

VQ1000

Base Mounted

Plug-in Unit

How to Order Manifold

VV5Q 1 1-08 C6 F U1

Series
1 VQ1000

Manifold
1 Plug-in unit

Stations
01 1 station

Cylinder ports

Symbol	Port size	Symbol	Port size
C3	One-touch fitting for ø3.2	L6	Elbow One-touch fitting ø6 for top piping
C4	One-touch fitting for ø4	L5	Elbow M5 thread for top piping
C6	One-touch fitting for ø6	B3	Elbow One-touch fitting ø3.2 for bottom piping
M5	M5 thread	B4	Elbow One-touch fitting ø4 for bottom piping
CM	Mixed size/with port plug (1)	B6	Elbow One-touch fitting ø6 for bottom piping
L3	Elbow One-touch fitting ø3.2 for top piping	B5	Elbow M5 thread for bottom piping
L4	Elbow One-touch fitting ø4 for top piping	LM	Mixed size for elbow piping

Option

Symbol	Option
—	None
B	Check valve for prevention of back pressure ⁽²⁾
D	DIN rail mounting
G1	1 set of regulator unit ⁽³⁾
G2	2 sets of regulator unit ⁽³⁾
G3	3 sets of regulator unit ⁽³⁾
J□	With vacuum ejector unit ⁽⁴⁾
K	Special wiring specification (Not double wiring) ⁽⁵⁾
N	With name plate
R	External pilot ⁽⁶⁾
S	Built-in silencer (Direct exhaust)

The min. and max. number of stations differs from kit to kit. (Refer to the table below)

Note 1) Specify "Mixed size/with port plug" by means of manifold specification form.
 Note 2) Refer to "Options" on p.1.10-161 for One-touch fittings in inch sizes.
 Note 3) M5 fittings for M5 thread are attached without being incorporated.

Note 1) If specifying more than one option, please list alphabetically. Example) -BRS
 Note 2) Models with a suffix "-B" have check valves for prevention of back pressure at all manifold stations. If not all stations need this check valve, specify the stations where check valves are installed by using a manifold specification form.
 Note 3) Specify the mounting position by means of the manifold specification form.
 Note 4) Refer to p.1.10-152 for the details of ejector mounted styles. A combination of "J" and "N" is unavailable.
 Note 5) Specify the wiring by means of the manifold specification form. (Except for L kit)
 Note 6) Indicate "R" for the valve with external pilot.

Kit/Electrical entry/Cable length

F Kit (D-sub connector)		P Kit (Flat cable connector)		G Kit (Flat cable connector with power supply terminal block)																															
<p>Compatible only with 24VDC valves.</p>		<p>Compatible only with 24VDC valves.</p>		<p>Compatible only with 24VDC valves.</p>																															
<p>Connector location</p> <table border="1"> <tr> <th>Top (vertical)</th> <th>Side (horizontal)</th> </tr> <tr> <td>U0</td> <td>S0</td> </tr> <tr> <td>U1</td> <td>S1</td> </tr> <tr> <td>U2</td> <td>S2</td> </tr> <tr> <td>U3</td> <td>S3</td> </tr> </table>		Top (vertical)	Side (horizontal)	U0	S0	U1	S1	U2	S2	U3	S3	<p>Connector location</p> <table border="1"> <tr> <th>Top (vertical)</th> <th>Side (horizontal)</th> </tr> <tr> <td>U0</td> <td>S0</td> </tr> <tr> <td>U1</td> <td>S1</td> </tr> <tr> <td>U2</td> <td>S2</td> </tr> <tr> <td>U3</td> <td>S3</td> </tr> </table>		Top (vertical)	Side (horizontal)	U0	S0	U1	S1	U2	S2	U3	S3	<p>Connector location</p> <table border="1"> <tr> <th>Top (vertical)</th> <th>Side (horizontal)</th> </tr> <tr> <td>0</td> <td>S0</td> </tr> <tr> <td>1</td> <td>S1</td> </tr> <tr> <td>2</td> <td>S2</td> </tr> <tr> <td>3</td> <td>S3</td> </tr> </table>		Top (vertical)	Side (horizontal)	0	S0	1	S1	2	S2	3	S3
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<p>2 to 24 stations⁽²⁾</p>		<p>2 to 24 stations⁽²⁾</p>		<p>2 to 16 stations⁽²⁾</p>																															

T Kit (Terminal box)		L Kit (Lead wire cable)		S Kit (Serial transmission unit)																																																			
<p>The valve is equipped with an indicator light and surge voltage suppressor, and the voltage is 24V DC. The dust proof SI unit is also available. Refer to p.1.10-144 for details.</p>		<p>The valve is equipped with an indicator light and surge voltage suppressor, and the voltage is 24V DC. The dust proof SI unit is also available. Refer to p.1.10-144 for details.</p>		<p>The valve is equipped with an indicator light and surge voltage suppressor, and the voltage is 24V DC. The dust proof SI unit is also available. Refer to p.1.10-144 for details.</p>																																																			
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<p>With cable (3m)</p>		<p>With cable (3m)</p>		<p>SI unit for MELSECNET/MINI-S3 Data Link System (Mitsubishi Electric)</p>																																																			
<p>With cable (5m)</p>		<p>With cable (5m)</p>		<p>SI unit for SYSBUS Wire System (OMRON)</p>																																																			
<p>1 to 8 stations</p>		<p>1 to 8 stations</p>		<p>SI unit for Satellite I/O Link System (Sharp)</p>																																																			
<p>2 to 24 stations⁽²⁾</p>		<p>1 to 8 stations</p>		<p>SI unit for MEWNET-F System (Matsushita Electric Works Ltd.)</p>																																																			
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<p>2 to 24 stations⁽²⁾</p>		<p>1 to 8 stations</p>		<p>SI unit for Remote I/O (RIO) System (Allen-Bradley Co.)</p>																																																			
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<p>2 to 24 stations⁽²⁾</p>		<p>1 to 8 stations</p>		<p>SI unit for 16 point S-LINK System (Sunx)</p>																																																			
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Note 1) Besides the above, F and P kits with different number of pins are available. Refer to p1.10-159 for details.
 Note 2) Refer to p.1.10-160 for details.

Cylinder Speed Chart

Series VQ0000

Model	Fitting (One-touch fitting) Effective area (mm ²) (Cv factor)	Cylinder speed (mm/s)	Cylinder bore size (mm)																		
			Series CJ2 Pressure 0.5MPa Load factor 25% Piping length 2m Speed controller: AS2000F-06 (S=4.5mm ²) Cylinder stroke 50mm			Series CM2 Pressure 0.5MPa Load factor 50% Piping length 5m Speed controller: AS2000F-06 (S=4.5mm ²) Cylinder stroke 100mm				Series CA1 Pressure 0.5MPa Load factor 50% Piping length 5m Speed controller: AS2000F-06 (S=4.5mm ²) Cylinder stroke 300mm											
			ø6	ø10	ø16	ø20	ø25	ø32	ø40	ø40	ø50	ø63	ø80	ø100							
VQ0000 (Metal seal)	ø4 2.7 (0.15)	150																			
		300																			
		450																			
		600																			
		750																			
VQ0001 (Rubber seal)	ø4 3.6 (0.2)	150																			
		300																			
		450																			
		600																			
		750																			

Series VQ1000

Model	Fitting (One-touch fitting) Effective area (mm ²) (Cv factor)	Cylinder speed (mm/s)	Cylinder bore size (mm)																		
			Series CJ2 Pressure 0.5MPa Load factor 25% Piping length 2m Speed controller: AS3000F-06 (S=6.5mm ²) Cylinder stroke 50mm			Series CM2 Pressure 0.5MPa Load factor 50% Piping length 5m Speed controller: AS3000F-06 (S=6.5mm ²) Cylinder stroke 100mm				Series CA1 Pressure 0.5MPa Load factor 50% Piping length 5m Speed controller: AS3000F-06 (S=6.5mm ²) Cylinder stroke 300mm											
			ø6	ø10	ø16	ø20	ø25	ø32	ø40	ø40	ø50	ø63	ø80	ø100							
VQ1000 (Metal seal)	ø6 3.6 (0.2)	150																			
		300																			
		450																			
		600																			
		750																			
VQ1001 (Rubber seal)	ø6 5.4 (0.3)	150																			
		300																			
		450																			
		600																			
		750																			

Series VQ2000

Model	Fittings (One-touch fitting) Effective area (mm ²) (Cv factor)	Cylinder speed (mm/s)	Cylinder bore size (mm)																		
			Series CJ2 Pressure 0.5MPa Load factor 25% Piping length 2m Speed controller: AS3000F-08 (S=10mm ²) Cylinder stroke 50mm			Series CM2 Pressure 0.5MPa Load factor 50% Piping length 5m Speed controller: AS3000F-08 (S=10mm ²) Cylinder stroke 100mm				Series CA1 Pressure 0.5MPa Load factor 50% Piping length 5m Speed controller: AS3000F-08 (S=10mm ²) Cylinder stroke 300mm											
			ø6	ø10	ø16	ø20	ø25	ø32	ø40	ø40	ø50	ø63	ø80	ø100							
VQ2000 (Metal seal)	ø8 14.4 (0.80)	150																			
		300																			
		450																			
		600																			
		750																			
VQ2001 (Rubber seal)	ø8 16.2 (0.90)	150																			
		300																			
		450																			
		600																			
		750																			

How to Order Valve

VQ 1 1 0 0 Y 5

Series
1 VQ1000

Configuration

1	2 position single (A/B) (R1)(P1)(R2)
2	2 position double (A/B) (R1)(P1)(R2)
3	3 position closed center (A/B) (R1)(P1)(R2)
4	3 position exhaust center (A/B) (R1)(P1)(R2)
5	3 position pressure center (R1)(P1)(R2)

Manual override

-	Non-locking push style	B	Push-locking slotted style
-	Indicator light and surge voltage suppressor	C	Push-locking lever style
E (1)	No		

Note 1) Unapplicable to the S kit.

Pilot valve

Symbol	Specification	DC	AC
-	Standard	(1.0W) ○	○ (1)
H (1)	High pressure	(1.5W) ○	-
Y (1)	Low wattage	(0.5W) ○	-

Note 1) Refer to p.1.10-122 for AC.

Coil voltage

1	100V AC (50/60Hz)
2 (1)	200V AC (50/60Hz)
3	110V AC (50/60Hz)
4 (1)	220V AC (50/60Hz)
5	24V DC
6	12V DC

Note 1) 200/220V AC models are applicable to F and L kits.

Seal

0	Metal
1	Rubber

Note) Refer to "Options" on p.1.10-160 and 1.10-161 for external pilot and negative COM specifications.

How to Order Manifold Ass'y (Example)

Ordering example

Ordering example

VV5Q11-09C6FU2 ... 1 set (F kit 9 station manifold base No.)
 *VQ1100-5 4 sets (Single solenoid No.)
 *VQ1200-5 4 sets (Double solenoid No.)
 *VV1000-10A-1 ... 1 sets (Blank plate No.)

The * mark is an assembling mark. Prefix with "*" to mark parts for ass'y nos. of solenoid valves, etc.

Specify valve and option nos. below the manifold base No. When arrangement is complicated, specify the nos. by using a manifold specification form.

- SY
- SYJ
- SX
- VK
- VZ
- VF
- VFR
- VP7
- VP4

Manifold Options

P.1.10-148

Blank plate assembly VVQ1000-10A-1 	SUP block plate VVQ1000-16A 	Double check block VVQ1000-FPG-□□ 	2 stations matching fitting assembly VVQ1000-52A-C8 	Blank plug KQP-□□-X19
Individual SUP spacer VVQ1000-P-1-C6 	EXH block plate assembly VVQ1000-19A-□□ 	Elbow fittings assembly VVQ1000-F-L-□□ 	Silencer (EXH port) AN200-KM8 	Blank plate with connector VVQ1000-1C-□□
Individual EXH spacer VVQ1000-R-1-C6 	Check valve for prevention of back pressure assembly [-B] VVQ1000-18A 	DIN rail mounting bracket [-D] VVQ1000-57A 	Regulator unit VVQ1000-AR-1 	<p>● Refer to p.1.10-157 for cylinder port fittings. ● Refer to p.1.10-209 for replacement parts.</p>
Vacuum ejector unit [-J□] 	Name plate [N] VVQ1000-N-Station (1 to Max. stations) 	Built-in silencer, direct exhaust [-S] 	Port plug VVQ0000-58A 	

- VQ
- VQ4
- VQZ
- VQD
- VZS
- VFS
- VS
- VS7