

# Series SQ2000 Plug Lead Unit

## How to Order Manifold

SS5Q24 — **08** **FD2** — **D**

### Stations

<b>01</b>	1 station
⋮	⋮
<b>16</b> <sup>Note)</sup>	16 stations

Note) The maximum number of stations depends on the type of electrical entries.

### Option

<b>Nil</b>	None
<b>02 to 24</b> <sup>(1)</sup>	DIN rail length specified
<b>B</b>	Back pressure check valve
<b>K</b> <sup>(2)</sup>	Special wiring specifications (Except double wiring)
<b>N</b>	With name plate (Side ported only)
<b>R</b>	External pilot specifications
<b>S</b>	Built-in silencer, direct exhaust

Note 1) Specify DIN rail length with "D□" at the end. (Enter the number of stations inside □.)

Example: -D08

Note 2) Standard wiring specifications are for double wiring. Indicate wiring specifications for single wiring or mixed single and double wiring, or when exceeding the standard number of stations. (Except C kit)

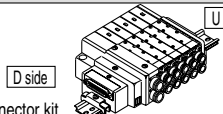
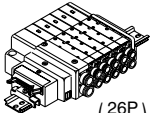
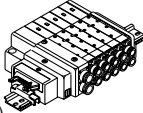
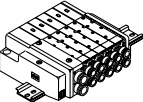
Note 3) When two or more symbols are specified, indicate them alphabetically. Example: -BKN

### Manifold mounting

<b>D</b>	DIN rail mounting style
<b>E</b> <sup>Note)</sup>	Direct mounting style

Note) Type E is only available with a C kit.

### Electrical entry

Kit type	Lead wire connector location	Cable specifications	Stations	Max. number of stations for special wiring specifications	Max. number of solenoids <sup>(2)</sup>
<b>F</b> kit  D-sub connector kit	D side	<b>FD0</b>	1 to 12 stations	16 stations	24
		<b>FD1</b>			
		<b>FD2</b>			
		<b>FD3</b>			
<b>P</b> kit  Flat ribbon cable connector kit (26P/20P)	D side <sup>(1)</sup>	<b>PD0</b>	1 to 12 stations	16 stations	24
		<b>PD1</b>			
		<b>PD2</b>			
		<b>PD3</b>			
		<b>PDC</b>	1 to 9 stations	18	
<b>J</b> kit  Flat ribbon cable (20P) (PC Wiring System compatible)	D side	Flat ribbon cable (20P) PC Wiring System compatible	1 to 8 stations	16 stations	16
<b>C</b> kit  Connector kit	—	Connector kit	1 to 16 stations	—	—

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.)

## How to Order Valves

SQ2 1 4 0 5 L C6

### Type of actuation

<b>1</b>	2 position single  (A)(B) 4 2 5 1 3 (R1)(P)(R2)
<b>2</b>	2 position double (Latching)  (A)(B) (A)(B) 4 2 4 2 5 1 3 5 1 3 (R1)(P)(R2) (R1)(P)(R2) Metal seal Rubber seal 2 position double (Double solenoid) (1)  (A)(B) (A)(B) 4 2 4 2 5 1 3 5 1 3 (R1)(P)(R2) (R1)(P)(R2) Metal seal Rubber seal
<b>3</b>	3 position closed center  (A)(B) 4 2 5 1 3 (R1)(P)(R2)
<b>4</b>	3 position exhaust center  (A)(B) 4 2 5 1 3 (R1)(P)(R2)
<b>5</b>	3 position pressure center  (A)(B) 4 2 5 1 3 (R1)(P)(R2)
<b>A</b>	4 position dual 3 port valve (2)  (A) (B) 4 2 5 1 3 (R1) (P) (R2) N.C. N.C.
<b>B</b>	4 position dual 3 port valve (2)  (A) (B) 4 2 5 1 3 (R1) (P) (R2) N.O. (P) N.O.
<b>C</b>	4 position dual 3 port valve (2)  (A) (B) 4 2 5 1 3 (R1) (P) (R2) N.C. (P) N.O.

Note 1) For double solenoid specifications, the function symbol below is "D".  
Note 2) Only rubber seal types are applicable.

### Seal

<b>0</b>	Metal seal
<b>1</b>	Rubber seal

### Function

<b>Nil</b>	Standard type (1.0 W DC)
<b>D</b>	2 position double (Double solenoid specifications)
<b>N</b>	Negative common
<b>Y</b> (1)	Low wattage type (0.5 W DC)
<b>R</b> (2)	External pilot specifications

Note 1) Except double (latching) type.  
Note 2) Except dual 3 port valves.  
Note 3) When two or more symbols are specified, indicate them alphabetically.

### Coil voltage

<b>5</b>	24 VDC
<b>6</b>	12 VDC

Note) Light/Surge voltage suppressor is built-in.

### With/Without manifold block

Nil	M	MB
Without manifold block	With manifold block	With manifold block, built-in back pressure check valve
	 * Lead wire is not included.	 * Lead wire is not included.
<ul style="list-style-type: none"> <li>When ordering with manifolds</li> <li>When only valves are required.</li> </ul>	For adding stations	

### Port plug mounting port

<b>Nil</b>	None
<b>A</b>	Port 4(A)
<b>B</b>	Port 2(B)

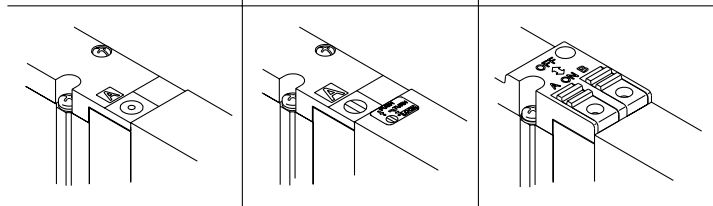
### Cylinder port

<b>C4</b>	One-touch fitting for $\phi 4$	Side ported
<b>C6</b>	One-touch fitting for $\phi 6$	
<b>C8</b>	One-touch fitting for $\phi 8$	Note) Top ported
<b>L4</b>	One-touch fitting for $\phi 4$	
<b>L6</b>	One-touch fitting for $\phi 6$	
<b>L8</b>	One-touch fitting for $\phi 8$	

Note) Can be changed to side ported configuration.

### Manual override

Nil	B Note)	D Note)
Non-locking push type (Tool required)	Locking type (Tool required)	Slide locking type (Manual type) * Only side ported type applicable



Note) Except double (latching) type.

### Electrical entry

L	LO
Plug connector type With 300 mm lead wire	Plug connector type without connector
	For F, P, J kit manifolds Note)

Note) Indicate "LO" when ordering centralized wiring type manifolds, F, P, and J kits, since the lead wire will be attached to the manifold side.

VQC

SQ

VQ0

VQ4

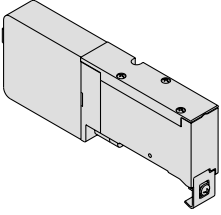
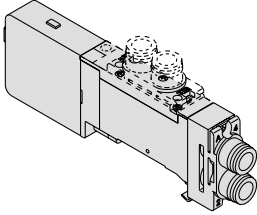
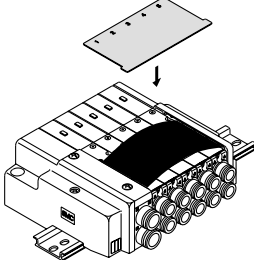
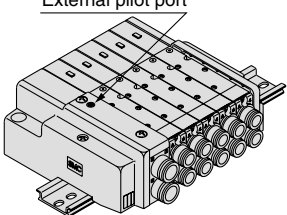
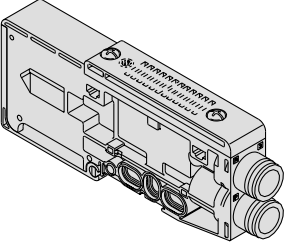
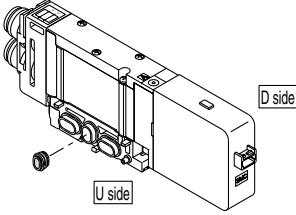
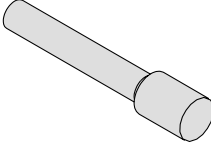
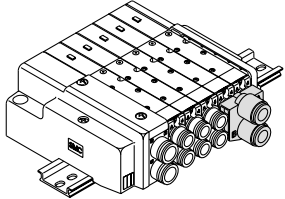
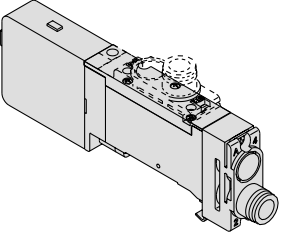
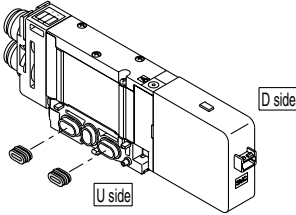
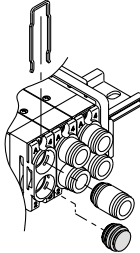
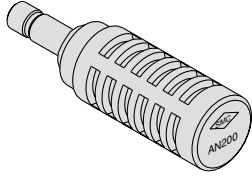
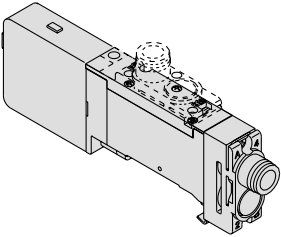
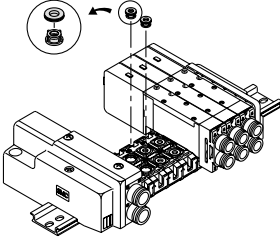
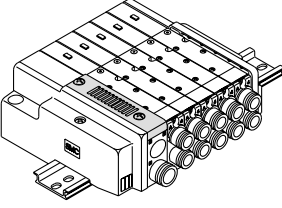
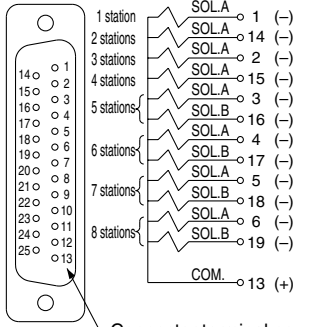
VQ5

VQZ

VQD

# Series SQ2000

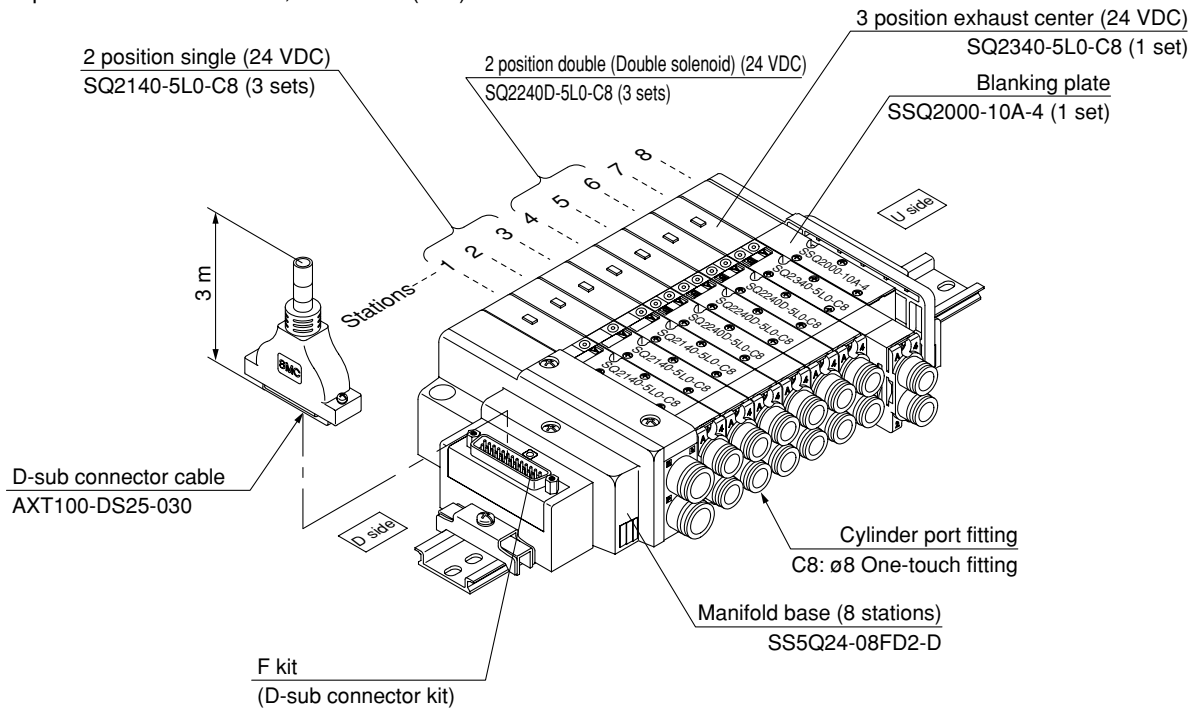
## Manifold Option

<p><b>Blanking plate</b> P. 2-3-103 <b>SSQ2000-10A-4</b></p> 	<p><b>Individual SUP/EXH spacer</b> P. 2-3-104 <b>SSQ2000-PR1-4-C<sub>8</sub>L<sub>8</sub></b></p> 	<p><b>Name plate (-N)</b> P. 2-3-106 <b>SSQ2000-N3-n</b></p> 	<p><b>External pilot specifications (-R)</b> P. 2-3-107</p> <p>External pilot port</p> 
<p><b>SUP/EXH block</b> P. 2-3-103 <b>SSQ2000-PR-3-C10(-S)</b></p> 	<p><b>SUP block plate</b> P. 2-3-105 <b>SSQ2000-B-R</b></p>  <p>D side</p> <p>U side</p>	<p><b>Blanking plug</b> P. 2-3-106 <b>KQ2P-04/06/08/10</b></p> 	<p><b>Dual flow fitting</b> P. 2-3-107 <b>SSQ2000-52A-C<sub>10</sub>N<sub>11</sub></b></p> 
<p><b>Individual SUP spacer</b> P. 2-3-103 <b>SSQ2000-P-4-C<sub>8</sub>L<sub>8</sub></b></p> 	<p><b>EXH block plate</b> P. 2-3-105 <b>SSQ2000-B-R</b></p>  <p>D side</p> <p>U side</p>	<p><b>Port plug</b> P. 2-3-106 <b>VVQZ2000-CP</b></p> 	<p><b>Silencer (For EXH port)</b> P. 2-3-107</p> 
<p><b>Individual EXH spacer</b> P. 2-3-104 <b>SSQ2000-R-4-C<sub>8</sub>L<sub>8</sub></b></p> 	<p><b>Back pressure check valve (-B)</b> P. 2-3-105 <b>SSQ2000-BP</b></p> 	<p><b>Built-in silencer (-S)</b> P. 2-3-106</p> 	<p><b>Special wiring specifications (-K)</b> P. 2-3-108</p> <p>D-sub connector</p>  <p>Terminal no.</p> <p>Connector terminal no.</p>

Although the standard products come with double wiring, mixed single and double wiring is available upon request.

## How to Order Manifold Assembly (Example)

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



VQC
SQ
VQ0
VQ4
VQ5
VQZ
VQD

- SS5Q24-08FD2-D ..... 1 set (F kit 8 station manifold base)
- \* SQ2140-5L0-C8 ..... 3 sets (2 position single)
- \* SQ2240D-5L0-C8 ..... 3 sets (2 position double [double solenoid])
- \* SQ2340-5L0-C8 ..... 1 set (3 position exhaust center)
- \* SSQ2000-10A-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.

# Series SQ2000

## Valve Specifications

### Model

Series	Number of solenoids	Model		Flow characteristics						Response time (ms) <sup>(2)</sup>		Weight (g)	
				1 → 4/2 (P → A/B)			4/2 → 5/3 (A/B → R1/R2)			Standard: 1 W	Low wattage		
				C [dm <sup>3</sup> /(s·bar)]	b	Cv	C [dm <sup>3</sup> /(s·bar)]	b	Cv				
SQ2000	2 position	Single	Metal seal	<b>SQ2140</b>	2.2	0.17	0.51	2.4	0.14	0.57	20 or less	26 or less	145
			Rubber seal	<b>SQ2141</b>	2.3	0.17	0.51	3.1	0.18	0.71	24 or less	31 or less	140
		Double (Latching)	Metal seal	<b>SQ2240</b>	2.2	0.17	0.51	2.4	0.14	0.57	26 or less	—	145
			Rubber seal	<b>SQ2241</b>	2.3	0.17	0.51	3.1	0.18	0.71	31 or less	—	140
		Double (Double solenoid)	Metal seal	<b>SQ2240D</b>	2.2	0.17	0.51	2.4	0.14	0.57	15 or less	20 or less	160
			Rubber seal	<b>SQ2241D</b>	2.3	0.17	0.51	3.1	0.18	0.71	20 or less	26 or less	155
	3 position	Closed center	Metal seal	<b>SQ2340</b>	1.9	0.17	0.46	2.1	0.15	0.47	34 or less	44 or less	180
			Rubber seal	<b>SQ2341</b>	1.9	0.17	0.46	1.8	0.29	0.45	34 or less	44 or less	175
		Exhaust center	Metal seal	<b>SQ2440</b>	1.9	0.17	0.46	2.4	0.14	0.55	34 or less	44 or less	180
			Rubber seal	<b>SQ2441</b>	1.9	0.17	0.46	3.1	0.14	0.58	34 or less	44 or less	175
		Pressure center	Metal seal	<b>SQ2540</b>	2.3	0.17	0.51	2.1	0.18	0.47	34 or less	44 or less	180
			Rubber seal	<b>SQ2541</b>	2.5	0.17	0.56	1.8	0.30	0.47	34 or less	44 or less	175
	4 position	Dual 3 port valve	Rubber seal	<b>SQ2<sub>A</sub>41<sub>B</sub>41<sub>C</sub></b>	1.5	0.17	0.40	1.5	0.17	0.40	34 or less	44 or less	155

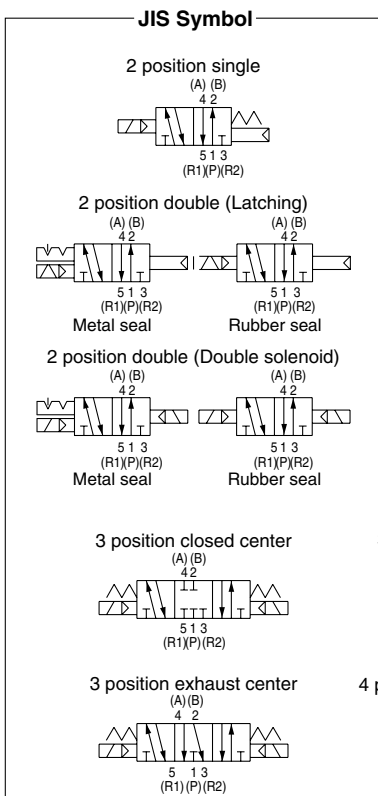
Note 1) Values for the top ported cylinder port size of C8. The side ported type will be about 10% less.  
 Note 2) Based on JIS B 8375-1981. (Values with a supply pressure of 0.5 MPa and light/surge voltage suppressor. Values fluctuate depending on the pressure and air quality.)



### Specifications

Valve specifications	Valve construction	Metal seal	Rubber seal	
	Fluid	Air/Inert gas		
	Maximum operating pressure	0.7 MPa		
	Min. operating pressure	Single	0.1 MPa	0.15 MPa
		Double (Latching)	0.18 MPa	0.18 MPa
		Double (Double solenoid)	0.1 MPa	0.1 MPa
		3 position	0.1 MPa	0.2 MPa
		4 position	—	0.15 MPa
	Ambient and fluid temperature	-10 to 50°C <sup>(1)</sup>		
	Lubrication	Not required		
Pilot valve manual override	Push type (Tool required)/Locking type (Tool required) Slide locking type (Manual type)			
Vibration/Impact resistance <sup>(2)</sup>	30/150 m/s <sup>2</sup>			
Protection structure	Dust tight			
Solenoid specifications	Coil rated voltage	12 VDC, 24 VDC		
	Allowable voltage fluctuation	±10% of rated voltage		
	Power consumption (Current)	24 VDC	1 W DC (42 mA), 0.5 W DC (21 mA) <sup>(3)</sup>	
		12 VDC	1 W DC (83 mA), 0.5 W DC (42 mA) <sup>(3)</sup>	

Note 1) Use dry air to prevent condensation when operating at low temperatures.  
 Note 2) Vibration resistance: No malfunction occurred in a one-sweep test between 45 and 2000 Hz. Test was performed at both energized and de-energized states in the axial direction and at the right angles to the main valve and armature. (Values at the initial period)  
 Impact resistance: No malfunction occurred when it is tested with a drop tester in the axial direction and at the right angles to the main valve and armature in both energized and de-energized states every once for each condition. (Values at the initial period)  
 Note 3) Values for the low wattage (0.5 W) specifications.



## Manifold Specifications

Base model	Porting specifications			Applicable solenoid valve	Type of connection	Applicable stations <sup>(3)</sup>	5 station weight (g) <sup>(4)</sup>	1 station weight (g) <sup>(4)</sup>		
	Port size <sup>(1)</sup>									
	1(P), 3(R)	4(A), 2(B)								
	Port location	Port size								
SS5Q24-□□-□	C10 (For ø10)	Side	C4 (For ø4) C6 (For ø6) C8 (For ø8)		SQ2□40 SQ2□41	F kit: D-sub connector		1 to 12 stations	580	35
			Option Built-in silencer, direct exhaust	Top <sup>(2)</sup>		L4 (For ø4) L6 (For ø6) L8 (For ø8)		P kit: Flat ribbon cable		26P: 1 to 12 stations 20P: 1 to 9 stations
	J kit: Flat ribbon cable PC Wiring System compatible					1 to 8 stations	580	35		
	C kit: Connector kit		1 to 12 stations	620		50				

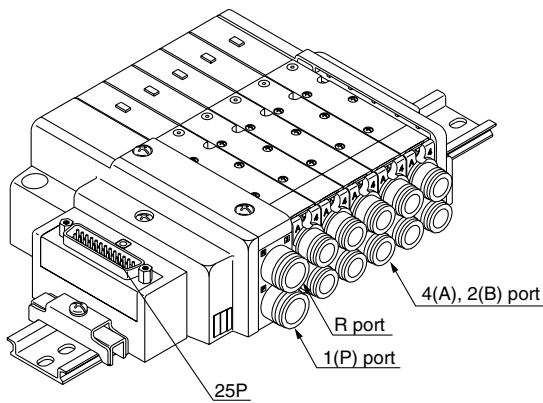


Note 1) One-touch fittings in inch sizes are also available. For details, refer to page 2-3-110.

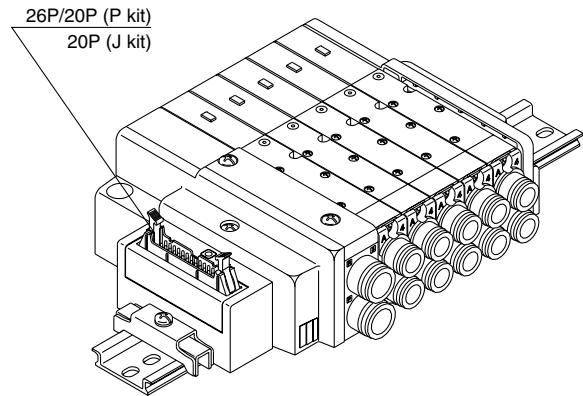
Note 2) Can be changed to side ported configuration.

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.

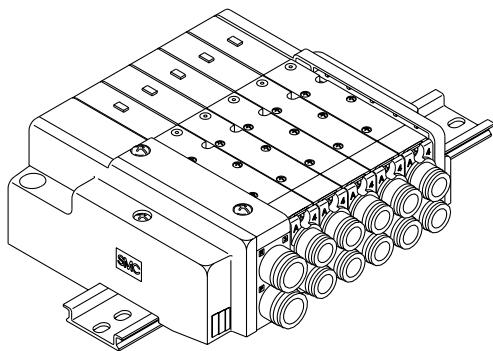
Note 4) Except valves. For valve weight, refer to page 2-3-88.



**F kit**



**P kit J kit**



**C kit**

VQC

SQ

VQ0

VQ4

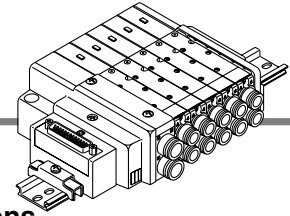
VQ5

VQZ

VQD

# Series SQ2000

## F Kit (D-sub Connector kit)



- Simplification and labor savings for wiring work can be achieved by using a D-sub connector for the electrical connection.
- Using connector for flat ribbon cable (25P) conforming to MIL standard permits the use of connectors put on the market and gives a wide interchangeability.
- Top or side entry for the connector can be changed freely, allowing later changes according to the mounting space.

### Manifold specifications

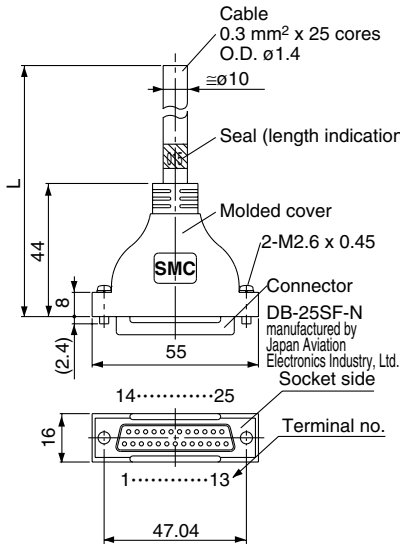
Series	Porting specifications		Maximum number of stations
	Port location	Port size	
SQ2000	Side, Top	1(P), 3(R)	12 stations (16 as an option)
		4(A), 2(B)	

### D-sub Connector (25 pins)

#### Cable assembly

AXT100-DS25-<sup>015</sup>  
-<sup>030</sup>  
-<sup>050</sup>

(D-sub connector cable assemblies can be ordered with manifolds.)



#### D-sub Connector Cable Assembly Terminal No.

Terminal number	Lead wire color	Dot marking
1	Black	None
2	Brown	None
3	Red	None
4	Orange	None
5	Yellow	None
6	Pink	None
7	Blue	None
8	Purple	White
9	Gray	Black
10	White	Black
11	White	Red
12	Yellow	Red
13	Orange	Red
14	Yellow	Black
15	Pink	Black
16	Blue	White
17	Purple	None
18	Gray	None
19	Orange	Black
20	Red	White
21	Brown	White
22	Pink	Red
23	Gray	Red
24	Black	White
25	White	None

#### D-sub Connector Cable Assembly (Option)

Cable length (L)	Assembly part no.	Note
1.5 m	AXT100-DS25-015	
3 m	AXT100-DS25-030	Cable 0.3 mm² x 25 cores
5 m	AXT100-DS25-050	

\* For other commercial connectors, use a 25 pins type with female connector conforming to MIL-C-24308.

\* Cannot be used for transfer wiring.

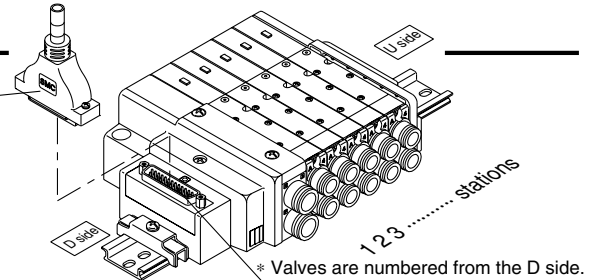
#### Electric Characteristics

Item	Characteristics
Conductor resistance Ω/km, 20°C	65 or less
Voltage limit VAC, 1 min.	1000
Insulation resistance MΩ/km, 20°C	5 or less

Note) The minimum bending radius for D-sub connector cables is 20 mm.

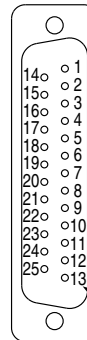
#### Connector manufacturers' example

- Fujitsu, Ltd.
- Japan Aviation Electronics Industry, Ltd.
- J.S.T. Mfg. Co., Ltd.
- Hirose Electric Co., Ltd.



#### Electrical wiring specifications

##### D-sub connector



As the standard electrical wiring specifications, double wiring (connected to SOL. A and SOL. B) is adopted for the internal wiring of each station for 12 stations or less, regardless of valve and option types. Mixed single and double wiring is available as an option.  
For details, refer to page 2-3-108.

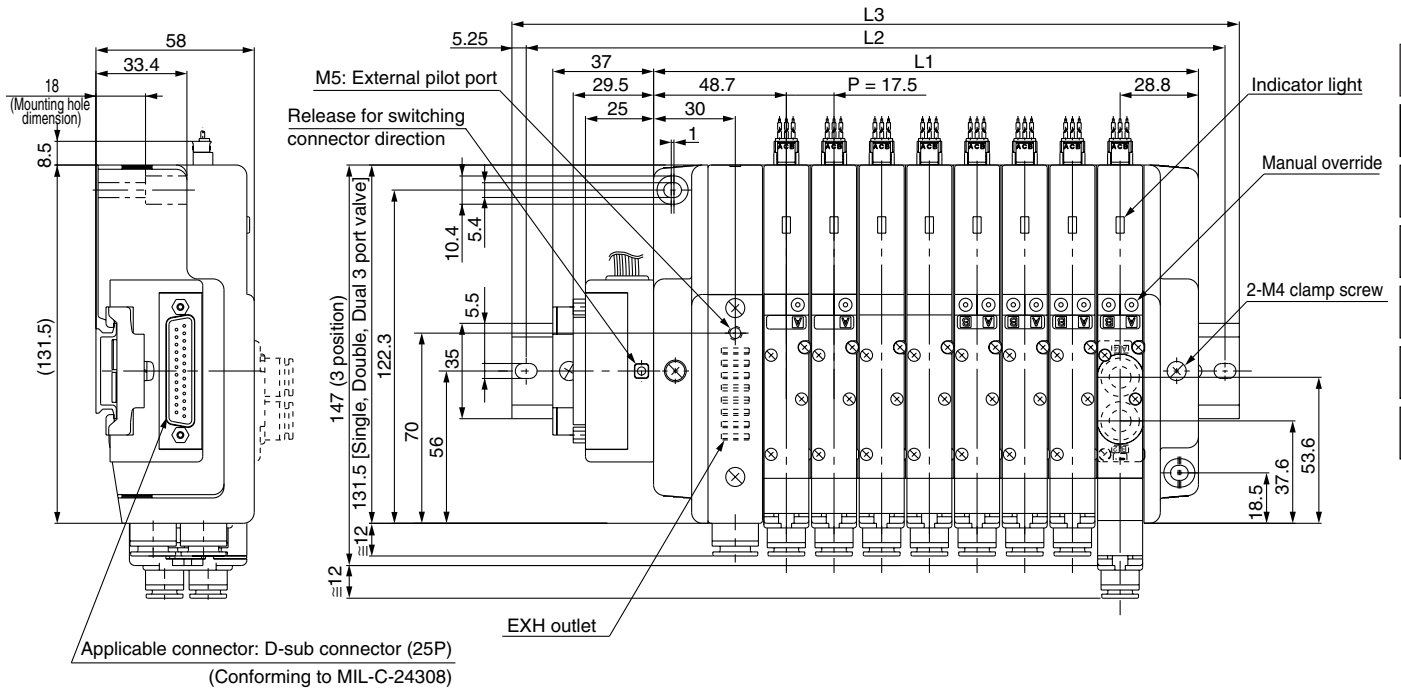
#### Lead wire colors for D-sub connector assembly

	Terminal no.	Polarity	Lead wire color	Dot marking
1 station	SOL.A 1	(-)	(+) Black	None
	SOL.B 14	(-)	(+) Yellow	Black
2 stations	SOL.A 2	(-)	(+) Brown	None
	SOL.B 15	(-)	(+) Pink	Black
3 stations	SOL.A 3	(-)	(+) Red	None
	SOL.B 16	(-)	(+) Blue	White
4 stations	SOL.A 4	(-)	(+) Orange	None
	SOL.B 17	(-)	(+) Purple	None
5 stations	SOL.A 5	(-)	(+) Yellow	None
	SOL.B 18	(-)	(+) Gray	None
6 stations	SOL.A 6	(-)	(+) Pink	None
	SOL.B 19	(-)	(+) Orange	Black
7 stations	SOL.A 7	(-)	(+) Blue	None
	SOL.B 20	(-)	(+) Red	White
8 stations	SOL.A 8	(-)	(+) Purple	White
	SOL.B 21	(-)	(+) Brown	White
9 stations	SOL.A 9	(-)	(+) Gray	Black
	SOL.B 22	(-)	(+) Pink	Red
10 stations	SOL.A 10	(-)	(+) White	Black
	SOL.B 23	(-)	(+) Gray	Red
11 stations	SOL.A 11	(-)	(+) White	Red
	SOL.B 24	(-)	(+) Black	White
12 stations	SOL.A 12	(-)	(+) Yellow	Red
	SOL.B 25	(-)	(+) White	None
	COM. 13	(+)	(-) Orange	Red

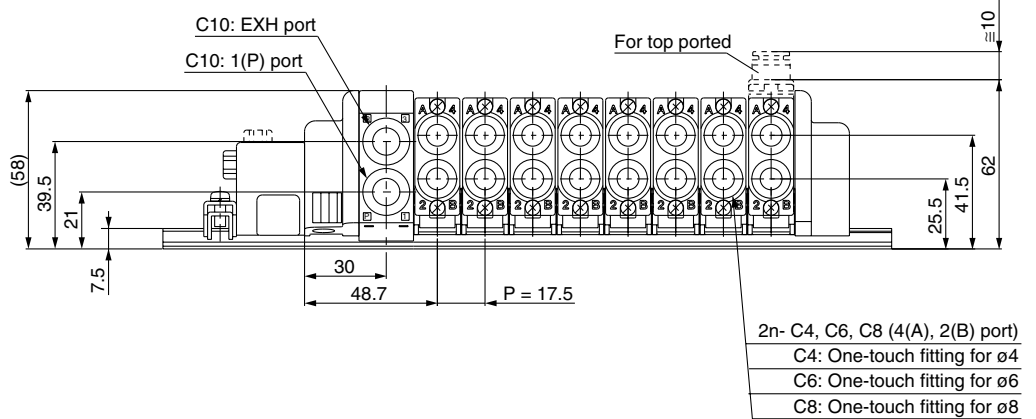
Positive common specifications      Negative common specifications (Note)

Note) When using the negative common specifications, use valves for negative common.

# Plug Lead Unit Series SQ2000



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



- 2n- C4, C6, C8 (4(A), 2(B) port)
- C4: One-touch fitting for ø4
- C6: One-touch fitting for ø6
- C8: One-touch fitting for ø8

## Dimensions

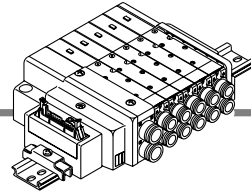
Formula:  $L1 = 17.5n + 60$  n: Stations (Maximum 16 stations)

L	n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1		77.5	95	112.5	130	147.5	165	182.5	200	217.5	235	252.5	270	287.5	305	322.5	340
L2		137.5	162.5	175	187.5	212.5	225	250	262.5	275	300	312.5	337.5	350	362.5	387.5	400
L3		148	173	185.5	198	223	235.5	260.5	273	285.5	310.5	323	348	360.5	373	398	410.5



# Series SQ2000

## P Kit (Flat ribbon cable connector)

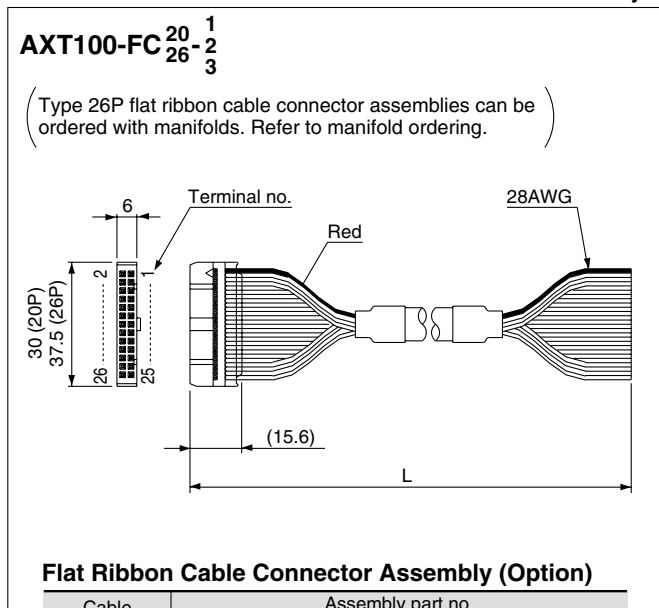


- Simplification and labor savings for wiring work can be achieved by using a MIL type for the electrical connection.
- Using connector for flat ribbon cable (26P, 20P) conforming to MIL standard permits the use of connectors put on the market and gives a wide interchangeability.
- Top or side entry for the connector can be changed freely, allowing later changes according to the mounting space.

### Manifold Specifications

Series	Porting specifications		Maximum number of stations
	Port location	Port size	
SQ2000	Side, Top	1(P), 3(R)	12 stations (16 as an option)
		4(A), 2(B)	

### Flat Ribbon Cable (26 pins, 20 pins)



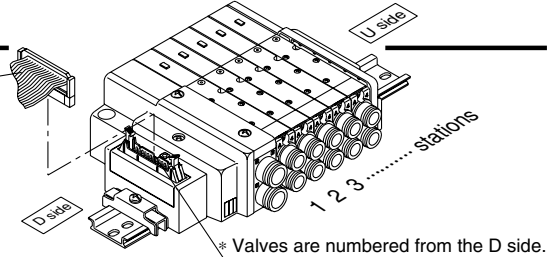
### Flat Ribbon Cable Connector Assembly (Option)

Cable length (L)	Assembly part no.	
	26P	20P
1.5 m	AXT100-FC26-1	AXT100-FC20-1
3 m	AXT100-FC26-2	AXT100-FC20-2
5 m	AXT100-FC26-3	AXT100-FC20-3

- \* For other commercial connectors, use a 26 pins or 20 pins with strain relief conforming to MIL-C-83503.
- \* Cannot be used for transfer wiring.

### Connector manufacturers' example

- Hirose Electric Co., Ltd.
- Sumitomo 3M Limited
- Fujitsu Limited
- Japan Aviation Electronics Industry, Ltd.
- J.S.T. Mfg. Co., Ltd.
- Oki Electric Cable Co., Ltd.



### Electrical wiring specifications

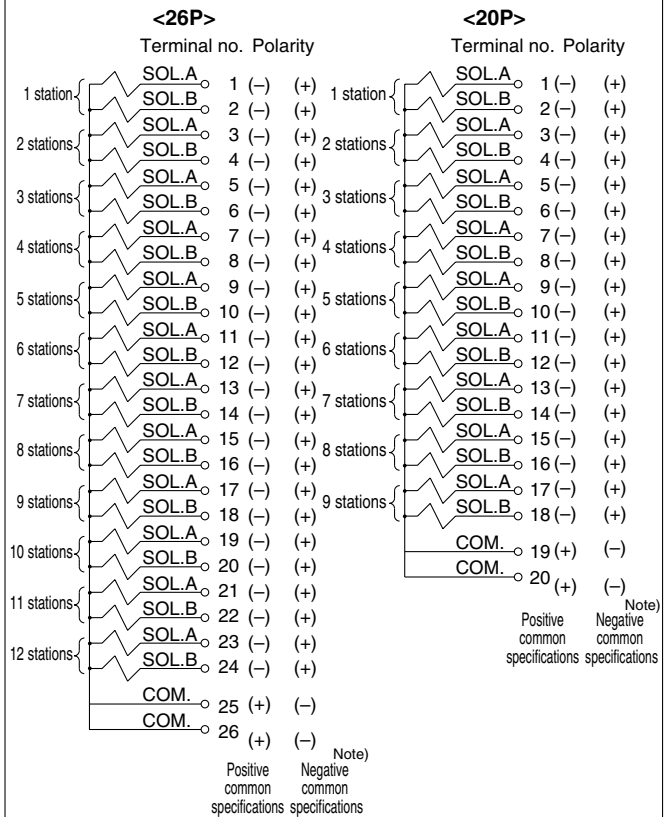
#### Flat ribbon cable connector

- 26 □ 25
- 24 □ 23
- 22 □ 21
- 20 □ 19
- 18 □ 17
- 16 □ 15
- 14 □ 13
- 12 □ 11
- 10 □ 9
- 8 □ 7
- 6 □ 5
- 4 □ 3
- 2 □ 1

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.  
For details, refer to page 2-3-108.

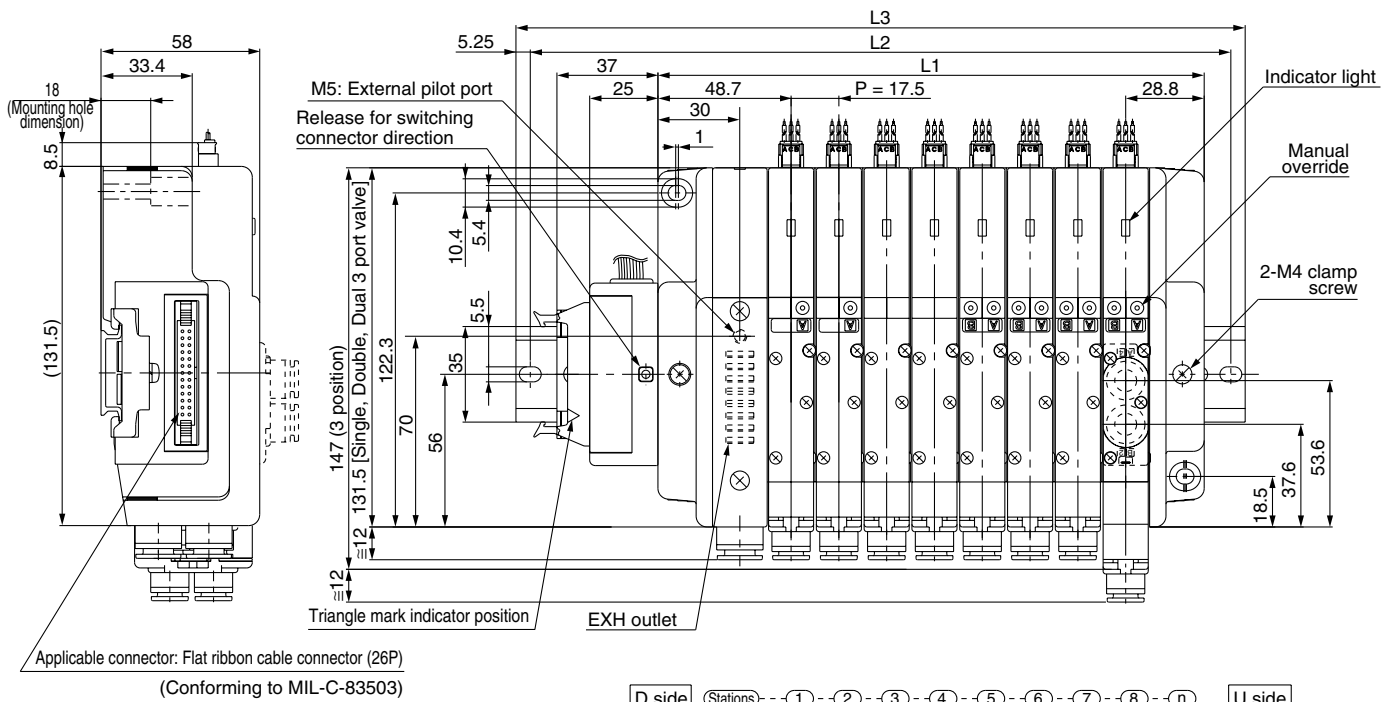
Connector terminal no.

Triangle mark indicator position

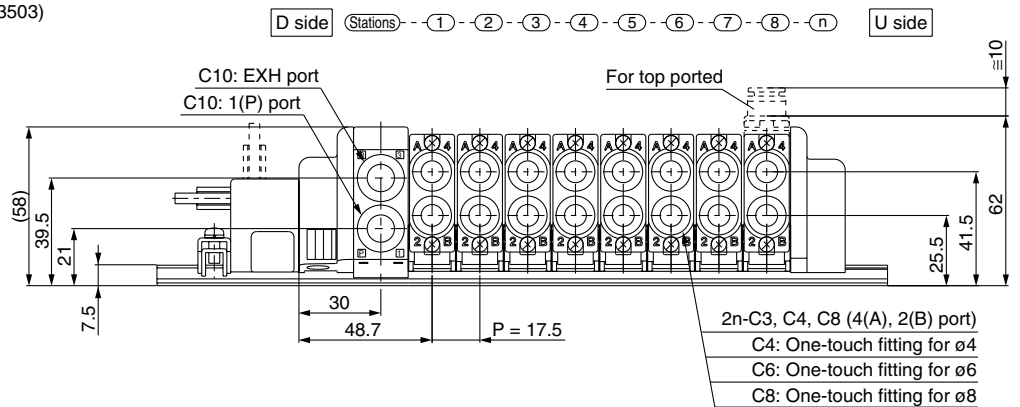


Note) When using the negative common specifications, use valves for negative common.

# Plug Lead Unit Series SQ2000



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



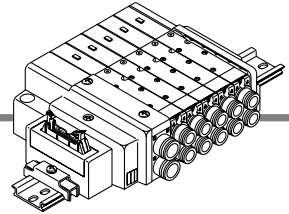
## Dimensions

Formula:  $L1 = 17.5n + 60$  n: Stations (Maximum 16 stations)

L	n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1		77.5	95	112.5	130	147.5	165	182.5	200	217.5	235	252.5	270	287.5	305	322.5	340
L2		137.5	162.5	175	187.5	212.5	225	250	262.5	275	300	312.5	337.5	350	362.5	387.5	400
L3		148	173	185.5	198	223	235.5	260.5	273	285.5	310.5	323	348	360.5	373	398	410.5

# Series SQ2000

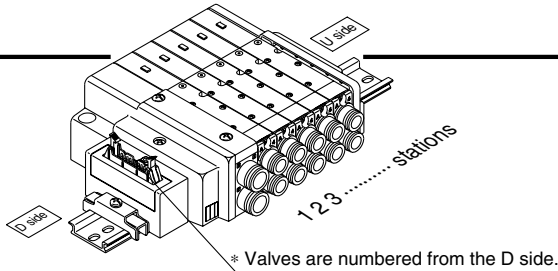
## J Kit (PC wiring system compatible flat ribbon cable Kit)



- PC Wiring System compatible.
- Using connector for flat ribbon cable (20P) conforming to MIL standard permits the use of connectors put on the market and gives a wide interchangeability.
- Top or side entry for the connector can be changed freely, allowing later changes according to the mounting space.

### Manifold specifications

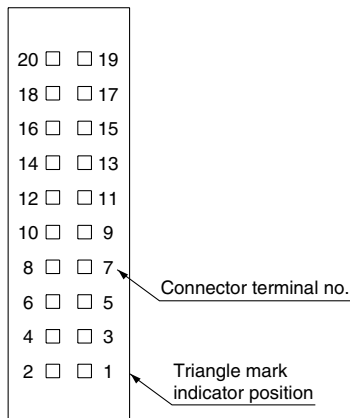
Series	Port location	Porting specifications		Maximum number of stations
		1(P), 3(R)	4(A), 2(B)	
SQ2000	Side, Top	C10	C4, C6, C8	8 stations (16 as an option)



### Electrical wiring specifications

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.  
For details, refer to page 2-3-108.

#### Flat ribbon cable connector

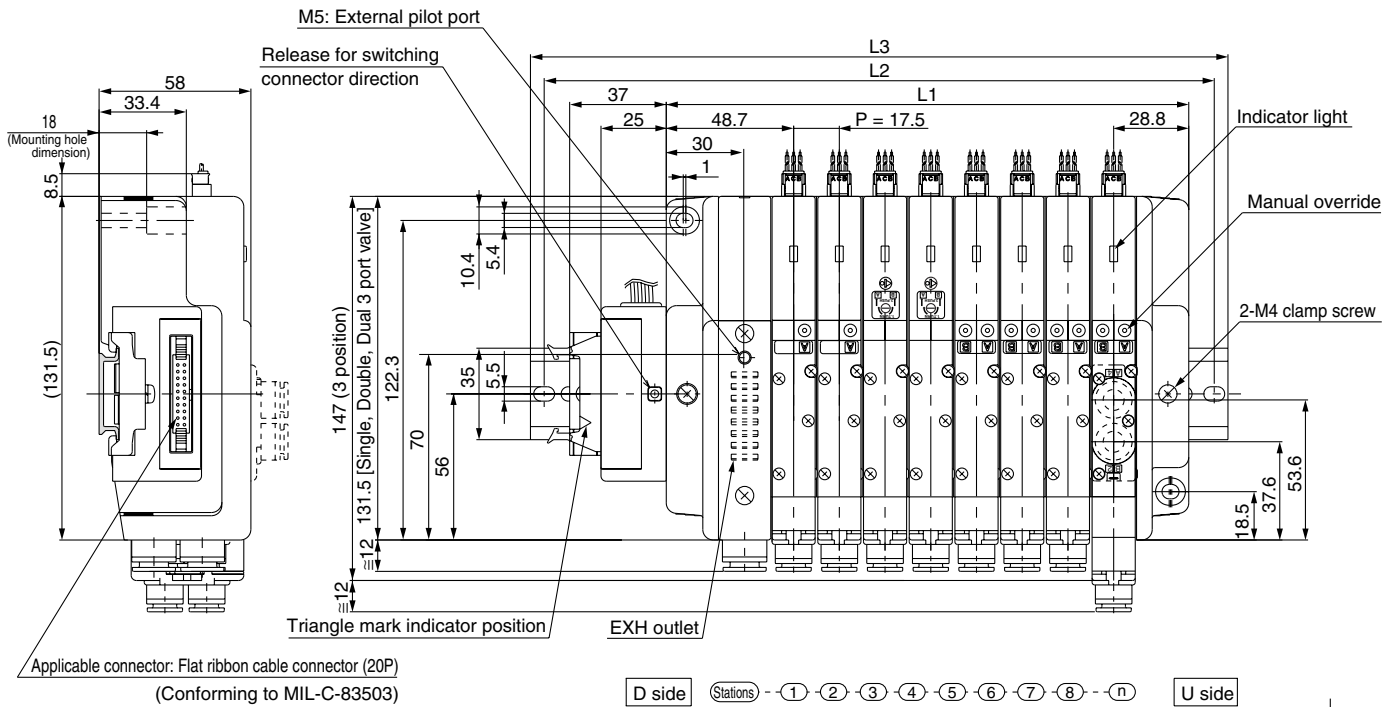


	Terminal no.	Polarity
1 station	SOL.A 20	(-) (+)
	SOL.B 18	(-) (+)
2 stations	SOL.A 16	(-) (+)
	SOL.B 14	(-) (+)
3 stations	SOL.A 12	(-) (+)
	SOL.B 10	(-) (+)
4 stations	SOL.A 8	(-) (+)
	SOL.B 6	(-) (+)
5 stations	SOL.A 19	(-) (+)
	SOL.B 17	(-) (+)
6 stations	SOL.A 15	(-) (+)
	SOL.B 13	(-) (+)
7 stations	SOL.A 11	(-) (+)
	SOL.B 9	(-) (+)
8 stations	SOL.A 7	(-) (+)
	SOL.B 5	(-) (+)
	4	(-) (+)
	3	(-) (+)
	COM. 2	(+) (-)
	COM. 1	(+) (-)

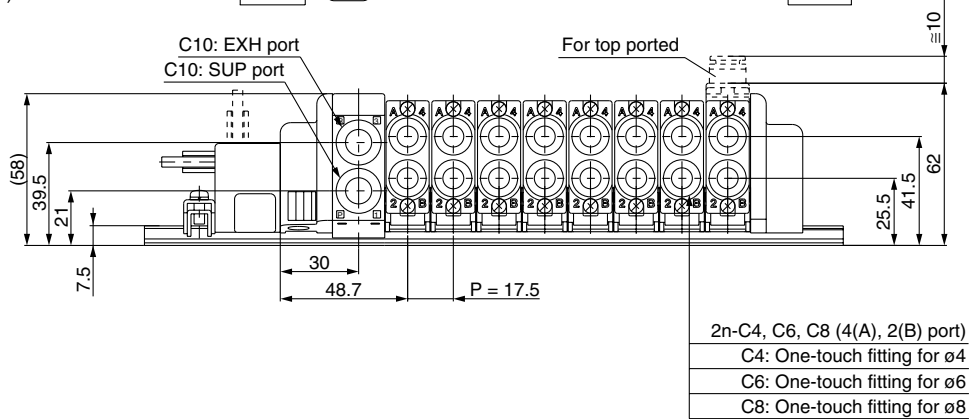
Positive common specifications      Negative common specifications <sup>Note)</sup>

Note) When using the negative common specifications, use valves for negative common.  
For details about the PC Wiring System, refer to catalog CAT.ES02-20 separately.

# Plug Lead Unit Series SQ2000



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



## Dimensions

Formula:  $L1 = 17.5n + 60$  n: Stations (Maximum 16 stations)

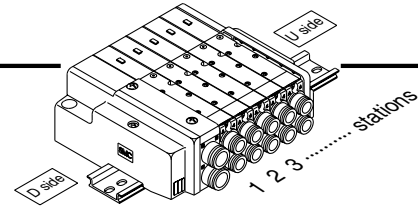
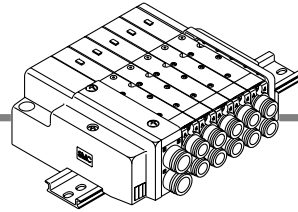
L	n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1		77.5	95	112.5	130	147.5	165	182.5	200	217.5	235	252.5	270	287.5	305	322.5	340
L2		137.5	162.5	175	187.5	212.5	225	250	262.5	275	300	312.5	337.5	350	362.5	387.5	400
L3		148	173	185.5	198	223	235.5	260.5	273	285.5	310.5	323	348	360.5	373	398	410.5

# Series SQ2000

## C Kit (Connector)

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

Series	Porting specifications			Maximum number of stations
	Port location	Port size		
		1(P), 3(R)	4(A), 2(B)	
<b>SQ2000</b>	Side, Top	C10	C4, C6, C8	16 stations

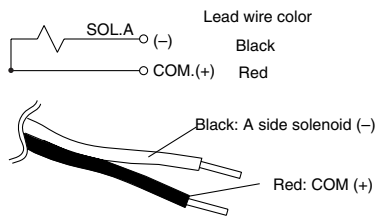


\* Valves are numbered from the D side.

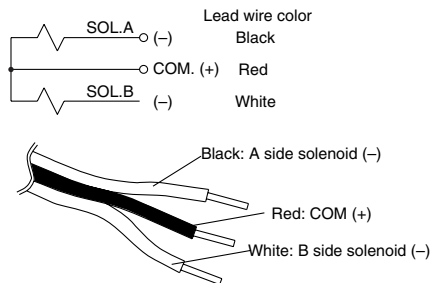
### ● Wiring Specifications: Positive COM Specifications

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

#### Single solenoid



#### Double 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.

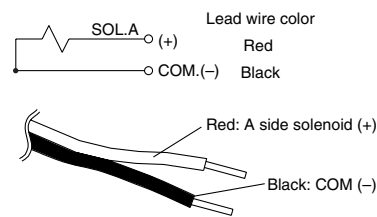
#### Connector Assembly Part No.

Lead wire length	Single solenoid	Double solenoid
Socket only (3 pcs.)	AXT661-12AL	
300 mm	AXT661-14AL	AXT661-13AL
600 mm	AXT661-14AL-6	AXT661-13AL-6
1000 mm	AXT661-14AL-10	AXT661-13AL-10
2000 mm	AXT661-14AL-20	AXT661-13AL-20
3000 mm	AXT661-14AL-30	AXT661-13AL-30

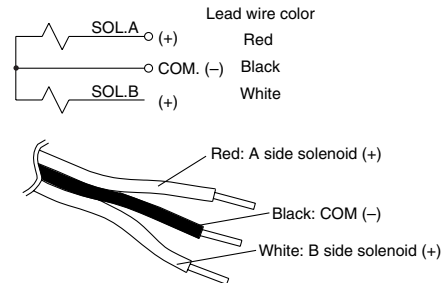
### ● Wiring Specifications: Negative COM Specifications (Option)

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

#### Single solenoid



#### Double 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.

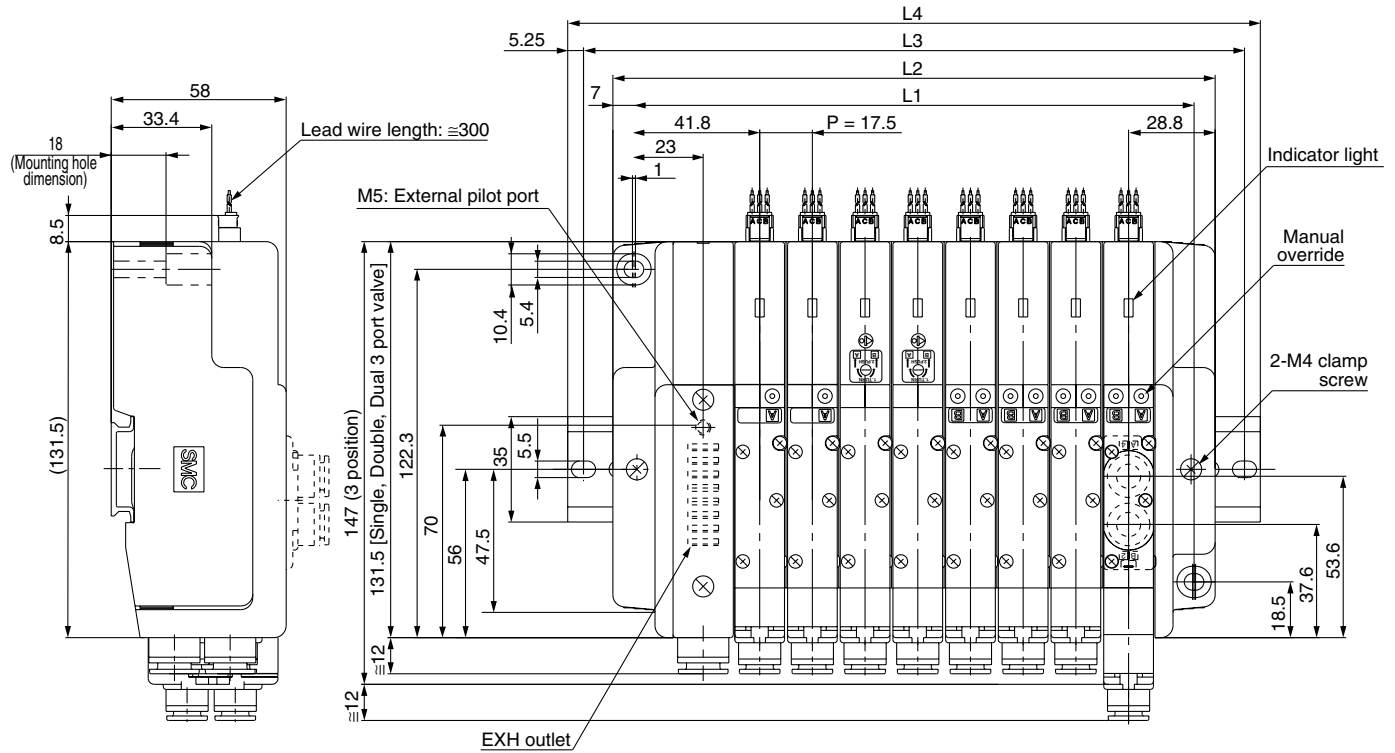
Example) For lead wire length of 1000 mm: SQ1140-5LO-C6...3 pcs.  
AXT661-14ANL-10...3 pcs.

#### Connector Assembly Part no.

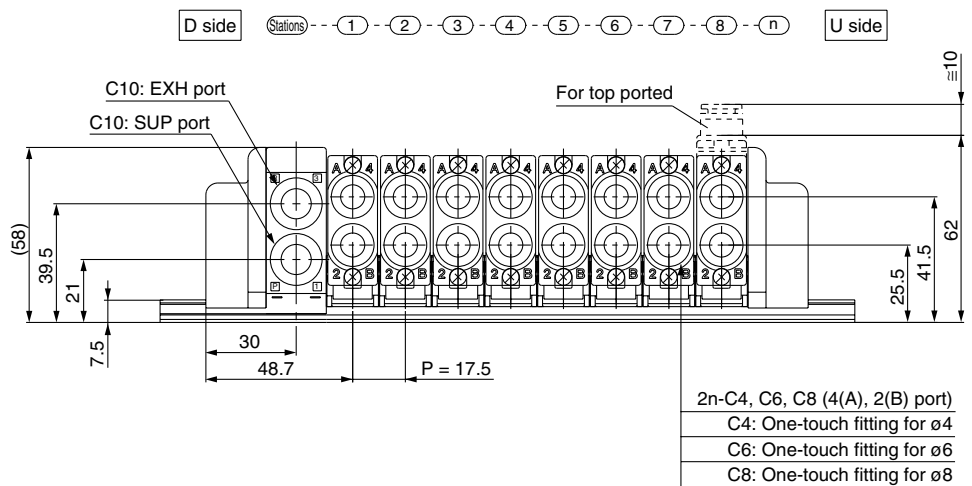
Lead wire length	Single solenoid	Double solenoid
Socket only (3 pcs.)	AXT661-12AL	
300 mm	AXT661-14ANL	AXT661-13ANL
600 mm	AXT661-14ANL-6	AXT661-13ANL-6
1000 mm	AXT661-14ANL-10	AXT661-13ANL-10
2000 mm	AXT661-14ANL-20	AXT661-13ANL-20
3000 mm	AXT661-14ANL-30	AXT661-13ANL-30

Note) When using the negative common specifications, use valves for negative common.

# Plug Lead Unit Series SQ2000



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



## Dimensions

Formula:  $L1 = 17.5n + 46$ ,  $L2 = 17.5n + 60$  n: Stations (Maximum 16 stations)

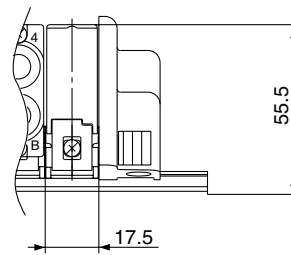
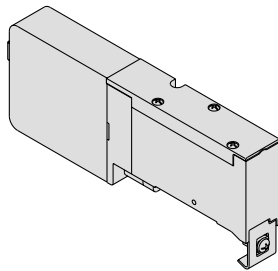
L	n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1		63.5	81	98.5	116	133.5	151	168.5	186	203.5	221	238.5	256	273.5	291	308.5	326
L2		77.5	95	112.5	130	147.5	165	182.5	200	217.5	235	252.5	270	287.5	305	322.5	340
L3		100	125	137.5	150	175	187.5	212.5	225	237.5	262.5	275	300	312.5	325	350	362.5
L4		110.5	135.5	148	160.5	185.5	198	223	235.5	248	273	285.5	310.5	323	335.5	360.5	373

## Manifold Option Parts for SQ2000

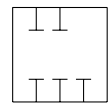
### Blanking plate

#### SSQ2000-10A-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.



JIS Symbol



### SUP/EXH block

#### SSQ2000-PR-3-C10-□

##### Option

Nil	Standard
R	External pilot specifications
S	Built-in silencer

Note) When specifying both options, indicate "RS".

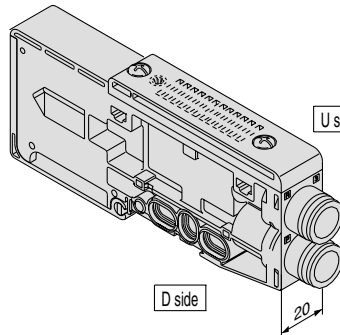
\* Specify the spacer mounting position on the manifold

For standard type manifolds, the SUP/EXH block is mounted on the D side.

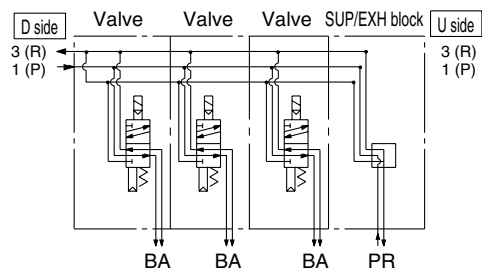
It is added to the manifold to increase SUP/EXH capacity.

\* The number of SUP/EXH blocks that can be added is limited to two sets, one between manifold stations and another on the U side of manifold, due to the length of the lead wire.

\* SUP/EXH blocks are not included in the number of manifold stations.



		Stations				
Description/Model		1	2	3	4	5
Valve	Single	●	●	●		
	:					
Option	SUP/EXH block				●	
	SSQ2000-PR-3-C10-□					



### Individual SUP spacer

#### SSQ2000-P-4-C8

##### Port location

C8	Side ported
L8	Top ported

This is used as a supply port for different pressures 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.)

\* 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.

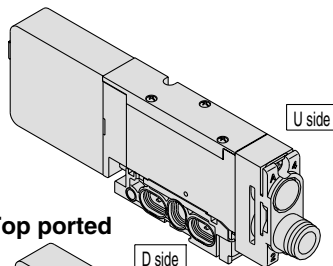
\* By changing the fitting shown in the drawing and the block plates, the spacer's specification can be changed later (from the individual SUP spacer to the individual EXH spacer).

\* 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.

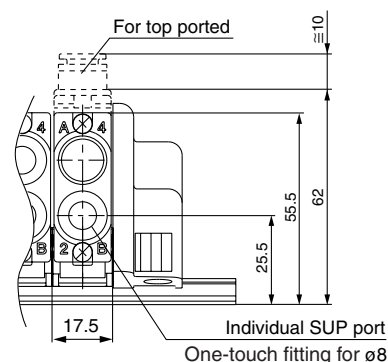
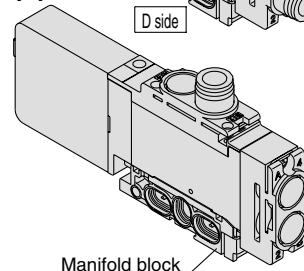
\* Model no. with manifold block:

SSQ2000-P-4-<sup>C8</sup>/<sub>L8</sub>-M

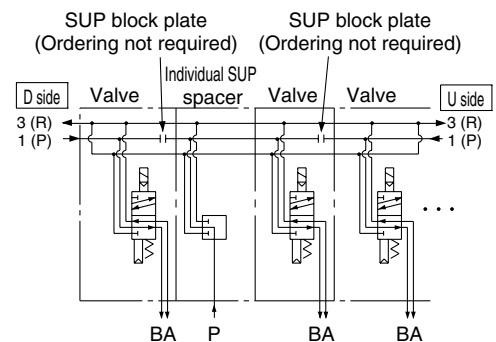
#### Side ported



#### Top ported



		Stations				
Description/Model		1	2	3	4	5
Valve	Single	●	●	●		
	:					
Option	Individual SUP spacer		●			
	SUP shut off position: Specify 2 positions.	●	●			



# Series SQ1000/2000

## Manifold Option Parts for SQ2000

### Individual EXH spacer

SSQ2000-R-4-**C8**

•Port location

<b>C8</b>	Side ported
<b>L8</b>	Top ported

This is used to exhaust an individual valve when the exhaust from a valve interferes with other stations in the circuit (used for one station). Both sides of the station which is to be individually exhausted are shut off. (Refer to application example.)

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

(Four pieces of EXH block plate that shut off the exhaust are included 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.

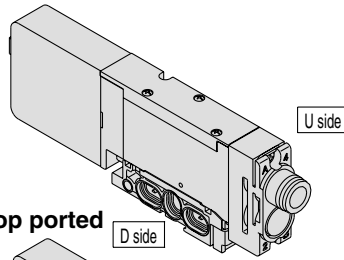
\* By changing the fitting shown in the drawing and the block plates, the spacer's specification can be changed later (from the individual EXH spacer to the individual SUP spacer)

\* 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.

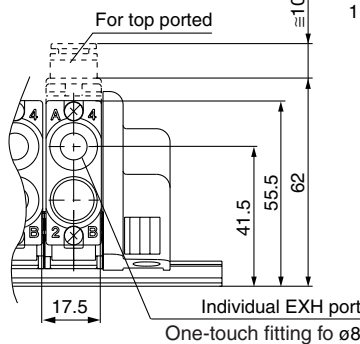
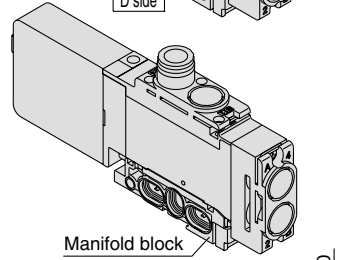
\* Model no. with manifold block:

SSQ2000-R-4-**C8**-M  
**L8**

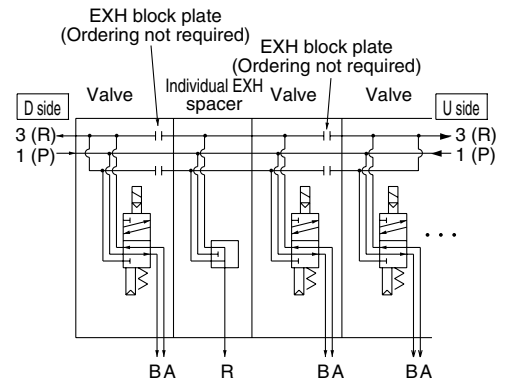
#### Side ported



#### Top ported



		Stations				
Description/Model		1	2	3	4	5
Valve	Single	●	●	●		
	⋮					
Option	Individual EXH spacer SSQ2000-R-4- <b>C8</b> <b>L8</b>		●			
	EXH shut off position: Specify 2 positions.	●		●		



### Individual SUP/EXH spacer

SSQ2000-PR1-4-**C8**

•Port location

<b>C8</b>	Side ported
<b>L8</b>	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.

[Block plates that shut off the SUP and EXH passages are included with the individual SUP/EXH spacer (2 pcs. of SUP block plate and 4 pcs. of EXH block plate).]

\* Electrical wiring is also connected to the manifold station with the individual EXH spacer.

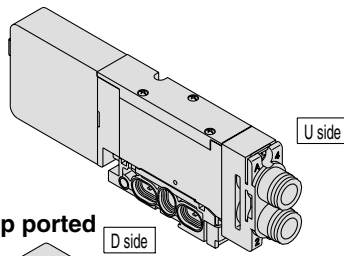
\* By changing the fitting shown in the drawing and the block plates, the spacer's specification can be changed later.

\* 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.

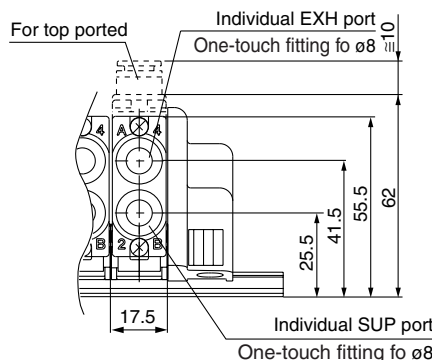
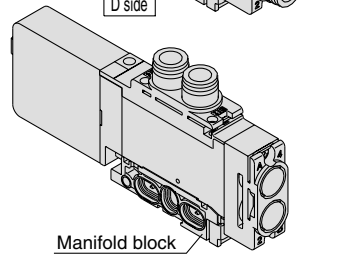
\* Model no. with manifold block:

SSQ2000-PR1-4-**C8**-M  
**L8**

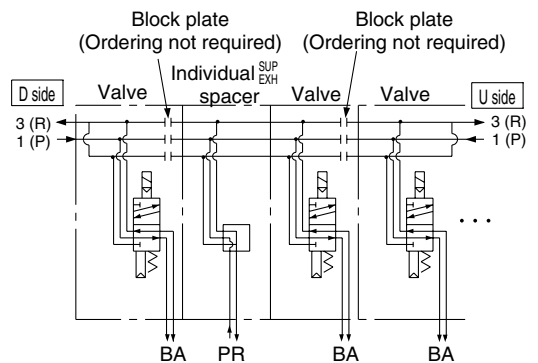
#### Side ported



#### Top ported



		Stations				
Description/Model		1	2	3	4	5
Valve	Single	●	●	●		
	⋮					
Option	Individual SUP/EXH spacer SSQ2000-PR1-4- <b>C8</b> <b>L8</b>		●			
	SUP shut off position: Specify 2 positions.	●		●		
	EXH shut off position: Specify 2 positions.	●		●		





## SUP block plate

### SSQ1000-B-R

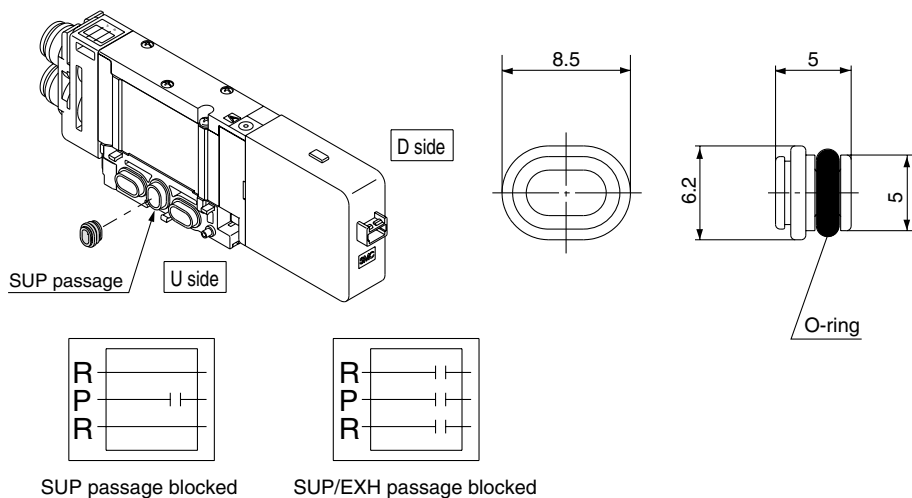
When supplying two different pressures, high and low, to one manifold, this is used between stations with different pressures. Also, it is used with an individual SUP spacer to shut off the air supply.

\* 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.



VQC

SQ

VQ0

VQ4

VQ5

VQZ

VQD

## EXH block plate

### SSQ2000-B-R

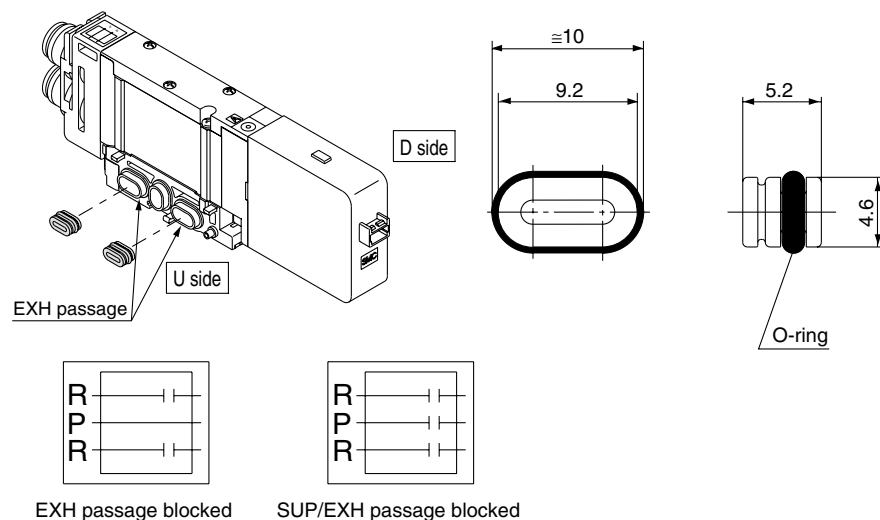
When the exhaust from a valve interferes with other stations in the circuit, this is used between stations to separate exhausts. Also, it is used with an individual EXH spacer to shut off the exhaust of individual valves.

\* 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.



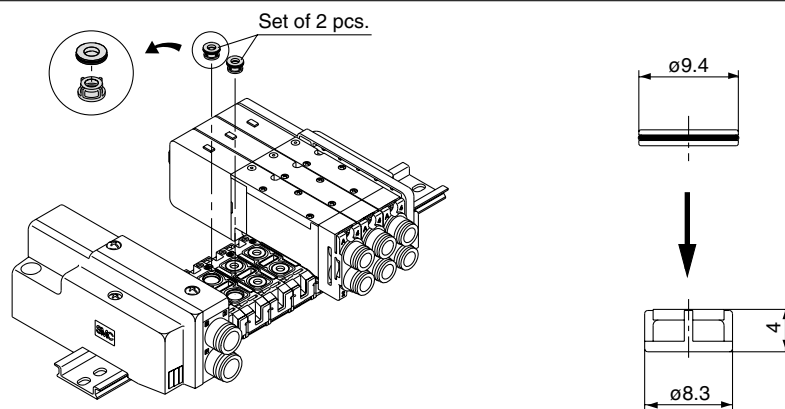
## Back pressure check valve [-B]

### SSQ2000-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.



### ⚠ 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.

# Series SQ1000/2000

## Manifold Option Parts for SQ2000

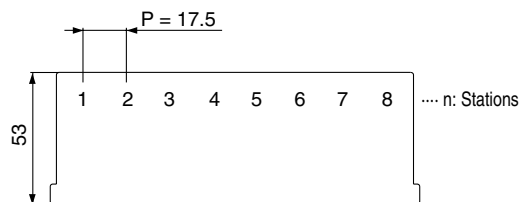
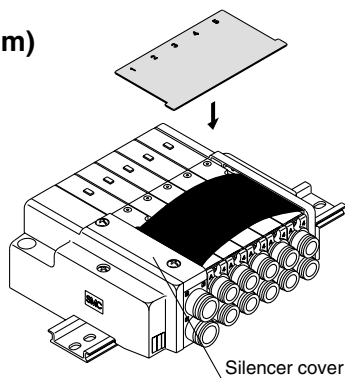
### Name plate [-N]

#### SSQ2000-N3- Stations (1 to maximum)

This is a clear resin plate for applying solenoid valve function description labels, etc.

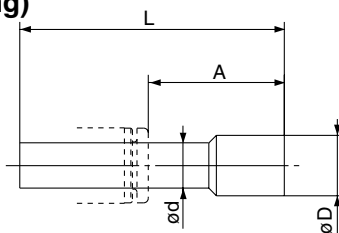
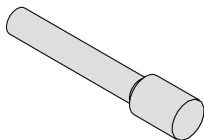
To install, bend the plate slightly as shown and insert into the slots on the end plate side. Also, the plate is difficult to bend for manifolds with only a few stations, therefore, remove the silencer cover to install it.

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



### Blanking plug (For One-touch fitting)

04  
KQ2P-06  
08  
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.

### Dimensions

Applicable fittings size (ød)	Model	A	L	D
4	KQ2P-04	16	32	6
6	KQ2P-06	18	35	8
8	KQ2P-08	20.5	39	10
10	KQ2P-10	22	43	12

### Port plug

#### VVQZ2000-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) SQ2141-5L-C8-A (N.O. specifications)

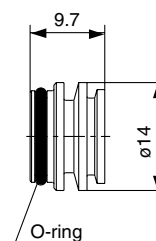
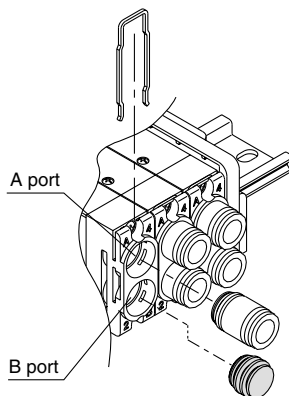
• 4(A) port plug

Example) SQ2141-5L-C8-B (N.C. specifications)

• 2(B) port plug

Example) SQ2141-5L-C8-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.

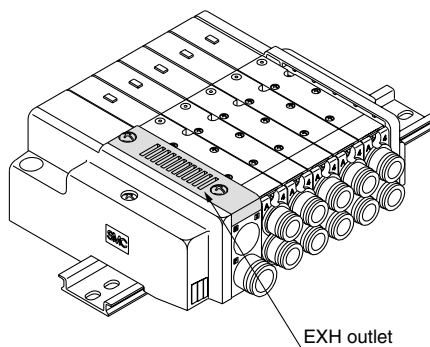
(Noise reduction of 30 dB)



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.



# Plug Lead Unit Series SQ1000/2000

## 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 specifications.

An M5 port will be installed on the top side of the manifold's SUP/EXH block.

- How to order valves (Example)  
SQ2140 R -5L-C6

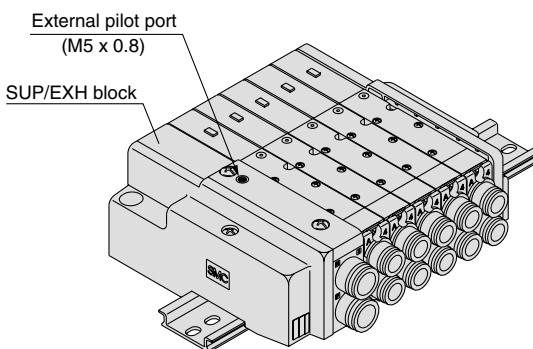
External pilot specifications

- How to order manifold (Example)

\* Indicate "R" for an option.

SS5Q24-08FD1-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.

VQC

SQ

VQ0

VQ4

VQ5

VQZ

VQD

## Dual flow fitting

### SSQ2000-52A-C10

Port size

C10	ø10
N11	ø3/8"

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 ø10 and ø3/8" One-touch fittings.

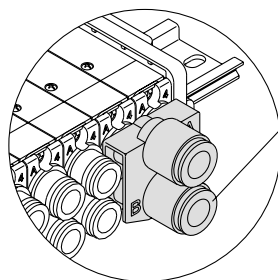
\* When ordering with valves, specify the valve part number without One-touch fitting and list without One-touch fitting and list the dual flow fitting part number.

Example) Valve part number (without One-touch fitting)

SQ2141-5L-C0 ..... 2 sets

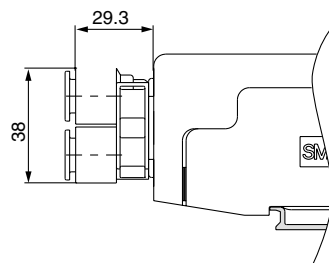
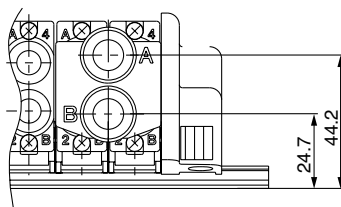
\* SSQ2000-52A-C10 ..... 1 set

N11



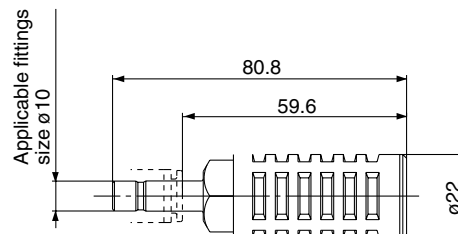
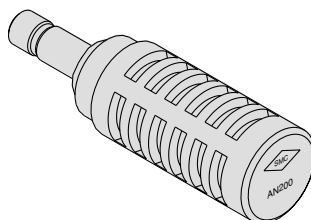
C10: ø10 One-touch fitting

N11: ø3/8" One-touch fitting



## Silencer (For EXH port)

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



## Specifications

Series	Model	Effective area (mm <sup>2</sup> ) (Cv factor)	Noise reduction (dB)
SQ2000	AN200-KM10	26 (1.4)	30

# Series SQ1000/2000

## 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

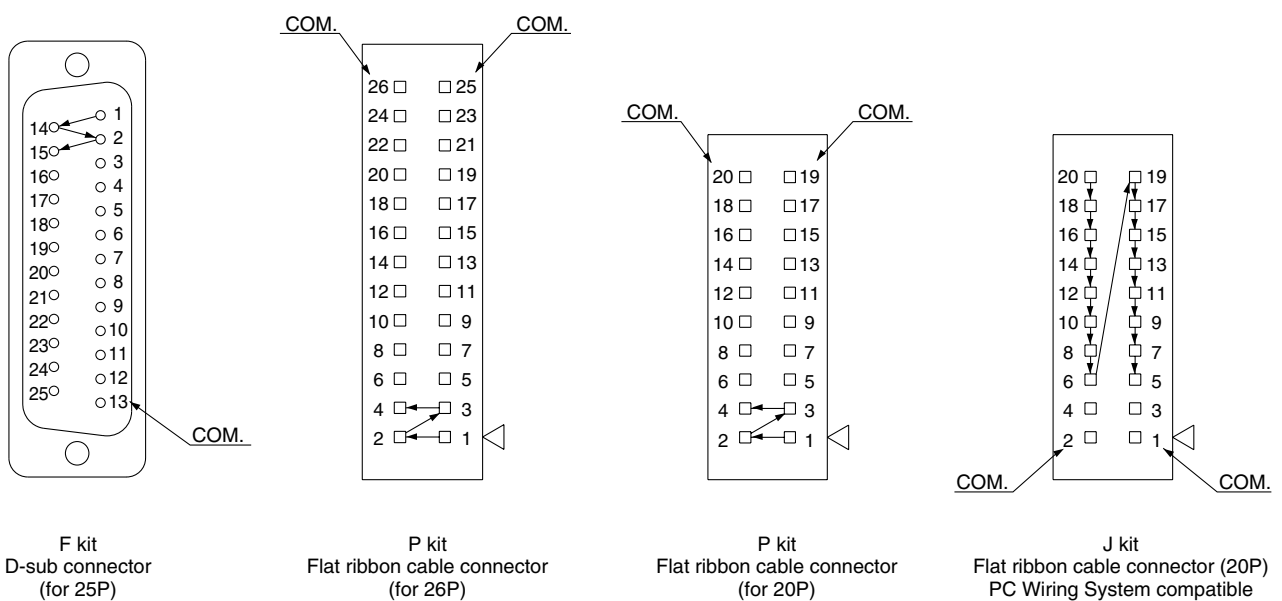
Indicate option symbol “-K” in the manifold part number and be sure to specify station positions for single or double wiring on the manifold specification sheet.

Example) **SS5Q14-09FD0-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 kit (Flat ribbon cable connector)		J kit Flat ribbon cable PC Wiring System compatible
Type	FD□ 25P	PD□ 26P	PDC 20P	JD0 20P
Max. points	24 points	24 points	18 points	16 points

Note) Maximum stations .... SQ1000: 24 stations  
SQ2000: 16 stations

## 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.

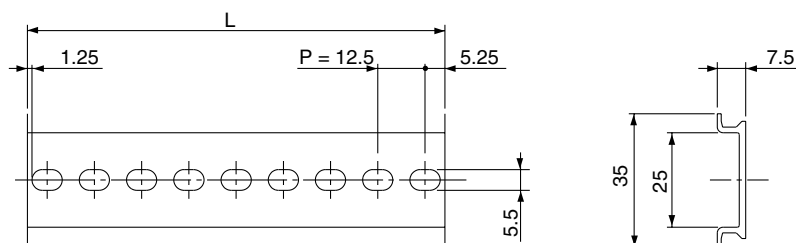
Example) **SS5Q14- 08FD0 - D09BNK**

- 8 station manifold
- Option symbols (alphabetically)
- DIN rail for 9 stations

### ● Ordering DIN rail only

DIN rail part number

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



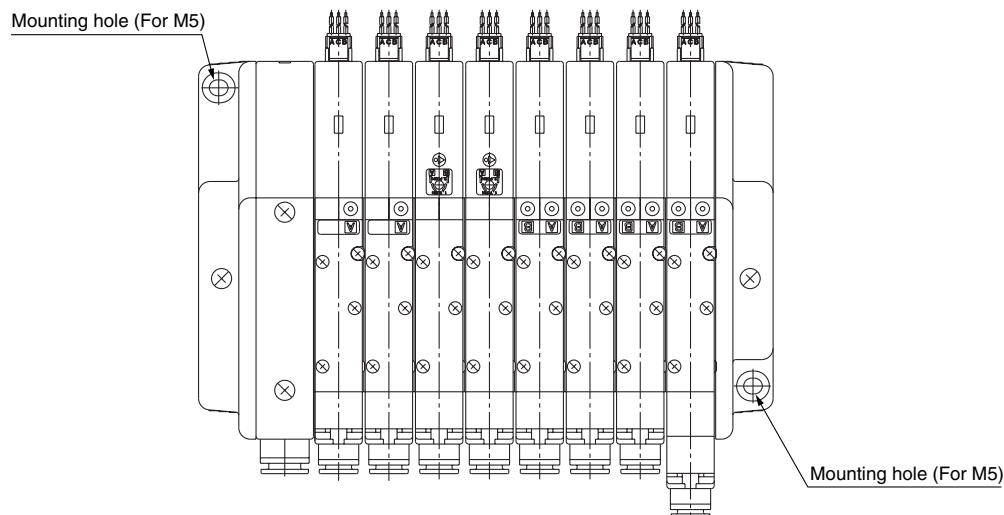
### L Dimension

$$L = 12.5 \times n + 10.5$$

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.



# Series SQ1000/2000

## 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

Port location

Cylinder port

Nil	Side ported	Symbol	N1	N3	N7	N9	
L	Top ported	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)

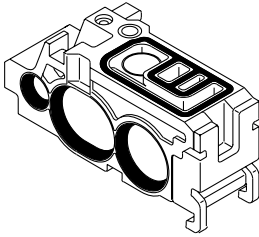
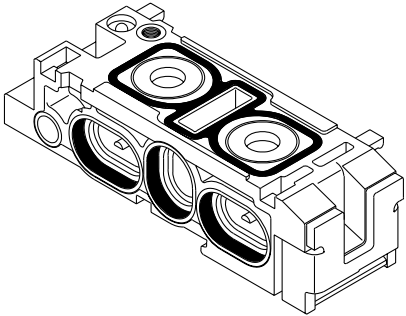




## How to Add Manifold Stations for SQ1000/SQ2000

### 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.

#### Manifold Block Part No.

SQ1000	SQ2000												
													
<p><b>SSQ1000-1A-4-</b> </p> <p>Option ● </p> <table border="1" data-bbox="279 1108 574 1198"> <tr> <td><b>Nil</b></td> <td>None</td> </tr> <tr> <td><b>B</b></td> <td>Back pressure check valve</td> </tr> <tr> <td><b>R</b></td> <td>External pilot specifications</td> </tr> </table> <p>Note) Enter "-BR" for both options.</p>	<b>Nil</b>	None	<b>B</b>	Back pressure check valve	<b>R</b>	External pilot specifications	<p><b>SSQ2000-1A-4-</b> </p> <p>Option ● </p> <table border="1" data-bbox="997 1108 1292 1198"> <tr> <td><b>Nil</b></td> <td>None</td> </tr> <tr> <td><b>B</b></td> <td>Back pressure check valve</td> </tr> <tr> <td><b>R</b></td> <td>External pilot specifications</td> </tr> </table> <p>Note) Enter "-BR" for both options.</p>	<b>Nil</b>	None	<b>B</b>	Back pressure check valve	<b>R</b>	External pilot specifications
<b>Nil</b>	None												
<b>B</b>	Back pressure check valve												
<b>R</b>	External pilot specifications												
<b>Nil</b>	None												
<b>B</b>	Back pressure check valve												
<b>R</b>	External pilot specifications												

VQC

SQ

VQ0

VQ4

VQ5

VQZ

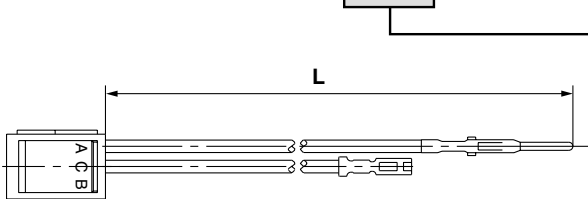
VQD

## SQ2000

D-sub connector kit (F kit)

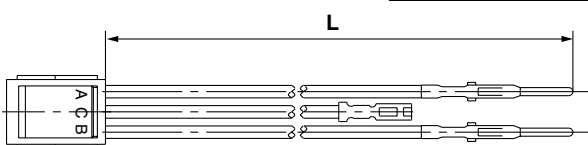
- For single wiring

**SSQ1000—40A—F—250**



- For double wiring

**SSQ1000—41A—F—350**

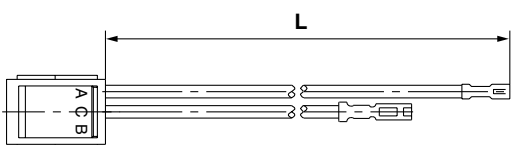


Stations	Symbol (L dimension)	Stations	Symbol (L dimension)
Station 2	190	Station 14	430
Station 3	210	Station 15	450
Station 4	230	Station 16	470
Station 5	250	Station 17	490
Station 6	270	Station 18	510
Station 7	290	Station 19	530
Station 8	310	Station 20	550
Station 9	330	Station 21	570
Station 10	250	Station 22	590
Station 11	370	Station 23	610
Station 12	390	Station 24	630
Station 13	410		

Flat ribbon cable kit (P kit), PC Wiring System compatible (J kit)

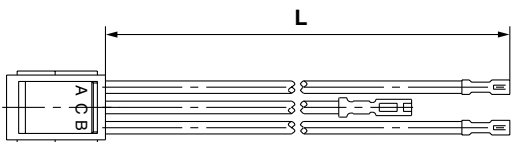
- For single wiring

**SSQ1000—40A—P—250**



- For double wiring

**SSQ1000—41A—P—350**



Stations	Symbol (L dimension)	Stations	Symbol (L dimension)
Station 2	190	Station 14	430
Station 3	210	Station 15	450
Station 4	230	Station 16	470
Station 5	250	Station 17	490
Station 6	270	Station 18	510
Station 7	290	Station 19	530
Station 8	310	Station 20	550
Station 9	330	Station 21	570
Station 10	250	Station 22	590
Station 11	370	Station 23	610
Station 12	390	Station 24	630
Station 13	410		

VQC

SQ

VQ0

VQ4

VQ5

VQZ

VQD

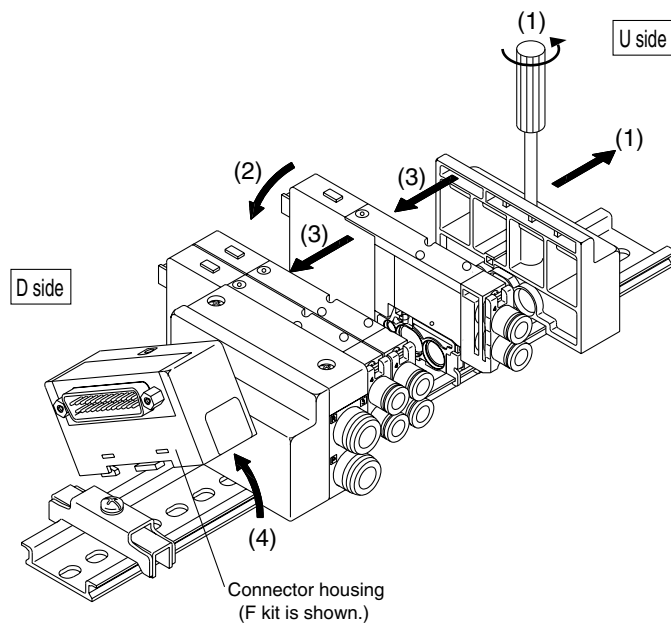


# Series SQ1000/2000

## How to Add Manifold Stations for SQ1000/SQ2000

### Steps for adding stations

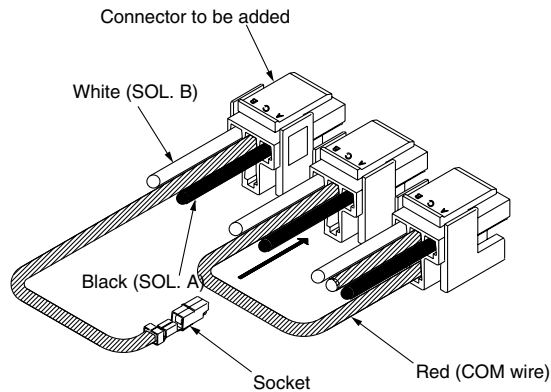
- (1) Loosen the clamp screw on the U side end plate and open the manifold.
- (2) Mount the manifold block or valve with manifold block to be added.
- (3) Press on the end plate to eliminate any space between the manifold blocks and tighten the clamp screw.  
(Proper tightening torque: 0.8 to 1.0 N·m)
- (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

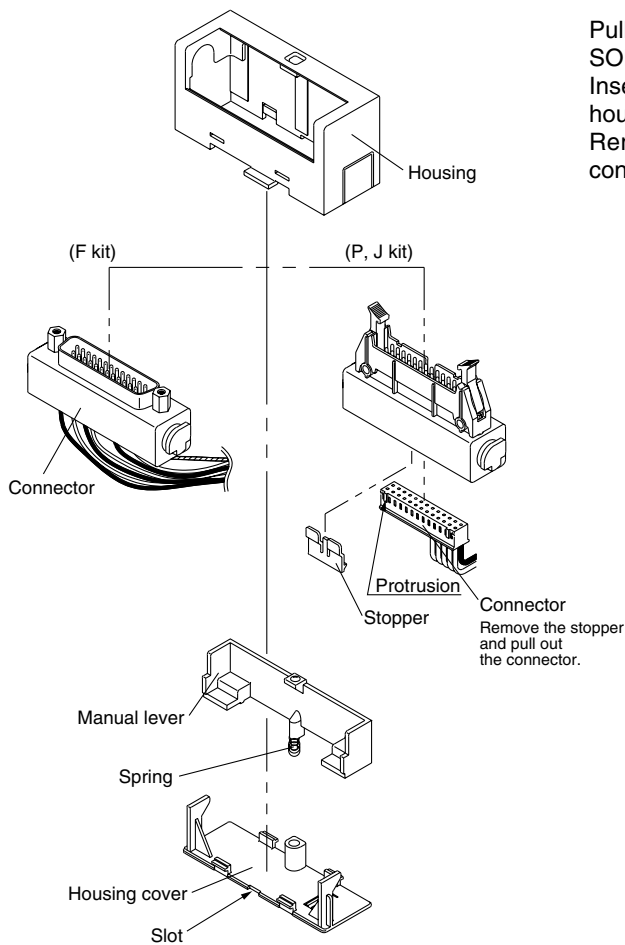
### (1) Connecting common wire

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,



VQC
SQ
VQ0
VQ4
VQ5
VQZ
VQD

### (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**

# Series SQ1000/2000

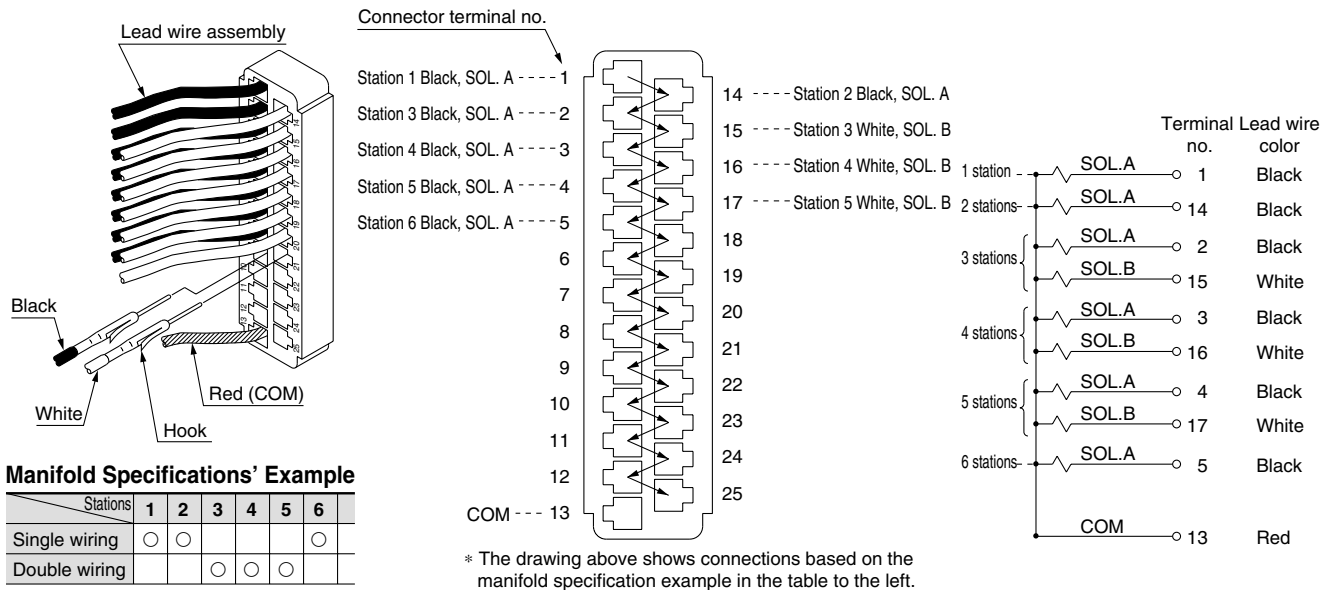
## How to Add Manifold Stations for SQ1000/SQ2000

(3) Connector connection/Connect the black and white lead wire pins to the positions shown below in accordance with each kit.

- ⚠ Caution**
1. After inserting the pin, confirm that the pin hook is locked by lightly pulling the lead wire.
  2. Do not pull the lead wire forcefully when connecting. Also, take care that lead wires do not get caught between manifolds or when remounting the housing.

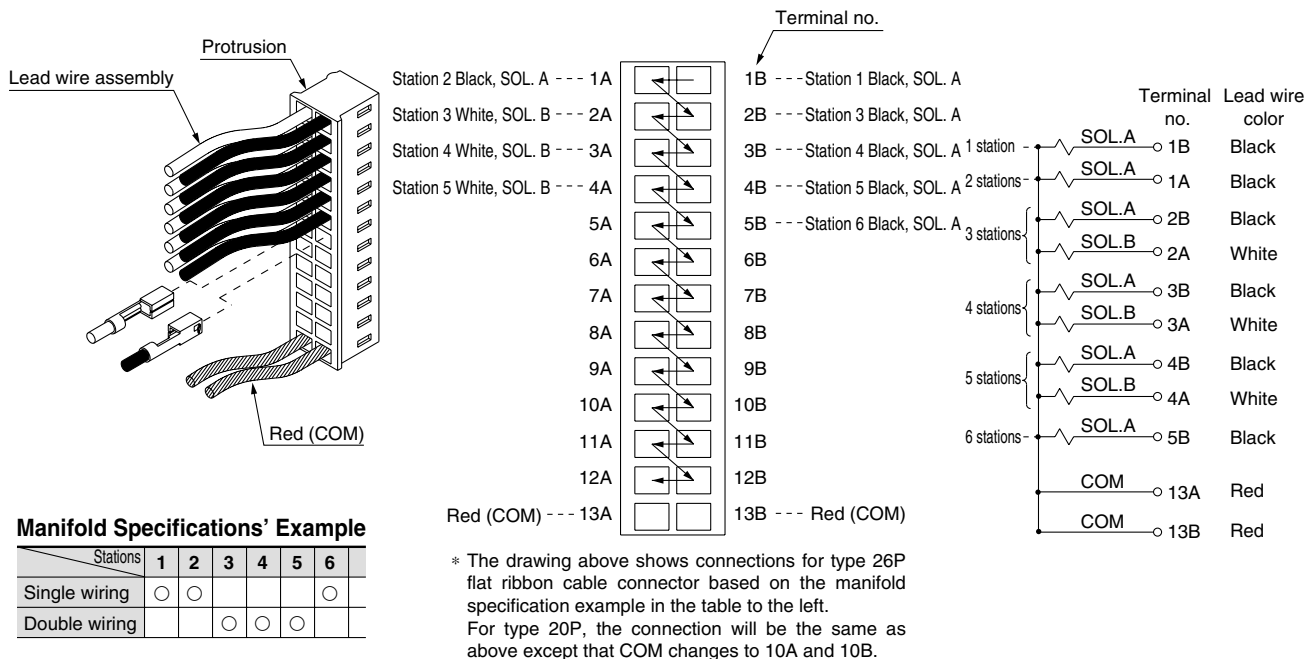
### Wiring (F kit: D-sub connector kit)

Procedure) Based on the manifold specifications, station 1 of SOL.A (black wire) will be terminal number 1 of the D-sub connector, and for station 2 and thereafter, connect black wires, then white wires in the order as shown below by the arrows.



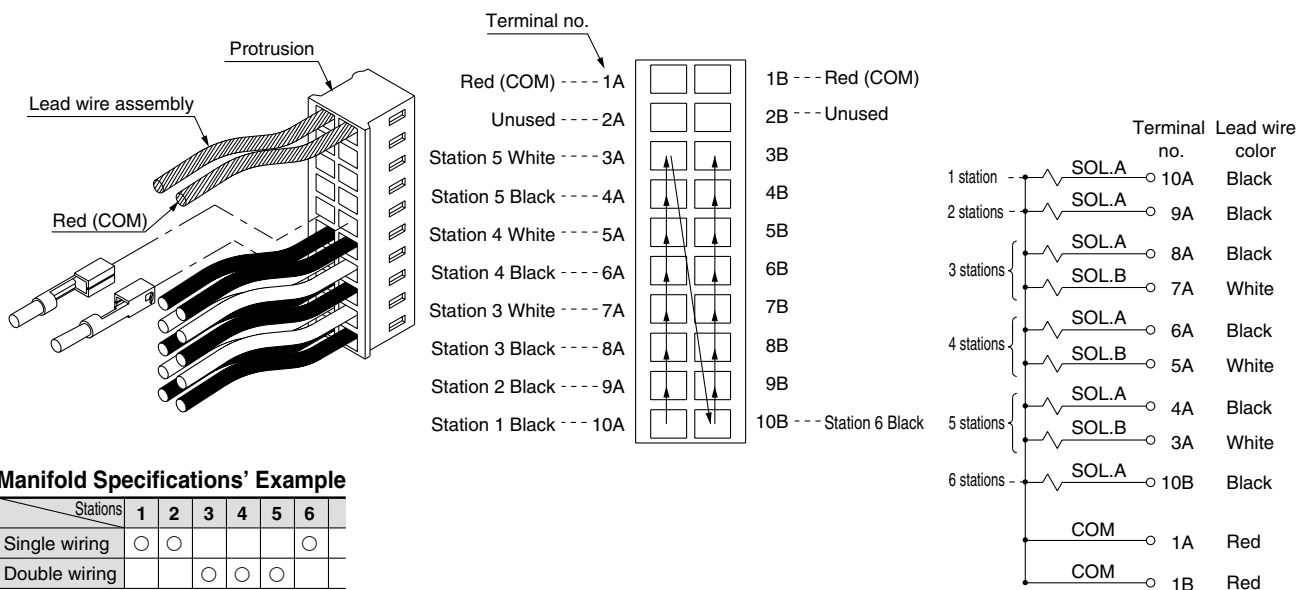
### Wiring (P kit: Flat ribbon cable kit)

Procedure) Based on the manifold specifications, station 1 of SOL.A (black wire) will be terminal number 1B of the flat ribbon cable connector, and for station 2 and thereafter, connect black wires, then white wires in the order as shown below by the arrows.



## Wiring (J kit: Flat ribbon cable, PC Wiring System compatible)

Procedure) Based on the manifold specifications, station 1 of SOL.A (black wire) will be terminal number 10A of the flat ribbon cable connector, and for station 2 and thereafter, connect black wires, then white wires in the order as shown below by the arrows.

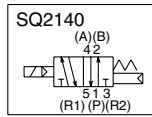
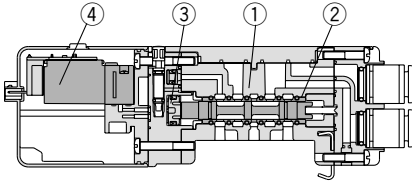


- VQC
- SQ
- VQ0
- VQ4
- VQ5
- VQZ
- VQD

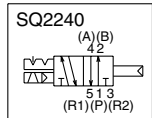
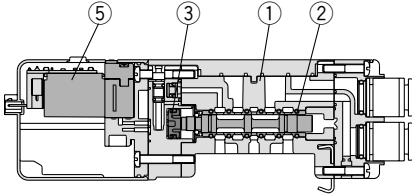
## Construction: Series SQ2000 Plug Lead Type Main Parts and Pilot Valve Assembly

### Metal seal type

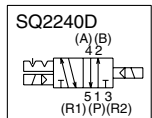
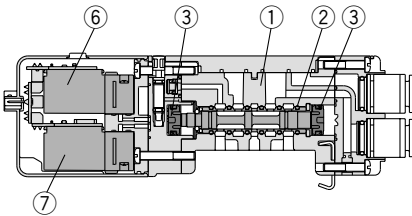
#### Single: SQ2140



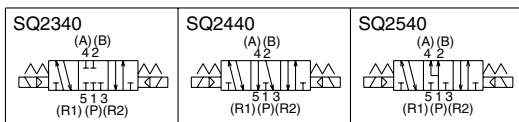
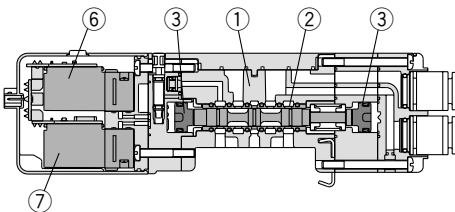
#### Double (Latching): SQ2240



#### Double (Double solenoid): SQ2240D

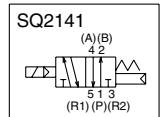
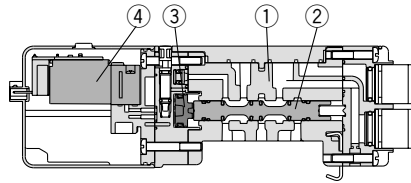


#### 3 position: SQ2 $\frac{3}{5}$ 40

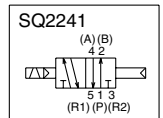
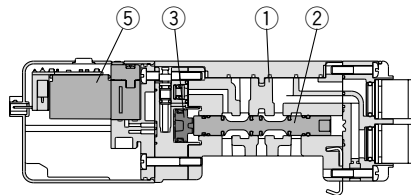


### Rubber seal type

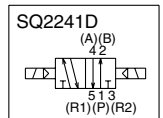
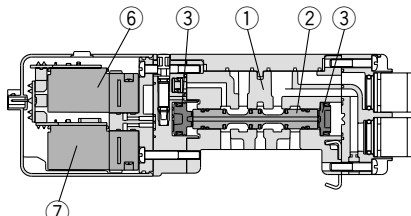
#### Single: SQ2141



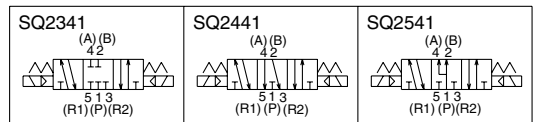
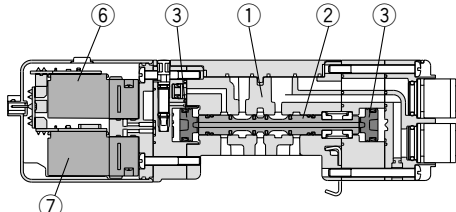
#### Double (Latching): SQ2241



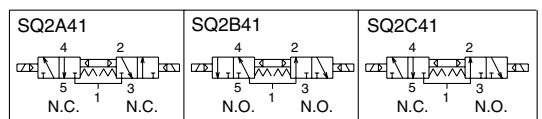
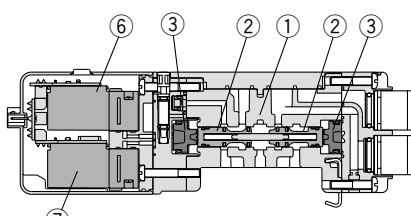
#### Double (Double solenoid): SQ2241D



#### 3 position: SQ2 $\frac{3}{5}$ 41



#### Dual 3 port valve: SQ2 $\frac{A}{C}$ 41



### Component Parts

No.	Description	Material
①	Body	Aluminum die-casted
②	Spool/Sleeve	Stainless steel (Metal seal)
③	Spool	Aluminum (Rubber seal)
③	Piston	Resin

### Pilot Valve Assembly Note)

No.	Model	SQ2□4□
④	For single	VQ111S(Y)- $\frac{5}{6}$ (N)J21
⑤	For double (latching)	VQ110SL- $\frac{5}{6}$ J22 Negative COM: VQ110SN- $\frac{5}{6}$ J22
⑥	For double (Double solenoid) on A side For 3P, Dual 3 port on A side	VQ111S(Y)- $\frac{5}{6}$ (N)J23
⑦	For double (Double solenoid) on B side For 3P, Dual 3 port on B side	VQ111S(Y)- $\frac{5}{6}$ (N)J24

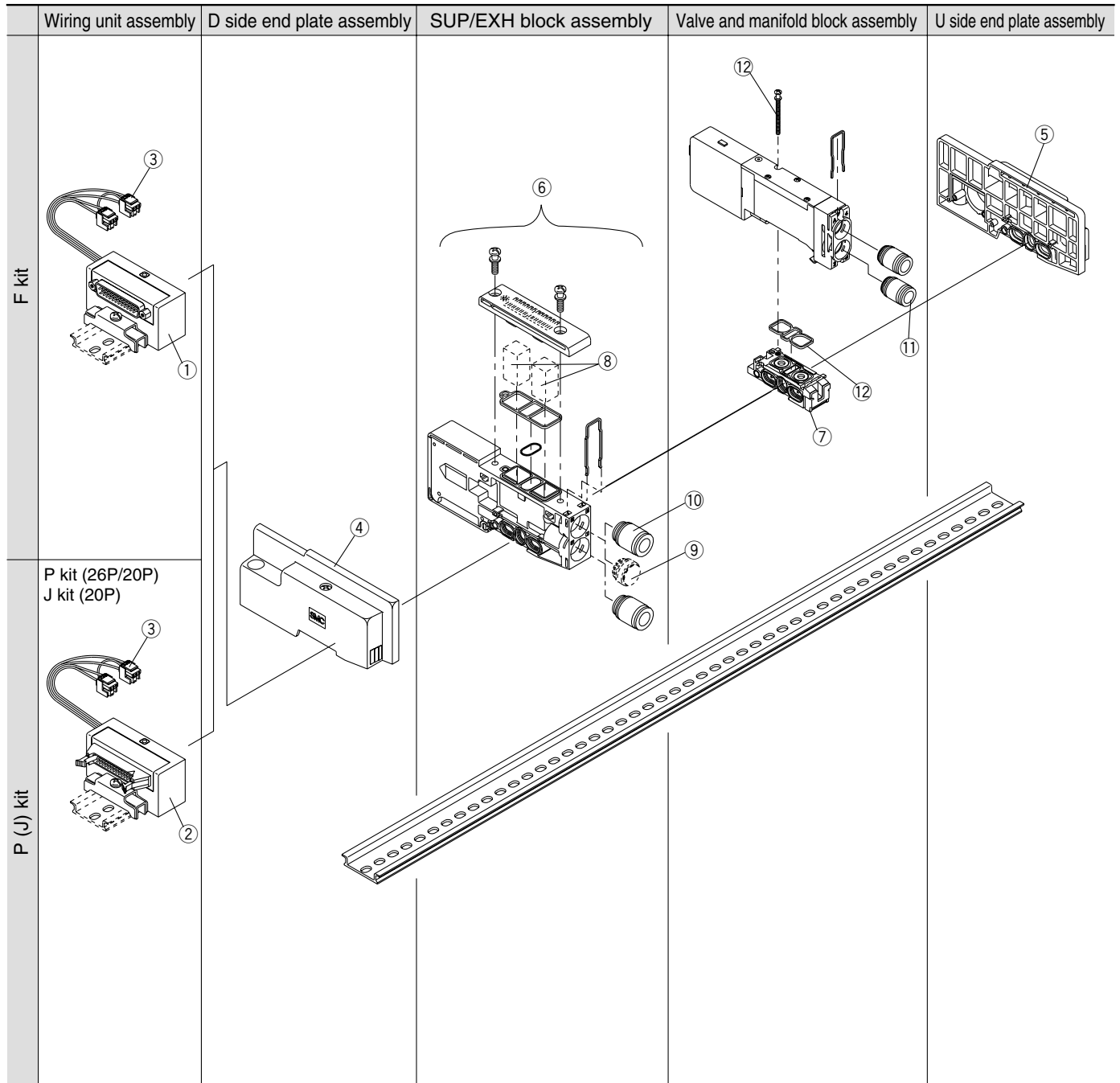
Note) Nil : Standard  
N : Negative COM specifications  
Y : Low wattage specifications

VQC  
SQ  
VQ0  
VQ4  
VQ5  
VQZ  
VQD

# Series SQ1000/2000

## Exploded View of Manifold: SQ2000 (Plug lead type manifold) SS5Q24

(F, P, J, C kit)



## Manifold Spare Parts



Refer to pages 2-3-112 to 2-3-117 of "How to Add Manifold Stations" regarding the mounting of each spare parts.

### <① D-sub connector housing assembly>

**AXT100 - 41 - FL25 - S 03**

Wiring		Stations	
S	Single wiring	01	For 1 station
D	Double wiring	:	:
		12	For 12 stations

### <② Flat ribbon cable connector housing assembly>

**AXT100 - 41 - PL20 - S 03**

Wiring		Stations		Note)	
S	Single wiring	01	For 1 station	PL26: 01 to 12 (P kit, 26P)	
D	Double wiring	:	:	PL20: 01 to 09 (P kit, 20P)	
		12	For 12 stations	JL20: 01 to 08 (J kit, 20P)	

### <③ Lead wire assembly> (For F kit)

For station 1 **SSQ1000 - 4 1 B - F - 170**

Wiring	
0	For single (2-wire)
1	For double (3-wire)

For 2 to station 24 **SSQ1000 - 4 1 A - F - 230**

Wiring	
0	For single (2-wire)
1	For double (3-wire)

#### Lead wire length

Stations	L dimension (mm)	Stations	L dimension (mm)	Stations	L dimension (mm)	Stations	L dimension (mm)
Station 2	190	Station 8	310	Station 14	430	Station 20	550
Station 3	210	Station 9	330	Station 15	450	Station 21	570
Station 4	230	Station 10	250	Station 16	470	Station 22	590
Station 5	250	Station 11	370	Station 17	490	Station 23	610
Station 6	270	Station 12	390	Station 18	510	Station 24	630
Station 7	290	Station 13	410	Station 19	530		

### (For P, J kit)

For station 1 **SSQ1000 - 4 1 B - P - 170**

Wiring	
0	For single (2-wire)
1	For double (3-wire)

For 2 to station 24 **SSQ1000 - 4 1 A - P - 310**

Wiring	
0	For single (2-wire)
1	For double (3-wire)

#### Lead wire length

Stations	L dimension (mm)	Stations	L dimension (mm)	Stations	L dimension (mm)	Stations	L dimension (mm)
Station 2	190	Station 8	310	Station 14	430	Station 20	550
Station 3	210	Station 9	330	Station 15	450	Station 21	570
Station 4	230	Station 10	250	Station 16	470	Station 22	590
Station 5	250	Station 11	370	Station 17	490	Station 23	610
Station 6	270	Station 12	390	Station 18	510	Station 24	630
Station 7	290	Station 13	410	Station 19	530		

### (For C kit)

**AXT661 - 1 3 AL - 6**

Wiring	
3	For double (3-wire)
4	For single (2-wire)

#### Lead wire length

Symbol	L dimension (mm)
Nil	300
6	600
10	1000
15	1500
20	2000
25	2500
30	3000
50	5000

### <④ D side end plate assembly>

**SSQ2000 - 3A - 4**

Manifold mounting	
Nil	DIN rail mount style
E	Direct mount style

### <⑤ U side end plate assembly>

**SSQ2000 - 2A - 4 - 1**

Manifold mounting	
Nil	DIN rail mount style
E	Direct mount style

### <⑥ SUP/EXH block assembly>

**SSQ2000 - PR - 3 - C10**

Port size	
C8	One-touch fitting for ø8
C10	One-touch fitting for ø10
N9	One-touch fitting for ø5/16"
N11	One-touch fitting for ø3/8"

Option	
Nil	Common exhaust type
R	External pilot
S	Built-in silencer, direct exhaust

Note) Enter "RS" for both options.

### <⑦ Manifold block assemblies>

**SSQ2000 - 1A - 4** Including gaskets ⑫

Option	
Nil	None
B	Back pressure check valve
R	External pilot specifications

### <⑧ Element>

**SSQ2000 - SE**

Note) Part number for a 10 piece set of elements. Refer to page 2-3-5 for replacement procedure.

### <⑨ Port plug>

**VVQZ3000 - CP**

### <⑩ Fitting assembly>

(For P, R port)

**VVQ2000 - 51A - C10**

Port size	
C8	One-touch fitting for ø8
C10	One-touch fitting for ø10
N9	One-touch fitting for ø5/16"
N11	One-touch fitting for ø3/8"

Note) Purchasing order is available in units of 10 pieces

### <⑪ Fitting assembly>

(For cylinder port)

**VVQ1000 - 51A - C8**

Port size	
C4	One-touch fitting for ø4
C6	One-touch fitting for ø6
C8	One-touch fitting for ø8
N3	One-touch fitting for ø5/32"
N7	One-touch fitting for ø1/4"
N9	One-touch fitting for ø5/16"

Note) Purchasing order is available in units of 10 pieces

### <⑫ Gasket and screw assembly>

**SQ2000 - GS**

Note) Part number for 10 pieces each of gaskets and screws.

VQC

SQ

VQ0

VQ4

VQ5

VQZ

VQD