How to Order Manifold


When a longer DIN rail is desired than the specified stations, specify the station number to be required. (20 stations at maximum)

## How to Order Valve Manifold Assembly

Ordering example $\begin{array}{r}\text { Single solenoid } \\ (24 \mathrm{VDC})\end{array}$



The valve arrangement is numbered as the 1st. station from $D$ side regardless of the mounting position of SUP/EXH block assembly. In ordering, specify the part nos. in the order from the 1st. station on D side Besides, when the arrangement will be complicated, fill out the Manifold Specification Sheet to instruct us.

How to Order Valves


Manifold Specifications


| Model |  | SS5X3-45 | SS5X5-45 |
| :---: | :---: | :---: | :---: |
| Applicable valve |  | SX3 $\square 40$ | SX5 $\square 40$ |
| Manifold type |  | Stacking type/DIN rail mounted |  |
| P(SUP), R(EXH) |  | Common SUP/Common EXH |  |
| Valve stations ${ }^{\text {Note) }}$ |  | 2 to 20 stations |  |
| A, B port specifications | Location | Base |  |
|  | Direction | Side |  |
| Port size | P, R port | C8 (One-touch fitting for ø8) | C10 (One-touch fitting for $\varnothing 10$ ) |
|  | A, B port | C4 (One-touch fitting for $\varnothing 4$ ) C6 (One-touch fitting for ø6) | C4 (One-touch fitting for $\varnothing 4$ ) <br> C6 (One-touch fitting for ${ }^{\circ} 6$ ) <br> C8 (One-touch fitting for $\varnothing 8$ ) |
| Manifold base weight W ( g ) <br> n : Stations |  | $\begin{aligned} & 2 \text { to } 10 \text { stations: } W=22 n+118 \\ & 11 \text { to } 20 \text { stations: } W=22 n+140 \end{aligned}$ | $\begin{aligned} & 2 \text { to } 10 \text { stations: } W=47 n+156 \\ & 11 \text { to } 20 \text { stations: } W=47 n+190 \end{aligned}$ |

Note) For more than 11 stations, supply pressure to P port on both sides and exhaust from R port on both sides.

Flow Characteristics

| Model | Port size |  | Flow characteristics |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $1 \rightarrow 4 / 2(P \rightarrow A / B)$ |  |  | 4/2 $\rightarrow 5 / 3$ (A/B $\rightarrow$ EA/EB) |  |  |
|  | $\begin{gathered} 1,5,3 \\ (\mathrm{P}, \mathrm{EA}, \mathrm{~EB}) \end{gathered}$ | $\begin{gathered} 4,2 \\ (\mathrm{~A}, \mathrm{~B}) \end{gathered}$ |  | b | Cv | $\begin{gathered} \mathrm{C} \\ {\left[\mathrm{dm}^{3} /\right.} \\ (\mathrm{s} \cdot \mathrm{bar})] \end{gathered}$ | b | Cv |
| SS5X3-45 | C8 | C6 | 0.88 | 0.21 | 0.22 | 0.95 | 0.18 | 0.22 |
| SS5X5-45 | C10 | C8 | 2.2 | 0.24 | 0.53 | 2.5 | 0.18 | 0.58 |

,

Manifold Option


* Fill in I with an appropriate no. listed on the table of DIN rail dimensions shown below.


| No. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ldimension | 98 | 110.5 | 123 | 135.5 | 148 | 160.5 | 173 | 185.5 | 198 | 210.5 | 223 |
| No. | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| Ldimension | 235.5 | 248 | 260.5 | 273 | 285.5 | 298 | 310.5 | 323 | 335.5 | 348 | 360.5 |
| No. | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 |
| Ldimension | 373 | 385.5 | 398 | 410.5 | 423 | 435.5 | 448 | 460.5 | 473 | 485.5 | 498 |
| No. | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 |
| Ldimension | 510.5 | 523 | 535.5 | 548 | 560.5 | 573 | 585.5 | 598 | 610.5 | 623 | 635.5 |
| No. | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 |
| Ldimension | 648 | 660.5 | 673 | 685.5 | 698 | 710.5 | 723 | 735.5 | 748 | 760.5 | 773 |
| No. | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 |
| Ldimension | 785.5 | 798 | 810.5 | 823 | 835.5 | 848 | 860.5 | 873 | 885.5 | 898 | 910.5 |
| No. | 66 | 67 | 68 | 69 | 70 | 71 |  |  |  |  |  |
| Ldimension | 923 | 935.5 | 948 | 960.5 | 973 | 985.5 |  |  |  |  |  |

## SUP block disk

By installing a SUP block disk in the pressure supply passage of a manifold valve, it is possible to supply two or more different high and low pressures to one manifold.


Lable for block disk
The labels shown below are used on manifold stations containing SUP/EXH block disk(s) to show their location. (3 pcs. each)

## EXH block disk

By installing an EXH block disk in the exhaust passage of a manifold valve, it is possible to divide the valve's exhaust so that it does not affect another valve. (Two block disks are needed to divide both exhausts.)


VZ3000-123-1A

Label for


Label for EXH block disk


Label for
SUP/EXH block disk


Note) When a block disk is concurrently ordered by specifying on the manifold specification sheet, etc., a label will be stuck on the position where block disk is mounted.

## Silencer with One-touch fitting

This silencer can be mounted on the manifold's port R (exhaust) with a single touch.


| Series | Model | Effective area | A | B | C |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SX3000 (08) | AN203-KM8 | $14 \mathrm{~mm}^{2}$ | ه16 | 26 | 51 |
| SX5000 (¢10) | AN200-KM10 | $26 \mathrm{~mm}^{2}$ | ø22 | 53.8 | 80.8 |
|  | AN300-KM10 | $30 \mathrm{~mm}^{2}$ | ø25 | 70 | 97 |

## Plug

These are inserted in cylinder ports or SUP/EXH ports which are not being used.
Purchasing order is available in units of 10 pieces.


Dimensions

| Applicable fittings <br> fitting 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 |
| $5 / 32^{\prime \prime}$ | KQ2P-03 | 16 | 32 | 6 |
| $1 / 4^{\prime \prime}$ | KQ2P-07 | 18 | 35 | 8.5 |
| $5 / 16^{\prime \prime}$ | KQ2P-09 | 20.5 | 39 | 10 |
| $3 / 8^{\prime \prime}$ | KQ2P-11 | 22 | 43 | 11.5 |

## ACaution

Mounting screw tightening torques
M2: $0.17 \mathrm{~N} \cdot \mathrm{~m}$
M3: 0.8 N-m
M4: 1.4 N•m
$\triangle$ Warning
When mounting a valve or spacer on the manifold base or sub-plate, etc., those mounting directions are determined. If mounted in the wrong direction, the equipment to be connected may cause malfunction. Refer to external dimensions in pages 1-6-78 to 1-6-79, and then mount it.

Dimensions: Series SX3000

SS5X3-45- Stations D- ${ }_{\mathrm{c} 6}^{\mathrm{C}}$


L plug connector


M plug connector


SS5X3-45- Stations U- ${ }^{\text {C4 }}$



| Stations n 2 stations |  | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 stations |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | 98 | 110.5 | 123 | 135.5 | 148 | 148 | 160.5 | 173 | 185.5 |
| L2 | 87.5 | 100 | 112.5 | 125 | 137.5 | 137.5 | 150 | 162.5 | 175 |
| L3 | 70.5 | 81 | 91.5 | 102 | 112.5 | 123 | 133.5 | 144 | 154.5 |
| L4 | 13.5 | 14.5 | 15.5 | 16.5 | 17.5 | 12.5 | 13.5 | 14.5 | 15.5 |


(mm)

| Stations n | 2 stations | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 stations |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | 110.5 | 123 | 135.5 | 148 | 160.5 | 173 | 185.5 | 185.5 | 198 |  |
| L2 | 100 | 112.5 | 125 | 137.5 | 150 | 162.5 | 175 | 175 | 187.5 |  |
| L3 | 87 | 97.5 | 108 | 118.5 | 129 | 139.5 | 150 | 160.5 | 171 |  |
| L4 | 11.5 | 12.5 | 13.5 | 14.5 | 15.5 | 16.5 | 17.5 | 12.5 | 13.5 |  |
| Stations n 11 stations |  | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 stations |
| L1 | 210.5 | 223 | 235.5 | 248 | 248 | 260.5 | 273 | 285.5 | 298 | 310.5 |
| L2 | 200 | 212.5 | 225 | 237.5 | 237.5 | 250 | 262.5 | 275 | 287.5 | 300 |
| L3 | 181.5 | 192 | 202.5 | 213 | 223.5 | 234 | 244.5 | 255 | 265.5 | 276 |
| L4 | 14.5 | 15.5 | 16.5 | 17.5 | 12 | 13 | 14 | 15 | 16 | 17 |

## Exploded View/DIN Rail Manifold

## Type 45



Replacement Parts

| No. | Description | Part no. |  | Note |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | SX3000 | SX5000 |  |  |
| (1) | Manifold block assembly | SX3000-50-1A- $\square \square$ | SX5000-50-1A-C6 | - SX3000 <br> (Metric size) <br> C4: With One-touch fitting for $\varnothing 4$ C6: With One-touch fitting for ø6 SX5000 <br> (Metric size) <br> C4: With One-touch fitting for $\varnothing 4$ <br> C6: With One-touch fitting for $\varnothing 6$ <br> C8: With One-touch fitting for $\varnothing 8$ <br> (Ga | (Inch size) <br> N3: With One-touch fitting for $\varnothing 5 / 32^{\prime \prime}$ <br> N7: With One-touch fitting for $\varnothing 1 / 4^{\prime \prime}$ <br> (Inch size) <br> N3: With One-touch fitting for $05 / 32^{\prime \prime}$ <br> N7: With One-touch fitting for $\varnothing 1 / 4^{\prime \prime}$ <br> N9: With One-touch fitting for $\varnothing 5 / 16{ }^{\prime \prime}$ <br> cluded.) |
| (2) | SUP/EXH block assembly | (Metric size) SX3000-51-1A <br> (Inch size) SX3000-51-15A | (Metric size) SX5000-51-1A (Inch size) SX3000-51-15A | P, R port SX3000 (Metric size) With OneP, R port SX5000 (Metric size) With One- | $\varnothing 8$ (Inch size) With One-touch fittings for $\varnothing 5 / 166^{\prime \prime}$ 10 (Inch size) With One-touch fittings for $03 / 8^{\prime \prime}$ |
| (3) | End block assembly R | SX3000-52-1A | SX5000-52-1A |  |  |
| (4) | End block assembly L | SX3000-53-1A | SX5000-53-1A |  |  |
| (5) | Round head combination screw | $\begin{gathered} \text { SX3000-22-2 } \\ (\mathrm{M} 2 \times 24) \\ \hline \end{gathered}$ | $\begin{gathered} \text { M3 } \times 30 \\ \text { (Matt nickel plated) } \end{gathered}$ |  |  |
| (6) | Gasket | SX3000-57-4 | SX5000-57-6 |  |  |
| (7) | DIN rail | VZ1000-11-1- $\square$ |  | Refer to page 1-6-77. |  |

## How to Increase Manifold Bases

Station expansion is possible at any position.
(1) Loosen bolt (a) fixing the manifold base until it begins to turn idly. (While pressing DIN rail release buttons (c) at two locations, separate the manifold base from the DIN rail.)
(2) Press manifold block assembly splitting button (b), that are at the location where manifold bases are to be added, until button (b) locks, and then separate the block assemblies.
(3) Mount additional manifold block assembly on the DIN rail as shown in the figure.
(4) Press the block assembly until a click sound is produced, and tighten the bolts (a) to fix them to the DIN rail. $\triangle$ Caution (Tightening torque: $1.4 \mathrm{~N} \cdot \mathrm{~m}$ )
(While lightly holding the blocks after fixing an end block on one side, tighten the other end block for better sealing.)

Fig. (1) Block
mounting procedure


## $\triangle$ Caution

1. When adding manifold bases to use more than 10 stations, add SUP/EXH block assembly, as well.
2. When bolt (a) for the end block is not sufficiently tightened during reassembly, air leakage may result. Before supplying air, check that there is no gap between blocks and that the manifold block is firmly fixed to the DIN rail in order to ensure air supply without leakage.

Hook this section on the DIN rail and press in the direction of the arrow until a click sound is generated.

## How to Change Fitting Assembly



Fitting Assembly Part No.
Metric size

| SX3000 | One-touch fitting for $\varnothing 4$ | VVQ1000-50A-C4 |
| :---: | :---: | :---: |
|  | One-touch fitting for $\varnothing 6$ | VVQ1000-50A-C6 |
| SX5000 | One-touch fitting for $\varnothing 4$ | VVQ1000-51A-C4 |
|  | One-touch fitting for $\varnothing 6$ | VVQ1000-51A-C6 |
|  | One-touch fitting for $\varnothing 8$ | VVQ1000-51A-C8 |

## Inch size

| SX3000 | One-touch fitting for $\varnothing 5 / 32^{\prime \prime}$ | VVQ1000-50A-N3 |
| :---: | :---: | :---: |
|  | One-touch fitting for $\varnothing 1 / 4^{\prime \prime}$ | VVQ1000-50A-N7 |
| SX5000 | One-touch fitting for $\varnothing 5 / 32^{\prime \prime}$ | VVQ1000-51A-N3 |
|  | One-touch fitting for $\varnothing 1 / 4^{\prime \prime}$ | VVQ1000-51A-N7 |
|  | One-touch fitting for $\varnothing 5 / 16^{\prime \prime}$ | VVQ1000-51A-N9 |



Note 1) P and R ports cannot be changed.
Note 2) Use caution that O-rings must be free from scratches and dust. Otherwise, air leakage may result.

Series SX3000/5000 Base Mounted Manifold
Stacking Type DIN Rail Mounted Plug-in

## How to Order Manifold

Type 45F (D-sub connector, 25 pins type)


* For special specifications, indicate separately by the manifold specification sheet.

A, B port size -
(Metric size)

| Symbol | Port size | Applicable series |
| :---: | :---: | :---: |
| C4 | One-touch fitting for $\varnothing 4$ | SX3000 |
| C6 | One-touch fitting for $\varnothing 6$ |  |
| M | Mixed |  |
| C4 | One-touch fitting for $\varnothing 4$ | SX5000 |
| C6 | One-touch fitting for $\varnothing 6$ |  |
| C8 | One-touch fitting for $\varnothing 8$ |  |
| M | Mixed |  |

(Inch size)

| Symbol | Port size | Applicable series |
| :---: | :---: | :---: |
| N3 | One-touch fitting for $\varnothing 5 / 32^{\prime \prime}$ | SX3000 |
| N7 | One-touch fitting for $\varnothing 1 / 4^{\prime \prime}$ |  |
| M | Mixed |  |
| N3 | One-touch fitting for $\varnothing 5 / 32^{\prime \prime}$ |  |
| N7 | One-touch fitting for $\varnothing 1 / 4^{\prime \prime}$ | SX5000 |
| N9 |  |  |
| M | Mixed |  |

* In the case of mixed specifications (M), indicate separately on the manifold specification sheet.


## Option ${ }^{\circ}$

When a longer DIN rail is desired than the specified stations, specify the station number to be required

## How to Order Valve Manifold Assembly

Ordering example
(Type 45F/D-sub connector (25 pins) type)


How to Order Valves (Type 45F, 45P■, 45T, 45T1)


## How to Order Manifold

Type 45P $\square$ (Flat ribbon cable type)


| 26 pins (P) connector |  |  | 20 pins (PG) connector |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Symbol | Stations | Note | Symbol | Stations | Note |
| 02 | 2 stations | Double wiring ${ }^{(1)}$ specifications | 02 | 2 stations | Double wiring ${ }^{(1)}$ specifications |
| : | : |  | : | : |  |
| 10 | 10 stations |  | 08 | 8 stations |  |
| 02 | 2 stations | Applicable up to $20^{(2)}$ solenoids. | 02 | 2 stations | Applicable up to 16 solenoids. |
| ! | : |  | ! | : |  |
| 20 | 20 stations |  | 16 | 16 stations |  |


| $\mathbf{0} \mathbf{0}$ pins (PH) connector |  |  |
| :---: | :---: | :---: |
| Symbol | Stations | Note |
| $\mathbf{0 2}$ | 2 stations | Double wiring ${ }^{(1)}$ |
| $\vdots$ | $\vdots$ | specifications |
| $\mathbf{0 4}$ | 4 stations |  |
| $\mathbf{0 2}$ | 2 stations | Applicable up to $8^{(2)}$ |
| $\vdots$ | $\vdots$ |  |
| $\mathbf{0 8}$ | 8 stations |  |

Note 1) Double wiring specifications:
Single, double and 3 position solenoid valves can be used on all manifold stations.
Note 2) Specified layout:
Indicate wiring specifications on the manifold specification sheet. (Note that double and 3 position valves cannot be used where single solenoid wiring has been specified.).

## Type 45T (9 pins terminal block type)

* For special specifications, indicate

When a longer DIN rail is desired than the specified stations, specify the station number to be required. (20 stations maximum)
A, B port size
(Metric size)

| Symbol | Port size | Applicable series |
| :---: | :---: | :---: |
| C4 | One-touch fitting for $\varnothing 4$ | SX3000 |
| C6 | One-touch fitting for $\varnothing 6$ |  |
| M | Mixed |  |
| C4 | One-touch fitting for ø4 | SX5000 |
| C6 | One-touch fitting for $\varnothing 6$ |  |
| C8 | One-touch fitting for ø8 |  |
| M | Mixed |  |
| (Inch size) |  |  |
| Symbol | Port size | Applicable |
| N3 | One-touch fitting for $05 / 32^{\prime \prime}$ | SX3000 |
| N7 | One-touch fitting for $\varnothing 1 / 4{ }^{\prime \prime}$ |  |
| M | Mixed |  |
| N3 | One-touch fitting for $\varnothing 5 / 32$ " | SX5000 |
| N7 | One-touch fitting for $\varnothing 1 / 4^{\prime \prime}$ |  |
| N9 | One-touch fitting for $05 / 16^{\prime \prime}$ |  |
| M | Mixed |  |

* In the case of mixed specifications (M), indicate separately on the manifold specification sheet. separately by the manifold specification sheet.


## Type 45T1 (18 pins terminal block type)



Terminal block mounting position

| Symbol | Mounting position |
| :---: | :---: |
| U | U side |
| D | D side |


|  |  | Valve stations |  |
| :---: | :---: | :--- | :---: |
| Symbol | Stations | Note |  |
| 02 | 2 stations | Double wiring ${ }^{(1)}$ <br> specifications |  |
| $\vdots$ | $\vdots$ |  |  |
| 08 | 8 stations |  |  |
| 02 | 2 stations | Applicable up to $17{ }^{(2)}$ |  |
| $\vdots$ | $\vdots$ |  |  |

• This also includes the number of
blanking plate assemblies.
SUP/EXH block assembly mounting position

| Symbol | Mounting <br> position | Stations |
| :---: | :---: | :---: |
| $\mathbf{U}$ | U side | 2 to 10 stations |
| D | D side | 2 to 10 stations |
| B | Both sides | 2 to 17 |
| M | Special specifications |  |

* For special specifications, indicate separately by the manifold specification sheet.

Note 1) Double wiring specifications: Single, double and 3 position solenoid valves can be used on all manifold stations.
Note 2) Specified layout: Indicate wiring specifications on the manifold specification sheet. (Note that double and 3 position valves cannot be used where single solenoid wiring has been specified.)
Note 3) The terminal block (45Tロ) manifold has no common polarity. It can be used for both positive and negative common.

How to Order Manifold

## Type 45 $\square$ P (Flat ribbon cable type (PC wiring system compatible))



| $\mathbf{3}$ | $S \times 3000$ |
| :---: | :---: |
| $\mathbf{5}$ | $S \times 5000$ |

Connector mounting position

| Symbol | Mounting position |
| :---: | :---: |
| $\mathbf{U}$ | U side |
| $\mathbf{D}$ | D side |

Valve stations

| Symbol | Stations | Note |
| :---: | :---: | :---: |
| $\mathbf{0 2}$ | 2 stations | Double wiring ${ }^{(1)}$ <br> specifications |
| $\mathbf{\vdots}$ | $\vdots$ |  |
| $\mathbf{0 8}$ | 8 stations |  |
| $\mathbf{0 2}$ | 2 stations | Applicable up to $16^{(2)}$ |
| $\mathbf{y}$ | $\mathbf{\vdots}$ |  |
| $\mathbf{1 6}$ | 16 stations |  |

- This also includes the number of blanking plate assemblies.
Note 1) Double wiring specifications: Single, double and 3 position solenoid valves can be used solenoid valves can be
Note 2) Specified layout: Indicate wiring specifications on a manifold specification sheet. (Note that double and 3 position valves cannot be used where single solenoid wiring has been specified.)
(Inch size)

| Symbol | Port size | Applicable <br> senes |
| :---: | :---: | :---: |
| N3 | One-touch fitting for $\varnothing 5 / 32^{\prime \prime}$ | SX3000 |
| N7 | One-touch fitting for $\varnothing 1 / 4^{\prime \prime}$ |  |
| M | Mixed |  |
| N3 | One-touch fitting for $\varnothing 5 / 32^{\prime \prime}$ |  |
| N7 | One-touch fitting for $\varnothing 1 / 4^{\prime \prime}$ |  |
| N9 | One-touch fitting for $\varnothing 5 / 16^{\prime \prime}$ |  |
| M | Mixed |  |

(M), indicate separately on the manifold

* In the case of mixed specifications specification sheet.
A, B port size (Metric size)

| Symbol | Port size | Apslicable |
| :---: | :---: | :---: |
| C4 | One-touch fitting for $\varnothing 4$ | SX3000 |
| C6 | One-touch fitting for $\varnothing 6$ |  |
| M | Mixed |  |
| C4 | One-touch fitting for $\varnothing 4$ | SX5000 |
| C6 | One-touch fitting for $\varnothing 6$ |  |
| C8 | One-touch fitting for $\varnothing 8$ |  |
| M | Mixed |  |

SUP/EXH block assembly mounting position

| Symbol | Mounting <br> position | Stations |  |
| :---: | :---: | :---: | :---: |
| U | U side | 2 to 10 stations |  |
| D | D side | 2 to 10 stations |  |
| B | Both sides | 2 to 16 stations |  |
| M | Special specifications |  |  |
|  |  |  |  |
| * For | special specifications |  |  |
| indicate separately by the |  |  |  | manifold specification sheet.

SUP/EXH block assembly specifications

| Symbol | Specifications |
| :---: | :---: |
| Nil | Internal pilot specifications |
| R | External pilot specifications |
| S | Internal pilot/Built-in silencer |
| RS | External pilot/Built-in silencer |



Manifold Specifications

| Model |  |  | D-subconnectorType 45F | Flat ribbon cable type 45P $\square$ |  |  | Terminal block |  | Flat ibbon cable <br> PC wing <br> system compatible$\|$Type 45G |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Type 45P | Type 45PG | Type 45PH | Type 45T | Type 45T1 |  |
| Manifold |  |  |  | Plug-in type |  |  |  |  |  |  |
| P(SUP), R(EXH) |  |  | Common SUP/Common EXH |  |  |  |  |  |  |
| Valve stations Note) |  |  | 2 to 20 stations |  | 2 to 16 stations | 2 to 8 | stations | 2 to 17 stations | 2 to 16 stations |
| A, B porting specifications |  | Location |  |  |  |  |  |  |  |
|  |  | Direction | Side |  |  |  |  |  |  |
| Port size | P, R port | SX3000 | C8 (One-touch fitting for $\varnothing 8$ ) |  |  |  |  |  |  |
|  |  | SX5000 | C10 (One-touch fitting for $\varnothing 10$ ) |  |  |  |  |  |  |
|  | A, B port | SX3000 | C4 (One-touch fitting for ø4)/C6 (One-touch fitting for $\varnothing 6$ ) |  |  |  |  |  |  |
|  |  | SX5000 | C4 (One-touch fitting for $\varnothing 4$ )/C6 (One-touch fitting for $\varnothing 6$ )/C8 (One-touch fitting for $\varnothing 8$ ) |  |  |  |  |  |  |
| Connector |  |  | D-sub connector: Conforms to MIL-C24308 | Flat ribbon cable connector socket: 26 pins MIL with strain relief; Conforming to MIL-C-83503 | Flat ribbon cable connector socket: <br> 20 pins MIL with strain relief; Conforming to MIL-C-83503 | Flat ribbon cable connector socket: <br> 10 pins MIL with strain relief; Conforming to MIL-C-83503 | Terminal block (M3) 9 pins | Terminal block (M3) 18 pins | Flat ribbon cable connector socket: 20 pins MIL with strain relief; <br> Conforming to MIL-C-83503 |
| Internal wiring |  |  | +COM (Type 45■), -COM (Type 45ND) |  |  |  | $\begin{aligned} & \text { In common between } \\ & + \text { COM and -COM. } \end{aligned}$ |  | + COM |
| Manifold base weight W (g) n : Stations (D-sub connector) |  | SX3000 | 2 to 10 stations: $W=26 n+172$ <br> 11 to 20 stations: $W=26 n+199$ |  |  |  |  |  |  |
|  |  | SX5000 | 2 to 10 stations: $W=54 n+227$ <br> 11 to 20 stations: $W=54 n+264$ |  |  |  |  |  |  |

Flow Characteristics

| Model | Port size |  | Flow characteristics |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $1 \rightarrow 4 / 2(P \rightarrow A / B)$ |  |  | 4/2 $\rightarrow 5 / 3$ (A/B $\rightarrow$ EA/EB) |  |  |
|  | $\begin{gathered} 1,5,3 \\ (\mathrm{P}, \mathrm{EA}, \mathrm{~EB}) \end{gathered}$ | $\begin{gathered} 4,2 \\ (\mathrm{~A}, \mathrm{~B}) \end{gathered}$ | $\begin{gathered} \mathrm{C} \\ {\left[\mathrm{dm}^{3} /\right.} \\ (\mathrm{s} \cdot \mathrm{~b} \cdot \mathrm{r})] \end{gathered}$ | b | Cv | $\begin{gathered} C \\ {\left[\mathrm{dm}^{3} /\right.} \\ (\mathrm{s} \cdot \mathrm{bar})] \end{gathered}$ | b | Cv |
| SS5X3-451 | C8 | C6 | 0.88 | 0.21 | 0.22 | 0.95 | 0.18 | 0.22 |
| SS5X5-45I | C10 | C8 | 2.2 | 0.24 | 0.53 | 2.5 | 0.18 | 0.58 |

Note) There is a limit to the number of stations available depending on the number of solenoids
required. Please refer to the "How to Order". For more than 10 stations, supply pressure
through the "P" ports at both ends of the manitold exhaust throug both ends as well through the "P" ports at both ends of the manifold exhaust through both ends as well.

Note) The value is for manifold base with 5 stations and individually operated 2 position type.

## Manifold Option

## Blanking plate assembly



■ SUP block disk
By installing a SUP block disk in the pressure supply passage of a manifold valve, it is possible to supply two or more different high and low pressures to one manifold.


| Series | Part no. |
| :---: | :---: |
| SX3000 | SX3000-77-1A |
| SX5000 | SX5000-77-1A |

## ■ EXH block disk

By installing an EXH block disk in the exhaust passage of a manifold valve, it is possible to divide the valve's exhaust so that it does not affect another valve. (Two block disks are needed to divide both exhausts.)


| Series | Part no. |
| :---: | :---: |
| SX3000 | SX3000-77-1A |
| SX5000 | SX5000-77-1A |

■ Label for block disk
The labels shown below are used on manifold stations containing SUP/EXH block disk(s) to show their location. (3 pcs. each)
VZ3000-123-1A (In common between SX3000 and 5000)
Label for Label for Label for
SUP block disk EXH block disk SUP/EXH block disk


Note) When a block disk is concurrently ordered by specifying on the manifold specification sheet, etc., a label will be stuck on the position where block disk is mounted.

- Silencer with One-touch fitting

This silencer can be mounted on the manifold's port R (exhaust) with a single touch.


| Series | Model | Effective area | A | B | C |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SX3000 (ø8) | AN203-KM8 | $14 \mathrm{~mm}^{2}$ | 16 | 26 | 51 |
| $\mathbf{S X 5 0 0 0}(\varnothing 10)$ | AN200-KM10 | $26 \mathrm{~mm}^{2}$ | 22 | 53.8 | 80.8 |
|  | AN300-KM10 | $30 \mathrm{~mm}^{2}$ | 25 | 70 | 97 |

## Manifold Option

D-sub connector (25 pins)/Cable assembly


## Connector

manufacturers' example

- Hirose Electric Co., Ltd.
- Fujitsu Limited
- Japan Aviation Electronics

Industry, Ltd.

- J.S.T. Mfg, Co., Ltd.

D-sub Connector Cable Assembly

| Cable <br> length (L) |
| :---: |
| 1.5 m |
| 3 m |
| 5 m |

Electric Characteristics

| Item | Characteristics |
| :---: | :---: |
| Conductor resistance $\Omega / \mathrm{km}, 20^{\circ} \mathrm{C}$ | $\begin{gathered} 65 \\ \text { or less } \end{gathered}$ |
| Voltage limit VAC, 1 min. | 1000 |
| Insulation resistance $\mathrm{M} \Omega \mathrm{km}, 20^{\circ} \mathrm{C}$ | 5 or less |
|  | minimum ding radius D-sub conor cable asbly is 20 |

D-sub Connector Cable Assembly Terminal No.

| Terminal no. | 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 |

$$
\begin{aligned}
& \text { Individual EXH } \\
& \text { spacer assembly }
\end{aligned}
$$

* Thread type

Inserted into an unused cylinder port and SUP/EXH ports Purchasing order is available in units of 10 pieces.

Dimensions

| Applicable fittings <br> size $\varnothing \mathrm{d}$ | 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 |
| $5 / 32^{\prime \prime}$ | KQ2P-03 | 16 | 32 | 6 |
| $1 / 4^{\prime \prime}$ | KQ2P-07 | 18 | 35 | 8.5 |
| $5 / 16^{\prime \prime}$ | KQ2P-09 | 20.5 | 39 | 10 |
| $3 / 8^{\prime \prime}$ | KQ2P-11 | 22 | 43 | 11.5 |

Flat Ribbon Cable Assembly

| Cable length (L) | 10 pins | 20 pins | 26 pins |
| :---: | :---: | :---: | :---: |
| 1.5 m | AXT100-FC10-1 | AXT100-FC20-1 | AXT100-FC26-1 |
| 3 m | AXT100-FC10-2 | AXT100-FC20-2 | AXT100-FC26-2 |
| 5 m | AXT100-FC10-3 | AXT100-FC20-3 | AXT100-FC26-3 |
| Connector width (W) | 17.2 | 30 | 37.5 |

For other commercial connectors, use a type with strain relief that conform to MIL-C-83503.

## Connector manufacturers' example

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


## $\triangle$ Caution

Mounting screw tightening torques
M2: $0.17 \mathrm{~N} \cdot \mathrm{~m}$
M3: $0.8 \mathrm{~N} \cdot \mathrm{~m}$
M4: $1.4 \mathrm{~N} \cdot \mathrm{~m}$

## $\triangle$ Warning

When mounting a valve or spacer on the manifold base or sub-plate, etc., those mounting directions are determined. If mounted in the wrong direction, the equipment to be connected may cause malfunction. Refer to external dimensions in pages 1-6-92 to 1-6-109, and then mount it.


Type 45(N)F: D-sub Connector
A D-sub connector used for electric wiring reduces labor during wiring operation. Connectors conforming to MIL are used for interchangeability.


Type 45(N)P: Flat Ribbon Cable (26 pins)
A flat cable connector used for electric wiring reduces labor during wiring operation. Connectors conforming to MIL are used for interchangeability.


Note)
Terminal no. is not indicated on the connector. The terminal no. indicated in the connection schematic of connector, as shown in the reference, means a correlation of 1 , $2,3 \ldots .26$ from the triangle mark side on the flat ribbon cable of connector
<For positive common (45F)> <For negative common (45NF)>


Power supply terminal


- The power source terminal is used for connecting to an external power source.
- The above diagram is the double wiring specifications for up to 10 stations. When the wiring specifications are specified on the manifold specification sheet, the valve assignment for the connector number will differ from the above diagram. For more information, please contact SMC.
- When using a single solenoid valve, connect wire to SOL.A.
- The maximum number of stations is 20 in terms of manifold bases, as well as solenoids. (Please consult with SMC for more stations.)
- Regardless of the connector mounting position, stations are to be counted from $D$ side as the 1st one.
<For positive common (45P)> <For negative common (45NP)>

- The power source terminal is used for connecting to an external power source.
- The above diagram is the double wiring specifications for up to 10 stations. When the wiring specifications are specified on the manifold specification sheet, the valve assignment for the connector number will differ from the above diagram. For more information, please contact SMC.
- When using a single solenoid valve, connect wire to SOL.A.
- The maximum number of stations is 20 in terms of manifold bases, as well as solenoids. (Please consult with SMC for more stations.)
- Regardless of the connector mounting position, stations are to be counted from $D$ side as the 1st one.

Type 45(N)PG: Flat Ribbon Cable (20 pins)
A flat cable connector used for electric wiring reduces labor during wiring operation. Connectors conforming to MIL are used for interchangeability.


Type 45(N)PH: Flat Ribbon Cable (10 pins)
A flat cable connector used for electric wiring reduces labor during wiring operation. Connectors conforming to MIL are used for interchangeability.


Note)
Terminal no. is not indicated on the connector The terminal no. indicated in the connection schematic of connector as show in the reference, means a correlation of 1 , 2, $3 \cdots \cdot 10$ from the triangle mark side on the flat ribbon cable of connector.
<For positive common (45PG)> <For negative common (45NPG)>


Power supply terminal


Power supply terminal

- The power source terminal is used for connecting to an external power source.
- The above diagram is the double wiring specifications for up to 8 stations. When the wiring specifications are specified on the manifold specification sheet, the valve assignment for the connector number will differ from the above diagram. For more information, please contact SMC.
-When using a single solenoid valve, connect wire to SOL.A.
- The maximum number of stations is 16 in terms of manifold bases, as well as solenoids. (Please consult with SMC for more stations.)
- Regardless of the connector mounting position, stations are to be counted from $D$ side as the 1 st one.
<For positive common (45PH)> <For negative common (45NPH)>

- The power source terminal is used for connecting to an external power source.
- The above diagram is the double wiring specifications for up to 4 stations. When the wiring specifications are specified on the manifold specification sheet, the valve assignment for the connector number will differ from the above diagram. For more information, please contact SMC.
- When using a single solenoid valve, connect wire to SOL.A.
- The maximum number of stations is 8 in terms of manifold bases, as well as solenoids. (Please consult with SMC for more stations.)
- Regardless of the connector mounting position, stations are to be counted from D side as the 1st one.


## Internal Wiring of Manifold

## Type 45T: Terminal Block

A terminal block style permits direct cable connection without treatment of lead wires.



- The maximum number of stations is 8 in terms of manifold bases, as well as solenoids. (Please consult with SMC for more stations.)
- The above diagram is the double wiring specifications for up to 4 stations. When the wiring specifications are specified on the manifold specification sheet, the valve assignment for the connector number will differ from the above diagram. For more information, please contact SMC.
- When using a single solenoid valve, connect wire to SOL.A.
- Regardless of the connector mounting position, stations are to be counted from $D$ side as the 1 st one.
- There is no polarity in the COM wiring. Supply positive power for +COM spec. and negative power for -COM spec.


## Type 45T1: Terminal Block




- The maximum number of stations is 17 in terms of manifold bases, as well as solenoids.
(For more stations, please contact SMC.)
- Regardless of the connector mounting position, stations are to be counted from D side as the 1st one.
- There is no polarity in the COM wiring. Supply positive power for +COM spec. and negative power for -COM spec.


## Internal Wiring of Manifold

Type 45G: Flat Ribbon Cable (PC Wiring System compatible)
It is the manifold for 20 pins flat ribbon cable connector which is compliant for PC wiring system.


Electric circuit diagram (Below wiring is the case of all double solenoid connections.)


The maximum number of stations is 16 in terms of manifold bases, as well as solenoids (For more stations, please contact SMC.)

- Regardless of the connector mounting position, stations are to be counted from D side as the 1 st one.
Refer to the separate catalog CAT.S02-20 for the details of PC Wiring System.


## SS5X $\square-45 \square$ Wiring of Plug-in Type

Power terminal is equipped with plug-in manifold of Series SX as standard.
Power terminal enables the power supply to valve from either of manifold or controller side.

1. Wiring example when using manifold power supply terminals

2. Wiring example when the power terminal of the manifold is not used

## (Power supplied at controller or in wiring)



## © Caution

- Single wire, COM position, etc. of PLC are different from each manufacturer. When connecting with PLC, read the specifications carefully and understand the electrical circuit. Poor wiring could cause damage to PLC, power source, etc. as well as manifold and valve.


## SX3000: D-sub Connector/Plug-in



## SS5X3-45FU- Stations B-c4





(Station n )


6


|  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stations n | 2 stations | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ | $\mathbf{7}$ | $\mathbf{8}$ | $\mathbf{9}$ | 10 stations |
| L1 | 123 | 135.5 | 148 | 148 | 160.5 | 173 | 185.5 | 198 | 210.5 |
| L2 | 112.5 | 125 | 137.5 | 137.5 | 150 | 162.5 | 175 | 187.5 | 200 |
| L3 | 91.5 | 102 | 112.5 | 123 | 133.5 | 144 | 154.5 | 165 | 175.5 |
| L4 | 15.5 | 16.5 | 17.5 | 12.5 | 13.5 | 14.5 | 15.5 | 16.5 | 17.5 |

nm) The L1 to $L 4$ dimensions of SS5X3-45FD-
Stations D- $\square$ are identical to those of SS5X3-45FD-Stations U- $\square$.
Note) The L1 to L4 dimensions of SS5X3-45FD-


## SX3000: Flat Ribbon Cable Type/Plug-in

## SS5X3-45PU-Stations D- ${ }_{c 6}^{\mathrm{c}}$ (26 pins) <br> 

Note) The L1 to L4 dimensions of SS5X3-45P $\square \mathrm{U}$ Stations U- $\square$ are identical to those of SS5X3-45PU-Stations D- $\square$.



45PG (20 pins) 45PH (10 pins)

(1)
Note) Types 45PG and 45PH differ only in their connectors, and the L1 through L4 dimensions are the same as type 45P.

|  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stations n | 2 stations | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ | $\mathbf{7}$ | $\mathbf{8}$ | $\mathbf{9}$ | 10 stations |
| L1 | 123 | 135.5 | 148 | 148 | 160.5 | 173 | 185.5 | 198 | 210.5 |
| L2 | 112.5 | 125 | 137.5 | 137.5 | 150 | 162.5 | 175 | 187.5 | 200 |
| L3 | 91.5 | 102 | 112.5 | 123 | 133.5 | 144 | 154.5 | 165 | 175.5 |
| L4 | 15.5 | 16.5 | 17.5 | 12.5 | 13.5 | 14.5 | 15.5 | 16.5 | 17.5 |

## SS5X3-45PU-Stations B- ${ }_{6}^{\mathrm{C}}{ }_{6}^{4}$ (26 pins)


(mm)

| Stationsn | 2 stations | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ | $\mathbf{7}$ | $\mathbf{8}$ | $\mathbf{9}$ | 10 stations |  |
| :---: | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | 135.5 | 148 | 160.5 | 173 | 185.5 | 185.5 | 198 | 210.5 | 223 |  |
| L2 | 125 | 137.5 | 150 | 162.5 | 175 | 17.5 | 187.5 | 200 | 212.5 |  |
| L3 | 108 | 118.5 | 129 | 139.5 | 150 | 160.5 | 171 | 181.5 | 192 |  |
| L4 | 13.5 | 14.5 | 15.5 | 16.5 | 17.5 | 12.5 | 13.5 | 14.5 | 15.5 |  |
| Stations n | 11 sitations | $\mathbf{1 2}$ | $\mathbf{1 3}$ | $\mathbf{1 4}$ | $\mathbf{1 5}$ | $\mathbf{1 6}$ | $\mathbf{1 7}$ | $\mathbf{1 8}$ | $\mathbf{1 9}$ | 20 stations |
| L1 | 235.5 | 248 | 248 | 260.5 | 273 | 285.5 | 298 | 310.5 | 310.5 | 323 |
| L2 | 225 | 237.5 | 237.5 | 250 | 262.5 | 27.5 | 287.5 | 300 | 300 | 312.5 |
| L3 | 202.5 | 213 | 223.5 | 234 | 244.5 | 255 | 265.5 | 276 | 286.5 | 297 |
| L4 | 16.5 | 17.5 | 12 | 13 | 14 | 15 | 16 | 17 | 12 | 13 |

## SS5X3-45PD- Stations U- ${ }_{c 6}^{\mathrm{c}}$ (26 pins)



Note) The L1 to L4 dimensions of SS5X3-45PロDStations D- $\square$ are identical to those of SS5X3-45PD-Stations U- $\square$.


Triangle mark position
locking type.)
(Rail mounting hole pitch 12.5


## SS5X3-45PD- Stations B- ${ }_{66}^{\mathrm{C}}$ (26 pins)



| Stations | 2 2staions | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 stations |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | 123 | 135.5 | 148 | 148 | 160.5 | 173 | 185.5 | 198 | 210.5 |
| L2 | 112.5 | 125 | 137.5 | 137.5 | 150 | 162.5 | 175 | 187.5 | 200 |
| L3 | 91.5 | 102 | 112.5 | 123 | 133.5 | 144 | 154.5 | 165 | 175.5 |
| L4 | 15.5 | 16.5 | 17.5 | 12.5 | 13.5 | 14.5 | 15.5 | 16.5 | 17.5 |


| Stations | 2 2taions | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 stations |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | 135.5 | 148 | 160.5 | 173 | 185.5 | 185.5 | 198 | 210.5 | 223 |  |
| L2 | 125 | 137.5 | 150 | 162.5 | 175 | 175 | 187.5 | 200 | 212.5 |  |
| L3 | 108 | 118.5 | 129 | 139.5 | 150 | 160.5 | 171 | 181.5 | 192 |  |
| L4 | 13.5 | 14.5 | 15.5 | 16.5 | 17.5 | 12.5 | 13.5 | 14.5 | 15.5 |  |
| Stations $n$ | 11 stations | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | ns |
| L1 | 235.5 | 248 | 248 | 260.5 | 273 | 285.5 | 298 | 310.5 | 310.5 | 323 |
| L2 | 225 | 237.5 | 237.5 | 250 | 262.5 | 27.5 | 287.5 | 300 | 300 | 312.5 |
| L3 | 202.5 | 213 | 223.5 | 234 | 244.5 | 255 | 265.5 | 276 | 286.5 | 297 |
| L4 | 16.5 | 17.5 | 12 | 13 | 14 | 15 | 16 | 17 | 12 | 13 |

## SX3000: 9 Pins Terminal Block/Plug-in

## SS5X3-45TU- Stations D-c4



Note) The L1 to L4 dimensions of SS5X3-45TUStations U- $\square$, SS5X3-45TD-Stations U-ロ, SS5X3-45TD-Stations D- $\square$ are identical to those of SS5X3-45TU-Stations D- $\square$.

(Station n) …. (Station 1)


## SS5X3-45TU- Stations B- $\mathrm{c}_{6}^{\mathrm{C4}}$



| Stations n | 2 stations | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ | $\mathbf{7}$ | 8 stations |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | 123 | 135.5 | 148 | 148 | 160.5 | 173 | 185.5 |
| L2 | 112.5 | 125 | 137.5 | 137.5 | 150 | 162.5 | 175 |
| L3 | 91.5 | 102 | 112.5 | 123 | 133.5 | 144 | 154.5 |
| L4 | 15.5 | 16.5 | 17.5 | 12.5 | 13.5 | 14.5 | 15.5 |



Note) The L1 to L4 dimensions of SS5X3-45TDStations B- $\square$ are identical to those of SS5X345 TU - Stations B- $\square$.

## SX3000: 18 Pins Terminal Block/Plug-in

## SS5X3-45T1U- Stations D- ${ }_{c 6}^{\mathrm{C} 4}$ (18 pins)



## SS5X3-45T1U- Stations B- ${ }_{c}^{\mathrm{C}}$ (18 pins)



| Stations | 2 2staions | 3 | 4 | 5 | 6 | 7 | 8 | 9stations |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | 160.5 | 173 | 185.5 | 185.5 | 198 | 210.5 | 223 | 235.5 |
| L2 | 150 | 162.5 | 175 | 175 | 187.5 | 200 | 212.5 | 225 |
| L3 | 129 | 139.5 | 150 | 160.5 | 171 | 181.5 | 192 | 202.5 |
| L4 | 15.5 | 16.5 | 17.5 | 12.5 | 13.5 | 14.5 | 15.5 | 16.5 |
| Stations | 110 stations | 11 | 12 | 13 | 14 | 15 | 16 | 7 stations |
| L1 | 248 | 248 | 248 | 260.5 | 273 | 285.5 | 298 | 310.5 |
| L2 | 237.5 | 237.5 | 237.5 | 250 | 262.5 | 27.5 | 287.5 | 300 |
| L3 | 213 | 223.5 | 223.5 | 234 | 244.5 | 255 | 265.5 | 286.5 |
| L4 | 17.5 | 12 | 12 | 13 | 14 | 15 | 16 | 12 |

## SS5X3-45T1D-Stations U- ${ }_{c}^{\text {che }}$ (18 pins)



Note) The L1 to L4 dimensions of SS5X3-45T1DStations D- $\square$ are identical to those of SS5X3-45T1D-Stations U-■.

| Stations | 2 sations | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ | $\mathbf{7}$ | $\mathbf{8}$ | $\mathbf{9}$ | 10 stations |
| :---: | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | 148 | 148 | 160.5 | 173 | 185.5 | 198 | 210.5 | 210.5 | 223 |
| L2 | 137.5 | 137.5 | 150 | 162.5 | 175 | 187.5 | 200 | 200 | 212.5 |
| L3 | 112.5 | 123 | 133.5 | 144 | 154.5 | 165 | 175.5 | 186 | 196.5 |
| L4 | 17.5 | 12.5 | 13.5 | 14.5 | 15.5 | 16.5 | 17.5 | 12 | 13 |

(mm)

| Stations | 2stations | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ | $\mathbf{7}$ | $\mathbf{8}$ | 9 stations |
| :---: | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | 160.5 | 173 | 185.5 | 185.5 | 198 | 210.5 | 223 | 235.5 |
| L2 | 150 | 162.5 | 175 | 175 | 187.5 | 200 | 212.5 | 225 |
| L3 | 129 | 139.5 | 150 | 160.5 | 171 | 181.5 | 192 | 202.5 |
| L4 | 15.5 | 16.5 | 17.5 | 12.5 | 13.5 | 14.5 | 15.5 | 16.5 |
| Stations | 10 pstations | $\mathbf{1 1}$ | $\mathbf{1 2}$ | $\mathbf{1 3}$ | $\mathbf{1 4}$ | $\mathbf{1 5}$ | $\mathbf{1 6}$ | 17 stations |
| L1 | 248 | 248 | 260.5 | 273 | 285.5 | 298 | 310.5 | 310.5 |
| L2 | 237.5 | 237.5 | 250 | 262.5 | 275 | 287.5 | 300 | 300 |
| L3 | 213 | 223.5 | 234 | 244.5 | 255 | 265.5 | 276 | 286.5 |
| L4 | 17.5 | 12 | 13 | 14 | 15 | 16 | 17 | 12 |

## SX3000: PC Wiring System Compatible (Flat ribbon cable type/Plug-in)

## SS5X3-45GU- Stations D- ${ }_{c}^{\mathrm{C4}}$

| 2n-One-touch fittings |
| :--- |
| (A, B port) |
| Applicable tubing O.D.: $\varnothing 4, \varnothing 6$ |



|  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stations | 2stations | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ | $\mathbf{7}$ | $\mathbf{8}$ | $\mathbf{9}$ | 10 stations |
| L1 | 123 | 135.5 | 148 | 148 | 160.5 | 173 | 185.5 | 198 | 210.5 |
| L2 | 112.5 | 125 | 137.5 | 137.5 | 150 | 162.5 | 175 | 187.5 | 200 |
| L3 | 91.5 | 102 | 112.5 | 123 | 133.5 | 144 | 154.5 | 165 | 175.5 |
| L4 | 15.5 | 16.5 | 17.5 | 12.5 | 13.5 | 14.5 | 15.5 | 16.5 | 17.5 |

## SS5X3-45GU- Stations B- ${ }^{\text {c4 }}$



| Staions | 2 2stions | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 stations |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | 135.5 | 148 | 160.5 | 173 | 185.5 | 185.5 | 198 | 210.5 | 223 |
| L2 | 125 | 137.5 | 150 | 162.5 | 175 | 175 | 187.5 | 200 | 212.5 |
| L3 | 108 | 118.5 | 129 | 139.5 | 150 | 160.5 | 171 | 181.5 | 192 |
| L4 | 13.5 | 14.5 | 15.5 | 16.5 | 17.5 | 12.5 | 13.5 | 14.5 | 15.5 |
| Staions | 11 staions | 12 | 13 | 14 | 15 | 16 staitons |  |  |  |
| L1 | 235.5 | 248 | 248 | 260.5 | 273 | 285.5 |  |  |  |
| L2 | 225 | 237.5 | 237.5 | 250 | 262.5 | 275 |  |  |  |
| L3 | 202.5 | 213 | 223.5 | 234 | 244.5 | 255 |  |  |  |
| L4 | 16.5 | 17.5 | 12 | 13 | 14 | 15 |  |  |  |

SS5X3-45GD- Stations U- ${ }_{c 6}^{4}$


Note) The L1 to L4 dimensions of SS5X3-45GDStations D- $\square$ are identical to those of SS5X3-45GD-StationsU- $\square$.

|  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stations | 2stitions | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ | $\mathbf{7}$ | $\mathbf{8}$ | $\mathbf{9}$ | 10 stations |
| L1 | 123 | 135.5 | 148 | 148 | 160.5 | 173 | 185.5 | 198 | 210.5 |
| L2 | 112.5 | 125 | 137.5 | 137.5 | 150 | 162.5 | 175 | 187.5 | 200 |
| L3 | 91.5 | 102 | 112.5 | 123 | 133.5 | 144 | 154.5 | 165 | 175.5 |
| L4 | 15.5 | 16.5 | 17.5 | 12.5 | 13.5 | 14.5 | 15.5 | 16.5 | 17.5 |

## SS5X3-45GD- Stations B- ${ }^{\mathrm{CL}}$



| Staions | 2 2tations | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 stations |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | 135.5 | 148 | 160.5 | 173 | 185.5 | 185.5 | 198 | 210.5 | 223 |
| L2 | 125 | 137.5 | 150 | 162.5 | 175 | 175 | 187.5 | 200 | 212.5 |
| L3 | 108 | 118.5 | 129 | 139.5 | 150 | 160.5 | 171 | 181.5 | 192 |
| L4 | 13.5 | 14.5 | 15.5 | 16.5 | 17.5 | 12.5 | 13.5 | 14.5 | 15.5 |
| Staions | 11 stations | 12 | 13 | 14 | 15 | 16 staions |  |  |  |
| L1 | 235.5 | 248 | 248 | 260.5 | 273 | 285.5 |  |  |  |
| L2 | 225 | 237.5 | 237.5 | 250 | 262.5 | 275 |  |  |  |
| L3 | 202.5 | 213 | 223.5 | 234 | 244.5 | 255 |  |  |  |
| L4 | 16.5 | 17.5 | 12 | 13 | 14 | 15 |  |  |  |

## Exploded View: DIN Rail Manifold

## Type 45F (D-sub connector type) Manifold



## Replacement Parts



Note) The numbers (5) -1 to 4 are for 24 VDC. For 12 VDC, suffix -12 V to the parts no.
(Example) SX3000-64-1A-12V

## Manifold Block Assembly Part No.

| Style of manifold | Wiring specitications | Manifold block assembly part no. | Note |
| :---: | :---: | :---: | :---: |
| For 45(N)F (D-sub connector) | Double | SX ${ }_{5}^{3} 000-50-2 \mathrm{~A}-\square \square$ | - SX3000 (Metric size) <br> (Inch size) <br> C4: With One-touch fitting for $\varnothing 4$ N3: With One-touch fitting for $\varnothing 5 / 32^{\prime \prime}$ C6: With One-touch fitting for $\circ 6$ N7: With One-touch fitting for $\varnothing 1 / 4^{\prime \prime}$ X5000 (Metric size) (Inch size) <br> C4: With One-touch fitting for $\varnothing 4$ N3: With One-touch fitting for ${ }^{\circ} 5 / 32^{\prime \prime}$ <br> C6: With One-touch fitting for $\varnothing 6$ N7: With One-touch fitting for $\varnothing 1 / 4^{\prime \prime}$ C8: With One-touch fitting for $\varnothing 8$ N9: With One-touch fitting for $\varnothing 5 / 16^{\prime \prime}$ (Gasket (7) supplied as an accessory.) |
|  | Single | SX ${ }_{5}^{3} 000-50-3 A-\square \square$ |  |
| For 45(N) ${ }_{P}^{P G}$ (Flat ribbon cable) | Double | SX ${ }_{5}^{3} 000-50-4 \mathrm{~A}-\square \square$ |  |
|  | Single | SX ${ }_{5}^{3} 000-50-5 \mathrm{~A}-\square \square$ |  |
| For $45{ }_{T 1}^{\mathrm{T}}$ (Terminal block) | Double | SX ${ }_{5}^{3} 000-50-6 \mathrm{~A}-\square \square$ |  |
|  | Single | SX ${ }_{5}^{3} 000-50-7 \mathrm{~A}-\square \square$ |  |

## How to Increase Manifold Bases

(1) Loosen bolt (a) fixing the manifold base until it begins to turn idly. (While pressing DIN rail release button (c), separate the manifold base from the DIN rail.)
(2) Additional bases are to be added to the $U$ side. Press splitting button (b) of the manifold block assembly on the $U$ side until button (b) locks, and then separate the block assemblies.
(3) Separate the connector block assembly in the same manner as 2 , and remove the connector mounting screw shown in Fig. (1).
(4)

Loosen the valve mounting screw on the $U$ side, remove the valve, and take out the receptacle housing. (Refer to Fig. (2).)
(5)

Insert the common wire (red) of the manifold block assembly to be added into the pin insertion section ( N mark) of the receptacle housing that was taken out in 4 , mount it on the manifold block, and mount the removed valve.
(6) As shown in Fig. (3), mount the additional manifold block assembly on the DIN rail on the $U$ side. Refer to the circuit diagram, and insert the lead wire (SOL.A: Black, SOL.B: White) as shown in Fig. (4).
(7)
) Press the blocks against each other until a click sound is produced, place the lead wire in the manifold block, and close the lid without pinching the lead wire.
(8) While lightly holding the blocks together so that there are no gaps between them, secure them to the DIN rail by tightening the screws A. (Tightening torque: $1.4 \mathrm{~N} \cdot \mathrm{~m}$ )

## $\triangle$ Caution

1. Depending on the connector, there is a limit to the number of solenoids. When all manifold stations are wired for double solenoid valves, expansion of the manifold may not be possible. Please consult with SMC for more information.
2. The manifold block assembly mounting position for additional manifold bases is always on the $U$ side, because wires are connected to respective connectors sequentially from the D side.
3. When bolt (a) for the end block is not sufficiently tightened during reassembly, air leakage may result. Before supplying air, check that there is no gap between blocks and that the manifold block is firmly fixed to the DIN rail in order to ensure air supply without leakage.


Terminal block (45T)


## How to Change Fitting Assembly

Type 45 manifold permits change in the A and B port sizes by changing the manifold block fitting assembly.
After removing the valve, remove the clip with a screwdriver. To mount a new fitting assembly insert it and then insert a clip so it does not come out of the manifold block.

## Fitting Assembly Part No.

## Metric size

| SX3000 | One-touch fitting for $\varnothing 4$ | VVQ1000-50A-C4 |
| :---: | :---: | :---: |
|  | One-touch fitting for $\varnothing 6$ | VVQ1000-50A-C6 |
| $\mathbf{S X 5 0 0 0}$ | One-touch fitting for $\varnothing 4$ | VVQ1000-51A-C4 |
|  | One-touch fitting for $\varnothing 6$ | VVQ1000-51A-C6 |
|  | One-touch fitting for $\varnothing 8$ | VVQ1000-51A-C8 |

Inch size

| SX3000 | One-touch fitting for $\varnothing 5 / 32^{\prime \prime}$ | VVQ1000-50A-N3 |
| :---: | :---: | :---: |
|  | One-touch fitting for $\varnothing 1 / 4^{\prime \prime}$ | VVQ1000-50A-N7 |
| SX5000 | One-touch fitting for $\varnothing 5 / 32^{\prime \prime}$ | VVQ1000-51A-N3 |
|  | One-touch fitting for $\varnothing 1 / 4^{\prime \prime}$ | VVQ1000-51A-N7 |
|  | One-touch fitting for $\varnothing 5 / 166^{\prime \prime}$ | VVQ1000-51A-N9 |

Note 1) $P$ and $R$ ports cannot be changed.
Note 2) Use caution that O-rings must be free from scratches and dust. Otherwise, air leakage may result.
 Serial Transmission Type (Integrated)

How to Order Manifold


|  | Sl unit |
| :--- | :--- |
| Symbol | Specifications |


| Symbol | Specifications |
| :---: | :---: |
| $\mathbf{O}$ | Without SI unit |
| $\mathbf{A}$ | With |

With general type SI unit (Series EX300)

Mitsubishi Electric Corp.: MELSECNETMINIS3 Data Link System OMRON Corp.: SYSBUS Wire System SHARP Corp.: Satellite I/O Link System Matsushita Electric Works: MEWNET-F System
NKE Corp.: Uni-wire System (16 output points) Rockwell Automation: Allen Bradley Remote IO (RIO) System NKE Corp.: Uni-wire H System SUNX Corp.: S-LINK System (16 output points) SUNX Corp.: S-LINK System (8 output points) Fuji Electric Co.: T-LINK Mini System DeviceNet, CompoBus/D (OMRON Corp.) OMRON Corp.: CompoBus/S System (16 output points) OMRON Corp.: CompoBus/S System (8 output points) JEMANET (JPCN-1)
Mitsubishi Electric Corp.: CC-LINK System

- For the general purpose type, a transmission unit is required on the CPU side.
- Even though when it is not equipped with SI unit, DIN rail length is long enough for future expectancy of mounting SI unit.


## How to Order Valve Manifold Assembly

Ordering example
Single solenoid (24 VDC)


- They will be assembled in the order listed starting at the first station at the D side whether the connector box is located at either end. When ordering with the double wiring specification, specify it in order, beginning with the 1 station on the D side.
- For manifolds with more than 8 stations ( 9 to 16), special wiring is required. Please use the manifold specification sheet.
- Serial unit can be mounted on D side only.


## How to Order Valves


specification sheet

## When a longer DIN

 rail is desired than the specified stations, specify the station number to be required. (20 stations maximum)
## Valve stations -

| Symbol | Sta |
| :---: | :--- |
| $\mathbf{0 2}$ | $2 s$ |
| $\vdots$ |  |
| $\mathbf{0 8}$ | 8 s |
| $\mathbf{0 2}$ | $2 s$ |
| $\vdots$ |  |
| $\mathbf{1 6}$ | 16 |
| $\mathbf{~}$ | T |
| $\mathbf{~}$ |  |


| Note | SUP/EXH block assembly mounting position |  |  |
| :---: | :---: | :---: | :---: |
| Double wiring specifications | Symbol | Mounting | Stations |
|  | U | U side | 2 to 10 stations |
| Applicable up to 16 solenoids. Use the manifold specification sheet to specify the wiring specifications. | D | D side | 2 to 10 stations |
|  | B | Both sides | 2 to 16 stations |
|  | M | Specia | ecifications |

This also includes the number of blanking plate assemblies.
When special wiring is required on manifold with 2 to 8 stations, please use the manifold specification sheet.

* For special specifications, indicate separately by the manifold specification sheet.

A, B port size

## (Metric size)

| Symbol | Port size | Applicable series | Symbol | Port size | Applicable series |
| :---: | :---: | :---: | :---: | :---: | :---: |
| C4 | One-touch fitting for ø4 | SX3000 | N3 | One-touch fitting for $\varnothing 5 / 32$ " | SX3000 |
| C6 | One-touch fitting for ø6 |  | N7 | One-touch fitting for $\varnothing 1 / 4$ " |  |
| M | Mixed |  | M | Mixed |  |
| C4 | One-touch fitting for ø4 | SX5000 | N3 | One-touch fitting for $\varnothing 5 / 32$ " | SX5000 |
| C6 | One-touch fitting for ø6 |  | N7 | One-touch fitting for $\varnothing 1 / 4{ }^{\prime \prime}$ |  |
| C8 | One-touch fitting for ø8 |  | N9 | One-touch fitting for ø5/16" |  |
| M | Mixed |  | M | Mixed |  |

* In the case of mixed specifications (M), indicate separately on the manifold


## SI Unit Part No.

| Symbol | Specifications | For SS5X $\square-45 S$ | Symbol | Specifications | For SS5X $\square-45 S$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| A | With general type SI unit (Series EX300) | EX322-S001 | J1 | SUNX Corp.: S-LINK System (16 output points) | EX122-SSL1 |
| B | Mitsubishi Electric Corp.: MELSECNET/MINI-S3 Data Link System | EX122-SMB1 | J2 | SUNX Corp.: S-LINK System (8 output points) | EX122-SSL2 |
| C | OMRON Corp.: SYSBUS Wire System | EX122-STA1 | K | Fuji Electric Co.: T-LINK Mini System | EX122-SFU1 |
| D | SHARP Corp.: Satellite I/O Link System | EX122-SSH1 | Q | DeviceNet, CompoBus/D (OMRON Corp.) | EX122-SDN1 |
| E | Matsushita Electric Works: MEWNET-F System | EX122-SPA1 | R1 | OMRON Corp.: CompoBus/S System (16 output points) | EX122-SCS1 |
| F1 | NKE Corp.: Uni-wire System (16 output points) | EX122-SUW1 | R2 | OMRON Corp.: CompoBus/S System (8 output points) | EX122-SCS2 |
| G | Rockwell Automation: Allen Bradley Remote I/O (RIO) System | EX122-SAB1 | U | JEMANET (JPCN-1) | EX122-SJN1 |
| H | NKE Corp.: Uni-wire H System | EX122-SUH1 | $\mathbf{V}$ | Mitsubishi Electric Corp.: CC-LINK System | EX122-SMJ1 |

- The serial transmission system reduces wiring work, while minimizing wiring and saving space.

Maximum 16 stations (Specify a model with more than 9 stations by means of the manifold specification sheet.)

| Item | Specifications |  |
| :---: | :---: | :---: |
| External power supply | $24 \mathrm{VDC}+10 \% /-5 \%$ |  |
| Current consumption <br> (Internal unit) | 0.1 A | SA, SB, SD, SE, SF1, SG, <br> SJ1, SJ2, SK, SR1, SR2 |
|  | 0.3 A | $\mathrm{SC}, \mathrm{SQ}$ |


|  | Type SA Series EX300 | Type SB Mitsubishi Electric Corporation MELSECNET/MINI-S3 Data Link System |
| :---: | :---: | :---: |
|  |  |  |
|  | LED $\quad$ Description | LED $\quad$ Description |
|  | TRD ${ }^{\text {Lighting during data reception }}$ | POWER Lighting when power is turned ON |
|  | RUN/ERRBlinking when received data is normal; <br> Lighting when data reception | RUNLighting when data transmission <br> with the master station is normal |
|  |  | RD Lighting during data reception |
|  |  | SD $\quad$ Lighting during data reception |
|  |  | ERR. Lighting when reception data error occurs <br> Light turns off when the error is corrected |
| $\begin{aligned} & \text { © } \\ & \text { Z } \end{aligned}$ | - Serial transmission is possible by connecting with I/O card of T unit PLC manufacturer. EX300-TMB1.....for Mitsubishi Electric Corporation EX300-TTA1 $\cdots \cdots$. .for OMRON Corporation EX300-TFU1 $\cdots \cdots .$. .for Fuji Electric Co., Ltd. EX300-T001......General purpose <br> * Each T unit has 32 control points. <br> - No. of output point, 16 points | - MELSECNET/MINI-S3 Data Link System <br> Master unit: AJ71PT32-S3 <br> AJ71T32-S3 <br> A1SJ71PT32-S3 <br> - No. of output point, 16 points <br> No. of sta. occupied, 2 stations |
| $\begin{aligned} & \text { 오 } \\ & : \frac{1}{3} \\ & \frac{0}{0} \\ & \frac{0}{0} \\ & 0 \end{aligned}$ |  | SI manifold solenoid valve |
|  |  |  |
|  | * Ground either the reception side or the transmission side of the shielding wire shield. | * Ground either the reception side or the transmission side of the shielding wire shield. |


|  | Type SC OMRON Corporation SYSBUS Wire System | Type SD SHARP Corporation Satellite I/O Link System |  | Type SE <br> sushita Electric Works, Ltd. MEWNET-F System |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
|  | LED $\quad$ Description | LED $\quad$ Description | LED | Description |
|  | RUN ${ }^{\text {O }}$ ON when transmission is normal and | POWER ON when power supply is ON | POWER | ON when power supply is ON |
|  | RUN $\quad$ PLC is in operation mode. | RUN $\quad$ ON when power is ON and | COMM | Blinks when transmission is normal |
|  | T/R $\quad$ Blinks during data transmission/reception | RUN slave unit operates normally |  |  |
|  | ERR ON when transmission is abnormal | ON for abnormal slave unit switch setting, | ALAR | blinks for station no. setting error |
|  |  | R.SET <br> HOLD |  |  |
| $\begin{aligned} & \text { 』 } \\ & \text { ¿2 } \end{aligned}$ | - SYSBUS Wire System <br> Master unit: Type C500-RM201 C200H-RH201 <br> - No. of output points, 16 points | - Satellite I/O Link System <br> Master unit: ZW-31LM JW-31LM JW-23LM <br> - No. of output points, 16 points | - MEWN Master <br> - No. of | ET-F System <br> unit: AFP3740 <br> AFP5740 <br> output points, 16 points |
|  |  | a) 2-wire type <br> Wiring without signal ground line (SG) $\qquad$ <br> Type 3 ground <br> b) 3-wire type Wiring with signal ground line (SG) |  |  |




b) 3-wire type


- No. of output points, 16 points



## SX3000: Serial Transmission Unit/Plug-in


(A, B port)
Applicable tubing O.D.: ø4, ø6


| Stations n | 2 stations | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 stations |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | 148 | 160.5 | 173 | 185.5 | 185.5 | 198 | 210.5 | 223 | 235.5 |
| L2 | 137.5 | 150 | 162.5 | 175 | 175 | 187.5 | 200 | 212.5 | 225 |
| L3 | 81 | 91.5 | 102 | 112.5 | 123 | 133.5 | 14 | 154.5 | 165 |
| L4 | 14.5 | 15.5 | 16.5 | 17.5 | 12 | 13 | 14 | 15 | 16 |
| Note) Width of SI unit applicable to "E": Matsushita Electric Works, Ltd. and "G": Rockwell Automation, Inc. widens to 24.3 mm . For further information, please consult with SMC. |  |  |  |  |  |  |  |  |  |

(mm)

| Stations n | 2 stations | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 sations |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | 160.5 | 173 | 185.5 | 198 | 210.5 | 223 | 223 | 235.5 | 248 |
| L2 | 150 | 162.5 | 175 | 187.5 | 200 | 212.5 | 212.5 | 225 | 237.5 |
| L3 | 97.5 | 108 | 118.5 | 129 | 139.5 | 150 | 160.5 | 171 | 181.5 |
| L4 | 12.5 | 13.5 | 14.5 | 15.5 | 16.5 | 17.5 | 12 | 13 | 14 |
| Stations $n$ | 11 stations | 12 | 13 | 14 | 15 | 16 stations |  |  |  |
| L1 | 260.5 | 273 | 285.5 | 280.5 | 298 | 310.5 |  |  |  |
| L2 | 250 | 262.5 | 275 | 275 | 287.5 | 300 |  |  |  |
| L3 | 192 | 202.5 | 213 | 223.5 | 234 | 244.5 |  |  |  |
| L4 | 15 | 16 | 17 | 12 | 13 | 14 |  |  |  |
| Note) Width of SI unit applicable to "E": Matsushita Electric Works, Ltd. and "G": Rockwell Automation, Inc. widens to 24.3 mm . For further information, please consult with SMC. |  |  |  |  |  |  |  |  |  |

further information, please consult with SMC

Series SX3000/5000 Base Mounted Manifold Stacking Type DIN Rail Mounted

How to Order Manifold


| Symbol | Port size | A |
| :---: | :---: | :---: |
| C4 | One-touch fitting for $\varnothing 4$ |  |
| C6 | One-touch fitting for $\varnothing 6$ |  |
| M | Mixed |  |
| C4 | One-touch fitting for $\varnothing 4$ |  |
| C6 | One-touch fitting for $\varnothing 6$ |  |
| C8 | One-touch fitting for $\varnothing 8$ |  |
| M | Mixed |  |

(Inch size)

| Symbol | Port size | Applicable series |
| :---: | :---: | :---: |
| N3 | One-touch fitting for $\varnothing 5 / 32^{\prime \prime}$ | $5 \times 3000$ |
| N7 | One-touch fitting for $\varnothing 1 / 4^{\prime \prime}$ |  |
| M | Mixed |  |
| N3 | One-touch fitting for $\varnothing 5 / 32^{\prime \prime}$ |  |
| N7 | One-touch fitting for $\varnothing 1 / 4^{\prime \prime}$ | SX5000 |
| N9 | One-touch fitting for $\varnothing 5 / 16^{\prime \prime}$ |  |
| M | Mixed |  |

* In the case of mixed specifications (M), indicate separately on the manifold specification sheet.


## How to Order Valve Manifold Assembly

Ordering example


- They will be assembled in the order listed starting at the first station at the D side whether the connector box is located at either end. When ordering with the double wiring specification, specify it in order, beginning with the 1 station on the D side.
- For manifolds with more than 8 stations ( 9 to 16 ), special wiring is required. Please use the manifold specification sheet.


## How to Order Valves



## Option

When a longer DIN rail is desired than the specified stations, specify the station number to be required. (20 stations maximum)

## SI Unit Part No.

| Symbol | Specifications | For SS5X--45S | Symbol | Specifications | For SS5X -45 S |
| :---: | :---: | :---: | :---: | :---: | :---: |
| A | With general type SI unit (Series EX300) | EX321-S001 | J1 | SUNX Corp.: S-LINK System (16 output points) | EX121-SSL1 |
| B | Mitsubishi Electric Corp.: MELSECNET/MINI-S3 Data Link System | EX321-S001 | J2 | SUNX Corp.: <br> S-LINK System (8 output points) | EX121-SSL2 |
| C | OMRON Corp.: SYSBUS Wire System | EX121-STA1 | K | Fuji Electric Co.: T-LINK Mini System | EX121-SFU1 |
| D | SHARP Corp.: Satellite I/O Link System | EX121-SSH1 | Q | DeviceNet, CompoBus/D (OMRON Corp.) | EX121-SDN1 |
| E | Matsushita Electric Works: MEWNET-F System | EX121-SPA1 | R1 | OMRON Corp.: CompoBus/S System (16 output points) | EX121-SCS1 |
| F1 | NKE Corp.: Uni-wire System (16 output points) | EX121-SUW1 | R2 | OMRON Corp.: CompoBus/S System (8 output points) | EX121-SCS2 |
| G | Rockwell Automation: <br> Allen Bradley Remote I/O (RIO) System | EX121-SAB1 |  |  |  |
|  |  |  | U | JEMANET (JPCN-1) | EX121-SJN1 |
| H | NKE Corp.: Uni-wire H System | EX121-SUH1 | V | Mitsubishi Electric Corp.: CC-LINK System | EX121-SMJ1 |

## SX3000: Serial Transmission Unit/Plug-in

## SS5X3-45S1■U- Stations D- ${ }_{c}^{\mathrm{C}}$



Note) The L1 to L4 dimensions of SS5X3-45S1ם U- Stations U- $\square$ are identical to those of SS5X3-45S1ロ U-Stations D- $\square$.


| (mm) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stations | ations | 3 | 4 | 5 | 6 | 7 | 8 | 9 | Ostations |
| L1 | 160.5 | 173 | 185.5 | 198 | 198 | 210.5 | 223 | 235.5 | 248 |
| L2 | 150 | 162.5 | 175 | 187.5 | 187.5 | 200 | 212.5 | 225 | 237.5 |
| L3 | 91.5 | 102 | 112.5 | 123 | 133.5 | 144 | 154.5 | 165 | 175.5 |
| L4 | 14 | 15 | 16 | 17 | 12 | 13 | 14 | 15 | 16 |
| Note) Width of SI unit applicable to "E": Matsushita Electric Works, Ltd. and "G": Rockwell Automation, Inc. widens to 24.3 mm . For further information, please consult with SMC. |  |  |  |  |  |  |  |  |  |



| Stations 2 2stations | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ | $\mathbf{7}$ | $\mathbf{8}$ | $\mathbf{9}$ | 10 stations |  |
| :---: | :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | 173 | 185.5 | 198 | 210.5 | 223 | 235.5 | 235.5 | 248 | 260.5 |
| L2 | 162.5 | 175 | 187.5 | 200 | 212.5 | 225 | 225 | 237.5 | 250 |
| L3 | 108 | 118.5 | 129 | 139.5 | 150 | 160.5 | 171 | 181.5 | 192 |
| L4 | 12 | 13 | 14 | 15 | 16 | 17 | 12 | 13 | 14 |
| Stations n 11 stations | $\mathbf{1 2}$ | $\mathbf{1 3}$ | $\mathbf{1 4}$ | $\mathbf{1 5}$ | 16 stations |  |  |  |  |
| L1 | 273 | 285.5 | 298 | 298 | 310.5 | 323 |  |  |  |
| L2 | 262.5 | 275 | 287.5 | 287.5 | 300 | 312.5 |  |  |  |
| L3 | 202.5 | 213 | 223.5 | 234 | 244.5 | 255 |  |  |  |
| L4 | 15 | 16 | 17 | 11.5 | 12.5 | 13.5 |  |  |  |



SS5X3-45S1■D-Stations B- | $\mathrm{c}_{6}$ |
| :---: |


(A, B port)
Applicable tubing O.D.: ø4, ø6


Note) The L1 to L4 dimensions of SS5X3-45S1 $\square D-$ Stations $D-\square$ are identical to those of SS5X3-45S1ロ D-Stations U- $\square$.

| Stations | 2 stations | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ | $\mathbf{7}$ | $\mathbf{8}$ | $\mathbf{9}$ | 10 stations |
| :---: | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | 160.5 | 173 | 185.5 | 198 | 198 | 210.5 | 223 | 235.5 | 248 |
| L2 | 150 | 162.5 | 175 | 187.5 | 187.5 | 200 | 212.5 | 225 | 237.5 |
| L3 | 91.5 | 102 | 112.5 | 123 | 133.5 | 144 | 154.5 | 165 | 175.5 |
| L4 | 14 | 15 | 16 | 17 | 12 | 13 | 14 | 15 | 16 |

Note) Width of SI unit applicable to "E": Matsushita Electric Works, Ltd. and "G": Rockwell Automation, Inc. widens to 24.3 mm . For further information, please consult with SMC.

| Stations | 2 sitions | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 stations |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | 173 | 185.5 | 198 | 210.5 | 223 | 235.5 | 235.5 | 248 | 260.5 |
| L2 | 162.5 | 175 | 187.5 | 200 | 212.5 | 225 | 225 | 237.5 | 250 |
| L3 | 108 | 118.5 | 129 | 139.5 | 150 | 160.5 | 171 | 181.5 | 192 |
| L4 | 12 | 13 | 14 | 15 | 16 | 17 | 12 | 13 | 14 |
| Stations | 11 staions | 12 | 13 | 14 | 15 | 16 stations |  |  |  |
| L1 | 273 | 285.5 | 298 | 298 | 310.5 | 323 |  |  |  |
| L2 | 262.5 | 275 | 287.5 | 287.5 | 300 | 312.5 |  |  |  |
| L3 | 202.5 | 213 | 223.5 | 234 | 244.5 | 255 |  |  |  |
| L4 | 15 | 16 | 17 | 11.5 | 12.5 | 13.5 |  |  |  |
| Note) Width of SI unit applicable to "E": Matsushita Electric Works, Ltd. and "G": Rockwell Automation, Inc. widens to 24.3 mm . For further information, please consult with SMC. |  |  |  |  |  |  |  |  |  |

Order
Made to Order Specifications:
Series SX3000/5000 Serial Transmission Type With SMC's IN313

Serial Transmission Manifold Equipped with IN313

## How to Order Manifold

Type 45S2 (Serial type with IN313)

 please use the manifold specificaion sheet.

SUP/EXH block assembly mounting position

| Symbol | Mounting position | Stations |
| :---: | :---: | :---: |
| U | U side | 2 to 10 stations |
| D | D side | 2 to 10 stations |
| B | Both sides | 2 to 16 stations |
| M | Special specifications |  |

For special specifications, indicate separately by the manifold specification sheet.

## A, B port size

(Metric size)

| Symbol | Port size | Applicable series |
| :---: | :---: | :---: |
| C4 | One-touch fitting for ø4 | SX3000 |
| C6 | One-touch fitting for $\varnothing 6$ |  |
| M | Mixed |  |
| C4 | One-touch fitting for $\varnothing 4$ | SX5000 |
| C6 | One-touch fitting for $\varnothing 6$ |  |
| C8 | One-touch fitting for $\varnothing 8$ |  |
| M | Mixed |  |
| (Inch size) |  |  |
| Symbol | Port size | Applicable series |
| N3 | One-touch fitting for $\varnothing 5 / 32$ " | SX3000 |
| N7 | One-touch fitting for $\varnothing 1 / 4{ }^{\prime \prime}$ |  |
| M | Mixed |  |
| N3 | One-touch fitting for $\varnothing 5 / 32$ " | SX5000 |
| N7 | One-touch fitting for $\varnothing 1 / 4{ }^{\prime \prime}$ |  |
| N9 | One-touch fitting for $\varnothing 5 / 16^{\prime \prime}$ |  |
| M | Mixed |  |
| In the case of mixed specifications (M), indicate separately on the manifold specification sheet. |  |  |

When a longer DIN rail is desired than the specified stations, specify the station number to be required. (20 stations at maximum)

How to Order Applicable SI Unit


| MB1 | For Mitsubishi Electric Corporation |
| :--- | :--- |
| TA1 | For OMRON Corporation |
| FU1 | For Fuji Electric Co., Ltd. |
| SH1 | For SHARP Corporation |
| TY1 | For Toyoda Machine Works, Ltd. |
| TY2 |  |
| PA1 | For Matsushita Electric Works, Ltd. |
| HT1 | For Hitachi, Ltd. |
| AB1 | For Rockwell Automation, Inc. <br> (Former Allen Bradley) |
| TS1 | For TOSHIBA Corporation |

How to Order Valves


Manual override

| Nil | Non-locking push type |
| :---: | :---: |
| D | Push-turn locking slotted type |

## SX3000: Serial Transmission Unit/Plug-in



Type 45S3 (Serial type with transmission unit)


| Symbol |  |
| :---: | :---: |
| $\mathbf{N i l}$ | Specifications transmission unit |
| $\mathbf{O}^{\text {Note) }}$ | Without transmission unit |

Note) Even though when it is not equipped with transmission unit, DIN rail length is long enough for future expectancy of mounting transmission unit. When a shorter rail is required (same as type 45D), suffix "O" in the optional blank at the end of part number.
Transmission unit mounting position e-

|  |  | Symbol | Mounting position |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | U | $U$ side |  |
|  |  | D | D side |  |
|  |  | Valve stations -- |  |  |
| Symbol | Stations | Note |  |  |
| 02 | 2 stations | Double wiring specifications |  |  |
| ! | ! |  |  |  |
| 08 | 8 stations |  |  |  |
| 09 | 9 stations | Applicable up to 16 solenoids. Use the manifold specification sheet to specify the wiring specifications. |  |  |
| ! | $\vdots$ |  |  |  |
| 16 | 16 stations |  |  |  |
| - This also includes the number of blanking plate assemblies. <br> - When special wiring is required on manifold with 2 to 8 stations, please use the manifold specification sheet. |  |  |  |  |
| SUP/EXH block assembly mounting position - |  |  |  |  |
|  | Symbol |  | nting position | Stations |
|  | U |  | $U$ side | 2 to 10 stations |
|  | D |  | D side | 2 to 10 stations |
|  | B |  | Both sides | 2 to 16 stations |
|  | M | Special specifications |  |  |

* For special specifications, indicate separately by the manifold specification sheet.

\footnotetext{
A, B port size •
(Metric size)

| Symbol | Port size | Applicable series |
| :---: | :---: | :---: |
| C4 | One-touch fitting for ø4 | SX3000 |
| C6 | One-touch fitting for ø6 |  |
| M | Mixed |  |
| C4 | One-touch fitting for ø4 | SX5000 |
| C6 | One-touch fitting for ø6 |  |
| C8 | One-touch fitting for ø8 |  |
| M | Mixed |  |



## SX3000: Serial Transmission Unit/Plug-in



## SS5X3-45S3D- Stations B- ${ }_{c}^{c_{6}^{4}}$



# Made to Order Specifications: <br> Series SX3000/5000 

## External Pilot/Built-in Silencer

External pilot manifold bases for low-pressure/vacuum use are added to split style/DIN rail manifolds. The built-in silencer has produced a clear-cut appearance.

## Individual Wiring

## How to Order Manifold

## Type 45



* In the case of mixed specifications (M), indicate separately on the manifold specification sheet.


## How to Order Valves

How to Order Valve Manifold Assembly


SS5X3-45-05DRS-C6..1 set (External pilot specifications built-in silencer part no.) *SX3140R-5G............ 3 sets (Single solenoid part no.) *SX3240R-5G............. 2 sets (Double solenoid part no.)
$\qquad$
$\longrightarrow$ *The asterisk denotes the symbol for assembly. Prefix it to the part nos. of the solenoid valve, etc.

They will be assembled in the order listed starting at the first station at the D side even if SUP/EXH block assembly is located at either end.
In ordering, specify the part nos. in the order from the 1st. station on D side. Besides, when the arrangement will be complicated, fill out the Manifold Specification Sheet to instruct us.
For manifolds with SUP/EXH block at each end of the manifold, external pilot ports and silencers will be also located at each end of the manifold.
To order the SUP/EXH block assembly (SX3/5000-51-1A) mounted at a location order than the ends of manifold, refer to the manifold specification sheet along with assembly part no.


## How to Order Manifold

Type 45 $\square$


A, B port size (Metric size)

| Symbol | Port size | Applicable series |
| :---: | :---: | :---: |
| C4 | One-touch fitting for ø4 | SX3000 |
| C6 | One-touch fitting for ø6 |  |
| M | Mixed |  |
| C4 | One-touch fitting for ø4 | SX5000 |
| C6 | One-touch fitting for ø6 |  |
| C8 | One-touch fitting for ø8 |  |
| M | Mixed |  |

## (Inch size)

| Symbol | Port size | Applicable series |
| :---: | :---: | :---: |
| N3 | One-touch fitting for $\varnothing 5 / 32^{\prime \prime}$ |  |
| N7 | One-touch fitting for $\varnothing 1 / 4^{\prime \prime}$ |  |
| M | Mixed |  |
| N3 | One-touch fitting for $\varnothing 5 / 32^{\prime \prime}$ |  |
| N7 | One-touch fitting for $\varnothing 1 / 4^{\prime \prime}$ | SX5000 |
| N9 | One-touch fitting for $\varnothing 5 / 16^{\prime \prime}$ |  |
| M | Mixed |  |

* In the case of mixed specifications (M), indicate separately on the manifold specification sheet.

Voltage e-

|  | NiI |
| :---: | :---: |
| $\mathbf{1 2 V}$ | 24 VDC |

When a longer DIN rail is desired than the specified stations, specify the station number to be required. (20 stations at maximum)

They will be assembled in the order listed starting at the first station at the D side even if SUP/EXH block assembly is located at either end.
In ordering, specify the part nos. in the order from the 1st. station on D side. Besides, when the arrangement will be complicated, fill out the Manifold Specification Sheet to instruct us.
For manifolds with SUP/EXH block at each end of the manifold, external pilot ports and silencers will be also located at each end of the manifold.
To order the SUP/EXH block assembly (SX3/5000-51-2A) mounted at a location ther than the ends of manifold, refer to the manifold specification sheet.

## How to Order Valves

| Type of actuation o |  |
| :---: | :---: |
| $\mathbf{1}$ | 2 2 position single |
| $\mathbf{2}$ | 2 2 position double |
| $\mathbf{3}$ | 3 position closed center |
| $\mathbf{4}$ | 3 position exhaust center |
| $\mathbf{5}$ | 3 position pressure center |


|  | Pilot type |
| :---: | :---: |
| Nil | Internal pilot |
| R | External pilot |

Rated voltage

| $\mathbf{5}$ | 24 VDC |
| :--- | :---: |
| $\mathbf{6}$ | 12 VDC |
| $\mathbf{V}^{*}$ | 6 VDC |
| $\mathbf{S}^{*}$ | 5 VDC |
| $\mathbf{R}^{*}$ | 3 VDC |
| * mark: Type 45T <br> and T1 only SD <br> type: 24 VDC only |  |

Common specifications $\bullet$

| Nil | Positive common |
| :---: | :---: |
| $\mathbf{N}$ | Negative common |

* Common specifications for the valve must correspond with common specifications for the manifold.

SS5X3-45FU-05DRS-C6 $\cdot 1$ set (External pilot specifications with built-in silencer part no.) *SX3140R-5LOZ............. 3 sets (Single solenoid part no.) *SX3240R-5LOZ.............. 2 sets (Double solenoid part no.) T
**The asterisk denotes the symbol for assembly. Prefix it to the part nos. of the solenoid valve, etc.

## How to Order Valve Manifold Assembly

## Ordering example


-

## SX3000: SS5X3-45-Stations DRS- $\begin{gathered}\text { C4 } \\ \text { C6 }\end{gathered}$



SX5000: SS5X5-45-Stations DRS- $\begin{gathered}\mathrm{C4} \\ \mathrm{C} 6 \\ \mathrm{C8}\end{gathered}$


## SS5X3-45- Stations DR- ${ }_{\mathrm{C6}}$



Note) The dimensions L1 to L4 are identical to SS5X3-45Station $\int_{B}^{U}$ - $C_{6}^{4}($ P. 1-6-78).


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## External Pilot/Built-in Silencer



