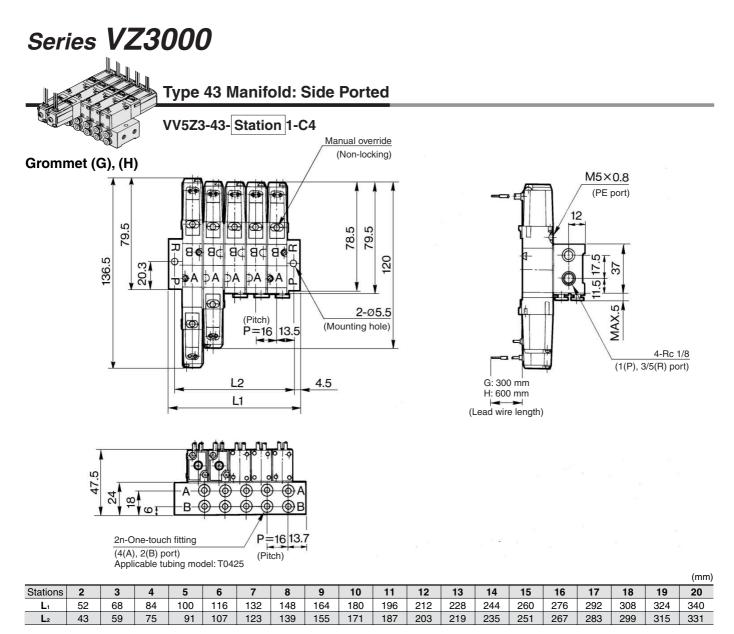






ンロ: With light/surge voltage suppressor

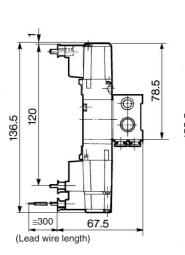


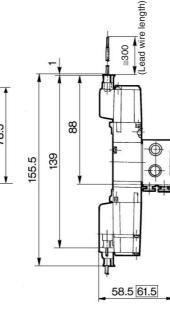


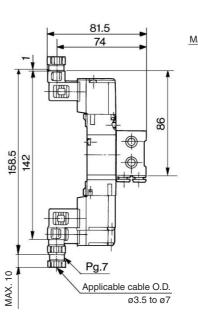
M plug connector (M)

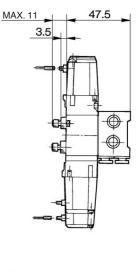
DIN terminal (D)

Built-in speed controllers

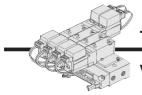






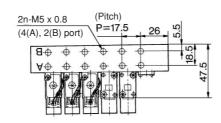


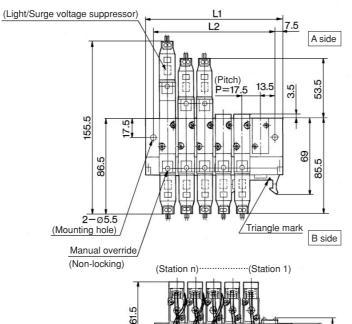




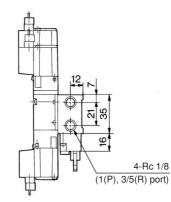
Type 41P Flat Ribbon Cable Manifold: Side Ported

VV5Z3-41P-Station-M5





Connector polarity indicator



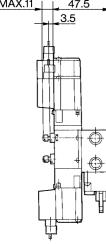
| VK |
|-----|
| ٧Z |
| VF |
| VFR |
| VP4 |
| VZS |
| VFS |
| VS4 |
| VQ7 |
| EVS |
| VFN |

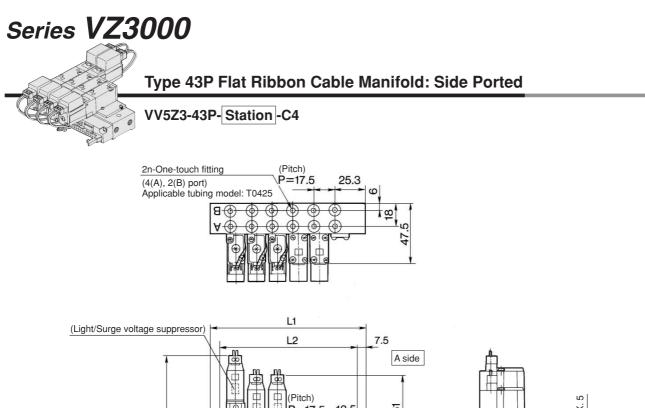
| 5 | | | | | | | | | | | (mm) |
|----------------------------|----------------|----|------|-----|-------|-----|-------|-----|-------|-----|-------|
| Built-in speed controllers | Stations | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | 77 | 94.5 | 112 | 129.5 | 147 | 164.5 | 182 | 199.5 | 217 | 234.5 |
| MAX.11 47.5 | L ₂ | 62 | 79.5 | 97 | 114.5 | 132 | 149.5 | 167 | 184.5 | 202 | 219.5 |
| | | | | | | | | | | | |

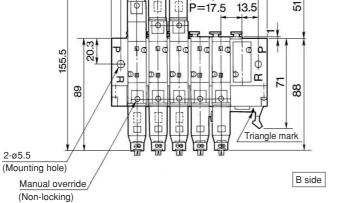
Applicable connector: 26 pins MIL (Conforming to MIL-C-83503)

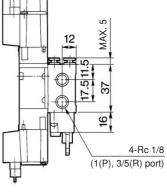
28.5 0

24





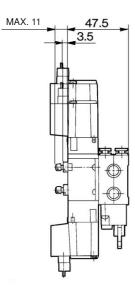


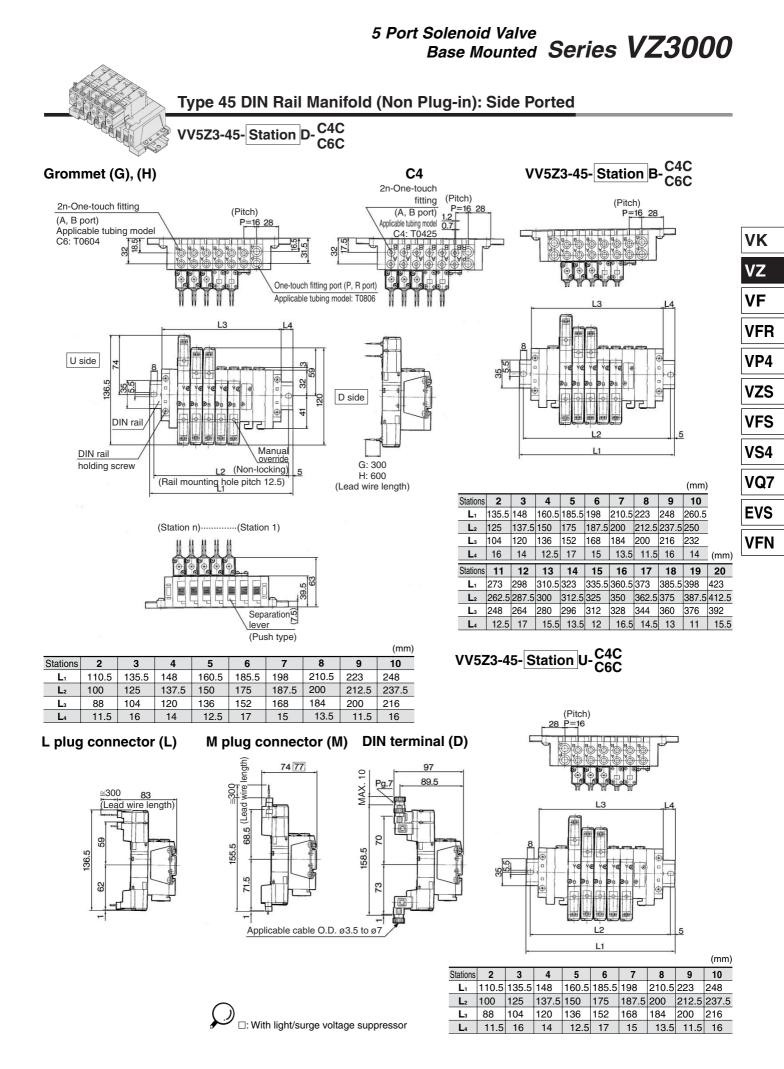


(mm)

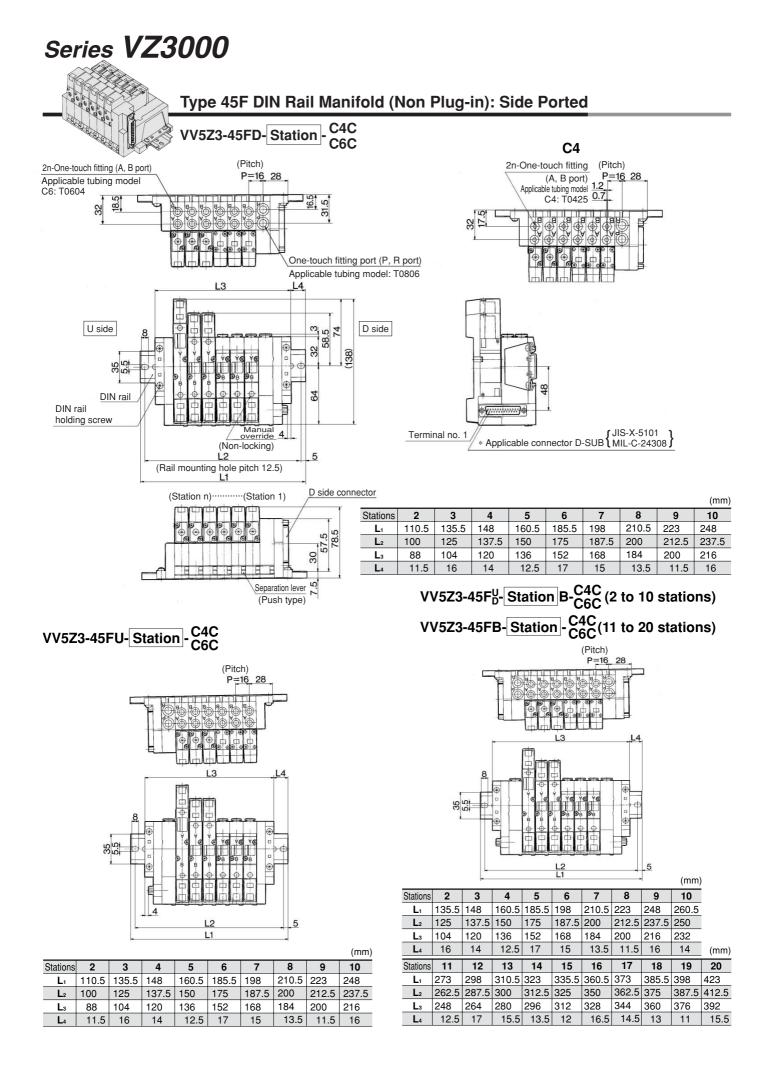
Built-in speed controllers

| | | | | | | | | | | (1111) |
|----------------|----|------|-----|-------|-----|-------|-----|-------|-----|--------|
| Stations | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| L1 | 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 |





SMC



SMC