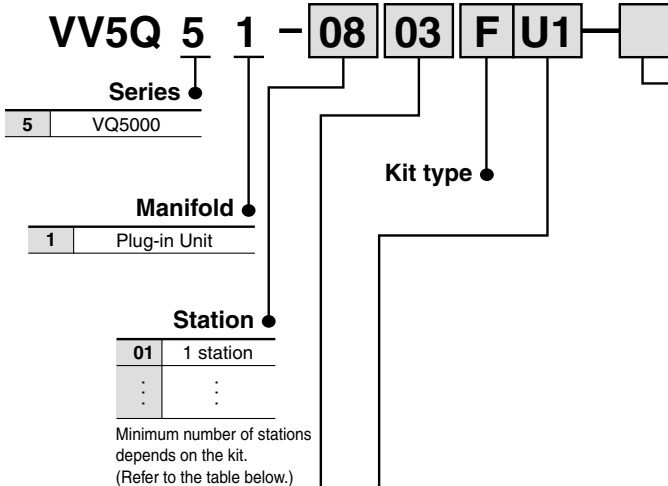


# Series VQ5000

# Base Mounted Plug-in Unit



## How to Order Manifold



### Option

Symbol	Option
Nil	None
CD1 <sup>(2)</sup>	Exhaust cleaner for Rc 1: D side exhaust
CD2 <sup>(2)</sup>	Exhaust cleaner for Rc 1 1/2: D side exhaust
CU1 <sup>(2)</sup>	Exhaust cleaner for Rc 1: U side exhaust
CU2 <sup>(2)</sup>	Exhaust cleaner for Rc 1 1/2: U side exhaust
K <sup>(4)</sup>	Special wiring specifications (Except double wiring)
N	Name plate (T kit only)
SB <sup>(3)</sup>	Direct exhaust with silencer box: Exhaust from both D and U sides
SD <sup>(2)</sup>	Direct exhaust with silencer box: D side exhaust
SU <sup>(2)</sup>	Direct exhaust with silencer box: U side exhaust
W	IP65 enclosure (except F and T1 kits)

Note 1) When two or more symbols are specified, indicate them alphabetically.  
Example) -CD1K

Note 2) Combination of [C□□] and [S□] is not possible.

Note 3) Available only with F, L and T1 kits.

Note 4) Specify the wiring specifications on the manifold specification sheet. (Except L kit)

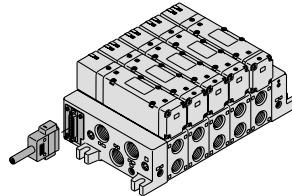
### Kit/Electrical entry/Cable length

**Cylinder port**

03	Rc 3/8
04	Rc 1/2
B	Bottom ported Rc 1/2
CM	Mixed <sup>Note)</sup>

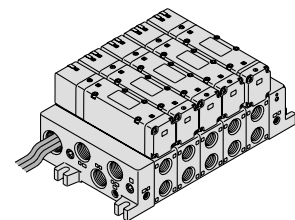
Note) In case of mixed specification, indicate on the manifold specification sheet.

**F** kit  
(D-sub connector)



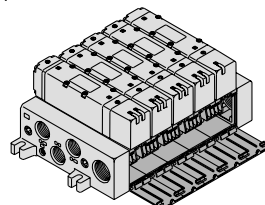
Connector entry direction				1 to 12 stations
D side	U side			
Kit D0	U0	Without cable		
Kit D1	U1	Cable length 1.5 m		
Kit D2	U2	Cable length 3 m		
Kit D3	U3	Cable length 5 m		

**L** kit  
(Lead wire cable)



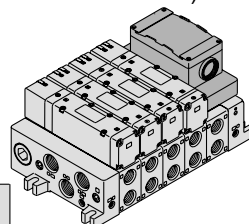
Electrical entry				1 to 12 stations
D side	U side			
Kit D0	U0	Cable length 0.6 m	IP65 compatible	
Kit D1	U1	Cable length 1.5 m		
Kit D2	U2	Cable length 3 m		

**T1** kit  
(Individual terminal block kit)



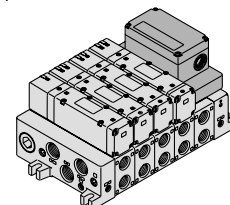
Kit T1	With terminal blocks	1 to 12 stations
--------	----------------------	------------------

**T** kit  
(Terminal block box kit)



Box mounting position		IP65 compatible
D side	U side	
TD	TU	Terminal block box 2 to 12 stations

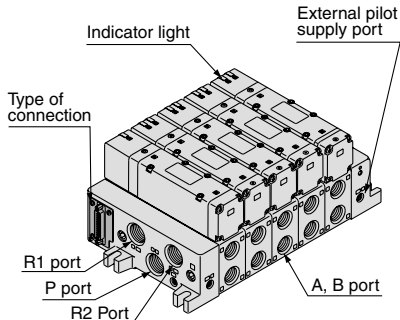
**S** kit  
(Serial transmission unit)



The valve voltage is 24 VDC and it is equipped with light/surge voltage suppressor.  
IP65 compatible

Unit mounting position		
D side	U side	
	O	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

2 to 12 stations



Note) The drawing shows a VV5Q51-0504FDO.

## 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 <sup>Note)</sup>				
				1(P), 5(R1), 3(R2)	4(A), 2(B)			
VQ5000	VV5Q51-□□□	<ul style="list-style-type: none"> <li>■ F kit—D-sub connector</li> <li>■ T kit—Terminal block box</li> <li>■ T1 kit—Individual terminal block kit</li> <li>■ L kit—Lead wire</li> <li>■ S kit—Serial transmission</li> </ul>	Side  Bottom	Rc 3/4 Option { Direct exhaust with silencer box }	Rc 3/8 Rc 1/2  Rc 1/2	F, L, T1 kits 12 stations  T kit 11 stations  S kit 9 stations	VQ5L00 VQ5L01	4.1  • L kit • Not including solenoid valve weight.

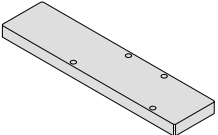
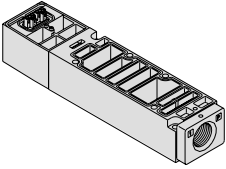
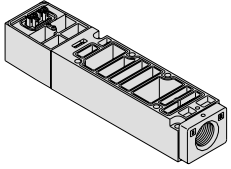
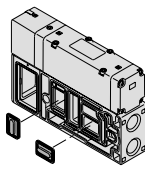
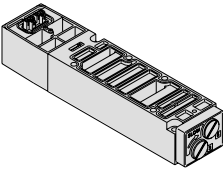
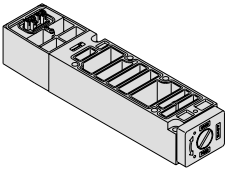
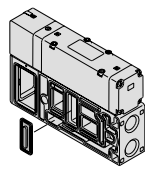
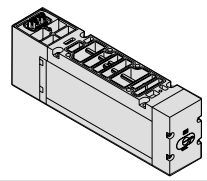
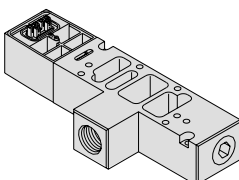
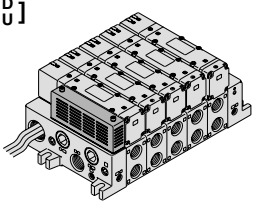
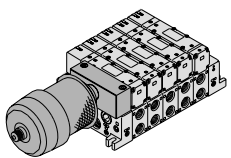
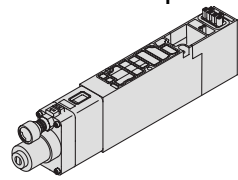
Note) For details about international standard threads other than Rc threads, refer to "Option" on page 2-6-39.


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

Model	Passage/Stations		Station 1	Station 5	Station 10
2 position metal seal VQ5 <sub>2</sub> 00	1 → 4/2 (P → A/B)	C [dm <sup>3</sup> /(s·bar)]	11	11	11
		b	0.24	0.24	0.24
		Cv	2.7	2.7	2.7
	4/2 → 5/3 (A/B → EA/EB)	C [dm <sup>3</sup> /(s·bar)]	12	12	12
		b	0.14	0.14	0.14
		Cv	2.9	2.9	2.9
2 position rubber seal VQ5 <sub>2</sub> 01	1 → 4/2 (P → A/B)	C [dm <sup>3</sup> /(s·bar)]	12	12	12
		b	0.33	0.33	0.33
		Cv	3.4	3.4	3.4
	4/2 → 5/3 (A/B → EA/EB)	C [dm <sup>3</sup> /(s·bar)]	16	16	16
		b	0.33	0.33	0.33
		Cv	4.4	4.4	4.4

Note) For port size Rc 1/2

## Manifold Option

<b>Blanking plate assembly</b> <b>VVQ5000-10A-1</b> 	<b>Individual SUP spacer</b> <b>VVQ5000-P-1-<sup>03</sup>/<sub>04</sub></b> 	<b>Individual EXH spacer</b> <b>VVQ5000-R-1-<sup>03</sup>/<sub>04</sub></b> 	<b>EXH block plate</b> <b>VVQ5000-16A-2</b> 
<b>Throttle valve spacer</b> <b>VVQ5000-20A-1</b> 	<b>SUP stop valve spacer</b> <b>VVQ5000-37A-1</b> 	<b>SUP block plate</b> <b>VVQ5000-16A-1</b> 	<b>Double check spacer with residual pressure release valve</b> <b>VVQ5000-25A-1</b> 
<b>Release valve spacer</b> <b>VVQ5000-24A-1D</b> 	<b>Direct exhaust with silencer box</b> <b>[-S<sub>U</sub><sup>D</sup>]</b> 	<b>For exhaust cleaner mounting</b> <b>[-C<sub>U</sub><sup>D</sup>]</b> 	<b>Interface regulator</b> <b>ARBQ5000-00-<sup>A</sup>/<sub>B</sub>-1</b> 


 • Refer to pages 2-6-34 to 2-6-38 for detailed dimensions of each option.  
 • For replacement parts, refer to page 2-6-43.

VQC

SQ

VQ0

VQ4

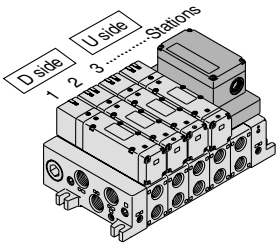
VQ5

VQZ

VQD

# S Kit (Serial transmission unit)

- The serial transmission system reduces wiring work, while minimizing wiring and saving space.
- The system is available in types such as the type SA for equipment with a maximum of 32 input/output points (a general purpose type for small scale systems), the type SB capable of controlling up to 512 points of input/output (Mitsubishi Electric compatible), the type SC (OMRON compatible), the type SD (SHARP compatible, 504 points max.), the type SF (NKE compatible, 128 points max.), the type SJ (SUNX compatible), the type SK (Fuji Electric compatible), the type SQ (OMRON Compo Bus/D compatible), and the type SR (OMRON Compo Bus/S compatible).
- Maximum 9 stations (12 stations available as an option. Indicate 10 to 12 stations on the manifold specification sheet.)
- One station is used for serial unit mounting.



- Stations are counted from station 1 on the D side.
- Double wiring (connected to SOL. A and SOL. B) is adopted for the internal wiring of each station, regardless of valve and option types. Mixed single and double wiring is available as an option.

Item	Specifications
External power supply	24 VDC +10%, -5%
Current consumption (Internal unit)	SA, SB, SBB, SD, SF, SJ, SK, SQ, SR, SV: 0.1A SC: 0.3A

## Manifold Specifications

Series	Porting specifications		Applicable stations
	4(A), 2(B) port location	Port size	
VQ5000		Side	Rc 3/4
	Bottom	Rc 1/2	

Name of terminal block (LED)	Type SA With general type SI unit (Series EX300)	Type SB Mitsubishi Electric Corporation MELSECNET/MINI-S3 Data Link System																		
		<table border="1"> <thead> <tr> <th>LED</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>TRD</td> <td>Lighting during data reception</td> </tr> <tr> <td>RUN/ERR</td> <td>Blinking when received data is normal; Lighting when data reception</td> </tr> </tbody> </table>	LED	Description	TRD	Lighting during data reception	RUN/ERR	Blinking when received data is normal; Lighting when data reception	<table border="1"> <thead> <tr> <th>LED</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>POWER</td> <td>Lighting when power is turned ON</td> </tr> <tr> <td>RUN</td> <td>Lighting when data transmission with the master station is normal</td> </tr> <tr> <td>RD</td> <td>Lighting during data reception</td> </tr> <tr> <td>SD</td> <td>Lighting during data transmission</td> </tr> <tr> <td>ERR.</td> <td>Lighting when reception data error occurs. Light turns off when the error is corrected.</td> </tr> </tbody> </table>	LED	Description	POWER	Lighting when power is turned ON	RUN	Lighting when data transmission with the master station is normal	RD	Lighting during data reception	SD	Lighting during data transmission	ERR.
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RUN	Lighting when data transmission with the master station is normal																			
RD	Lighting during data reception																			
SD	Lighting during data transmission																			
ERR.	Lighting when reception data error occurs. Light turns off when the error is corrected.																			
Note	<ul style="list-style-type: none"> <li>● T unit Can be connected with PLC I/O card for serial transmission. EX300-TMB1..... For models of Mitsubishi Electric Corporation EX300-TTA1..... For OMRON EX300-TFU1..... For Fuji Electric EX300-T001..... General purpose</li> <li>* T units have 32 control points per unit</li> <li>● No. of output points, 16 points</li> </ul>	<ul style="list-style-type: none"> <li>● Master station PLC made by Mitsubishi Electric Corporation Series MELSEC-A AJ71PT32-S3, AJ71T32-S3 A1SJ71PT32-S3</li> <li>* Max. 64 stations, connected to remote I/O stations (Max. 512 points).</li> <li>● No. of output points, 16 points. No. of stations occupied, 2 stations</li> </ul>																		

\* For details on specifications and handling, refer to the separate technical instruction manual.

## How to Order Manifold

VV5Q 5 1 - 08 03 S U Q

Series  
5 VQ5000

Manifold  
1 Plug-in unit

Stations  
02 2 stations  
: :  
12 12 stations

Note) Add 1 station for serial unit mounting.

Cylinder port  
03 Rc 3/8  
04 Rc 1/2  
B Bottom ported Rc 1/2  
CM Mixed

● Model

O	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

● SI unit mounting position  
D D side mounting  
U U side mounting

● Option

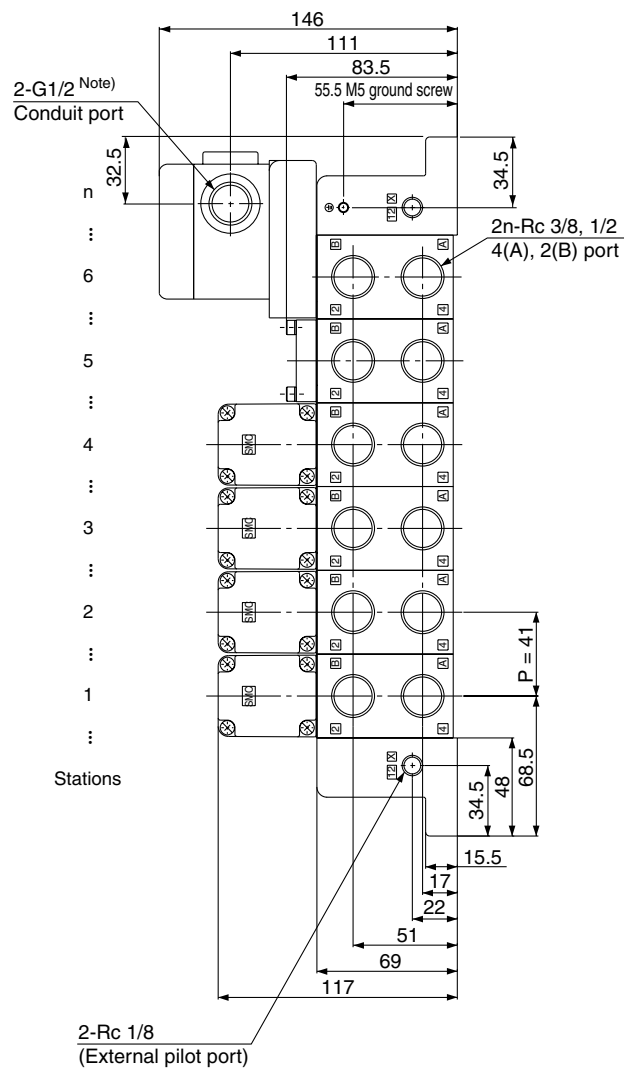
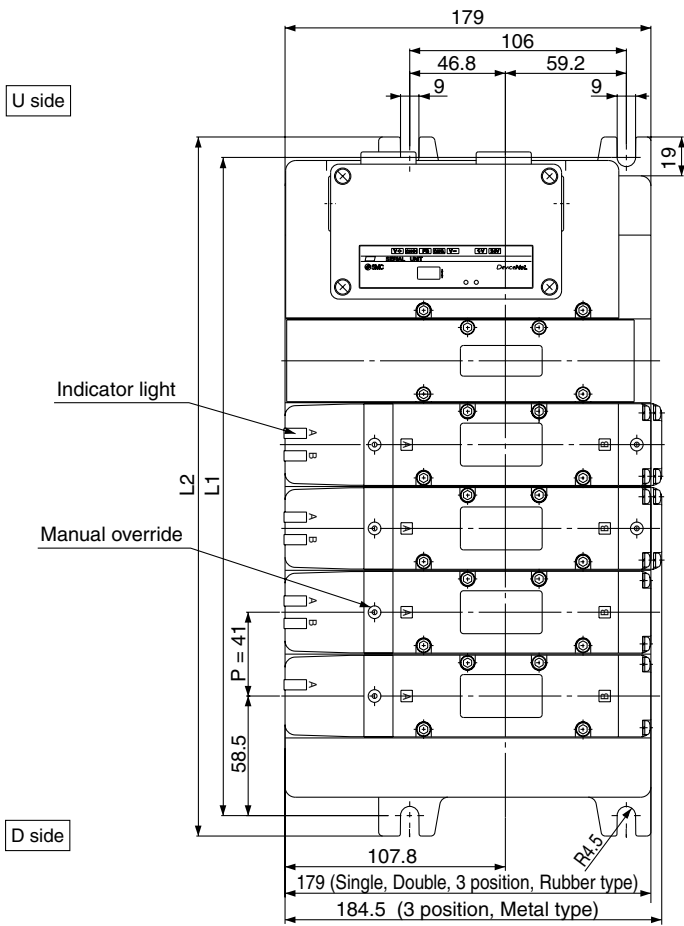
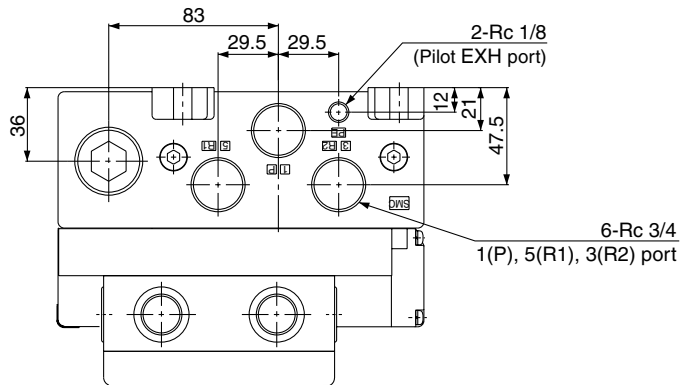
Symbol	Option
Nil	None
CD1 (2)	Exhaust cleaner for Rc 1: D side exhaust
CD2 (2)	Exhaust cleaner for Rc 11/2: D side exhaust
CU1 (2)	Exhaust cleaner for Rc 1: U side exhaust
CU2 (2)	Exhaust cleaner for Rc 11/2: U side exhaust
K (3)	Special wiring specifications (Except double wiring)
SD (2)	Direct exhaust 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) -CD1K.  
Note 2) Combination of [C□□] and [S□] is not possible.  
Note 3) Specify the wiring specifications on the manifold specification sheet.



**S**

**Kit (Serial transmission unit)**



Note) In the case of two power supply systems (separate SI unit and solenoid drive power supplies), there are conduit ports (G 1/2) in four locations. Other models have conduit ports in two locations.