

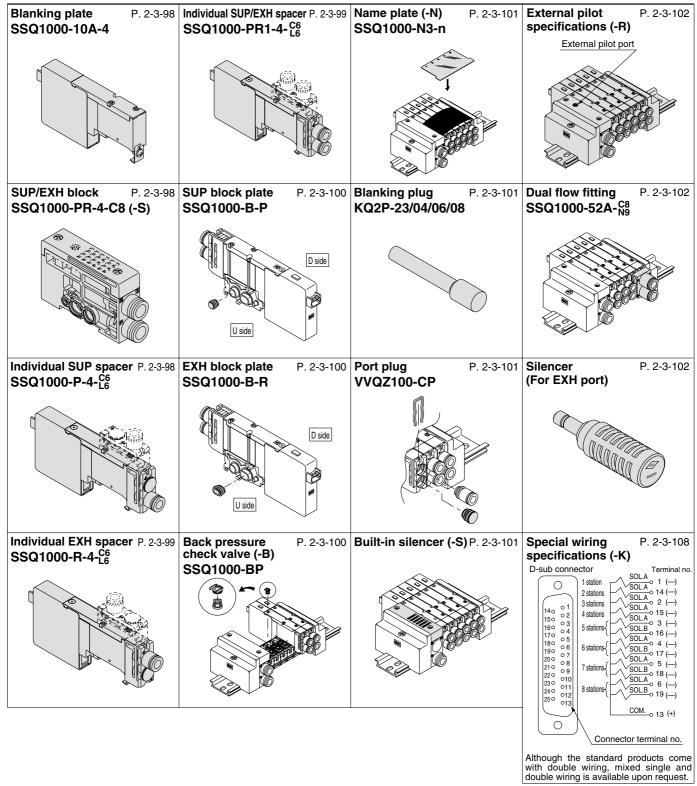
Series SQ1000 **Plug Lead Unit**

How to Order Manifold SS5Q14 -08 FD2 D Option Stations 01 Nil 1 station None 02 to 24⁽¹ : ÷ DIN rail length specified 24^{Not} B 24 stations Back pressure check valve K⁽²⁾ Note) The maximum number Special wiring specifications (Except double wiring) of stations depends on N With name plate (Side ported only) the type of electrical entries. R External pilot specifications S Built-in silencer, direct exhaust Note 1) For specifying DIN rail length, indicate "D \square ". (Enter the number of stations Manifold mounting inside .) Example: -D08 Note 2) Standard wiring specification are for D DIN rail mount style wiring double wiring. Indicate Е Direct mount style specifications for single wiring or mixed single and double wiring, or when Note) C kit of SQ2000 only. exceeding the standard maximum number of stations. (Except C kit) Note 3) For specifying two or more options, enter them alphabetically. Example: -BKN **Electrical entry** Max. number (2) Lead wire Max. number of stations for Kit type Cable specifications Station connector special wiring of solenoids location specifications FD0 F kit U side D-sub connector (25P) kit, without cable FD1 D-sub connector (25P) kit, with 1.5 m cable D side 1 to 12 stations 24 stations 24 FD2 D-sub connector (25P) kit, with 3.0 m cable D side D-sub Connector kit FD3 D-sub connector (25P) kit, with 5.0 m cable PD0 Flat ribbon cable (26P) kit, without cable P kit PD1 Flat ribbon cable (26P) kit, with 1.5 m cable (1)1 to 12 stations 24 stations 24 PD2 D side Flat ribbon cable (26P) kit, with 3.0 m cable PD3 Flat ribbon cable (26P) kit, with 5.0 m cable Flat ribbon cable cor PDC Flat ribbon cable (20P) kit, without cable 1 to 9 stations 18 stations 18 J kit Flat ribbon cable (20P) JD0 D side 16 1 to 8 stations 16 stations PC Wiring System compatible Flat ribbon cable (20P) (PC Wiring System compatible) C kit Connector kit С 1 to 24 stations Connector kit

Note 1) Separately order the 20P type cable assembly for the P kit. Note 2) The maximum number of stations should not be more than the maximum number of solenoids. (The number of solenoids are counted as: 1 for single solenoids and 2 for type 3P and 4P double solenoids.)

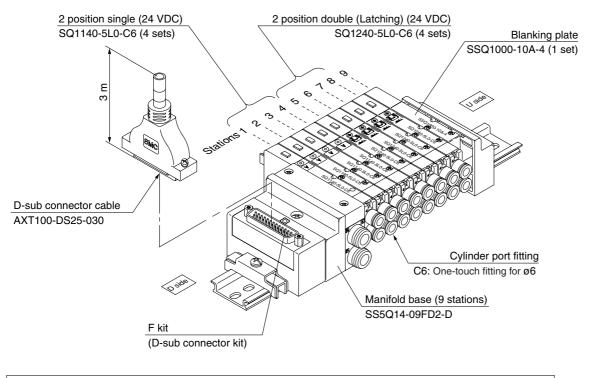
Series SQ1000

Manifold Option



How to Order Manifold Assembly (Example)

Example: D-sub connector kit, with cable (3 m)



S S5Q14-09FD2-D 1 set (F kit 9 station manifold base) * SQ1140-5L0-C6 4 sets (2 position single) * SQ1240-5L0-C6 4 sets (2 position double [latching]) * SSQ1000-10A-4 1 set (Blanking plate)

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

Add the valve and option part numbers in order starting from the first station on the D side. When entry of part numbers becomes complicated, indicate on the manifold specification sheet. VQC

SQ

VQ0

VQ4

VQ5

VQZ

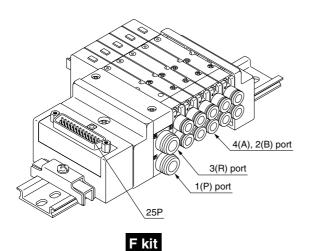
Plug Lead Unit Series SQ1000

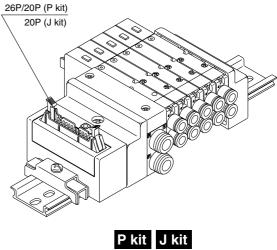
Manifold Specifications

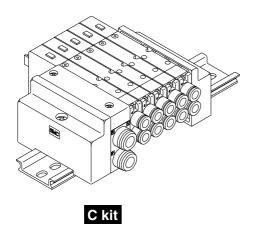
Base model		g specific Port size ⁽		Applicable solenoid	Type of connection		(3) Applicable	(4) 5 station	(4) 1 station weight
Dase model	1(P), 3(R) 4(A), 2(B) Port location Port size			valve	Type of connection		stations	weight (g)	(g)
	C8 (For ø8) Option (Built-in silencer,	Side	C3 (For ø3.2) C4 (For ø4) C6 (For ø6) M5 (M5 thread)		F kit: D-sub connector		1 to 12 stations	420	20
				SQ1⊡40	P kit: Flat ribbon cable	26P	1 to 12 stations	420	20
						20P	1 to 9 stations		20
SS5Q14		Top ⁽²⁾	L3 (For ø3.2) L4 (For ø4)	SQ1⊡41	J kit: Flat ribbon cable PC Wiring System comp	atible	1 to 8 stations	420	20
	\direct exhaust/		L6 (For ø6) L5 (M5 thread)		C kit: Connector kit		1 to 12 stations	460	35

Note 1) One-touch fittings in inch sizes are also available. For details, refer to page 2-3-110. Note 2) Can be changed to side ported configuration.

Note 3) An optional specification for special wiring is available to increase the maximum number of stations. Refer to page 2-3-108 for details. Note 4) Except valves. For valve weight, refer to page 2-3-104.









VQC

SQ

VQ0

VQ4

VQ5

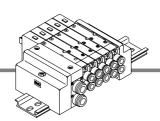
VQZ

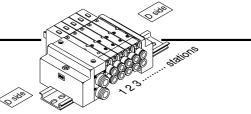
Series SQ1000

Kit (Connector)

Standard with lead wires connected to each valve individually. **Manifold Specifications**

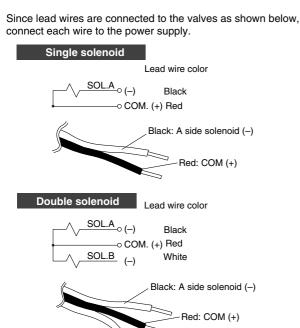
	I	fications	Maximum number of		
Series	Port	Port			
	location	1(P), 3(R)	4(A), 2(B)	stations	
SQ1000	Side, Top	C8	C3, C4, C6, M5	24 stations	





* Valves are numbered from the D side.

Wiring Specifications: Positive COM Specifications



White: B side solenoid (-)

• Plug connector lead wire length The lead wire length of the valves with lead wire is 300 mm. When ordering a lead wire length of 600 mm or longer, list the part numbers for the valve without connector and the connector assembly. Example) For lead wire length of 1000 mm: SQ1140-5LO-C6----3 pcs. AXT661-14AL-10----3 pcs.

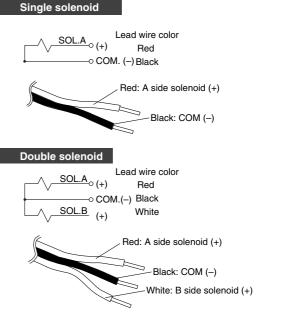
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Connector	Assembly	Part No
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Lead wire length	Single solenoid	Double solenoid				
Socket only (3 pcs.)	AXT661-12AL					
300 mm	AXT661-14AL	AXT661-13AL AXT661-13AL-6 AXT661-13AL-10 AXT661-13AL-20 AXT661-13AL-30				
600 mm	AXT661-14AL-6					
1000 mm	AXT661-14AL-10					
2000 mm	AXT661-14AL-20					
3000 mm	AXT661-14AL-30					

Wiring Specifications: Negative COM Specifications (Option)

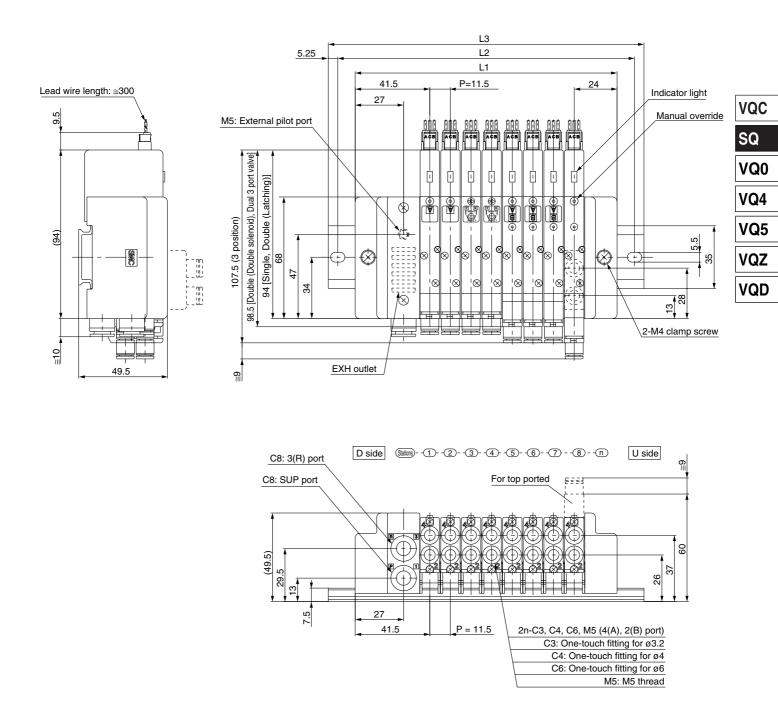
Since lead wires are connected to the valves as shown below, connect each wire to the power supply.



Plug connector lead wire length The lead wire length of the valves with lead wire is 300 mm. When ordering a lead wire length of 600 mm or longer, list the part numbers for the valve without connector and the connector assembly. Example) For lead wire length of 1000 mm: SQ1140-5LO-C6······3 pcs. AXT661-14ANL-10----3 pcs.

Connector Assembly Part no.

Lead wire length	Single solenoid	Double solenoid						
Socket only (3 pcs.)	AXT66	1-12AL						
300 mm	AXT661-14ANL	AXT661-13ANL AXT661-13ANL-6 AXT661-13ANL-10 AXT661-13ANL-20						
600 mm	AXT661-14ANL-6							
1000 mm	AXT661-14ANL-10							
2000 mm	AXT661-14ANL-20							
3000 mm	AXT661-14ANL-30	AXT661-13ANL-30						
Note) When using the negative common specifications, use valves for negative common.								



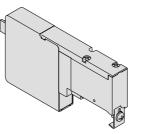
Dimen	Dimensions Formula: L1 = 11.5n + 54 n: Stations (Maximum 24 stations)																							
L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L1	65.5	77	88.5	100	111.5	123	134.5	146	157.5	169	180.5	192	203.5	215	226.5	238	249.5	261	272.5	284	295.5	307	318.5	330
L2	87.5	100	112.5	125	137.5	150	162.5	175	175	187.5	200	212.5	225	237.5	250	262.5	275	287.5	300	312.5	325	337.5	350	350
L3	98	110.5	123	135.5	148	160.5	173	185.5	185.5	198	210.5	223	235.5	248	260.5	273	285.5	298	310.5	323	335.5	348	360.5	360.5

Manifold Option Parts for SQ1000

Blanking plate

SSQ1000-10A-4

It is used by attaching on the manifold block for being prepared for removing a valve for maintenance reasons or planning to mount a spare valve, etc.



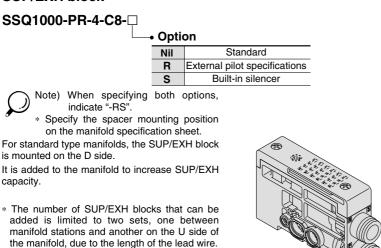
11.5

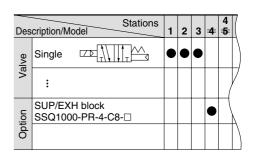
JIS Symbol



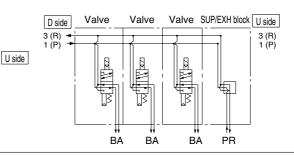
SUP/EXH block

capacity.





4



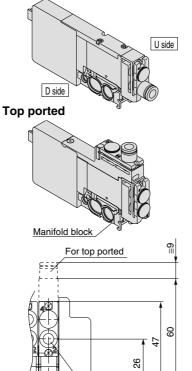
Individual SUP spacer

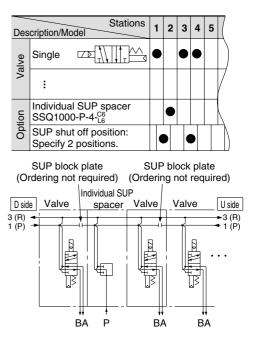
ber of manifold stations.

SSQ1000-P-4- C6

Side ported

D side





L6 Top ported

Port location

C6 Side ported

This is used as a supply port for different pres-sures when using different pressures in the same manifold (for one station). Both sides of the station which is used with supply pressure from the individual SUP spacer are shut off. (Refer to application example.)

* SUP/EXH blocks are not included in the num-

* Specify the spacer mounting position and SUP passage shut off positions on the manifold specification sheet. Two shut off positions are required per unit.

(Two pieces of SUP block plate that shut off the supply pressure are included with the individual SUP spacer, therefore, it is not necessary to order them separately.)

- * Electrical wiring is also connected to the manifold station with the individual EXH spacer.
- * By changing the fitting shown in the drawing and the block plates, the spacer's specification can be changed later (from the individual SUP spacer to the individual EXH spacer).
- * The number of spacers is not limited when ordered with the manifold. However, when adding individual for F, P, and J kits, it is limited to two units, one between manifold stations and another on the U side, due to the length of the lead wire
- * Model no with manifold block: SSQ1000-P-4-C6-M



11.5

Individual SUP port

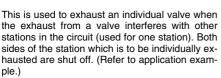
One-touch fittings for ø6

Plug Lead Unit Series SQ1000/2000

Individual EXH spacer

SSQ1000-R-4- C6

Side ported



Port location

C6 Side ported L6 Top ported

* Specify the spacer mounting position and EXH passage shut off positions on the manifold specification sheet. Two shut off positions are required per unit.

(Two pieces of EXH block plate that shut off the exhaust are included with the individual EXH spacer, therefore, it is not necessary to order them separately.)

- * Electrical wiring is also connected to the manifold station with the individual EXH spacer.
- * By changing the fitting shown in the drawing and the block plates, the spacer's specification can be changed later (from the individual EXH spacer to the individual SUP spacer).
- * The number of spacers is not limited when ordered with the manifold. However, when adding individual for F, P, and J kits, it is limited to two units, one between manifold stations and another on the U side, due to the length of the lead wire
- * Model no. with manifold block: SSQ1000-R-4-C6-M

Individual SUP/EXH spacer

SSQ1000-PR1-4- C6

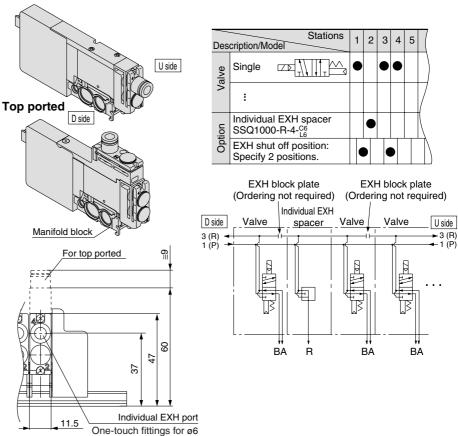
 Port location C6 Side ported L6 Top ported

This has both functions of the individual SUP and EXH spacers above.

- (Refer to application example.)
- * Specify the spacer mounting position and SUP and EXH passage shut off positions on the manifold specification sheet. Two shut off positions each for SUP and EXH are required per unit.

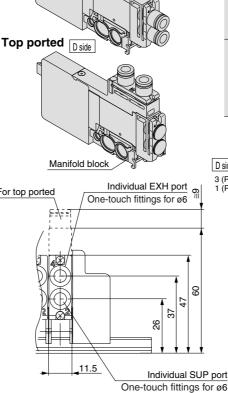
(Two pieces each of block plate that shut off the SUP and EXH passages are included with the individual SUP/EXH spacer.)

- * Electrical wiring is also connected to the manifold station with the individual EXH spacer.
- * By changing the fitting shown in the drawing and the block plates, the spacer's specification For top ported can be changed later.
- * The number of spacers is not limited when ordered with the manifold. However, when adding individual for F, P, and J kits, it is limited to two units, one between manifold stations and another on the U side, due to the length of the lead wire.
- * Model no. with manifold block: SSQ1000-PR1-4-C6-M



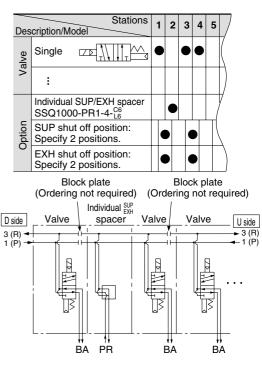


855



SMC

U side



VQC

SQ

VQ0

VQ4

VQ5

VQZ

Manifold Option Parts for SQ1000

SUP block plate

SSQ1000-B-P

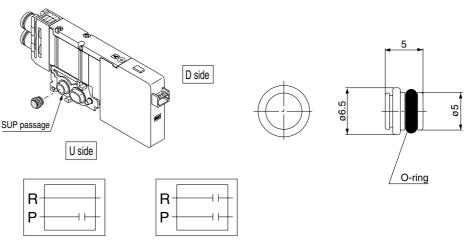
When supplying two different pressures, high and low, to one manifold, this is used between stations with different pressures. Also, it is used with an individual SUP spacer to shut off the air supply.

* Specify the station position on the manifold specification sheet.

<Shut off label>

When a SUP passage is shut off with a SUP block plate, a label is attached for external confirmation of the shut off position (one label each).

* Shut off labels are applied when SUP block plates are ordered with manifolds.



SUP passage blocked

SUP/EXH passage blocked

EXH block plate

SSQ1000-B-R

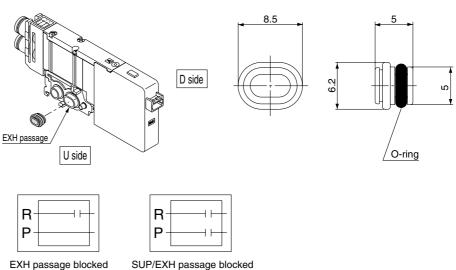
When the exhaust from a valve interferes with other stations in the circuit. this is used between stations to separate exhausts. Also, it is used with an individual EXH spacer to shut off the exhaust of individual valves.

* Specify the station position on the manifold specification sheet.

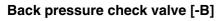
<Shut off label>

When an EXH passage is shut off with an EXH block plate, a label is attached for external confirmation of the shut off position (one label each).

* Shut off labels are applied when EXH block plates are ordered with manifolds.



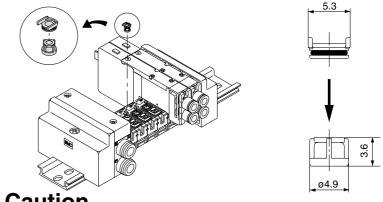
EXH passage blocked



SSQ1000-BP

This prevents cylinder malfunction caused by the exhaust from other valves. It is inserted into the R (EXH) port of the valve that is affected. It is especially effective when using single acting cylinders or exhaust center type solenoid valves.

- * When installing back pressure check valves only on the stations required, enter the part number and specify the station positions on a manifold specification sheet.
- * When installing back pressure check valves on all of the stations, indicate "-B" at the end of the manifold part number.



\land Caution

- 1. Although the back pressure check valve is an assembly part with a check valve mechanism, a small amount of air leakage is allowed. Therefore, take care not to restrict the exhaust air from the exhaust port.
- 2. The effective area of valves is about 20% less when the back pressure check valve is installed.
- 3. Since 4 port specification valves (5 (R1) and 3 (R2) are common) are used, back pressure cannot be prevented with dual 3 port valves.



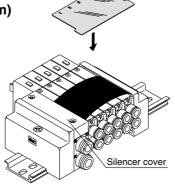
Plug Lead Unit Series SQ1000/2000

Name plate [-N]

SSQ1000-N3-Stations (1 to maximum)

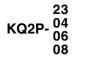
This is a clear resin plate for applying solenoid valve function description labels, etc. To install, bend the plate slightly as shown and insert into the slots on the end plate side. Also, the plate is difficult to bend for manifolds with only a few stations, therefore, remove the silencer cover to install it.

* When ordering with manifolds, add "-N" at the end of the manifold number.

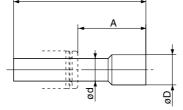


P = 11.5 1 2 3 4 5 6 7 8 n: Stations VQC SQ VQ0 VQ0 VQ4 VQ5

Blanking plug (For One-touch fitting)







Dimensi	ons				
Applicable fittings size (ød)	Model	Α	L	D	VQZ
3.2	KQ2P-23	16	31.5	3.2	VOD
4	KQ2P-04	16	32	6	VQD
6	KQ2P-06	18	35	8	
8	KQ2P-08	20.5	39	10	

This is inserted into cylinder ports and SUP and EXH ports that are not used. Purchasing order is available in units of 10 pieces.

Port plug

VVQZ100-CP

This is used to close the cylinder ports when changing a 5 port valve to a 3 port valve. * Add "A" or "B" at the end of the valve part

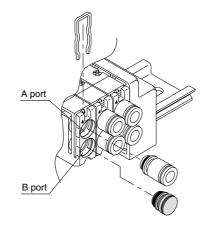
number when ordering with valves. Example) SQ1141-5L-C6-A (N.O. specifications)

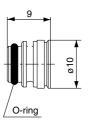
• 4 (A) port plug

Example) SQ1141-5L-C6-B (N.C. specifications)

↓ 2 (B) port plug Example) SQ1141-5L-C6-B-M

(B port plug with manifold block)



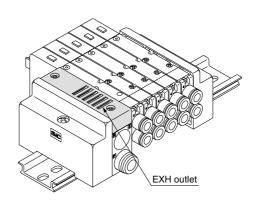


Direct EXH outlet, built-in silencer [-S]

The EXH outlet is placed on the top side of the manifold end plate. The built-in silencer provides highly effective noise reduction. (Noise reduction of 30 dB)

Note) Note that when excessive drainage occurs in the air supply, the drainage will be released along with the exhaust.

- * Add "-S" at the end of the manifold part number when ordering with manifolds.
- For precautions on handling and how to replace elements, refer to page 2-3-5.





Manifold Option Parts for SQ1000

External pilot specifications [-R]

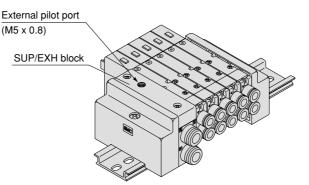
This can be used when the air pressure is 0.1 to 0.2 MPa lower than the minimum operating pressure of the solenoid valves or used for vacuum specifications.

Add "R" to the part numbers of manifolds and valves to indicate the external pilot specification. An M5 port will be installed on the top side of the manifold's SUP/EXH block.

 How to order valves (Example) SQ1140 R -5L-C6

- External pilot specifications
- How to order manifold (Example) * Indicate "R" for an option.
- SS5Q14-08FD1-DR

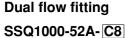
External pilot specifications



Note 1) Not applicable for dual 3 port valves.

Note 2) Indicate "RY" for low wattage types.

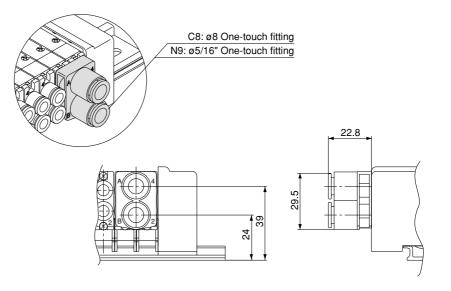
Note 3) Valves with the external pilot specifications have a pilot EXH with individual exhaust specifications and EXH can be pressurized. However, the pressure supplied from EXH should be 0.4 MPa or lower.



Port size **C8** Ø8 **N9** ø5/16"

To drive a large bore cylinder, two valve stations are operated simultaneously to double the air flow. This fitting is used on the cylinder ports in this situation. Available sizes are ø8 and ø5/16" One-touch fitting.

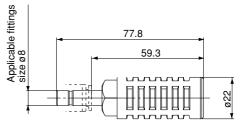
- * When ordering with valves, specify the valve part number without One-touch fitting and list the dual flow fitting part number.
- Example) Valve part number (without One-touch fitting part number)



Silencer (For EXH port)

This is inserted into the centralized type EXH port (One-touch fitting).





Specifications

Series	Model	Effective area (mm ²) (Cv factor)	Noise reduction (dB)
SQ1000	AN200-KM8	20 (1.1)	30



Manifold Option Parts for SQ1000/SQ2000

Special Wiring Specifications

In the internal wiring of F kit, P kit, and J kit, double wiring (connected to SOL. A and SOL. B) is adopted for each station regardless of the valve and option types. Mixed single and double wiring is available as an option.

1. How to order

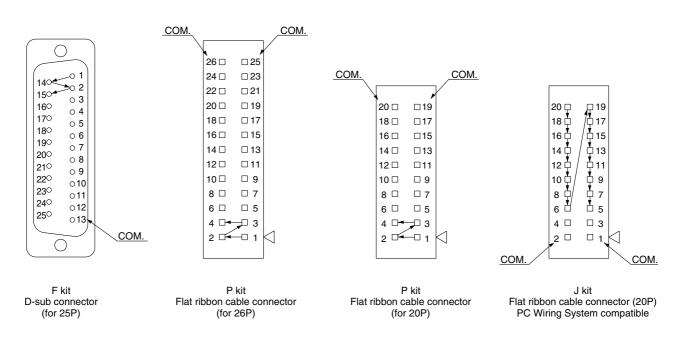
Indicate option symbol "-K" in the manifold part number and be sure to specify station positions for single or double wiring on the manifold specification sheet

Example) SS5Q14-09 FD0 - DKS

•Others, option symbols: to be indicated alphabetically.

2. Wiring specifications

Connector terminal numbers are connected from solenoid station 1 on the A side in the order indicated by the arrows without skipping any terminal numbers.



3. Maximum stations

The maximum number of manifold stations is determined by the number of solenoids. Count one point for a single solenoid type and two points for a double solenoid type. Determine the number of stations so that the total number of solenoids is no more than the maximum points in the table below.

Kit	F kit (D-sub connector)	P (Flat ribbon ca	kit ble connector)	J kit Flat ribbon cable PC Wiring System compatible							
Туре	FD□ 25P			JD0 20P							
Max. points	24 points	24 points	18 points	16 points							
Note)	Note) Maximum stations ···· SQ1000: 24 stations										

SQ2000: 16 stations

2-3-108

Special DIN Rail Length (DIN rail mounting (-D) only)

The standard DIN rail provided is approximately 30 mm longer than the overall length of the manifold with a specified number of stations. The following options are also available.

DIN rail length longer than the standard type (for stations to be added later, etc.)

In the manifold part number, specify "-D" for the manifold mounting symbol and add the number of required stations after the symbol.

Example) SS5Q14- 08FD0 - D09BNK

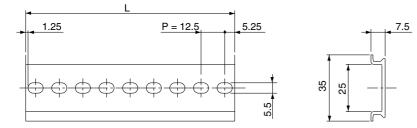
8 station manifold

Option symbols (alphabetically) DIN rail for 9 stations

Ordering DIN rail only

DIN rail part number

AXT100- DR - Note) For "n", enter a number from the "No." line in the table below. For L dimension, refer to the dimensions of each kit.

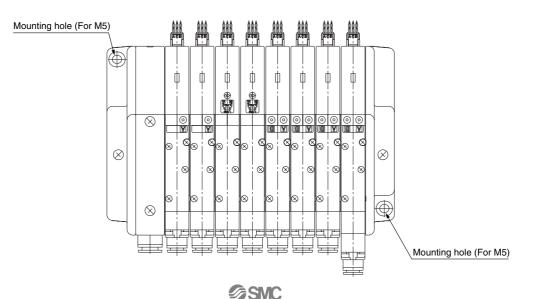


I Dimension

L Dimensi	L Dimension L = 12.5 x n + 10.5											
No.	1	2	3	4	5	6	7	8	9	10		
L dimension	23	35.5	48	60.5	73	85.5	98	110.5	123	135.5		
No.	11	12	13	14	15	16	17	18	19	20		
L dimension	148	160.5	173	185.5	198	210.5	223	235.5	248	260.5		
								_				
No.	21	22	23	24	25	26	27	28	29	30		
L dimension	273	285.5	298	310.5	323	335.5	348	360.5	373	385.5		
No.	31	32	33	34	35	36	37	38	39	40		
L dimension	398	410.5	423	435.5	448	460.5	473	485.5	498	510.5		

Direct Mounting Style (-E) (SQ2000 C kit only)

Manifold is mounted by using mounting holes of both sides of the manifold. DIN rail is not sticking out of the edge of end plate.



VQC SQ VQ0 VQ4 VQ5 VQZ VQD

Manifold Option for SQ1000/SQ2000

Negative Common Specifications

The following valve part numbers are for negative COM specifications. Manifold part numbers are the same as standard.

• How to order negative COM valves (Example)

SQ1140 N -5L-C6

Negative common specifications

Inch-size One-touch Fittings

For One-touch fittings in inch sizes, use the following part numbers. Also, the color of the release button is orange.

• How to order valves (Example)

SQ1140-5L- N7

	location •
Nil	Side ported
L	Top ported

•Cylinder port					
Symbo)	N1	N3	N7	N9
Applicable tubing	O.D. (Inch)	ø1/8"	ø5/32"	ø1/4"	ø5/16"
4(A), 2(B) port	SQ1000	•		•	_
	SQ2000	_		•	

• How to order manifold (Example) Add "00T" at the end of the part number.

SS5Q14-08 FD0-DN - 00T

1 (P), 3 (R) port in inch size
SQ1000: ø5/16" (N9)
SQ2000: ø3/8" (N11)

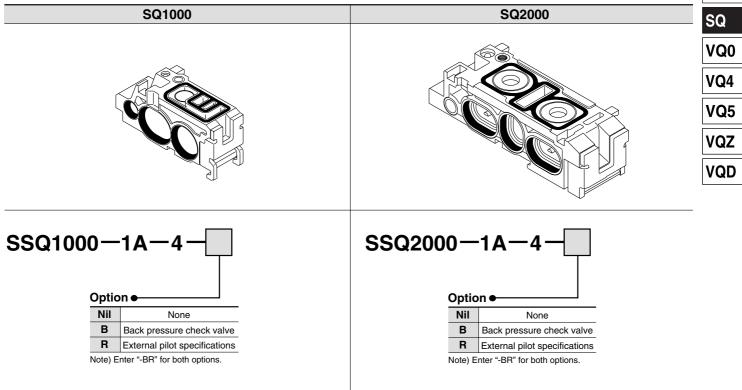
How to Add Manifold Stations for SQ1000/SQ2000

1. How to Add Manifold Stations

What to order

• Valves with manifold block (refer to pages 2-3-71 and 2-3-85) or the manifold blocks shown below. For F kit, P kit, and J kit, also order the lead wire assemblies in the next section.





VQC

How to Add Manifold Stations for SQ1000/SQ2000

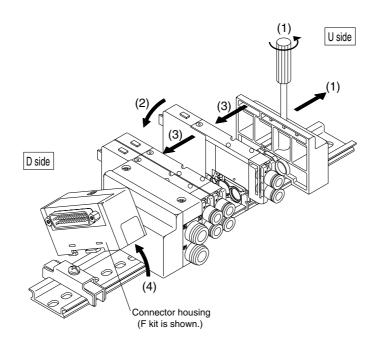
Steps for adding stations

(1) Loosen the clamp screw on the U side end plate and open the manifold.

(2) Mount the manifold block or valve with manifold block to be added.

(3) Press on the end plate to eliminate any space between the manifold blocks and tighten the clamp screw. (Proper tightening torque: 0.8 to 1.0 N·m)

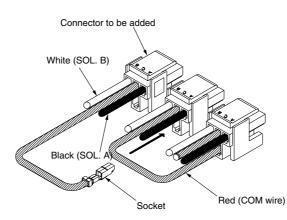
(4) In the case of F kit, P kit or J kit, remove the connector housing from the DIN rail and connect the wiring.



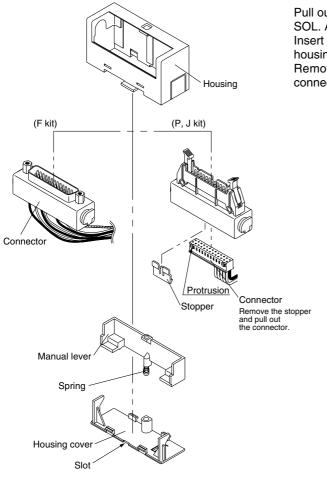
2. Connection Method

(1) Connecting common wire

Insert the red lead wire (common wire) of the connector to be added into the adjacent connector as shown in the drawing below. After inserting,



(2) Pulling	out connector
-------------	---------------



Pull out the connector to connect the lead wires for SOL. A and SOL. B.

Insert a flat head screwdriver into the slot of the housing cover and remove it.

Remove the manual lever and pull out the connector.

F, P, J kit

VQC

SQ

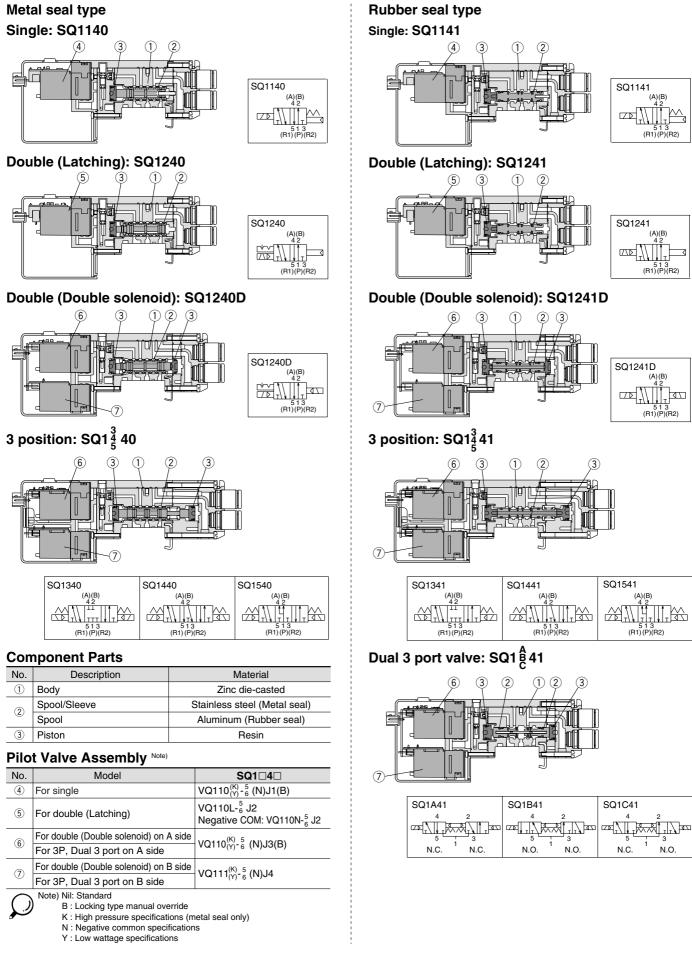
VQ0

VQ4

VQ5

VQZ

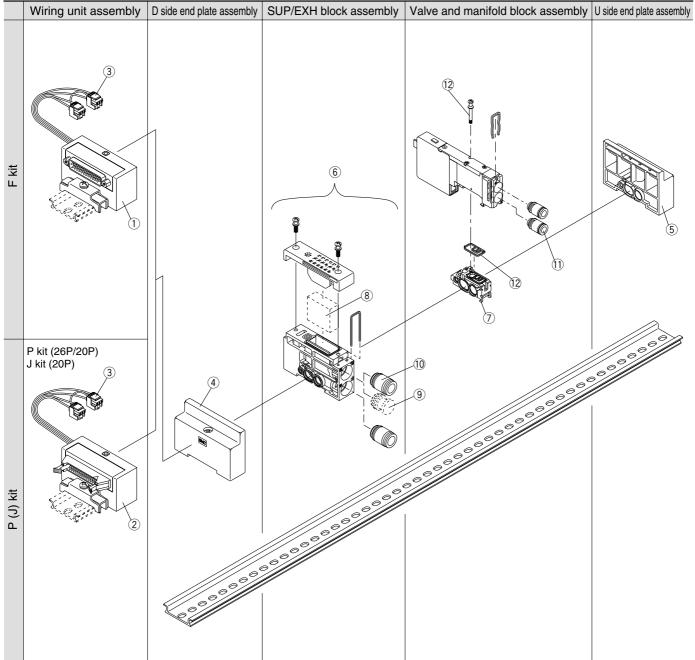
Construction: Series SQ1000 Plug Lead Type Main Parts and Pilot Valve Assembly





Exploded View of Manifold: SQ1000 (Plug lead type manifold) SS5Q14

(F, P, J, C kit)



Manifold Spare Parts

