

Series SQ1000 Plug Lead Unit

How to Order Manifold

SS5Q14 — **08** **FD2** — **D**

Stations

| | |
|---------------------------|-------------|
| 01 | 1 station |
| ⋮ | ⋮ |
| 24 ^{Note} | 24 stations |

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

Option

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

Note 1) For specifying DIN rail length, indicate "D□". (Enter the number of stations inside □.) Example: -D08

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

Note 3) For specifying two or more options, enter them alphabetically. Example: -BKN

Manifold mounting

| | |
|--------------------------|----------------------|
| D | DIN rail mount style |
| E ^{Note} | Direct mount style |

Note) C kit of SQ2000 only.

Electrical entry

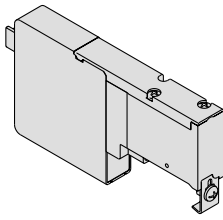
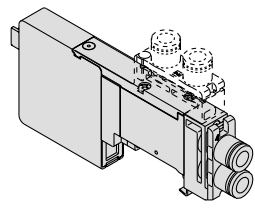
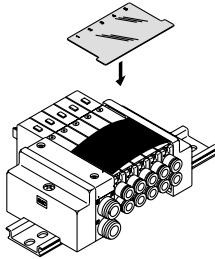
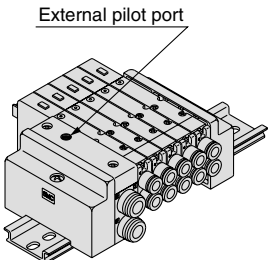
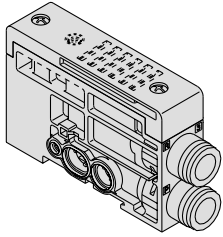
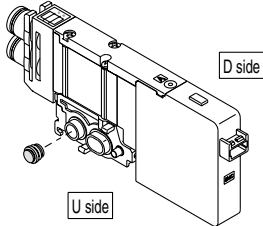
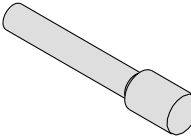
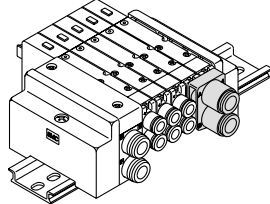
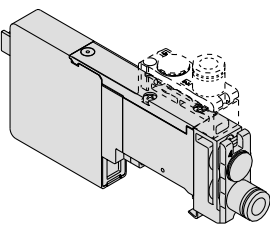
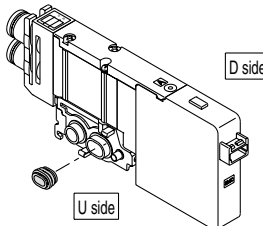
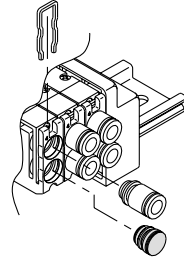
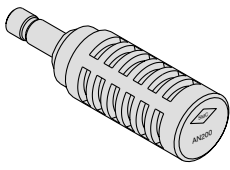
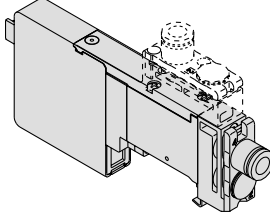
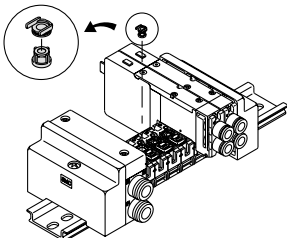
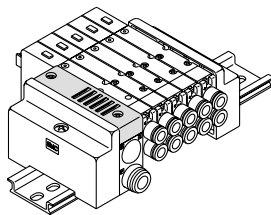
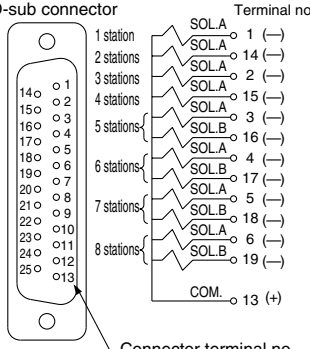
| Kit type | Lead wire connector location | Cable specifications | Station | Max. number of stations for special wiring specifications | Max. number of solenoids ⁽²⁾ |
|--|------------------------------|--|------------------|---|---|
| F kit D-sub Connector kit | D side | FD0 | 1 to 12 stations | 24 stations | 24 |
| | | FD1 | | | |
| | | FD2 | | | |
| | | FD3 | | | |
| P kit Flat ribbon cable connector kit (26P/20P) | D side ⁽¹⁾ | PD0 | 1 to 12 stations | 24 stations | 24 |
| | | PD1 | | | |
| | | PD2 | | | |
| | | PD3 | | | |
| | | PDC | | | |
| J 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 |
| C kit Connector kit | — | Connector kit | 1 to 24 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.)

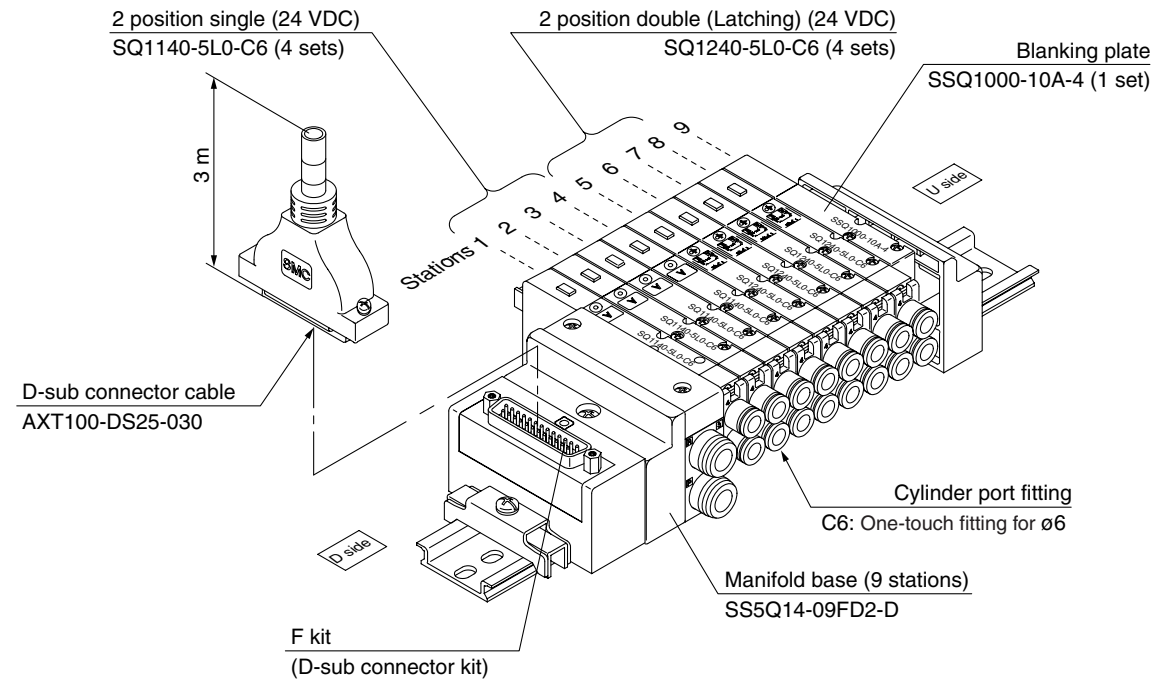
Series SQ1000

Manifold Option

| | | | |
|---|---|---|--|
| <p>Blanking plate P. 2-3-98 SSQ1000-10A-4</p>  | <p>Individual SUP/EXH spacer P. 2-3-99 SSQ1000-PR1-4-^{C6}_{L6}</p>  | <p>Name plate (-N) P. 2-3-101 SSQ1000-N3-n</p>  | <p>External pilot specifications (-R) P. 2-3-102</p>  <p>External pilot port</p> |
| <p>SUP/EXH block P. 2-3-98 SSQ1000-PR-4-C8 (-S)</p>  | <p>SUP block plate P. 2-3-100 SSQ1000-B-P</p>  <p>D side</p> <p>U side</p> | <p>Blanking plug P. 2-3-101 KQ2P-23/04/06/08</p>  | <p>Dual flow fitting P. 2-3-102 SSQ1000-52A-^{C8}_{N9}</p>  |
| <p>Individual SUP spacer P. 2-3-98 SSQ1000-P-4-^{C6}_{L6}</p>  | <p>EXH block plate P. 2-3-100 SSQ1000-B-R</p>  <p>D side</p> <p>U side</p> | <p>Port plug P. 2-3-101 VVQZ100-CP</p>  | <p>Silencer (For EXH port) P. 2-3-102</p>  |
| <p>Individual EXH spacer P. 2-3-99 SSQ1000-R-4-^{C6}_{L6}</p>  | <p>Back pressure check valve (-B) P. 2-3-100 SSQ1000-BP</p>  | <p>Built-in silencer (-S) P. 2-3-101</p>  | <p>Special wiring specifications (-K) P. 2-3-108</p>  <p>D-sub connector</p> <p>Terminal no.</p> <p>Connector terminal no.</p> |

How to Order Manifold Assembly (Example)

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



VQC
SQ
VQ0
VQ4
VQ5
VQZ
VQD

S SS5Q14-09FD2-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.

Manifold Specifications

| Base model | Porting specifications | | Applicable solenoid valve | Type of connection | Applicable stations ⁽³⁾ | 5 station weight (g) ⁽⁴⁾ | 1 station weight (g) ⁽⁴⁾ |
|-------------|---|-----------------|---|------------------------|---|-------------------------------------|---|
| | Port size ⁽¹⁾ | | | | | | |
| | 1(P), 3(R) | 4(A), 2(B) | | | | | |
| SS5Q14-□□□□ | C8 (For ø8) | 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 |
| | | | Option Built-in silencer, direct exhaust | Top ⁽²⁾ | L3 (For ø3.2) L4 (For ø4) L6 (For ø6) L5 (M5 thread) | 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 | | | 420 | 20 | |
| | | | | C kit: Connector kit | 1 to 12 stations | 460 | 35 |

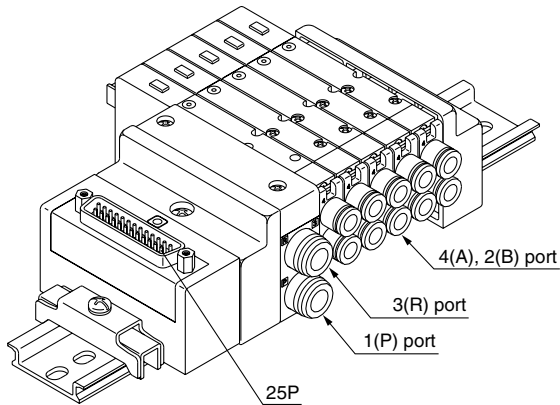


Note 1) One-touch fittings in inch sizes are also available. For details, refer to page 2-3-110.

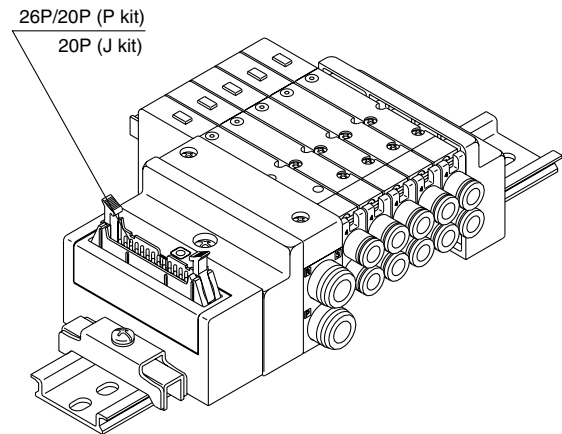
Note 2) Can be changed to side ported configuration.

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.

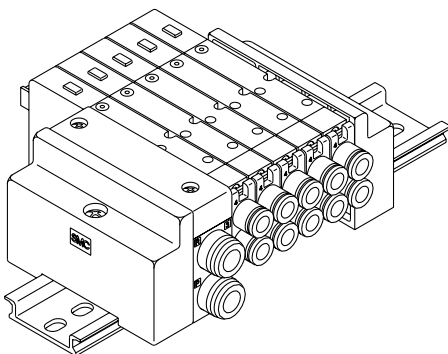
Note 4) Except valves. For valve weight, refer to page 2-3-104.



F kit



P kit J kit



C kit

VQC

SQ

VQ0

VQ4

VQ5

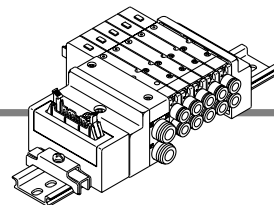
VQZ

VQD

Series SQ1000

J

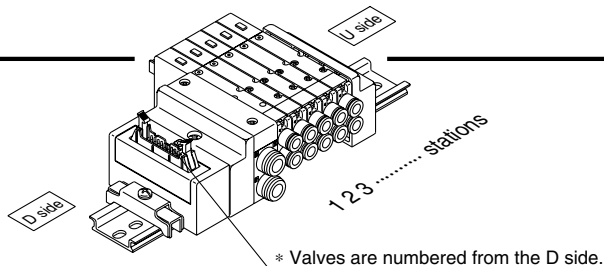
Kit (PC wiring system compatible flat ribbon cable kit)



- 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

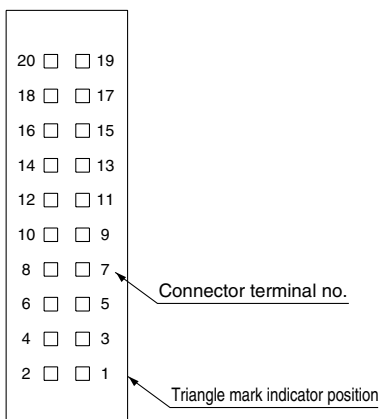
| Series | Porting specifications | | Maximum number of stations |
|--------|------------------------|------------|---------------------------------|
| | Port location | Port size | |
| SQ1000 | Side, Top | 1(P), 3(R) | 8 stations (16 as an option) |
| | | 4(A), 2(B) | |



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

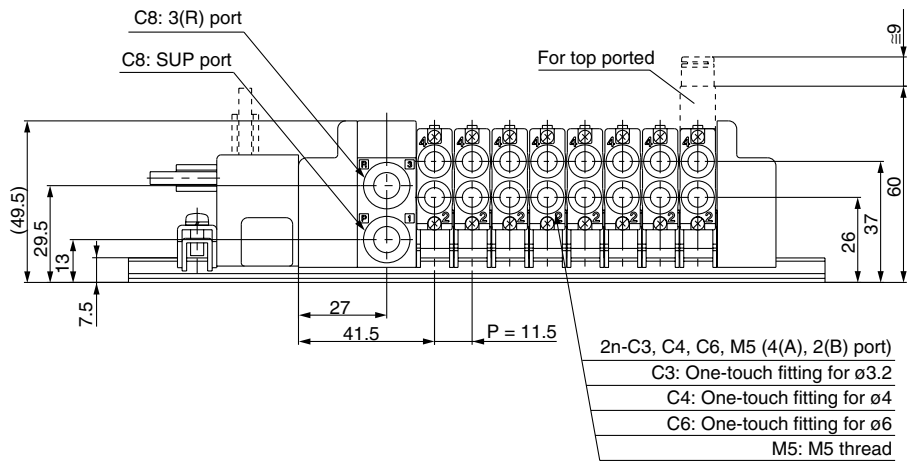
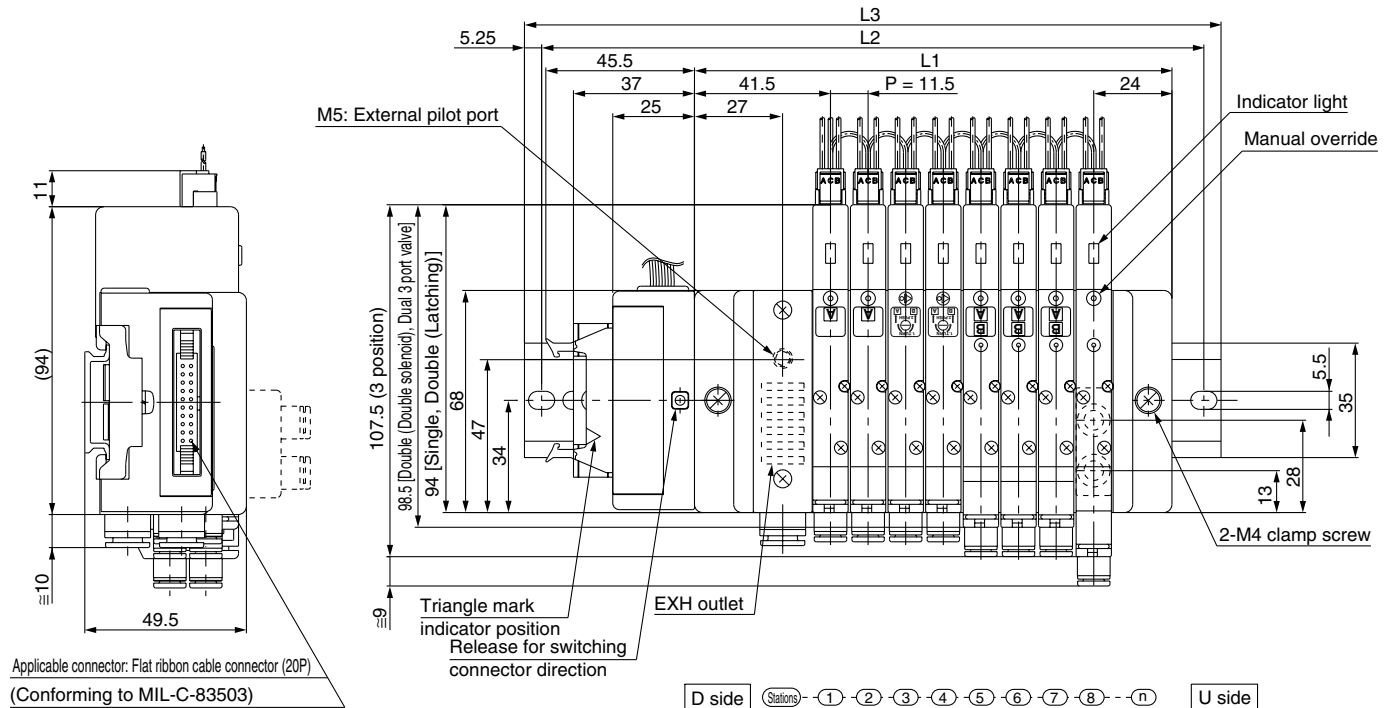


| | Terminal no. | Polarity |
|------------|--------------|----------|
| 1 station | SOL.A 20 | (-) (+) |
| | SOL.B 18 | (-) (+) |
| 2 stations | SOL.A 16 | (-) (+) |
| | SOL.B 14 | (-) (+) |
| 3 stations | SOL.A 12 | (-) (+) |
| | SOL.B 10 | (-) (+) |
| 4 stations | SOL.A 8 | (-) (+) |
| | SOL.B 6 | (-) (+) |
| 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 | (+) (-) |

(Note)
 Positive common specifications Negative common specifications

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 SQ1000



Dimensions

Formula: $L1 = 11.5n + 54$ n: Stations (Maximum 16 stations)

| L | n | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|----|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|
| 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 |
| L2 | | 125 | 137.5 | 150 | 162.5 | 175 | 187.5 | 200 | 212.5 | 225 | 237.5 | 250 | 262.5 | 275 | 287.5 | 300 | |
| L3 | | 135.5 | 148 | 160.5 | 173 | 185.5 | 198 | 210.5 | 223 | 235.5 | 248 | 260.5 | 273 | 285.5 | 298 | 310.5 | |

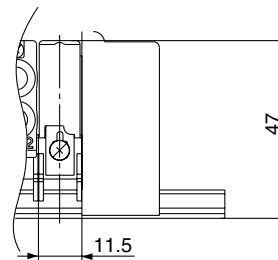
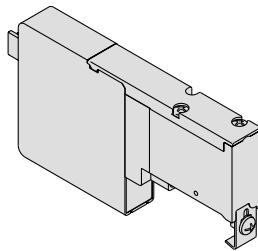
Series SQ1000/2000

Manifold Option Parts for SQ1000

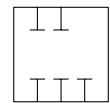
Blanking plate

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.



JIS Symbol



SUP/EXH block

SSQ1000-PR-4-C8-□

Option

| | |
|-----|-------------------------------|
| Nil | Standard |
| R | External pilot specifications |
| S | Built-in silencer |

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

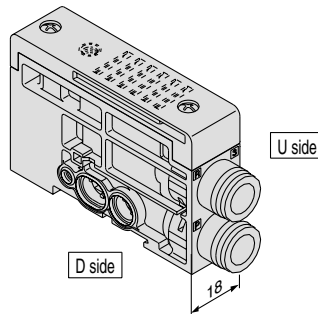
* Specify the spacer mounting position on the manifold specification sheet.

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

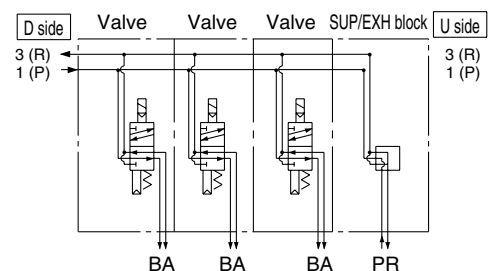
It is added to the manifold to increase SUP/EXH capacity.

* 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 the manifold, due to the length of the lead wire.

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



| Description/Model | Stations | | | | |
|-------------------|----------|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
| Valve | | | | | |
| Option | | | | ● | |



Individual SUP spacer

SSQ1000-P-4- C6

Port location

| | |
|----|-------------|
| C6 | Side ported |
| L6 | 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.

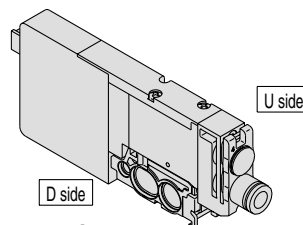
* By changing the fitting shown in the drawing and the block plates, the spacer's specification can be changed later (from the individual SUP spacer to the individual EXH spacer).

* 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.

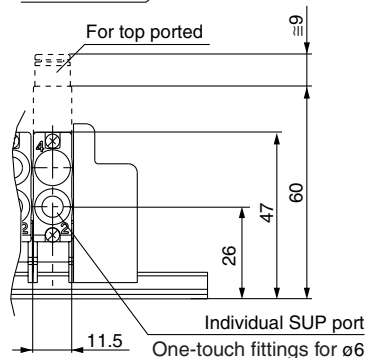
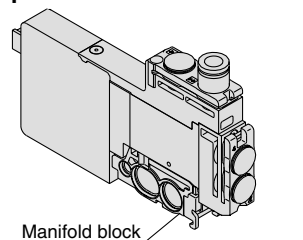
* Model no with manifold block:

SSQ1000-P-4- C6-M
L6-M

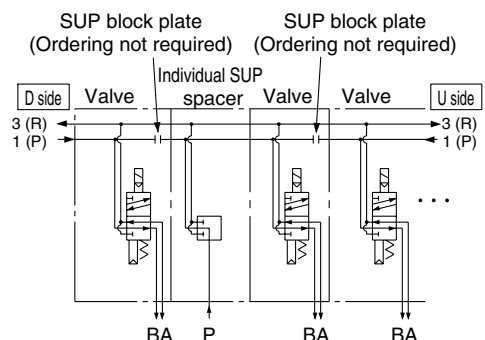
Side ported



Top ported



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



Individual EXH spacer

SSQ1000-R-4-**C6**

•Port location

| | |
|-----------|-------------|
| C6 | Side ported |
| L6 | 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 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.

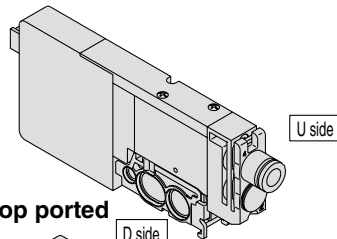
* By changing the fitting shown in the drawing and the block plates, the spacer's specification can be changed later (from the individual EXH spacer to the individual SUP spacer).

* 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.

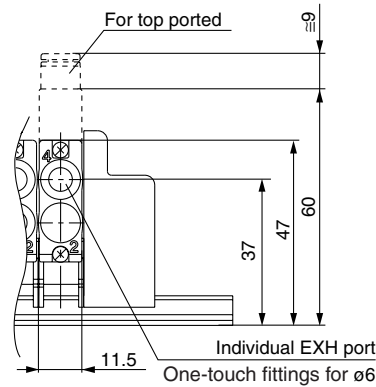
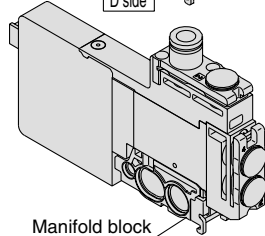
* Model no. with manifold block:

SSQ1000-R-4-**C6-M**
L6

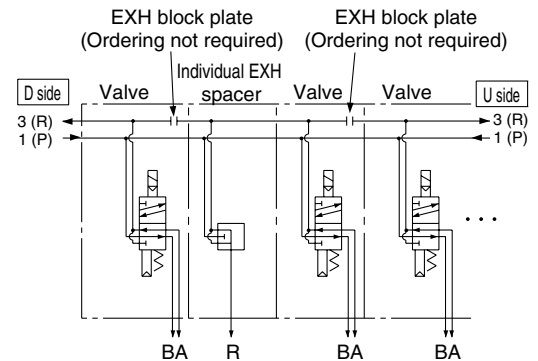
Side ported



Top ported



| | | Stations | | | | |
|-------------------|--|----------|---|---|---|---|
| Description/Model | | 1 | 2 | 3 | 4 | 5 |
| Valve | Single | ● | ● | ● | | |
| | ⋮ | | | | | |
| Option | Individual EXH spacer SSQ1000-R-4- C6 L6 | | ● | | | |
| | EXH shut off position: Specify 2 positions. | ● | | ● | | |



VQC

SQ

VQ0

VQ4

VQ5

VQZ

VQD

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.

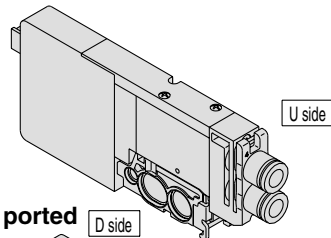
* By changing the fitting shown in the drawing and the block plates, the spacer's specification can be changed later.

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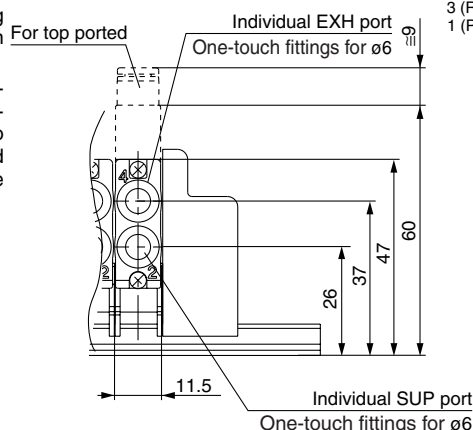
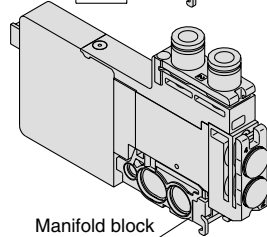
* Model no. with manifold block:

SSQ1000-PR1-4-**C6-M**
L6

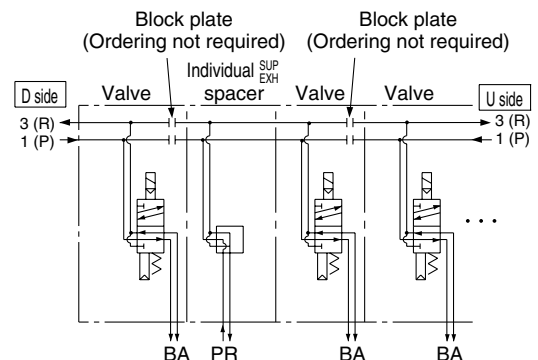
Side ported



Top ported



| | | Stations | | | | |
|-------------------|--|----------|---|---|---|---|
| Description/Model | | 1 | 2 | 3 | 4 | 5 |
| Valve | Single | ● | ● | ● | | |
| | ⋮ | | | | | |
| Option | Individual SUP/EXH spacer SSQ1000-PR1-4- C6 L6 | | ● | | | |
| | SUP shut off position: Specify 2 positions. | ● | | ● | | |
| | EXH shut off position: Specify 2 positions. | ● | | ● | | |



Series SQ1000/2000

Manifold Option Parts for SQ1000

SUP block plate

SSQ1000-B-P

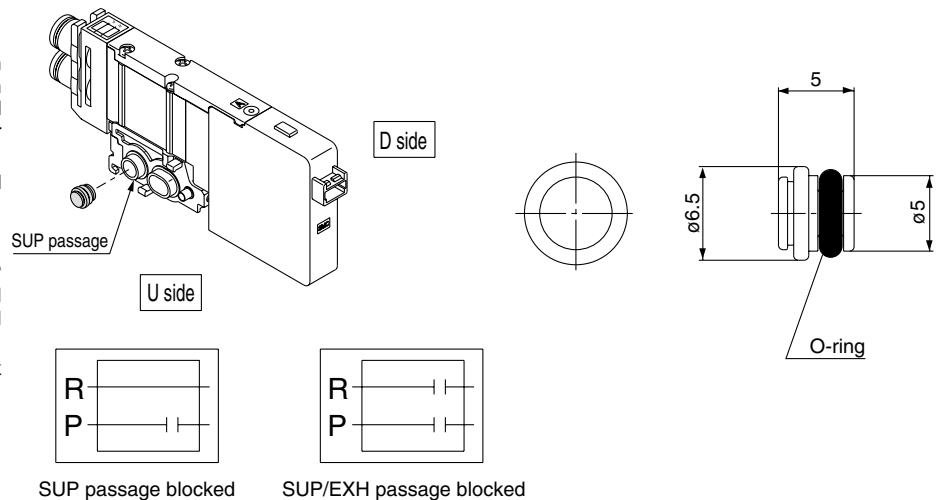
When supplying two different pressures, high and low, to one manifold, this is used between stations with different pressures. Also, it is used with an individual SUP spacer to shut off the air supply.

* 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.



EXH block plate

SSQ1000-B-R

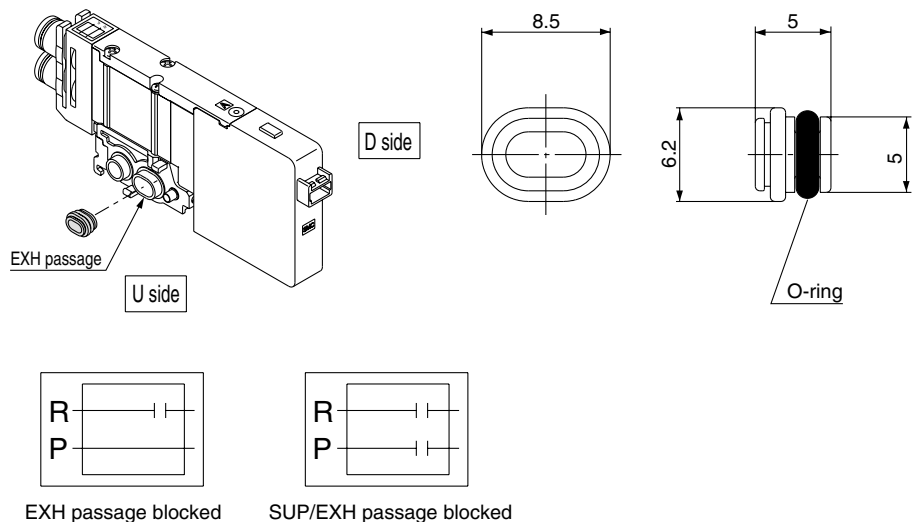
When the exhaust from a valve interferes with other stations in the circuit, this is used between stations to separate exhausts. Also, it is used with an individual EXH spacer to shut off the exhaust of individual valves.

* 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.



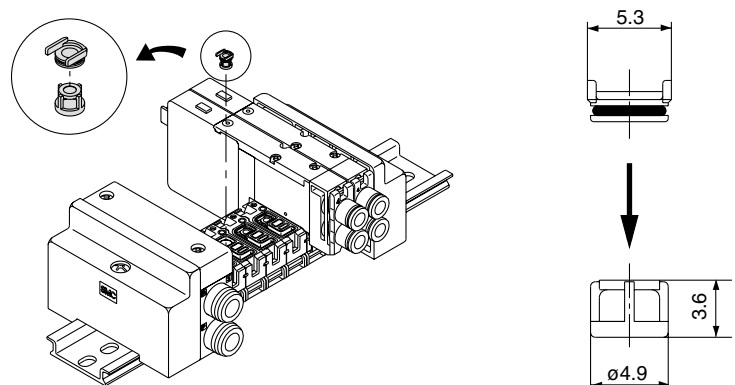
Back pressure check valve [-B]

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.



⚠ Caution

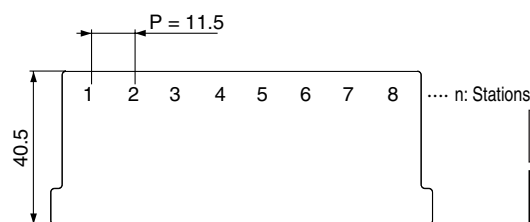
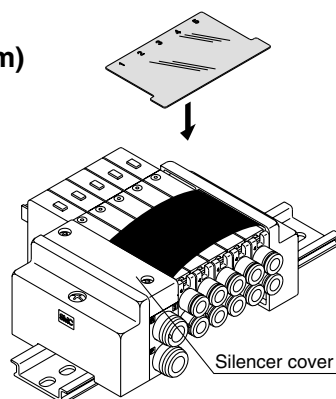
1. Although the back pressure check valve is an assembly part with a check valve mechanism, a small amount of air leakage is allowed. Therefore, take care not to restrict the exhaust air from the exhaust port.
2. The effective area of valves is about 20% less when the back pressure check valve is installed.
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.

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.



VQC

SQ

VQ0

VQ4

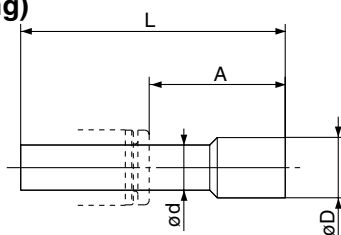
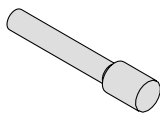
VQ5

VQZ

VQD

Blanking plug (For One-touch fitting)

23
KQ2P-04
06
08



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 |
|-------------------------------|---------|------|------|-----|
| 3.2 | KQ2P-23 | 16 | 31.5 | 3.2 |
| 4 | KQ2P-04 | 16 | 32 | 6 |
| 6 | KQ2P-06 | 18 | 35 | 8 |
| 8 | KQ2P-08 | 20.5 | 39 | 10 |

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)

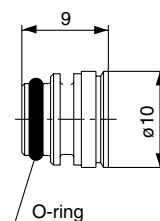
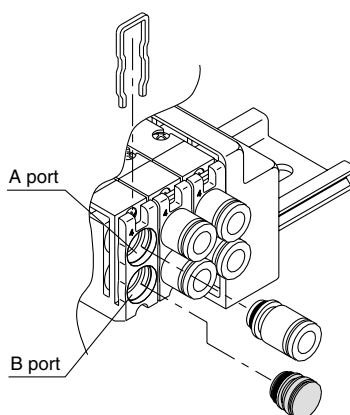
• 4 (A) port plug

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]

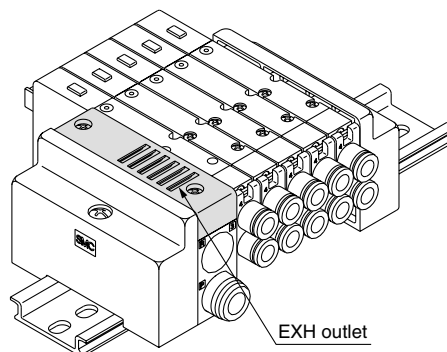
The EXH outlet is placed on the top side of the manifold end plate. The built-in silencer provides highly effective noise reduction. (Noise reduction of 30 dB)



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.



Series SQ1000/2000

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)

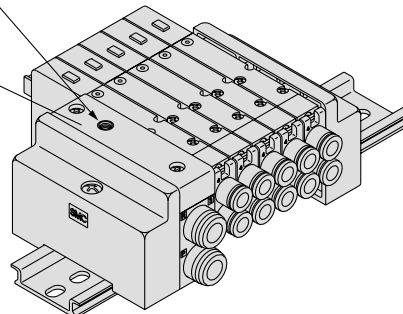
* Indicate "R" for an option.

SS5Q14-08FD1-DR

External pilot specifications

External pilot port
(M5 x 0.8)

SUP/EXH block



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.

Dual flow fitting

SSQ1000-52A-C8

Port size

| | |
|----|--------|
| C8 | ø8 |
| N9 | ø5/16" |

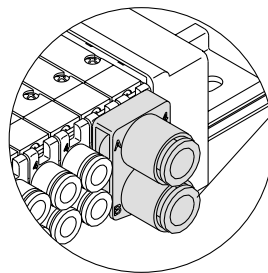
To drive a large bore cylinder, two valve stations are operated simultaneously to double the air flow. This fitting is used on the cylinder ports in this situation. Available sizes are ø8 and ø5/16" One-touch fitting.

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

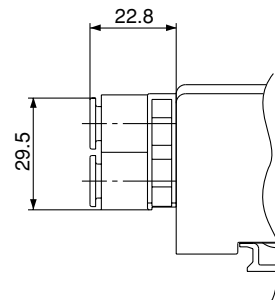
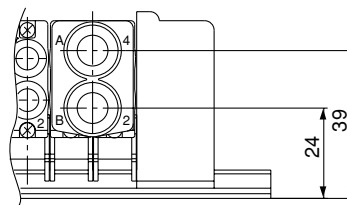
Example) Valve part number (without One-touch fitting part number)

SQ1141-5L-C0 2 sets

* SSQ1000-52A- N9 1 set

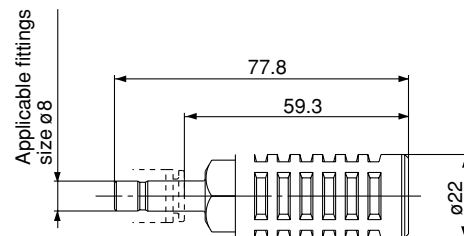
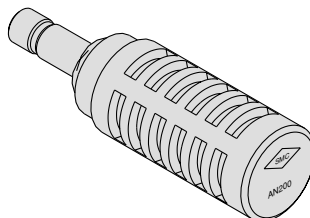


C8: ø8 One-touch fitting
N9: ø5/16" One-touch fitting



Silencer (For EXH port)

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



Specifications

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

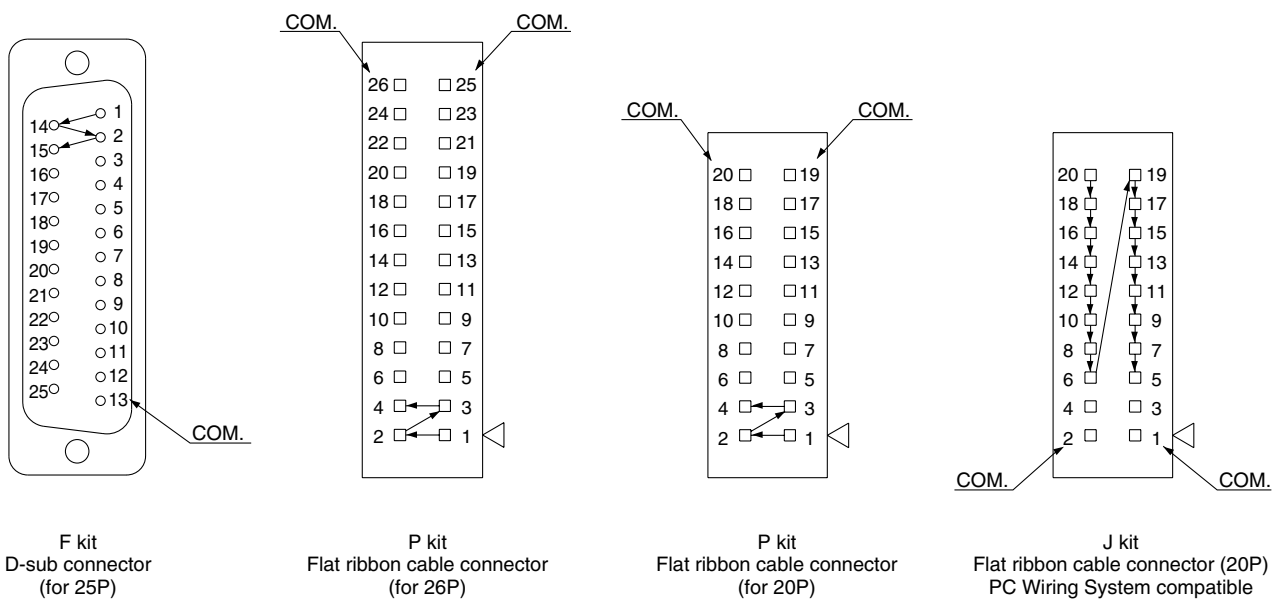
Indicate option symbol “-K” in the manifold part number and be sure to specify station positions for single or double wiring on the manifold specification sheet.

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.

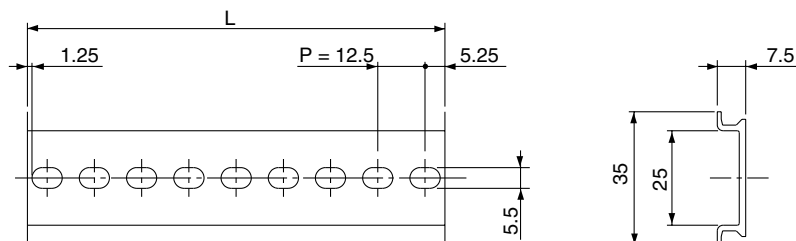
Example) **SS5Q14- 08FD0 - D09BNK**

- 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.



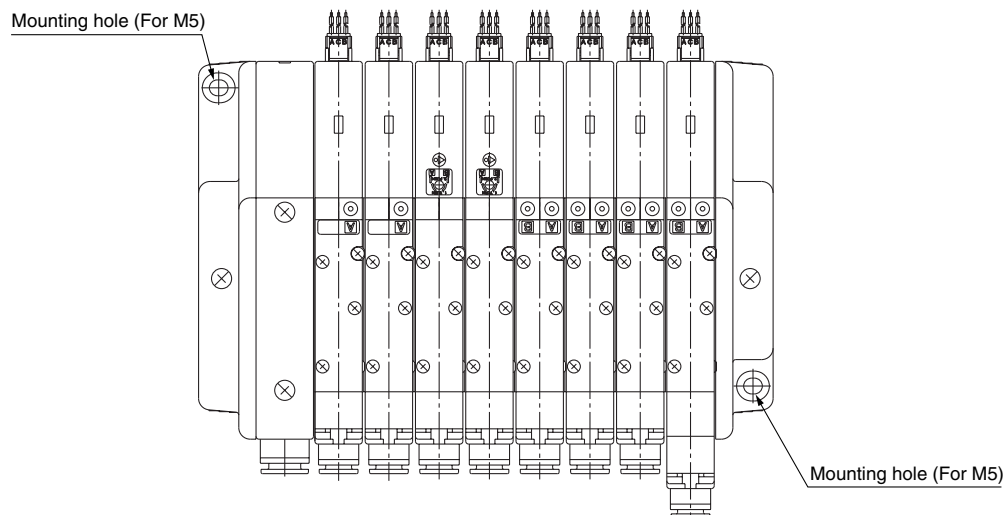
L Dimension

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

| | | | | | | | | | | |
|-------------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|
| 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)

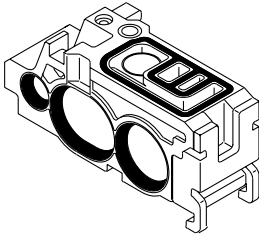
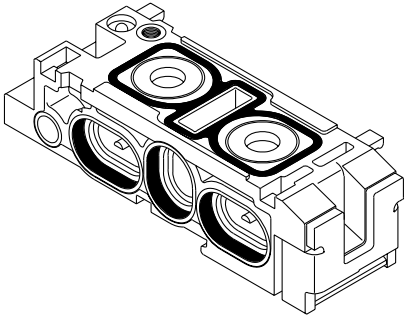




How to Add Manifold Stations for SQ1000/SQ2000

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>SSQ1000-1A-4- </p> <p>Option ● </p> <table border="1" data-bbox="279 1111 576 1200"> <tr> <td>Nil</td> <td>None</td> </tr> <tr> <td>B</td> <td>Back pressure check valve</td> </tr> <tr> <td>R</td> <td>External pilot specifications</td> </tr> </table> <p>Note) Enter "-BR" for both options.</p> | Nil | None | B | Back pressure check valve | R | External pilot specifications | <p>SSQ2000-1A-4- </p> <p>Option ● </p> <table border="1" data-bbox="997 1111 1294 1200"> <tr> <td>Nil</td> <td>None</td> </tr> <tr> <td>B</td> <td>Back pressure check valve</td> </tr> <tr> <td>R</td> <td>External pilot specifications</td> </tr> </table> <p>Note) Enter "-BR" for both options.</p> | Nil | None | B | Back pressure check valve | R | External pilot specifications |
| Nil | None | | | | | | | | | | | | |
| B | Back pressure check valve | | | | | | | | | | | | |
| R | External pilot specifications | | | | | | | | | | | | |
| Nil | None | | | | | | | | | | | | |
| B | Back pressure check valve | | | | | | | | | | | | |
| R | External pilot specifications | | | | | | | | | | | | |

VQC

SQ

VQ0

VQ4

VQ5

VQZ

VQD

Series SQ1000/2000

How to Add Manifold Stations for SQ1000/SQ2000

For F kit, P kit, J kit

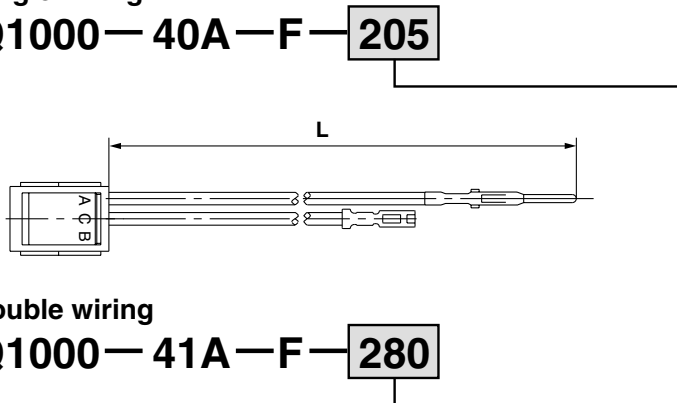
What to order: Lead wire assembly

SQ1000

D-sub connector kit (F kit)

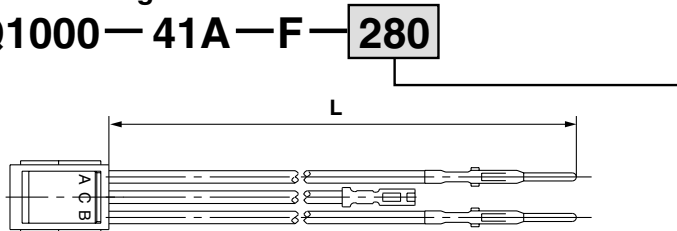
● For single wiring

SSQ1000—40A—F—205



● For double wiring

SSQ1000—41A—F—280

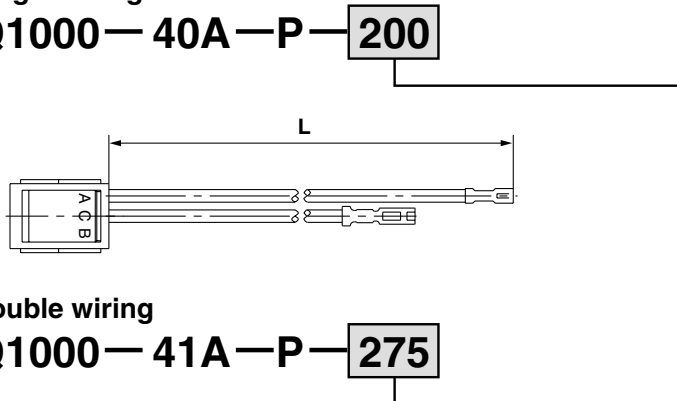


| Stations | Symbol (L dimension) | Stations | Symbol (L dimension) |
|------------|----------------------|------------|----------------------|
| Station 2 | 165 | Station 14 | 320 |
| Station 3 | 175 | Station 15 | 335 |
| Station 4 | 190 | Station 16 | 250 |
| Station 5 | 205 | Station 17 | 365 |
| Station 6 | 215 | Station 18 | 375 |
| Station 7 | 230 | Station 19 | 385 |
| Station 8 | 245 | Station 20 | 400 |
| Station 9 | 260 | Station 21 | 405 |
| Station 10 | 280 | Station 22 | 420 |
| Station 11 | 290 | Station 23 | 435 |
| Station 12 | 300 | Station 24 | 450 |
| Station 13 | 310 | | |

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

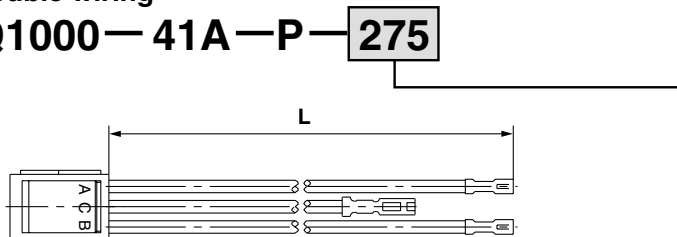
● For single wiring

SSQ1000—40A—P—200



● For double wiring

SSQ1000—41A—P—275



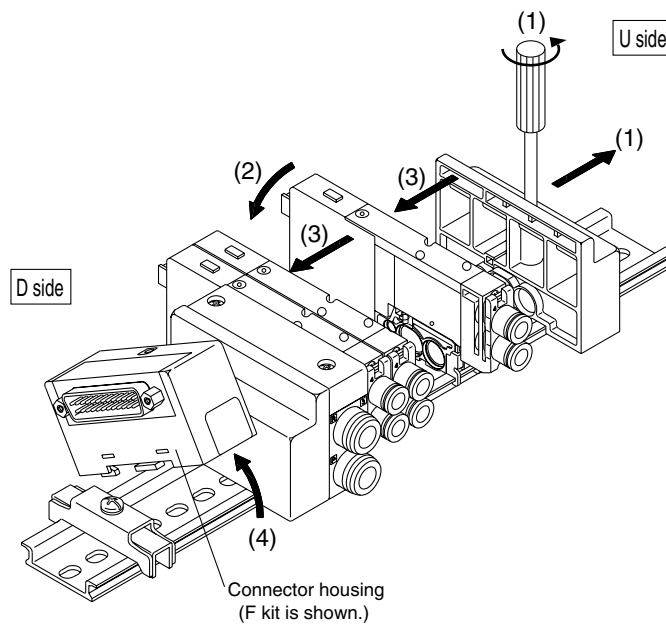
| Stations | Symbol (L dimension) | Stations | Symbol (L dimension) |
|------------|----------------------|------------|----------------------|
| Station 2 | 160 | Station 14 | 315 |
| Station 3 | 170 | Station 15 | 330 |
| Station 4 | 185 | Station 16 | 345 |
| Station 5 | 200 | Station 17 | 360 |
| Station 6 | 210 | Station 18 | 370 |
| Station 7 | 225 | Station 19 | 380 |
| Station 8 | 240 | Station 20 | 395 |
| Station 9 | 255 | Station 21 | 400 |
| Station 10 | 275 | Station 22 | 415 |
| Station 11 | 285 | Station 23 | 430 |
| Station 12 | 295 | Station 24 | 445 |
| Station 13 | 305 | | |

Series SQ1000/2000

How to Add Manifold Stations for SQ1000/SQ2000

Steps for adding stations

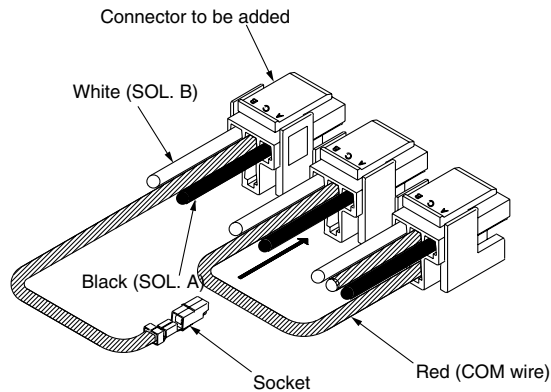
- (1) Loosen the clamp screw on the U side end plate and open the manifold.
- (2) Mount the manifold block or valve with manifold block to be added.
- (3) Press on the end plate to eliminate any space between the manifold blocks and tighten the clamp screw.
(Proper tightening torque: 0.8 to 1.0 N·m)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

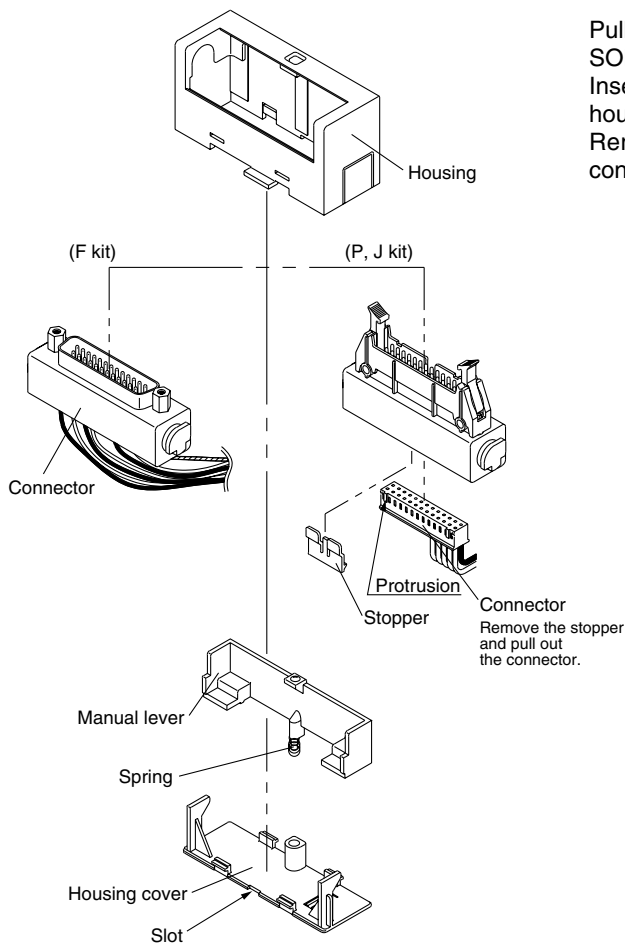
(1) Connecting common wire

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

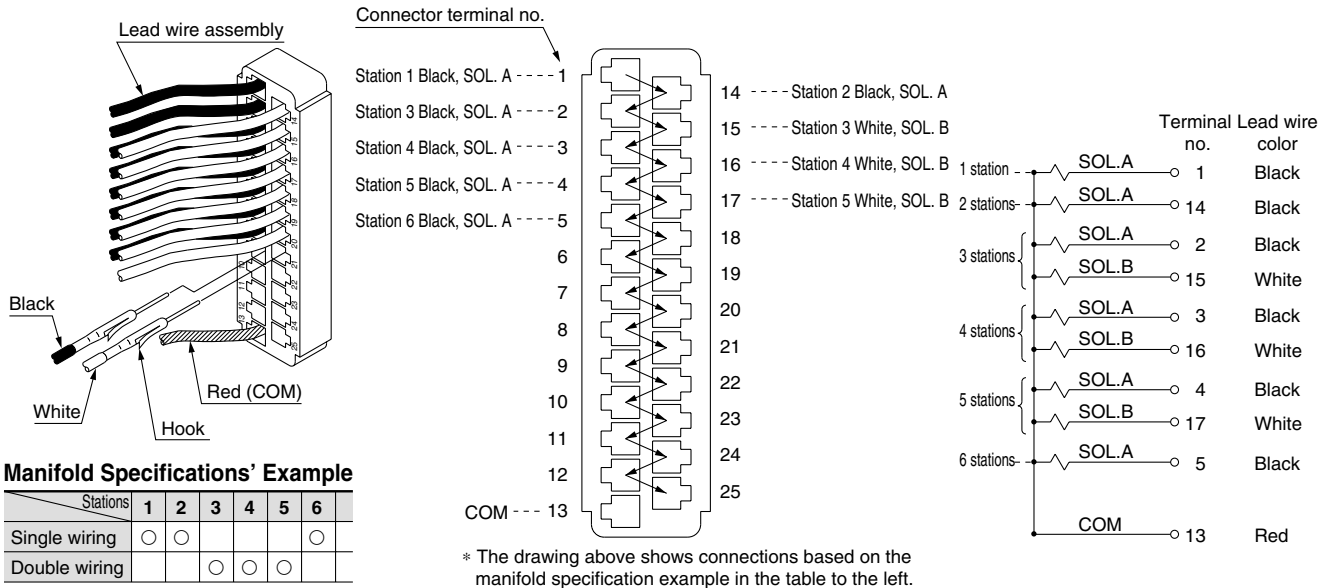
How to Add Manifold Stations for SQ1000/SQ2000

(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.

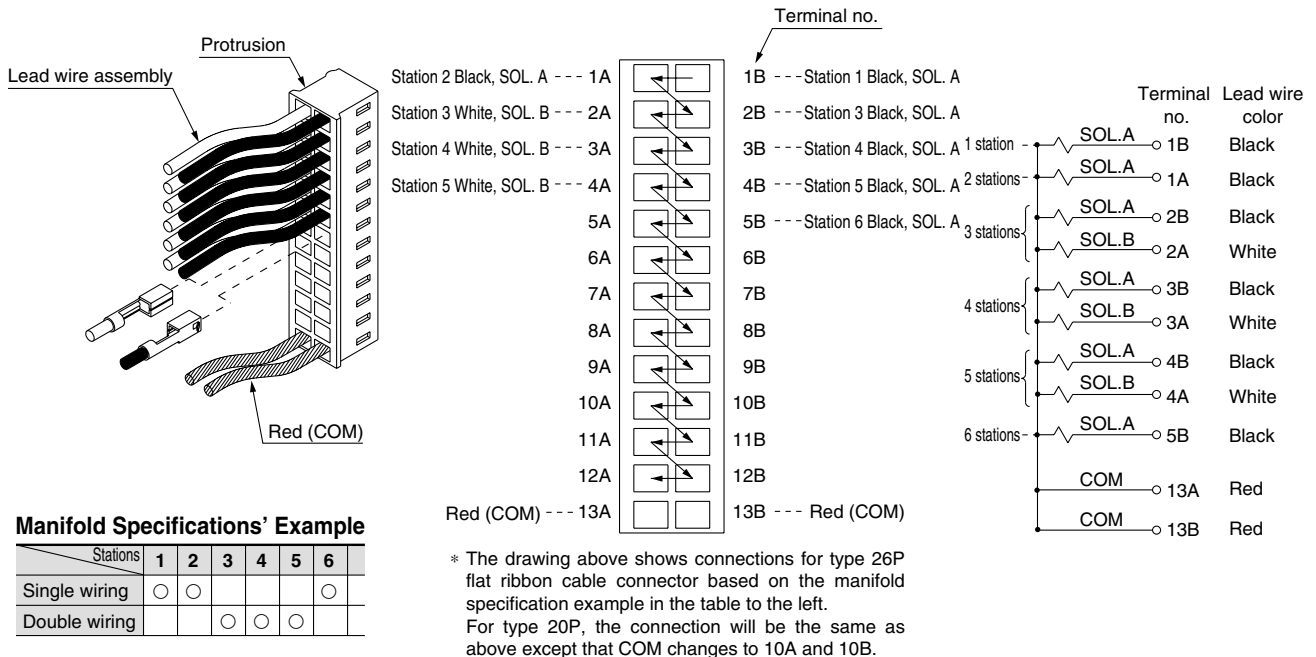
Wiring (F kit: D-sub connector kit)

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.



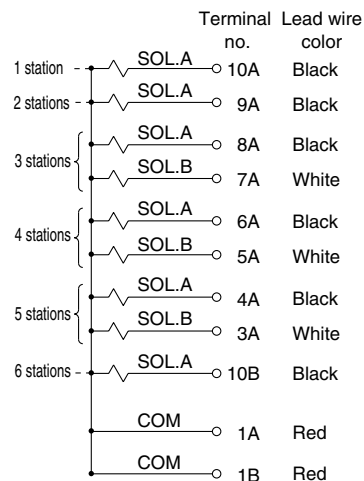
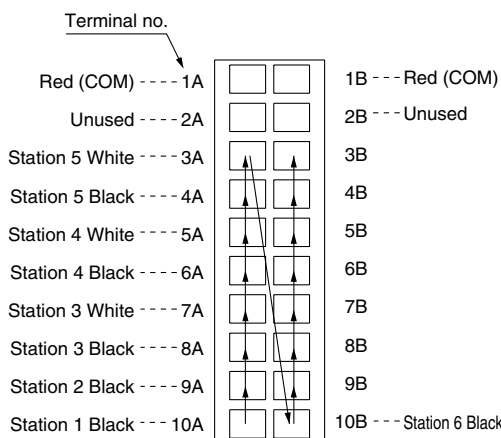
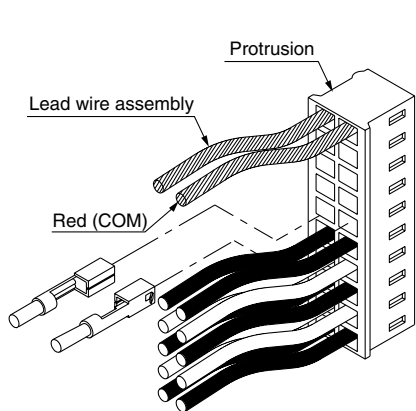
Wiring (P kit: Flat ribbon cable kit)

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.



Manifold Specifications' Example

| Stations | 1 | 2 | 3 | 4 | 5 | 6 |
|---------------|---|---|---|---|---|---|
| Single wiring | ○ | ○ | | | | ○ |
| Double wiring | | | ○ | ○ | ○ | |

VQC

SQ

VQ0

VQ4

VQ5

VQZ

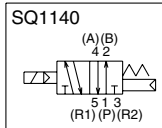
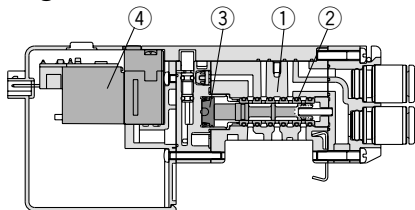
VQD

Series SQ1000/2000

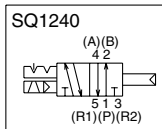
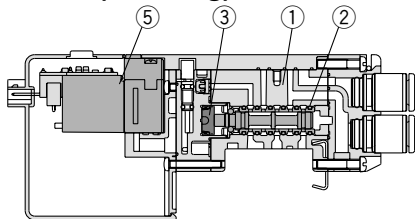
Construction: Series SQ1000 Plug Lead Type Main Parts and Pilot Valve Assembly

Metal seal type

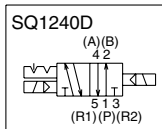
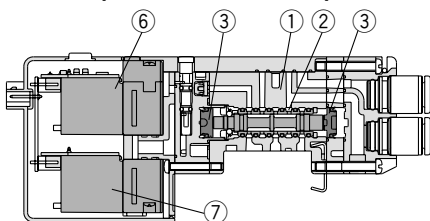
Single: SQ1140



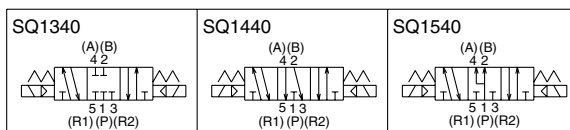
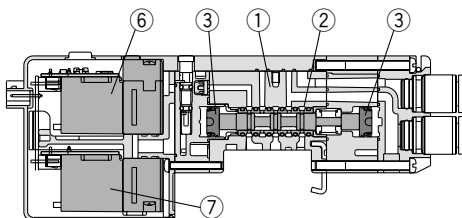
Double (Latching): SQ1240



Double (Double solenoid): SQ1240D



3 position: SQ1 $\frac{3}{5}$ 40



Component Parts

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

Pilot Valve Assembly (Note)

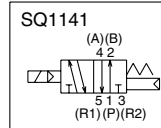
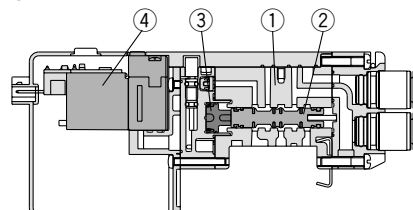
| No. | Model | SQ1□4□ |
|-----|---|--|
| ④ | For single | VQ110 ^(K) _(Y) - ⁵ / ₆ (N)J1(B) |
| ⑤ | For double (Latching) | VQ110L- ⁵ / ₆ J2 Negative COM: VQ110N- ⁵ / ₆ J2 |
| ⑥ | For double (Double solenoid) on A side For 3P, Dual 3 port on A side | VQ110 ^(K) _(Y) - ⁵ / ₆ (N)J3(B) |
| ⑦ | For double (Double solenoid) on B side For 3P, Dual 3 port on B side | VQ111 ^(K) _(Y) - ⁵ / ₆ (N)J4 |

Note) Nil: Standard

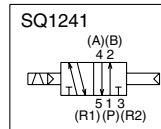
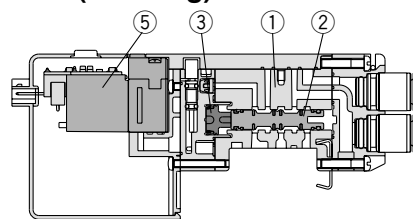
- B : Locking type manual override
- K : High pressure specifications (metal seal only)
- N : Negative common specifications
- Y : Low wattage specifications

Rubber seal type

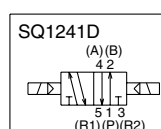
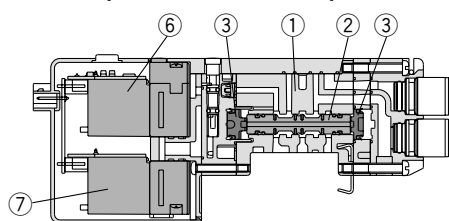
Single: SQ1141



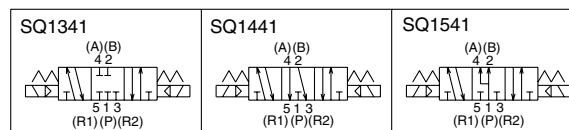
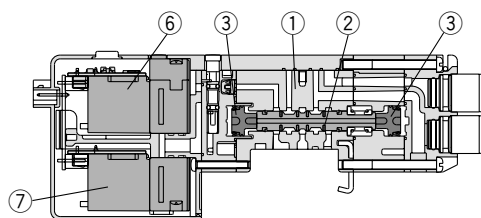
Double (Latching): SQ1241



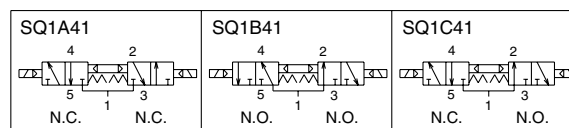
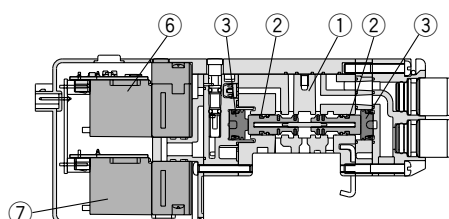
Double (Double solenoid): SQ1241D



3 position: SQ1 $\frac{3}{5}$ 41



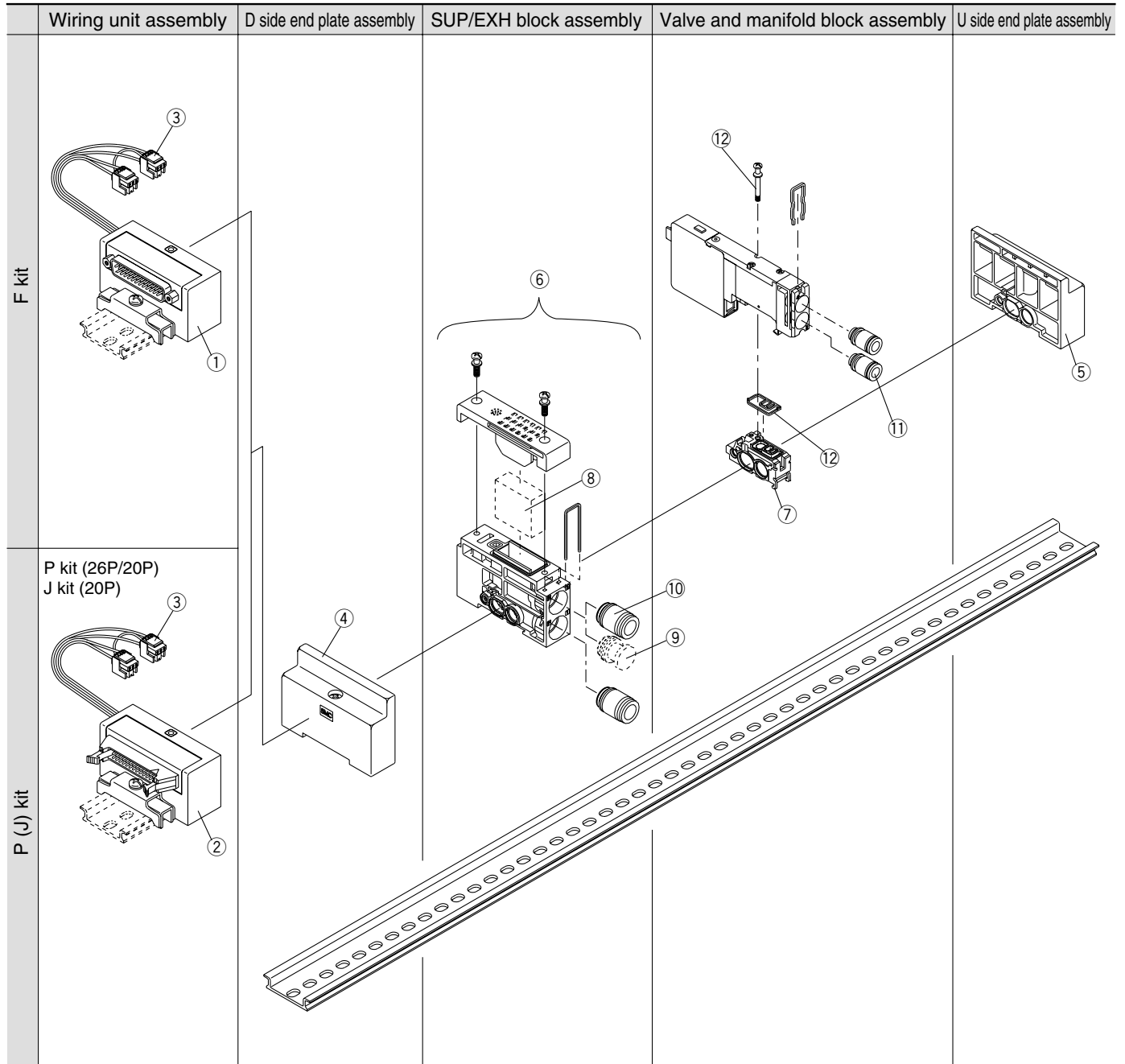
Dual 3 port valve: SQ1 $\frac{A}{B}{C}$ 41



Series SQ1000/2000

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

(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 - 40 - FL25 - S 03

| Wiring | | Stations | |
|--------|---------------|----------|-----------------|
| S | Single wiring | 01 | For 1 station |
| D | Double wiring | : | : |
| | | 24 | For 24 stations |

<② Flat ribbon cable connector housing assembly>

AXT100 - 40 - PL20 - S 03
PL26
JL20

| Wiring | | Stations | |
|--------|---------------|----------|-----------------|
| S | Single wiring | 01 | For 1 station |
| D | Double wiring | : | : |
| | | 24 | For 24 stations |

Note)
 PL26: 01 to 24 (P kit, 26P)
 PL20: 01 to 18 (P kit, 20P)
 JL20: 01 to 16 (J kit, 20P)

<③ Lead wire assembly>

(For F kit)

For station 1 **SSQ1000 - 4 1 B - F - 155**

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

For 2 to station 24 **SSQ1000 - 4 1 A - F - 205**

| 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 | 165 | Station 8 | 245 | Station 14 | 320 | Station 20 | 400 |
| Station 3 | 175 | Station 9 | 260 | Station 15 | 335 | Station 21 | 405 |
| Station 4 | 190 | Station 10 | 280 | Station 16 | 250 | Station 22 | 420 |
| Station 5 | 205 | Station 11 | 290 | Station 17 | 365 | Station 23 | 435 |
| Station 6 | 215 | Station 12 | 300 | Station 18 | 375 | Station 24 | 450 |
| Station 7 | 230 | Station 13 | 310 | Station 19 | 385 | | |

(For P, J kit)

For station 1 **SSQ1000 - 4 1 B - P - 150**

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

For 2 to station 24 **SSQ1000 - 4 1 A - P - 200**

| 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 | 160 | Station 8 | 240 | Station 14 | 315 | Station 20 | 395 |
| Station 3 | 170 | Station 9 | 255 | Station 15 | 330 | Station 21 | 400 |
| Station 4 | 185 | Station 10 | 275 | Station 16 | 345 | Station 22 | 415 |
| Station 5 | 200 | Station 11 | 285 | Station 17 | 360 | Station 23 | 430 |
| Station 6 | 210 | Station 12 | 295 | Station 18 | 370 | Station 24 | 445 |
| Station 7 | 225 | Station 13 | 305 | Station 19 | 380 | | |

(For C kit)

AXT661 - 1 3 AL

| 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>

SSQ1000 - 3A - 4

<⑤ U side end plate assembly>

SSQ1000 - 2A - 4

<⑥ SUP/EXH block assembly>

SSQ1000 - PR - 4 - C8

Port size

| | |
|----|------------------------------|
| C6 | One-touch fitting for ø6 |
| C8 | One-touch fitting for ø8 |
| N7 | One-touch fitting for ø1/4" |
| N9 | One-touch fitting for ø5/16" |

Option

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

Note) Enter "RS" for both options.

<⑦ Manifold block assembly>

SSQ1000 - 1A - 4 Including gaskets ⑫

Option

| | |
|-----|-------------------------------|
| Nil | None |
| B | Back pressure check valve |
| R | External pilot specifications |

Note) Enter "BR" for both options.

<⑧ Element>

SSQ1000 - SE

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

<⑨ Port plug>

VVQZ2000 - CP

<⑩ Fitting assembly>

(For P, R port)

VVQ1000 - 51A - C8

Port size

| | |
|----|------------------------------|
| C6 | One-touch fitting for ø6 |
| C8 | One-touch fitting for ø8 |
| N7 | One-touch fitting for ø1/4" |
| N9 | One-touch fitting for ø5/16" |

Note) Purchasing order is available in units of 10 pieces

<⑪ Fitting assembly>

(For cylinder port)

VVQ1000 - 50A - C6

Port size

| | |
|----|------------------------------|
| C3 | One-touch fitting for ø3.2 |
| C4 | One-touch fitting for ø4 |
| C6 | One-touch fitting for ø6 |
| M5 | M5 thread |
| N1 | One-touch fitting for ø1/8" |
| N3 | One-touch fitting for ø5/32" |
| N7 | One-touch fitting for ø1/4" |

Note) Purchasing order is available in units of 10 pieces

<⑫ Gasket and screw assembly>

SQ1000 - GS

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

VQC

SQ

VQ0

VQ4

VQ5

VQZ

VQD