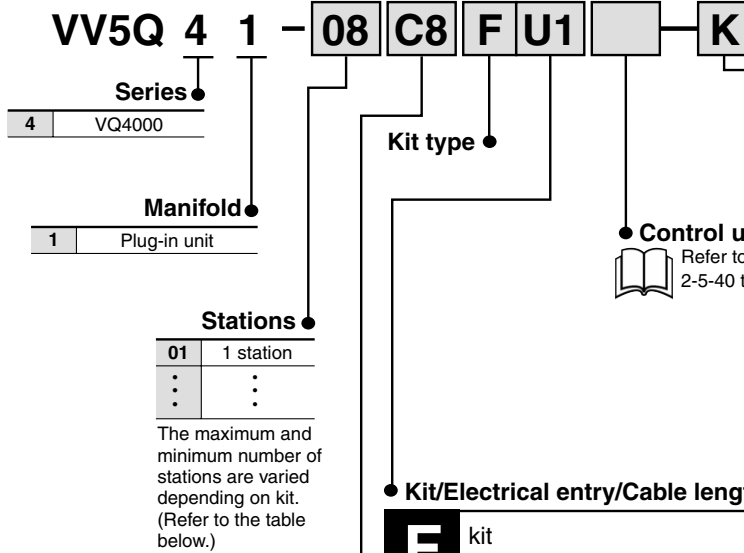
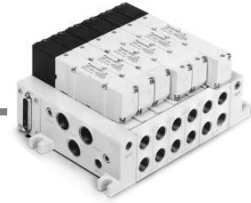


Series VQ4000

Base Mounted Plug-in Unit

How to Order Manifold



Option

Symbol	Option
Nil	None
CD ⁽²⁾	Exhaust cleaner: For D side mounting
CU ⁽²⁾	Exhaust cleaner: For U side mounting
K ⁽³⁾	Special wiring specifications (Except double wiring)
N	Name plate (T kit only)
SB	Direct exhaust with silencer box: Exhaust from both sides (F/L kits only)
SD ⁽²⁾	Direct exhaust with silencer box: D side exhaust
SU ⁽²⁾	Direct exhaust with silencer box: U side exhaust
W	Enclosure IP65 (Except F kit)

Note 1) When two or more symbols are specified, indicate them alphabetically.
Example) -CDK
Note 2) Combination of [C^U] and [S^U] is not possible.
Note 3) Specify the wiring specifications on the manifold specification sheet. (Except L kit)

Cylinder port

C8	With One-touch fitting for ø8
C10	With One-touch fitting for ø10
C12	With One-touch fitting for ø12
02	Rc 1/4
03	Rc 3/8
B	Bottom ported Rc 1/4
CM	Mixed

F kit (D-sub connector)

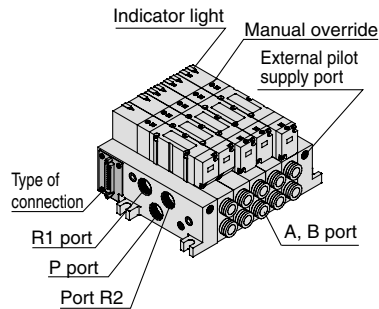
Connector entry direction	
D side	U side
Kit D0	Kit U0
F D1	F U1
F D2	F U2
F D3	F U3

1 to 18 stations

T kit (Terminal block box kit)

Terminal block mounting position	
D side	U side
TD	TO

IP65 compatible
3 to 18 stations



L kit (Lead wire cable)

Electrical entry	
D side	U side
Kit L D0	Kit U0
L D1	L U1
L D2	L U2

IP65 compatible
1 to 16 stations

S kit (Serial transmission unit)

The valve is equipped with a lamp/surge suppressor, and the voltage is 24 VDC.

Unit mounting position	
D side	U side
0	Without SI unit
A	With general type SI unit (Series EX300)
B	Mitsubishi Electric Corp.: MELSECNET/MINI-S3 Data Link System
BB	Mitsubishi Electric Corp.: MELSECNET/MINI-S3 Data Link System (2 power supply systems)
C	OMRON Corp.: SYSBUS Wire System
D	SHARP Corp.: Satellite I/O Link System
F1	NKE Corp.: Uni-wire System (16 output points)
J1	SUNX Corp.: S-LINK System (16 output points)
J2	SUNX Corp.: S-LINK System (8 output points)
K	Fuji Electric Co.: T-LINK Mini System
Q	DeviceNet, CompoBus/D (OMRON Corp.)
R1	OMRON Corp.: CompoBus/S System (16 output points)
R2	OMRON Corp.: CompoBus/S System (8 output points)
U	JEMANET (JPCN-1)
V	Mitsubishi Electric Corp.: CC-LINK System
G	Rockwell Automation: Allen Bradley Remote I/O (RIO) System
H	NKE Corp.: Uni-wire H System

IP65 compatible
* Applicable to INPUT and OUTPUT type.

3 to 18 stations

Note) Shown VV5Q41-05C12FD0

Simple specials are available with SMC Simple Special System. For details about applicable models, please contact SMC.

Manifold Specifications

Series	Base model	Type of connection	Porting specifications			Maximum applicable stations	Applicable solenoid valve	5 station weight (kg)
			4(A), 2(B) port location	Port size <small>Note)</small>				
				1(P), 5(R1), 3(R2)	4(A), 2(B)			
VQ4000	VV5Q41-□□□	<ul style="list-style-type: none"> ■ F kit-D-sub connector ■ T kit-Terminal block box ■ L kit-Lead wire ■ S kit-Serial transmission 	Side	Rc 1/2 Option (Direct exhaust with silencer box)	C8 (For ø8) C10 (For ø10) C12 (For ø12)	F, T kit 12 stations L kit 16 stations S kit 10 stations	VQ4□00 VQ4□01	2.24 • L kit • Except solenoid valve weight
			Bottom		Rc 1/4			



Note) For details about inch-size One-touch fittings and other thread standards, refer to page 2-5-39.

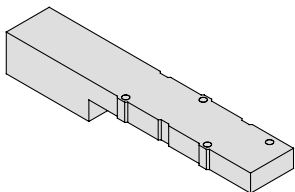
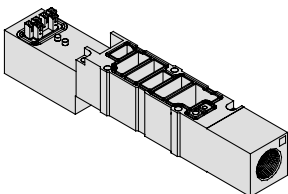
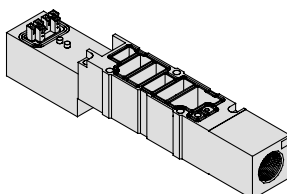
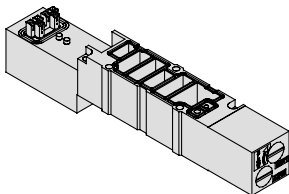
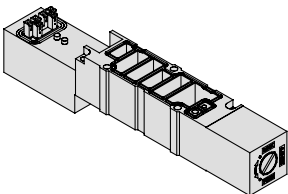
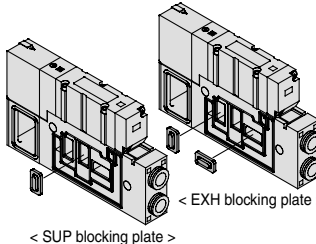
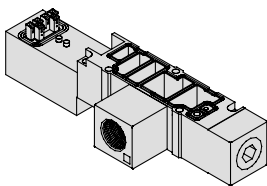
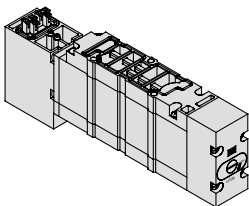
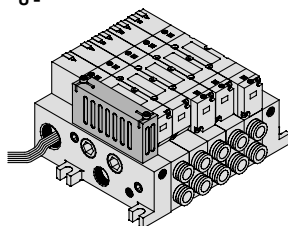
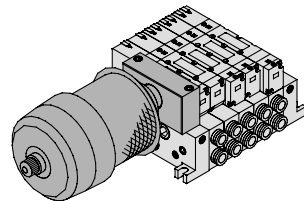
Flow Characteristics at the Number of Manifold Stations (Operated individually)

Model	Passage/Stations	Station 1	Station 5	Station 10	Station 15	
2 position metal seal VQ4 ₂ 00	1 → 4/2 (P → A/B)	C [dm ³ /(s·bar)]	5.9	5.9	5.9	5.9
		b	0.23	0.23	0.23	0.23
		Cv	1.5	1.5	1.5	1.5
	4/2 → 5/3 (A/B → EA/EB)	C [dm ³ /(s·bar)]	6.2	6.2	6.2	6.2
		b	0.19	0.19	0.19	0.19
		Cv	1.5	1.5	1.5	1.5
2 position rubber seal VQ4 ₂ 01	1 → 4/2 (P → A/B)	C [dm ³ /(s·bar)]	6.8	6.8	6.8	6.8
		b	0.31	0.31	0.31	0.31
		Cv	1.8	1.8	1.8	1.8
	4/2 → 5/3 (A/B → EA/EB)	C [dm ³ /(s·bar)]	7.0	7.0	7.0	7.0
		b	0.38	0.38	0.38	0.38
		Cv	1.9	1.9	1.9	1.9



Note) Port size: Rc 3/8

Manifold Option

<p>Blanking plate assembly VVQ4000-10A-1</p> 	<p>Individual SUP spacer VVQ4000-P-1-₀₂/₀₃</p> 	<p>Individual EXH spacer VVQ4000-R-1-₀₂/₀₃</p> 	<ul style="list-style-type: none"> • Refer to pages 2-5-34 to 2-5-38 for detailed dimensions of each option. For replacement parts, refer to page 2-5-47. • Refer to pages 2-5-40 to 2-5-43 for control unit.
<p>Throttle valve spacer VVQ4000-20A-1</p> 	<p>SUP stop valve spacer VVQ4000-37A-1</p> 	<p>SUP/EXH block plate VVQ4000-16A</p>  <p>< SUP blocking plate > < EXH blocking plate ></p>	
<p>Release valve spacer VVQ4000-24A-1D ^(1, 2)</p> 	<p>Double check spacer with residual pressure exhaust VVQ4000-25A-1 ⁽¹⁾</p> 	<p>Direct exhaust with silencer box [-S_D[□]]⁽¹⁾</p> 	<p>For exhaust cleaner mounting [-C_D[□]]⁽¹⁾</p> 



Note 1) Release valve spacer, built-in silencer (direct exhaust), exhaust cleaner mounting and double check spacer for residual pressure exhaust cannot be combined with external pilot.

Note 2) Can be mounted on L kit only. For other kits, order E type control unit.

(Refer to pages 2-5-40 to 2-5-43.)



VQC

SQ

VQ0

VQ4

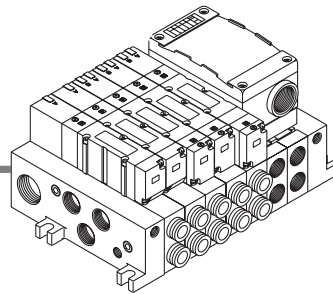
VQ5

VQZ

VQD

T Kit (Terminal block box kit)

IP65 compliant



- Enclosure IP65 compliant
- This type has a small terminal block inside a junction box.
The provision of a G 3/4 electrical entry allows connection of conduit fittings.
- Maximum stations are 18.
- 2 stations are used for terminal box mounting.

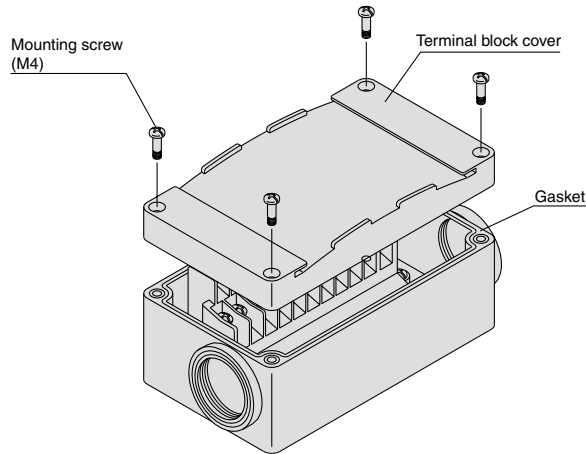
Manifold Specifications

Series	Porting specifications			Applicable stations
	4(A), 2(B) port location	Port size		
VQ4000		Side	Rc 1/2	C 8, 10, 12 Rc 1/4, 3/8
	Bottom	Rc 1/4		

Terminal Block Connections

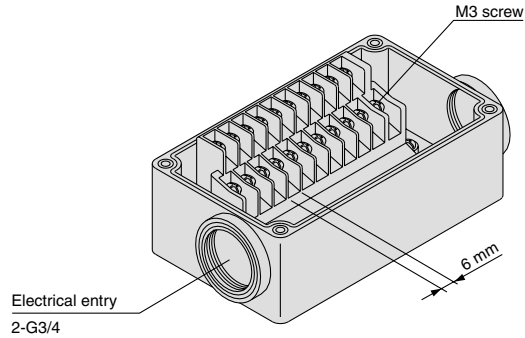
Step 1. How to remove terminal block cover

Loosen the 4 mounting screws (M4) and open the terminal block cover.



Step 2. The diagram on the right shows the terminal block wiring. All stations are provided with double wiring regardless of the valves which are mounted.

Connect each wire to the power supply side, according to the markings provided inside the terminal block.



Step 3. How to attach the terminal block cover

Securely tighten the screws with the torque shown in the table below, after confirming that the gasket is installed correctly.

Proper tightening torque (N·m)	
0.7 to 1.2	

- Applicable terminal 1.25-3S, 1.25Y-3, 1.25Y-3N, 1.25Y-3.5

How to Order Manifold

VV5Q 4 1 - 08 C8 T 0 - []

Series

4	VQ4000
---	--------

Manifold

1	Plug-in unit
---	--------------

Stations

03	3 stations
⋮	⋮
18	18 stations

Note) Add 2 stations for terminal block box mounting.

Cylinder port

C8	With One-touch fitting for ø8
C10	With One-touch fitting for ø10
C12	With One-touch fitting for ø12
02	Rc 1/4
03	Rc 3/8
B	Bottom ported Rc 1/4
CM	Mixed

Note) As an option, the maximum number of stations can be increased by special wiring specifications. For details, refer to page 2-5-15.

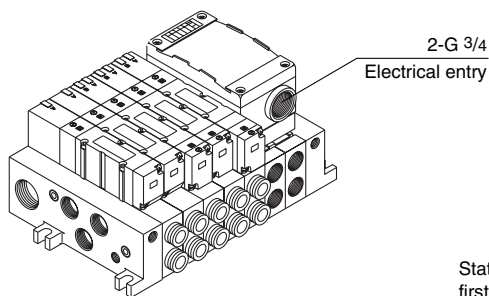
Stations

O	U side mounting
D	D side mounting

Option

Symbol	Option
Nil	None
CD ⁽²⁾	Exhaust cleaner: For D side mounting
CU ⁽²⁾	Exhaust cleaner: For U side mounting
K ⁽³⁾	Special wiring specifications (Except double wiring)
N ⁽⁴⁾	Name plate
SD ⁽²⁾	Direct exhaust with silencer box: D side exhaust
SU ⁽²⁾	Direct exhaust with silencer box: U side exhaust
W	IP65 enclosure

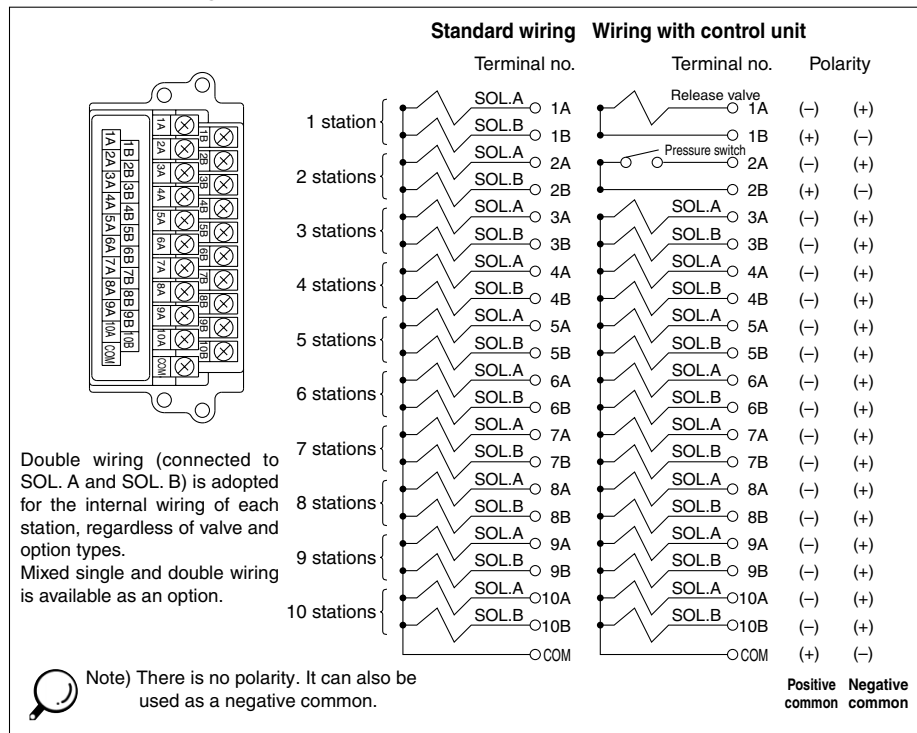
- Note 1) When two or more symbols are specified, indicate them alphabetically.
Example) -CDK
- Note 2) Combination of [CD] and [SD] is not possible.
- Note 3) Specify the wiring specifications on the manifold specification sheet.
- Note 4) Name plate is inlaid in the terminal block cover.
- Note 5) Refer to pages 2-5-40 to 2-5-43 for with control unit.



2-G 3/4
Electrical entry

Stations are counted starting from the first station on the D side.

● Electrical wiring specifications



Special Wiring Specifications

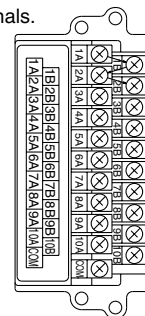
Double wiring (connected to SOL. A and SOL. B) is used for the internal wiring of each station regardless of valve and option types. The optional specification permits mixture of single and double wiring. However, the maximum number of stations is 16.

1. How to Order

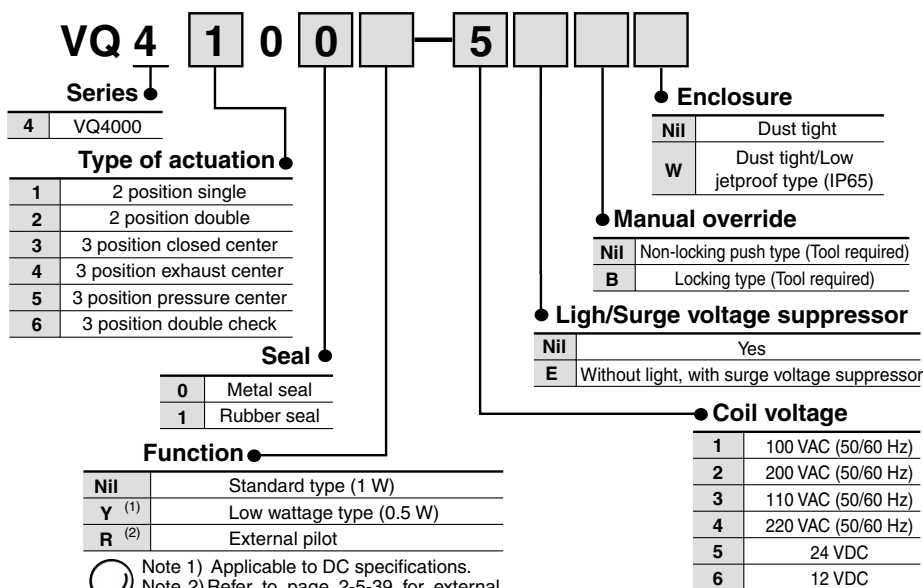
Indicate option symbol "K" in the manifold part number and be sure to specify station positions for single or double wiring on the manifold specification sheet.

2. Wiring specifications

Connections begin with the A side solenoid of the first station being connected to terminal no. 1, and continue in the order indicated by the arrows in the drawing without skipping any terminals.



How to Order Valves



How to Order Manifold Assembly

Specify the part numbers for valves and options together beneath the manifold base part number.

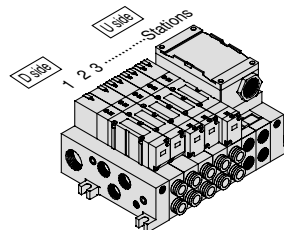
<Example>

Terminal block box kit

- VV5Q41-07C8T0.....1 set —Manifold base part no.
- *VQ4100-5.....2 sets —Valve part no. (Stations 1 and 2)
- *VQ4200-5.....2 sets —Valve part no. (Stations 3 and 4)
- *VQ4300-5.....1 set —Valve part no. (Station 5)

Prefix the asterisk to the part nos. of the solenoid valve, etc.

Enter in order starting from the first station on the D side. When entry of part numbers becomes complicated, indicate in the manifold specification sheet.



VQC

SQ

VQ0

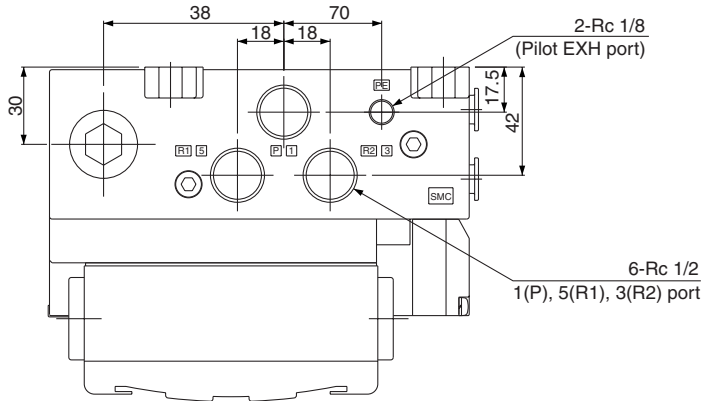
VQ4

VQ5

VQZ

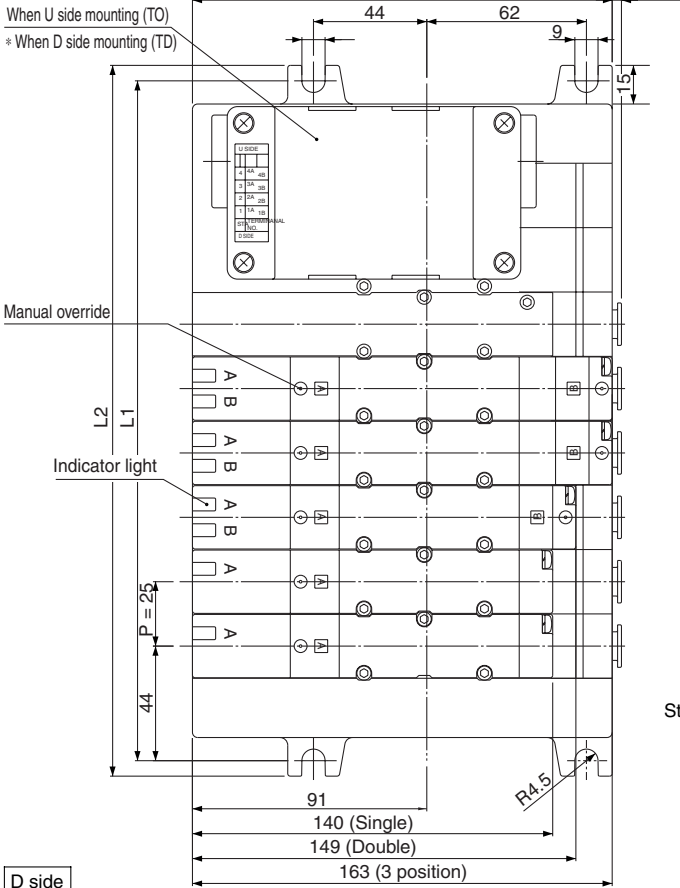
VQD

T Kit (Terminal block box kit)

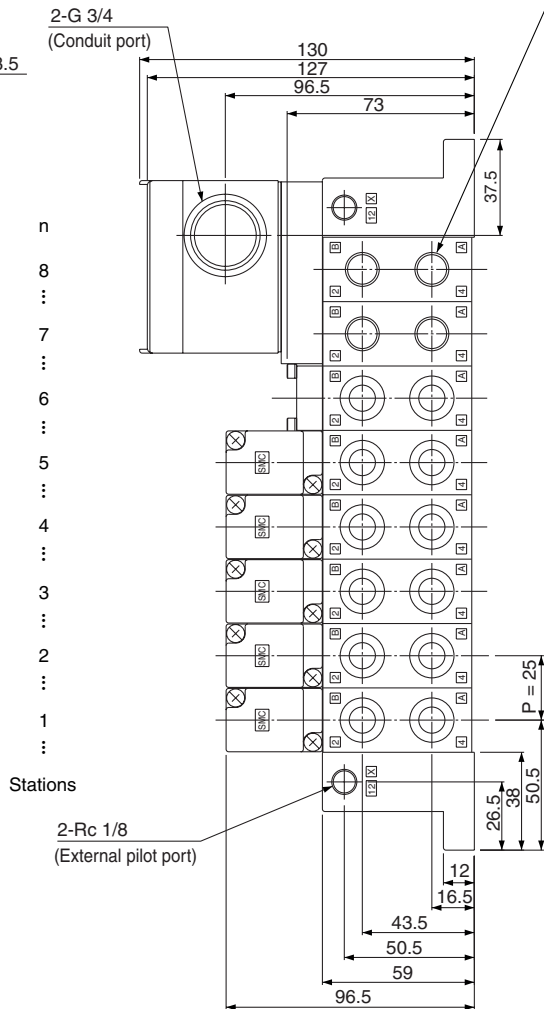


- 2n-Rc 1/4, 3/8, C8, C10, C12 4(A), 2(B) port
- Rc 1/4: Rc 1/4 thread
- Rc 3/8: Rc 3/8 thread
- C8: One-touch fitting for $\phi 8$
- C10: One-touch fitting for $\phi 10$
- C12: One-touch fitting for $\phi 12$

U side

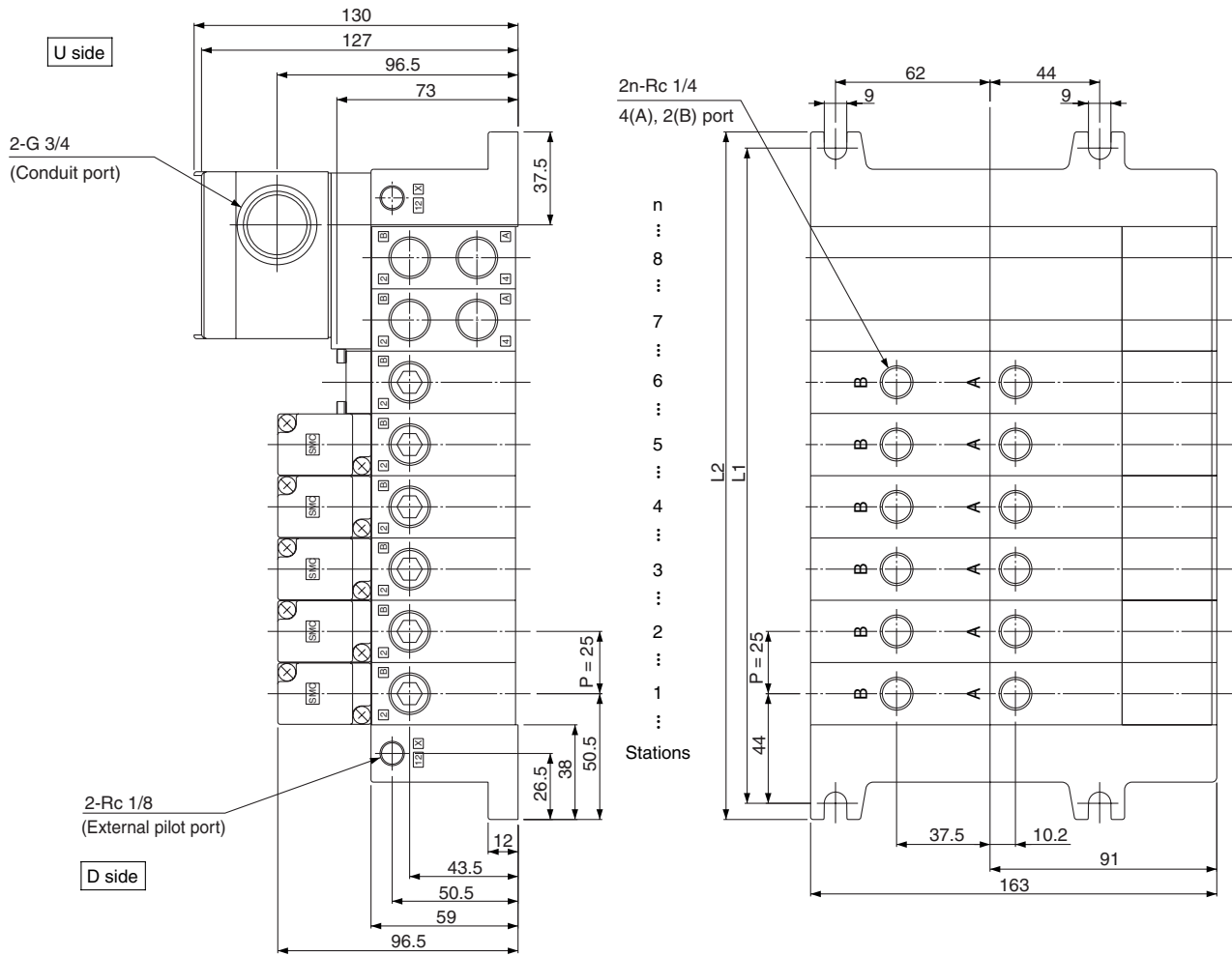


D side



Note) Shown VV5Q41-08C12TO-W

Bottom ported drawing



- VQC
- SQ
- VQ0
- VQ4
- VQ5
- VQZ
- VQD

Formula $L1 = 25n + 63$, $L2 = 25n + 76$

n: Station (Maximum standard 18 stations)

* Including 2 stations for terminal box.

Dimensions

L	n	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
L1		138	163	188	213	238	263	288	313	338	363	388	413	438	463	488	513
L2		151	176	201	226	251	276	301	326	351	376	401	426	451	476	501	526