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Plug-in

# Compact 5-Port Solenoid Valve

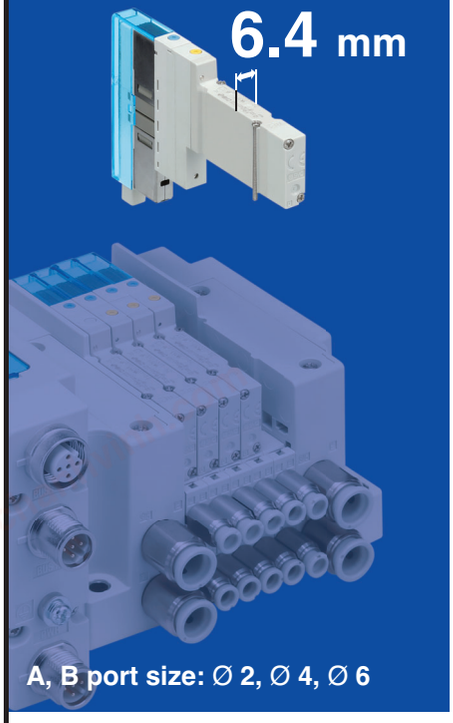
CE UKCA RoHS

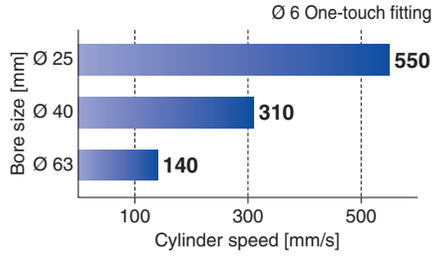
## Size reduction has been made possible thanks to a flow increase.
## This allows for space saving, weight reduction, and a large flow rate.

*1 The cylinder speed is 300 mm/s.

### Can drive Ø 40*1 bore cylinders

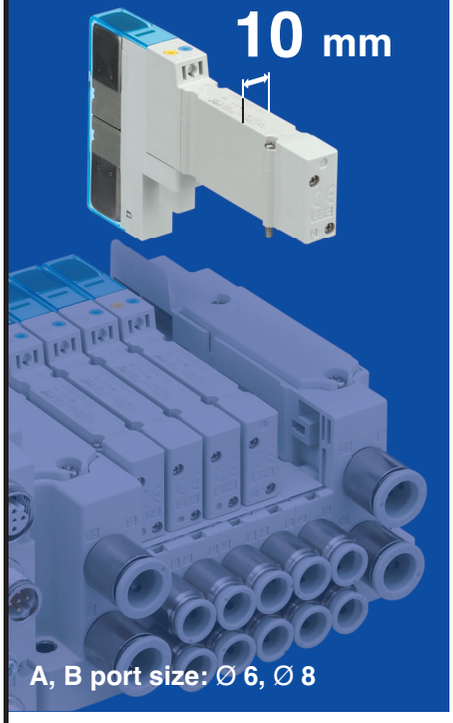
**JSY1000**

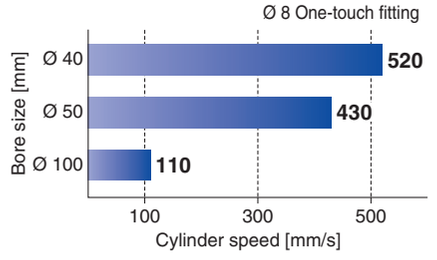



### Can drive Ø 50*1 bore cylinders

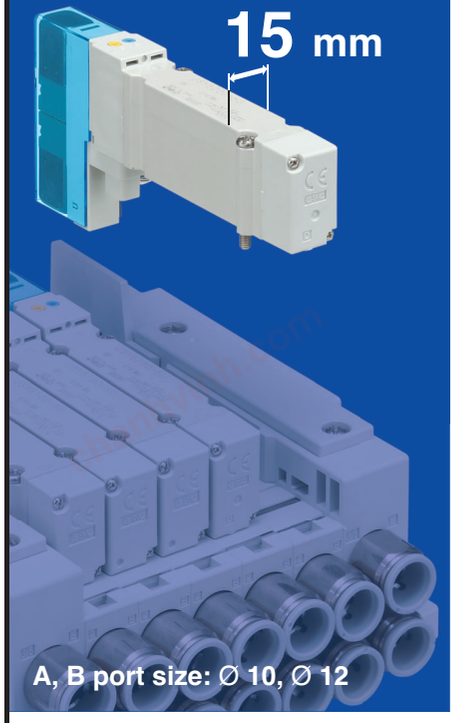
**JSY3000**

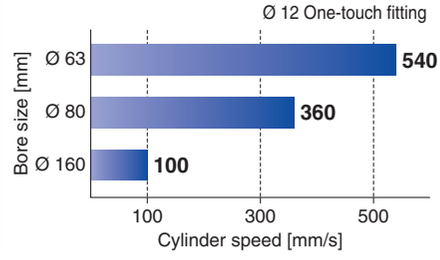



### Can drive Ø 80*1 bore cylinders

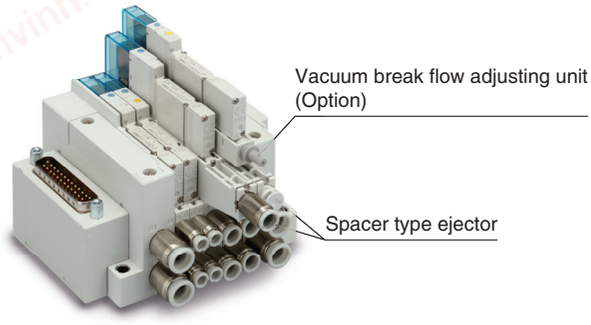
**JSY5000**



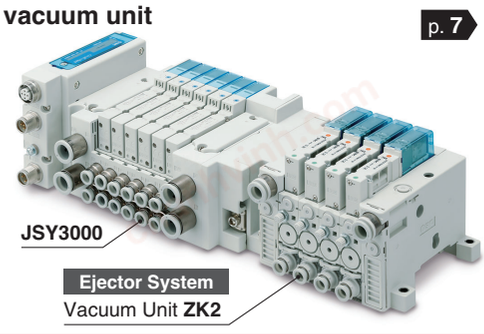




Refer to pages 9 to 12 for detailed conditions regarding the above cylinder speeds.

**New** Spacer Type Ejector can be mounted p. 134-3




Can be connected with the ZK2 series vacuum unit p. 7




# *JSY1000/3000/5000 Series*

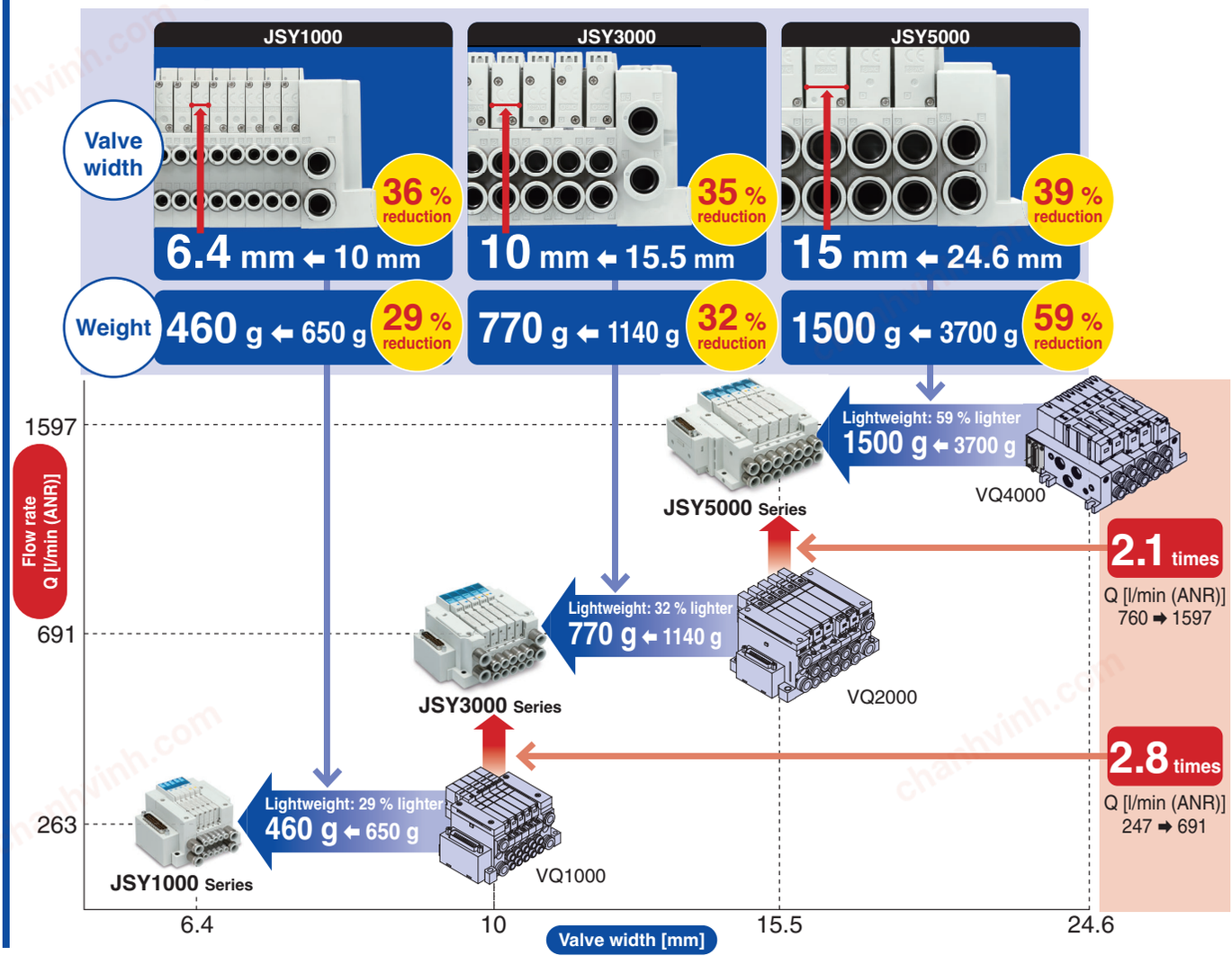
SMC

CAT.EUS11-110B-UK

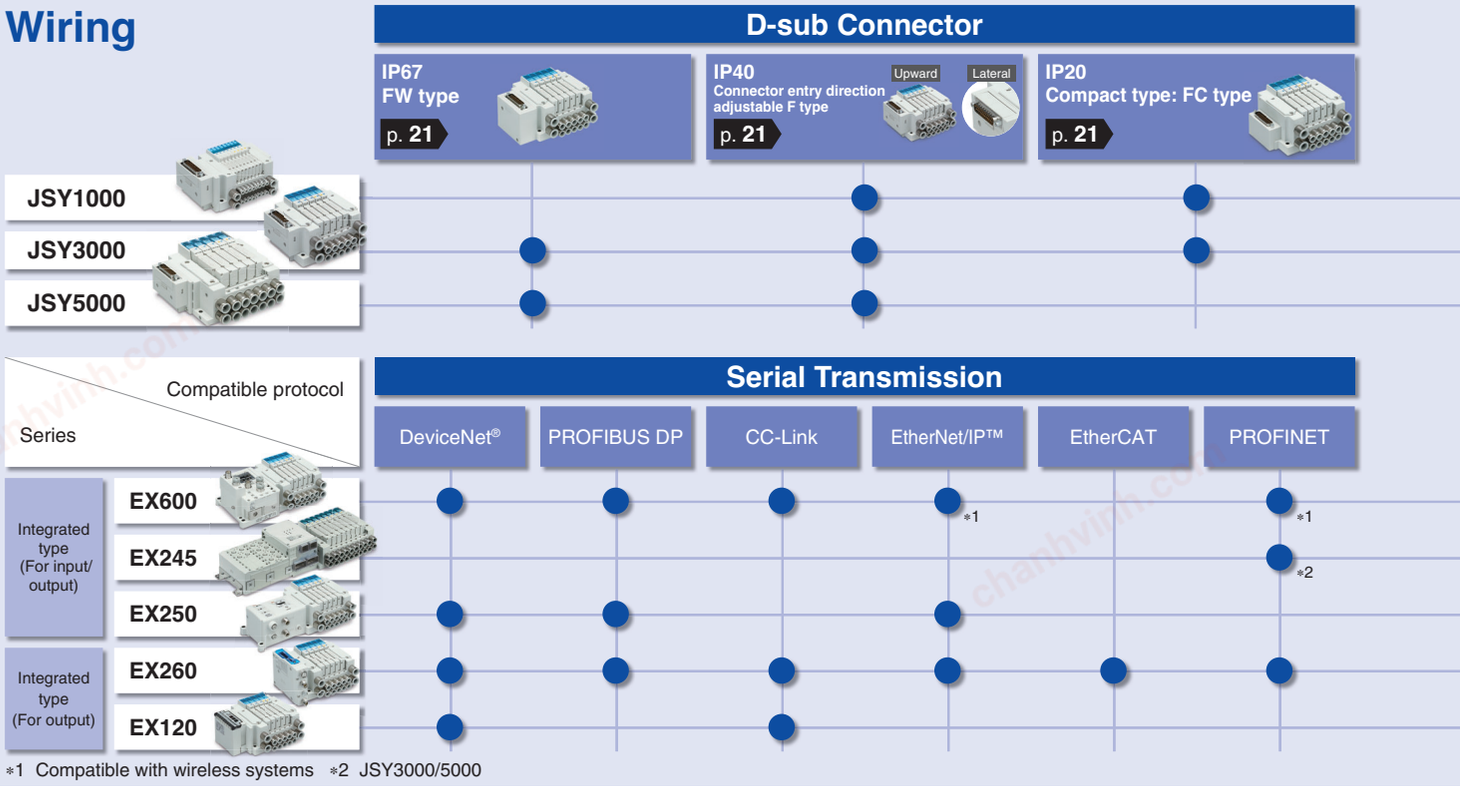
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## Series Map




## Wiring




*1 Compatible with wireless systems *2 JSY3000/5000

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## Power consumption

**With power-saving circuit**

**JSY3000/5000** *1 **0.1 W**

**JSY1000** **0.2 W**

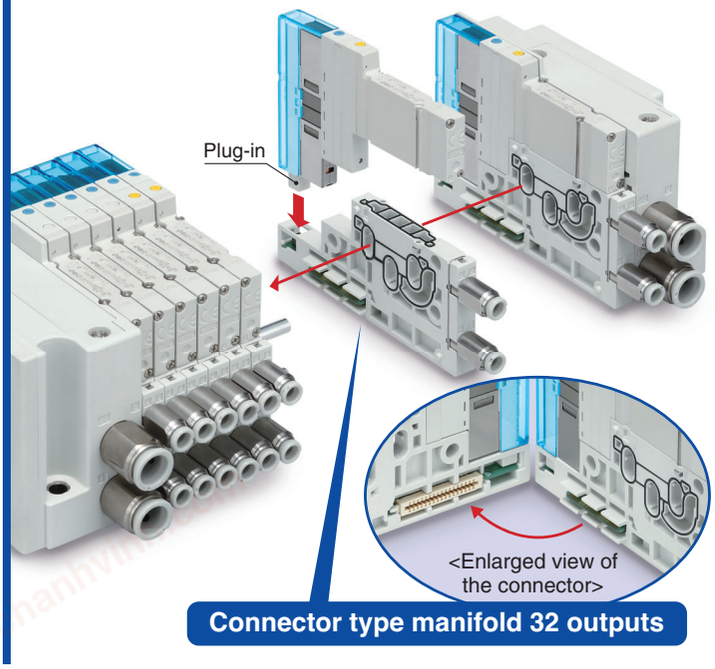
*1 Made to Order

**Standard**

**JSY3000/5000** *2 **0.4 W**

*2 The JSY1000 series is only available as the power-saving type.

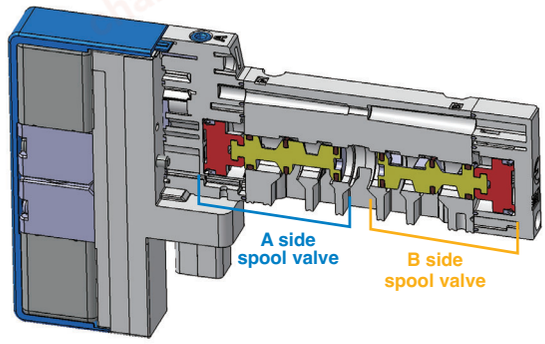
## Connector type manifold




**Connector type manifold 32 outputs**

## A 4-position dual 3-port valve is available.

- Features two 3-port valves built into one body




- The 3-port valves on the A and B sides can be operated independently.
- When used as a 3 -port valve, only half the number of stations are required.
- Can also be used as a 4-position, 5-port valve
- Combination examples

| Series | A side | B side |
|---|---|---|
| JSY□A0□ | N.C. valve | N.C. valve |
| JSY□B0□ | N.O. valve | N.O. valve |
| JSY□C0□ | N.C. valve | N.O. valve |

### Flat Ribbon Cable

Connector entry direction adjustable P/PG/PH type — Lateral / Upward — p. 21

Compact type PC/PGC/PHC type — p. 21

### Terminal Block Box

Spring type TC type — p. 43

T type — p. 43

### Lead Wire

p. 55

### Serial Transmission

CANopen | AS-Interface | OMRON CompoBus/S | CompoNet® | EtherNet/IP™ compatible wireless base | PROFINET compatible wireless base | IO-Link | PROFIsafe | Ethernet POWERLINK

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# The EX600-W series is compatible with wireless systems. p. 63

## Noise resistance

- Uses the 2.4 GHz ISM frequency band
- Frequency hopping: Every 5 ms

## High-speed connection

- From the remote power supply ON to start of communication:
  **Min. 250 ms**

## Communication response

- Wireless communication signal
  Response time: **5 ms**

## Communication cables not required

- Reduced wiring work, space, and cost
- Minimised disconnection risk

## Number of I/O points

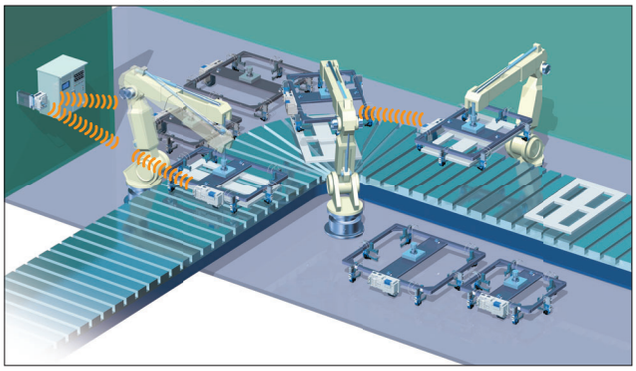
- Max. 1280 inputs/1280 outputs
(Max. 128 inputs/128 outputs per module)

## Compatible protocols

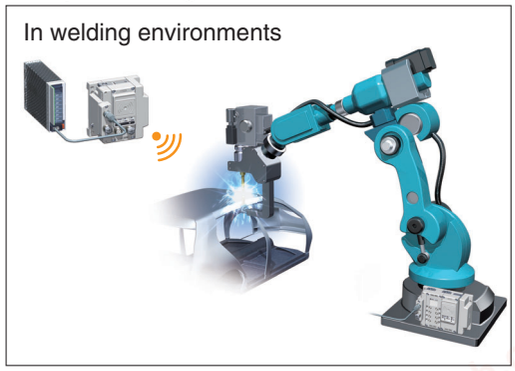
EtherNet/IP PROFINET

## Application Examples

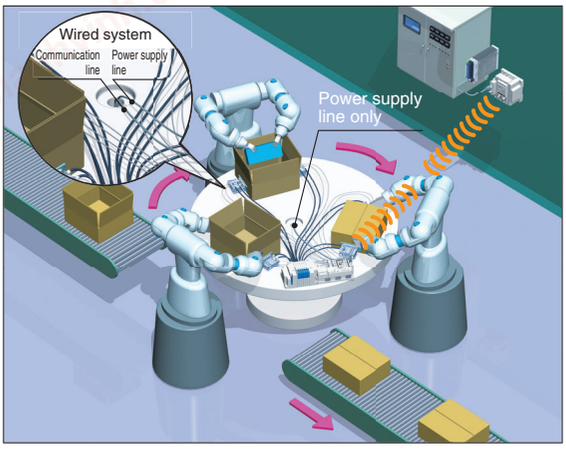
**For tool changing**



**For spot welding**




**For rotary tables**




# The EX260 series supports safety communication (PROFIsafe).

## This is a Fieldbus unit which supports safety standard ISO 13849-compliant safety circuit constructions.

PROFIsafe

PROFIsafe is established as an international standard (IEC 61784-3-3). It is a communication protocol that transmits safety-related data by PROFINET communication and can be used up until safety standards ISO 13849-1 PL e and IEC 61508/IEC 62061 SIL 3.

## Using the safety communication protocol

Refer to the EX260 **Web Catalogueue** for details on units that support the safety communication protocol.
When using a manifold valve within an ISO 13849-compliant safety system, the device needs to be considered from both the pneumatic circuit and the electric side.
Devices (including valves) need to be selected based on whether their functions are in line with the safety level of the equipment as a whole.
The use of valves that have been validated as being compliant with ISO 13849-2 may be required.
For details on valves that have been validated, please contact SMC.
In addition, refer to “Safety Instructions” for precautions on model selection.



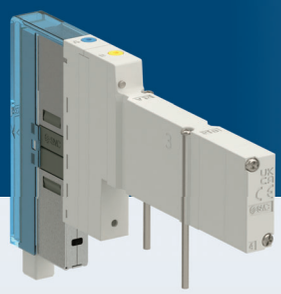
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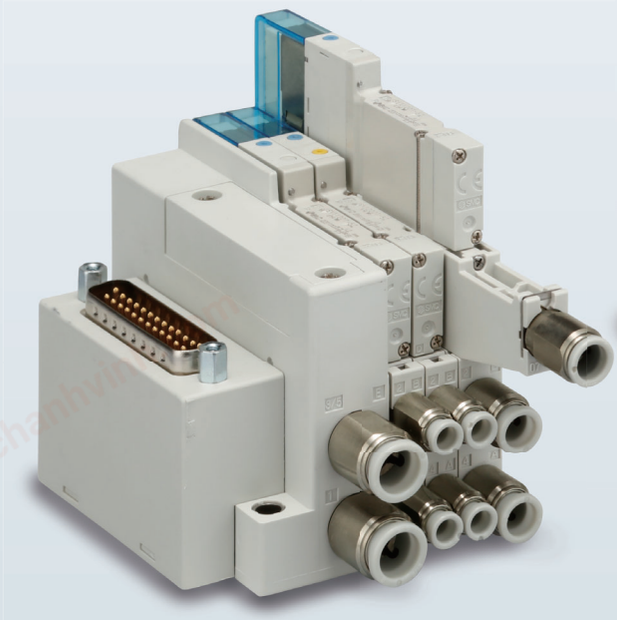


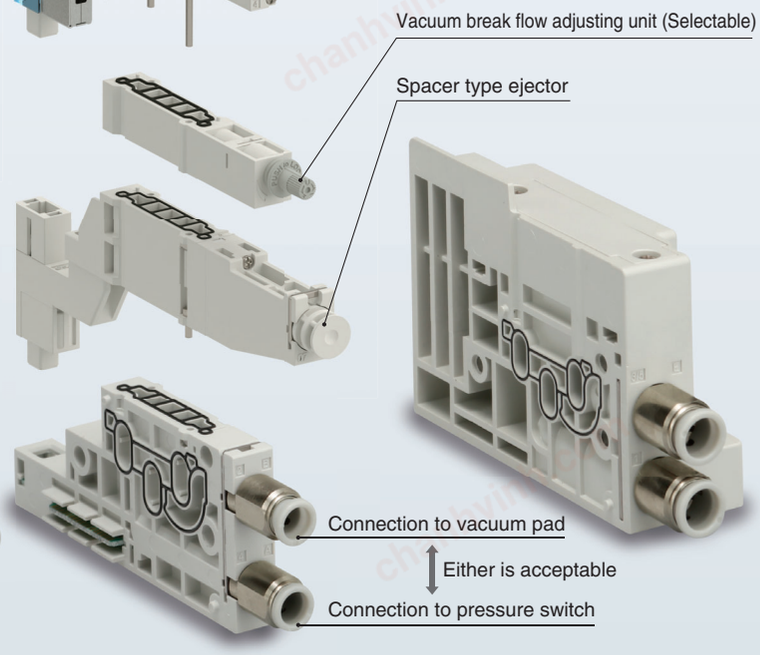
# Ejector can be mounted on a compact-size JSY1000

p. 161-1

The devices have been integrated into one for applications in which an actuator and vacuum suction are used together.





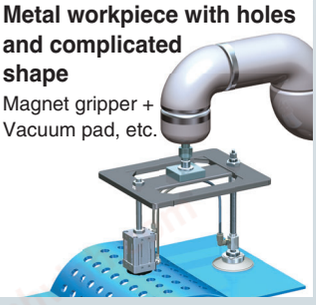



Spacer Type Ejector is connection to both A port and B port. One of them can be connected to vacuum pad and the other to pressure switch without a branch piping to manifold. When only one of them is turned piping, be sure to turn plug the unused port.

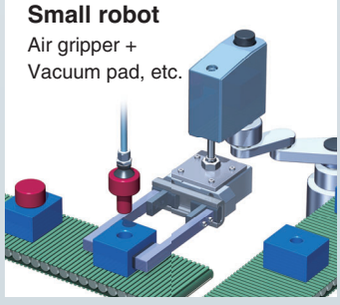
## Application Examples

### Material handling

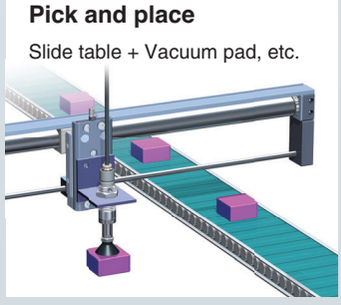
**Metal workpiece with holes and complicated shape**
Magnet gripper + Vacuum pad, etc.



**Small robot**
Air gripper + Vacuum pad, etc.

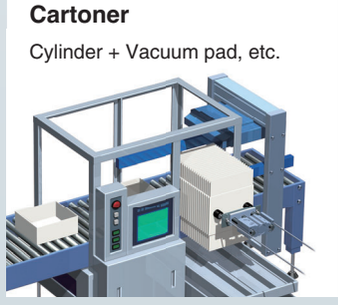


**Pick and place**
Slide table + Vacuum pad, etc.



### Small box making process

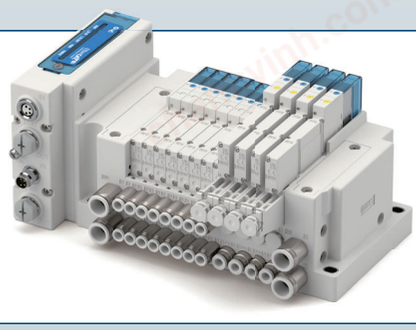
**Cartoner**
Cylinder + Vacuum pad, etc.



Separate fieldbus-compatible manifold JSY1000-E types are available to built-in pressure sensor and enable energy-saving control of ejector.

Click here for details.

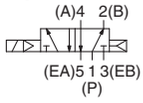
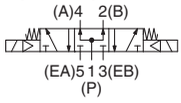
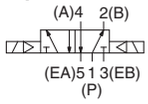
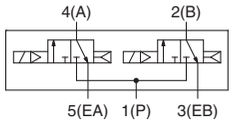
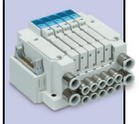
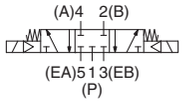
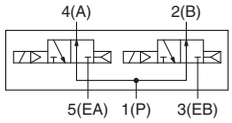
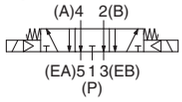
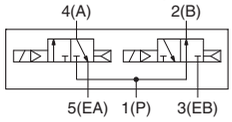
Valve manifold integrated with ejector system
**JSY1000-E**



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# Series Variations

| | Flow rate Q [l/min (ANR)] 4/2→5/3 (A/B→EA/EB) 4(A), 2(B) port | | Type of actuation | Rated voltage | Port size: 4(A), 2(B) port Ø 2 | Ø 4 | Ø 6 | Ø 8 | Ø 10 | Ø 12 | 1(P), 3/5(E) port |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **JSY1000**  | Ø 4 | 250 | **2-position single**   **3-position pressure centre**   | 24 VDC | ● | ● | | | | | Ø 8 |
| | Ø 6 | 263 | **2-position double**   **4-position dual 3-port valve N.C. valve x 2 pcs.**   | | | | ● | | | | |
| **JSY3000**  | Ø 8 | 691 | **3-position closed centre**   **N.O. valve x 2 pcs.**   | | | | ● | ● | | | Ø 10 |
| **JSY5000**  | Ø 12 | 1597 | **3-position exhaust centre**   **N.C. valve, N.O. valve x 1 pc. of each**   | | | | | | ● | ● | Ø 12 |

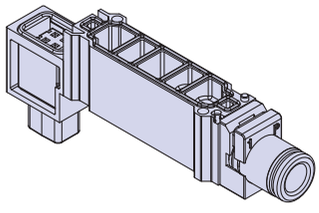
● Standard ○ Option ▲ Made to Order

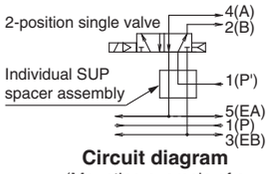
## Manifold Options

### Individual SUP spacer

p. 132

When the same manifold is to be used for different pressures, an individual SUP spacer can be used to act as a supply port for different pressures.



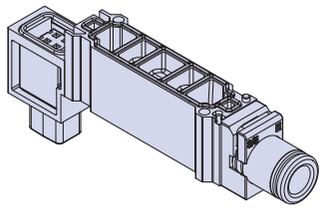


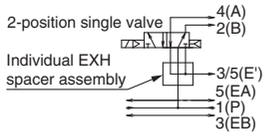

**Circuit diagram**
(Mounting example of a 2-position single valve)

### Individual EXH spacer

p. 132

When valve exhaust affects other stations due to the circuit configuration, this spacer can be used for individual valve exhaust.





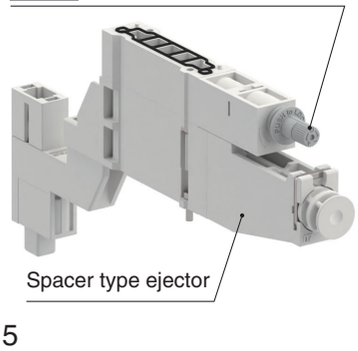

**Circuit diagram**
(Mounting example of a 2-position single valve)

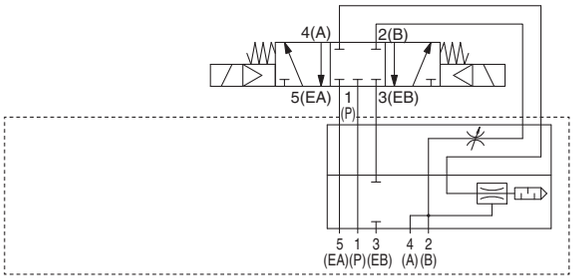
### New Spacer Type Ejector for JSY1000

p. 134-3

Used for vacuum suction applications.

Selectable With vacuum break flow adjusting unit



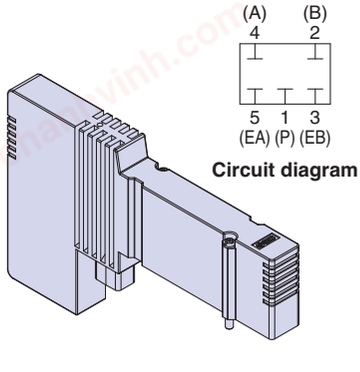

∗ The valves in the above circuit diagram are examples.

**Circuit diagram**

### Blanking plate

p. 132

Used when valve additions are expected or for maintenance




**Circuit diagram**

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| Pitch width [mm] | Wiring: Common specifications: Positive common | Wiring: Common specifications: Negative common | Manifold options: Blanking plate | Manifold options: Individual SUP spacer | Manifold options: Individual EXH spacer | Manifold options: SUP/EXH blocking disk | Manifold options: Label for blocking disk | Manifold options: Silencer (One-touch fitting connection type) | Manifold options: Built-in silencer | Valve options: Vacuum/Low-pressure specification | Valve options: Different pressures | Valve options: Reverse pressure | Valve options: Mixed fitting sizes | Valve options: Enclosure IP67*1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6.5 | ● | ● | ○ p. 132 | ○ p. 132 | ○ p. 132 | ○ p. 133 | ○ p. 133 | ○ p. 133 | ● | ▲ External pilot | ○ Individual SUP | ▲ External pilot | ● | — |
| 9 | | | | | | | | | | | | | | |
| 11.5 | | | | | | | | | | | | | | ● |
| 16 | | | | | | | | | | | | | | ● |

*1 Refer to “Manifold Specifications” on pages 17 and 18 for details on IP67.

## Manifold Options

### SUP/EXH blocking disk

p. 133

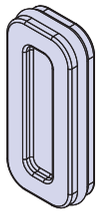
**(For the connector type manifold, Type 10)**

**[SUP blocking disk]**

Inserting an SUP blocking disk in the pressure supply passage of a manifold valve can allow for the use of 2 different pressures (high and low) in 1 manifold.

**[EXH blocking disk]**

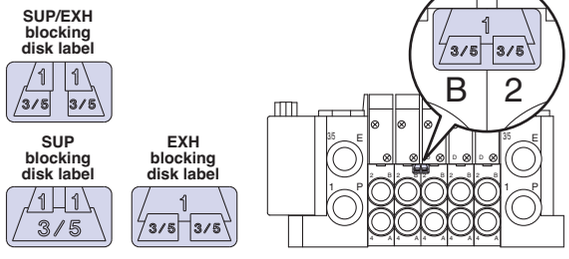
Inserting an EXH blocking disk in the exhaust passage of a manifold valve can separate the exhaust from the valve so it does not affect the other valves. It can also be used in positive pressure and vacuum pressure mixed manifolds. (2 pieces are required to block both the EA and EB sides of the EXH.)



### Labels for blocking disks

p. 133

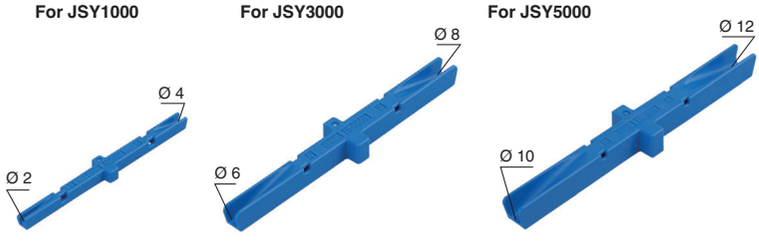
These labels can be used to indicate and confirm where on the manifold the SUP/EXH blocking disk assemblies were inserted. (3 labels of each)

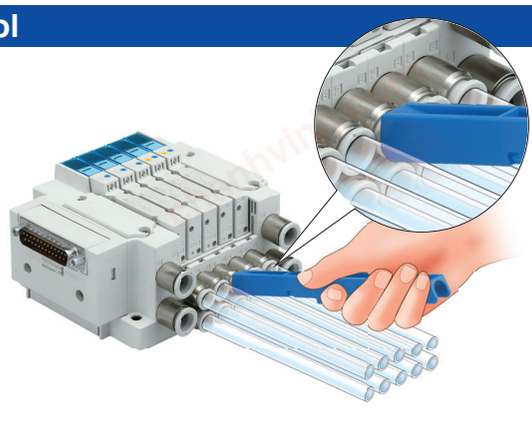



## Tube Releasing Tool

### This tool can be used to remove tubes from ports A and B.

p. 130



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# Vacuum Unit ZK2 Combination Manifold p. 119

**JSY3000 valves and ZK2 ejectors can be connected to the same manifold.**
**This allows for a compact body and reduced wiring/wiring labour.**

## Fieldbus compatible

The centralised electrical wiring can be connected to the fieldbus system.

- For Input/Output

| | |
|---|---|
| EX600 | DeviceNet®, PROFIBUS DP, CC-Link, EtherNet/IP™, PROFINET, EtherNet/IP™ compatible wireless base, PROFINET compatible wireless base |
| EX245 | PROFINET |
| EX250 | DeviceNet®, PROFIBUS DP, EtherNet/IP™ CANopen, AS-Interface |

- For Output

| | |
|---|---|
| EX260 | DeviceNet®, PROFIBUS DP, CC-Link, EtherNet/IP™, EtherCAT PROFINET, Ethernet POWERLINK, IO-Link, PROFIsafe |
| EX120 | DeviceNet®, CC-Link, OMRON CompoBus/S, CompoNet® |

## Various selectable wiring methods

**D-sub connector**
- Compact type: FC type (IP20)
- Connector entry direction adjustable: F type (IP40)
- FW type (IP67)

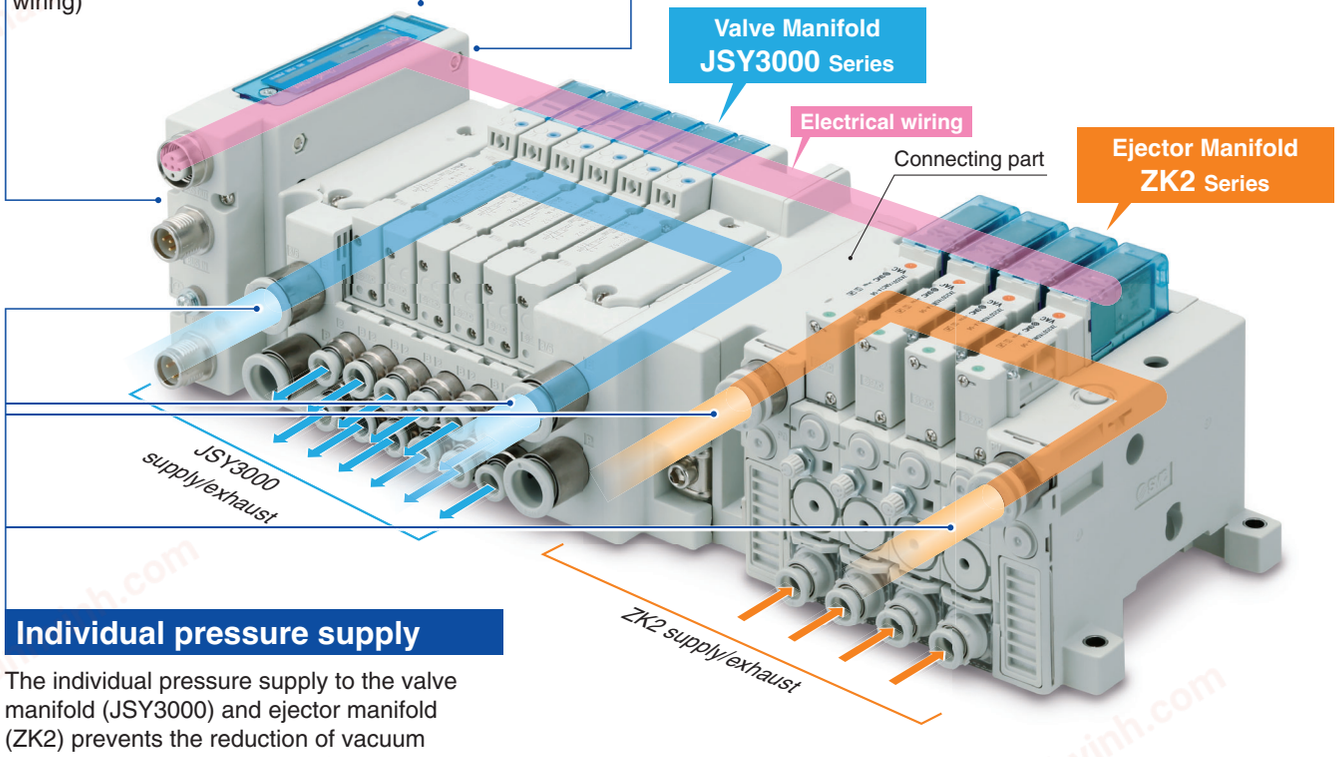
**Flat ribbon cable**
- Compact type: PC/PGC/PHC type
- Connector entry direction adjustable: P/PG/PH type

**Terminal block box**
- Spring type: TC type
- T type

**Lead wire**

## Integrated manifold

Centralised electrical wiring for ejectors and valves (Reduced wiring)




## Individual pressure supply

The individual pressure supply to the valve manifold (JSY3000) and ejector manifold (ZK2) prevents the reduction of vacuum pressure due to pressure interference.

## Specifications

Max. number of outputs: 32 (Valve + Ejector)
Valve stations: 2 to 24 stations (Max. number of outputs: 30, Depends on whether single or double)
Ejector stations: 1 to 8 stations (Max. number of outputs: 16)

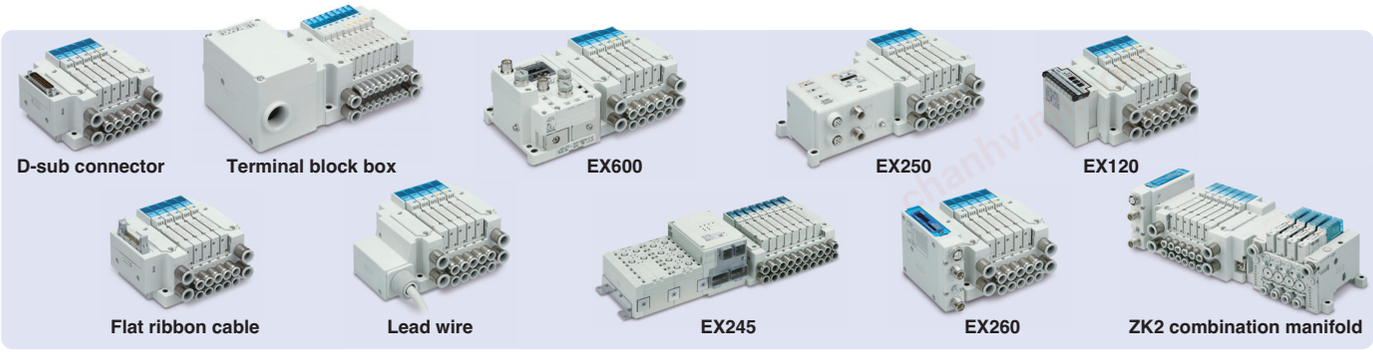
## Centralised wiring and piping directions

Wiring and piping for valves and ejectors can be arranged in the same direction. (Wiring method: Terminal block box and lead wire or EX250 and EX260)

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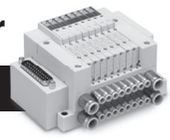
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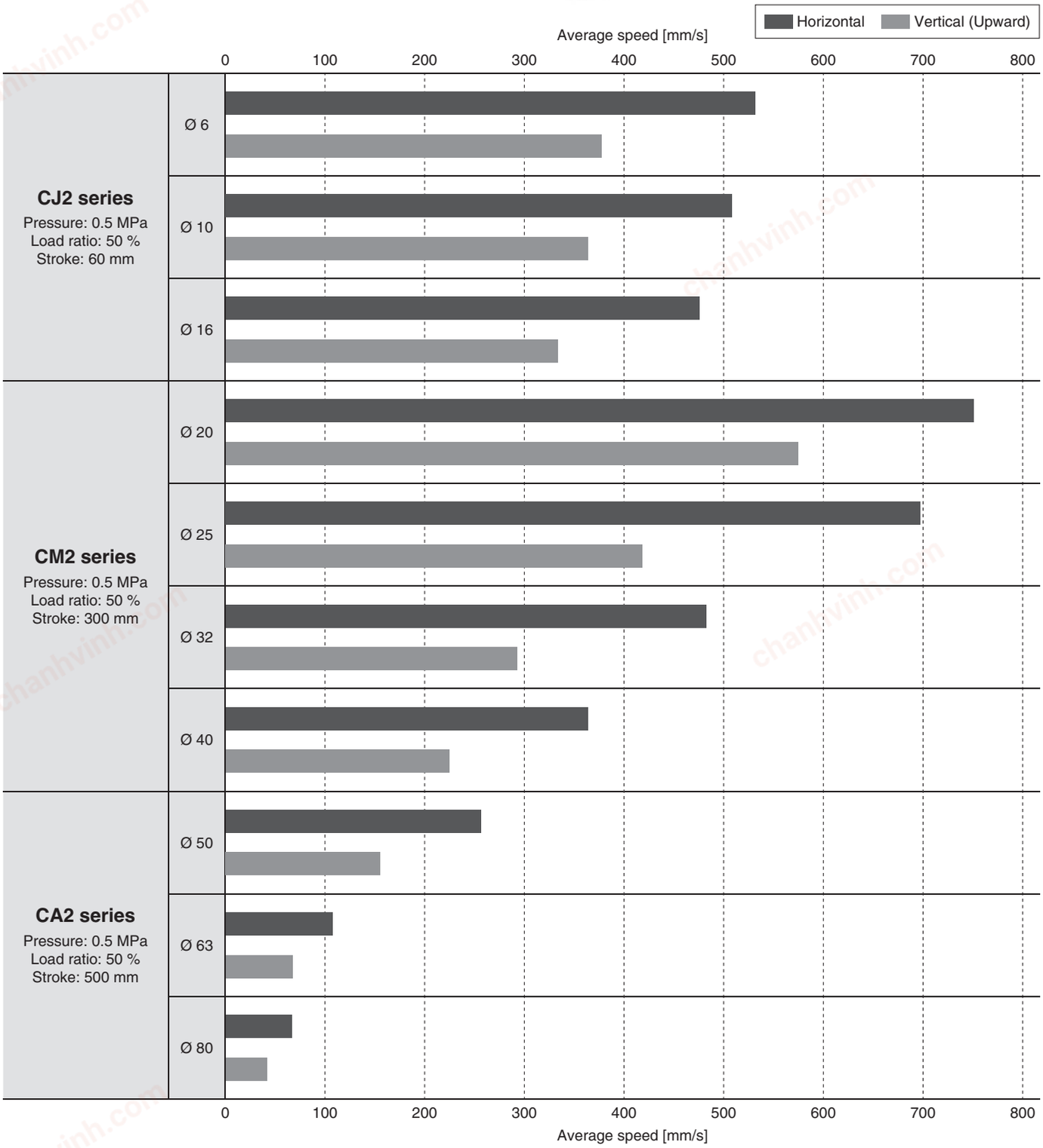
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# Optimum Actuation Size Chart of Air Cylinder

## For JSY1000, A, B port: Ø 4



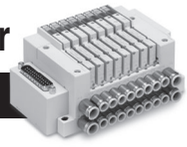


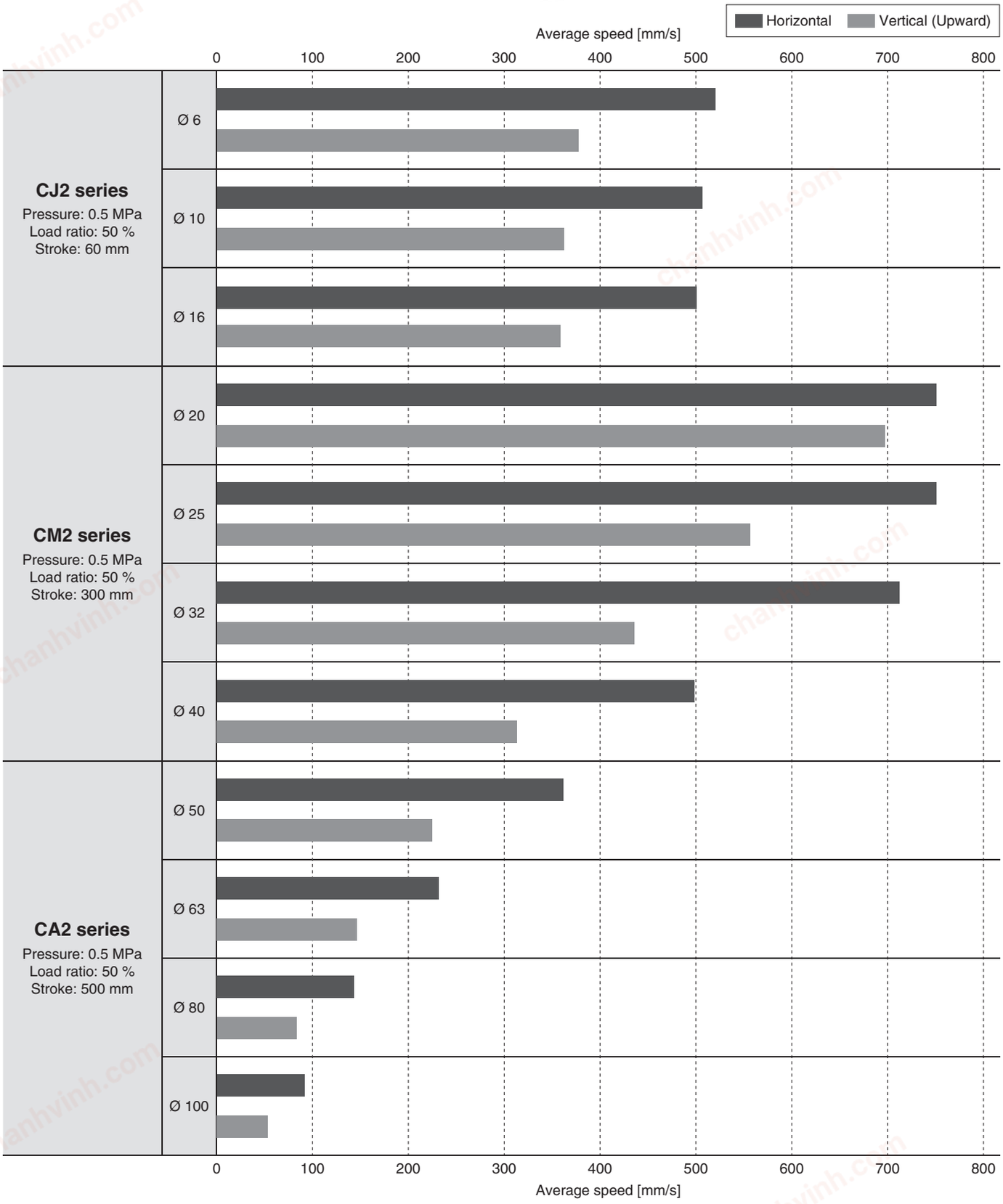

* Values at extension of a directly coupled cylinder when meter-out speed controllers are used with the needle full open.
* The average speed of the cylinder is obtained by dividing the stroke by the total stroke time.
* Formula for load ratio: Load ratio = ((Load mass x 9.8)/Theoretical output) x 100 %
* Cylinder for horizontal use are based on the coefficient of rolling friction 0.1.
* Operating piston speed is different depending on the applicable cylinder. Refer to the cylinder catalogueue for details.

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# Optimum Actuation Size Chart of Air Cylinder

## For JSY1000, A, B port: Ø 6

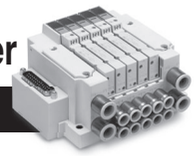




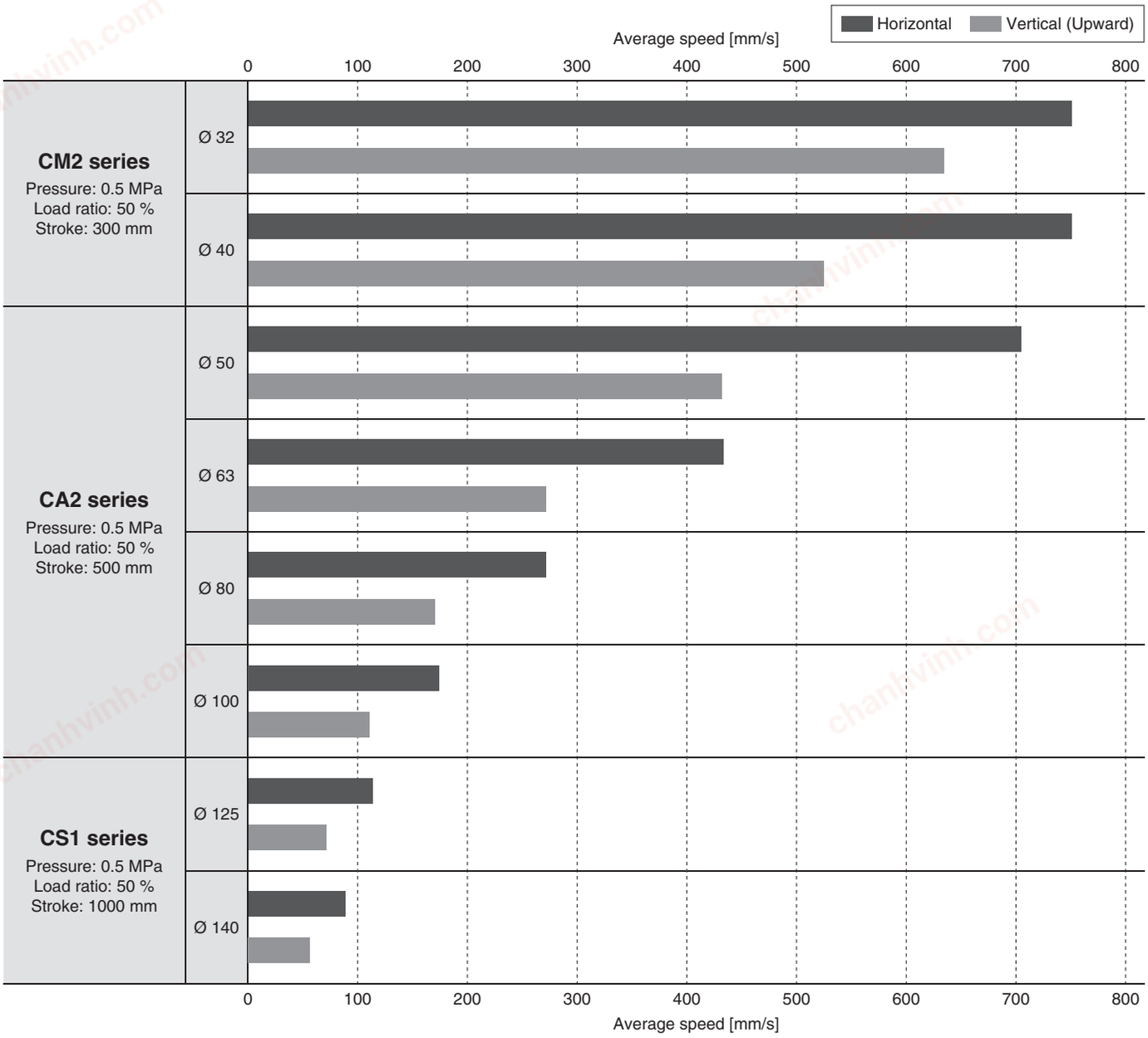

* Values at extension of a directly coupled cylinder when meter-out speed controllers are used with the needle full open.
* The average speed of the cylinder is obtained by dividing the stroke by the total stroke time.
* Formula for load ratio: Load ratio = ((Load mass x 9.8)/Theoretical output) x 100 %
* Cylinder for horizontal use are based on the coefficient of rolling friction 0.1.
* Operating piston speed is different depending on the applicable cylinder. Refer to the cylinder catalogueue for details.

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# Optimum Actuation Size Chart of Air Cylinder



## For JSY3000, A, B port: Ø 8



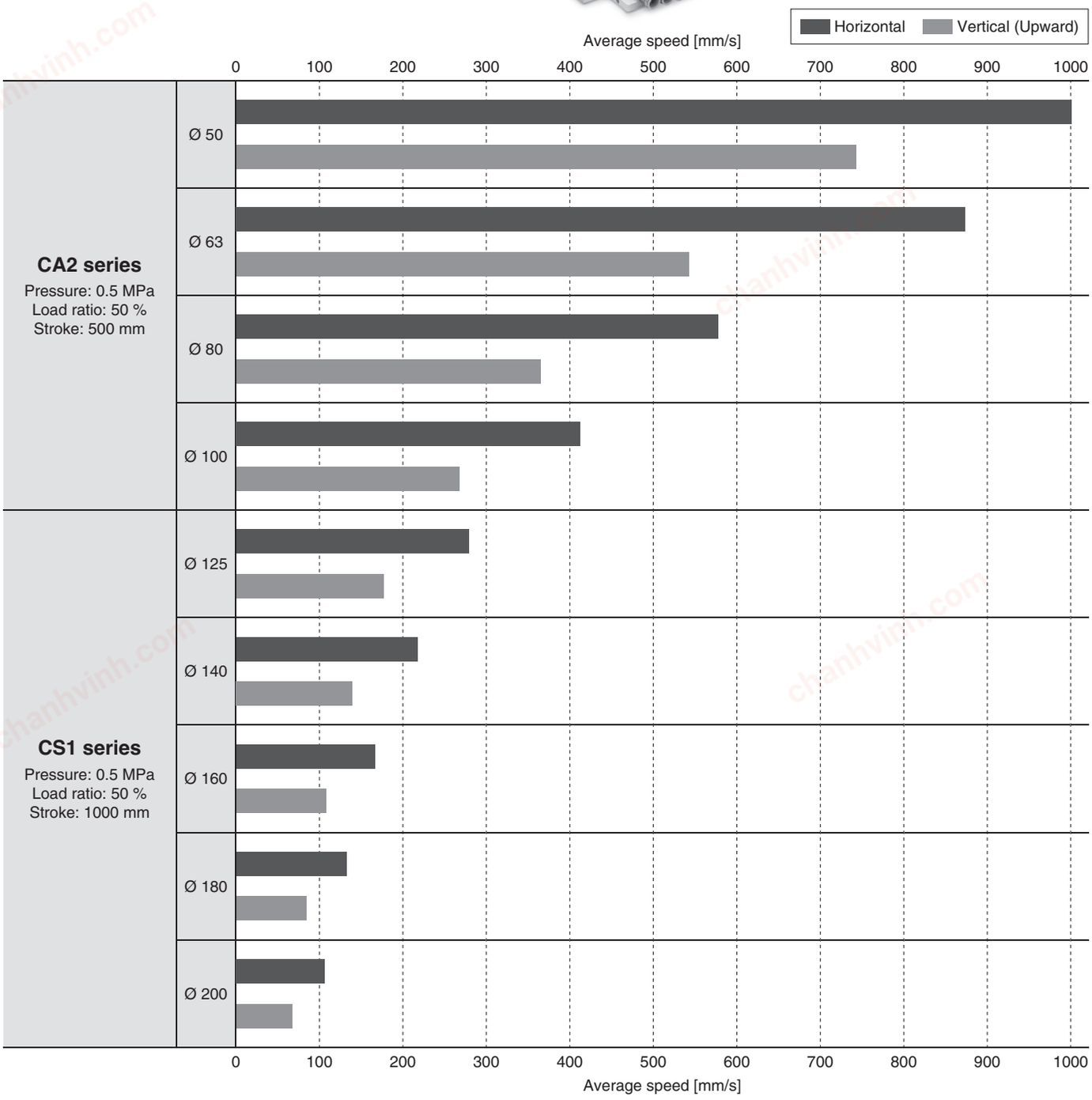

* Values at extension of a directly coupled cylinder when meter-out speed controllers are used with the needle full open.
* The average speed of the cylinder is obtained by dividing the stroke by the total stroke time.
* Formula for load ratio: Load ratio = ((Load mass x 9.8)/Theoretical output) x 100 %
* Cylinder for horizontal use are based on the coefficient of rolling friction 0.1.
* Operating piston speed is different depending on the applicable cylinder. Refer to the cylinder catalogueue for details.

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# Optimum Actuation Size Chart of Air Cylinder

## For JSY5000, A, B port: Ø 12






* Values at extension of a directly coupled cylinder when meter-out speed controllers are used with the needle full open.
* The average speed of the cylinder is obtained by dividing the stroke by the total stroke time.
* Formula for load ratio: Load ratio = ((Load mass x 9.8)/Theoretical output) x 100 %
* Cylinder for horizontal use are based on the coefficient of rolling friction 0.1.
* Operating piston speed is different depending on the applicable cylinder. Refer to the cylinder catalogueue for details.

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# *JSY1000/3000/5000 Series*
# Valve Specifications

## Valve Specifications

| | | | |
|---|---|---|---|
| **Valve type** | | | Rubber seal |
| **Fluid** | | | Air |
| **Internal pilot operating pressure range [MPa]** | **2-position single** | | 0.15 to 0.7 |
| | **2-position double** | | 0.1 to 0.7 |
| | **3-position** | | 0.2 to 0.7 |
| | **4-position dual 3-port valve** | | 0.15 to 0.7 |
| **External pilot (Made to Order) operating pressure range [MPa]** | **Operating pressure range** | | –100 kPa to 0.7 |
| | **Pilot pressure range** | **2-position single** | 0.25 to 0.7 |
| | | **2-position double** | |
| | | **3-position** | |
| **Ambient and fluid temperatures [°C]** | | | –10 to 50 (No freezing) |
| **Max. operating frequency [Hz]** | **JSY1000/3000** | **2-position single/double** | 5 |
| | | **4-position dual 3-port valve** | |
| | | **3-position** | 3 |
| | **JSY5000** | **2-position single/double** | 5 |
| | | **4-position dual 3-port valve** | 3 |
| | | **3-position** | 3 |
| **Manual override** | | | Non-locking push type |
| | | | Push-turn locking slotted type |
| | | | Push-turn locking lever type*1 |
| **Pilot exhaust type** | **Internal pilot** | | Individual exhaust |
| | **External pilot (Made to Order)** | | |
| **Lubrication** | | | Not required |
| **Mounting orientation***2 | | | Unrestricted |
| **Impact/Vibration resistance***2 **[m/s²]** | | | 150/30 |
| **Enclosure** | | | JSY1000: IP40<br>JSY3000/5000: IP67 (Based on IEC 60529) |
| **Coil rated voltage [DC]** | | | 24 V |
| **Allowable voltage fluctuation [V]** | | | ±10 % of the rated voltage |
| **Power consumption [W]** | **Standard** | **JSY3000/5000** | 0.4 |
| | **With power-saving circuit** | **JSY1000** | 0.2*3 [Inrush 0.5, Holding 0.2] |
| | | **JSY3000/5000 (Made to Order)** | 0.1*4 [Inrush 0.4, Holding 0.1] |
| **Surge voltage suppressor** | | | Diode (Varistor for non-polar type) |
| **Indicator light** | | | LED |

∗1 Not available for the JSY1000 series
∗2 Impact resistance: No malfunction occurred when tested in the axial direction and at a right angle to the main valve and armature in both an energised and a de-energised state, once in each condition. (Value in the initial state)
Vibration resistance: No malfunction occurred in a one-sweep test between 45 and 2000 Hz in the axial direction and at a right angle to the main valve and armature in both an energised and a de-energised state, once in each condition. (Value in the initial state)
Refer to page 139 for details on securing the DIN rail mounting type manifold.
∗3 The JSY1000 series is only available as the power-saving type. Standard type (without power-saving circuit) cannot be selected.
∗4 For details, refer to page 137.

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## Response Time

| Series | Model | Type of actuation | Response time [ms]*1 | |
|---|---|---|---|---|
| | | | With light/surge voltage suppressor | |
| | | | Z type | U type |
| JSY1000 | **JSY1100** | 2-position single | 15 | — |
| | **JSY1200** | 2-position double | 7 | |
| | **JSY13/4/500** | 3-position | 16 | |
| | **JSY1A/B/C00** | 4-position dual 3-port valve | 19 | |
| JSY3000 | **JSY3100** | 2-position single | 27 | 18 |
| | **JSY3200** | 2-position double | 13 | 12 |
| | **JSY33/4/500** | 3-position | 27 | 24 |
| | **JSY3A/B/C00** | 4-position dual 3-port valve | 23 | 23 |
| JSY5000 | **JSY5100** | 2-position single | 35 | 25 |
| | **JSY5200** | 2-position double | 19 | 17 |
| | **JSY53/4/500** | 3-position | 41 | 37 |
| | **JSY5A/B/C00** | 4-position dual 3-port valve | 37 | 37 |

∗1 Based on dynamic performance test, JIS B 8419-2010 (Coil temperature: 20 °C, at rated voltage)

## Valve Weight

### JSY1000 Series

| Valve model | Type of actuation | | Weight [g] |
|---|---|---|---|
| **JSY1□00** | 2-position | Single | 24 |
| | | Double | 27 |
| | 3-position | Closed centre | 30 |
| | | Exhaust centre | |
| | | Pressure centre | |
| | 4-position | Dual 3-port valve | 27 |

### JSY5000 Series

| Valve model | Type of actuation | | Weight [g] |
|---|---|---|---|
| **JSY5□00** | 2-position | Single | 91 |
| | | Double | 100 |
| | 3-position | Closed centre | 110 |
| | | Exhaust centre | |
| | | Pressure centre | |
| | 4-position | Dual 3-port valve | 96 |

### JSY3000 Series

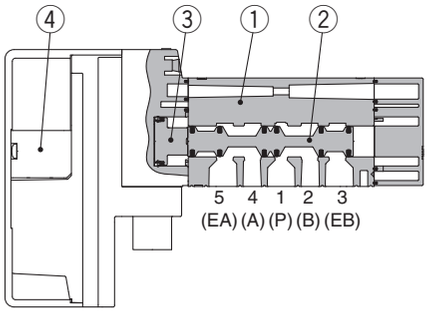
| Valve model | Type of actuation | | Weight [g] |
|---|---|---|---|
| **JSY3□00** | 2-position | Single | 54 |
| | | Double | 63 |
| | 3-position | Closed centre | 67 |
| | | Exhaust centre | |
| | | Pressure centre | |
| | 4-position | Dual 3-port valve | 63 |

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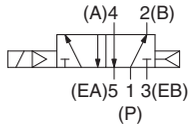
# JSY1000/3000/5000 Series
# Valve Construction

## Rubber Seal

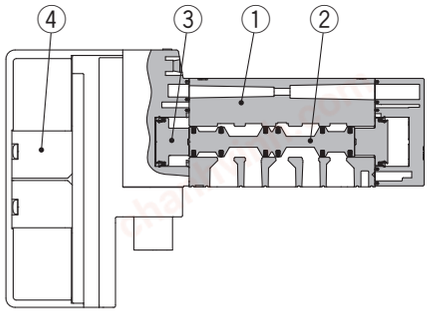
### 2-position single



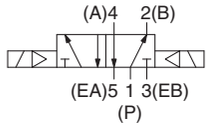

**2-position single**



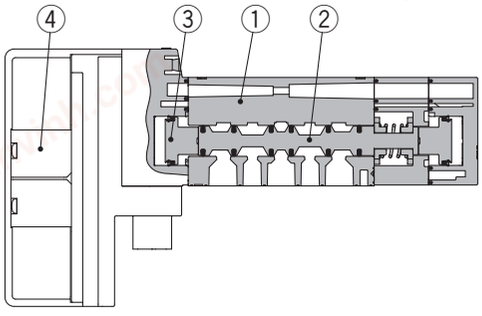

### 2-position double



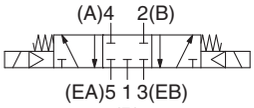

**2-position double**




### 3-position closed centre/exhaust centre/pressure centre



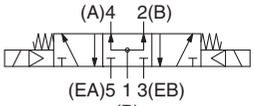

**3-position closed centre**



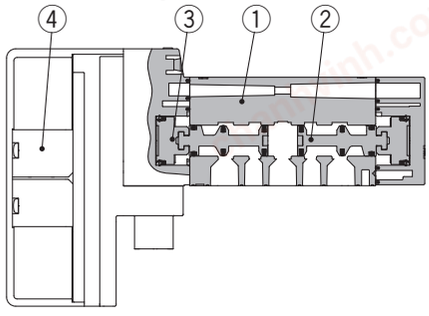

**3-position exhaust centre**




**3-position pressure centre**

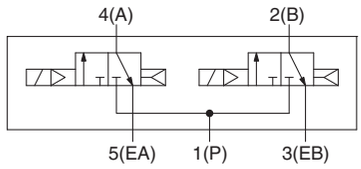



### 4-position dual 3-port valve

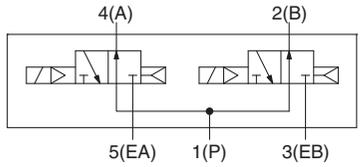



**4-position dual 3-port valve**

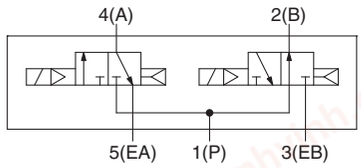
**N.C. valve x 2 pcs.**




**N.O. valve x 2 pcs.**




**N.C. valve, N.O. valve x 1 pc. of each**




## Component Parts

| No. | Description | Material |
|---|---|---|
| 1 | **Body** | Aluminium die-casted |
| 2 | **Spool valve** | Aluminium/HNBR (4-position solenoid valve: Resin/HNBR) |
| 3 | **Piston** | Resin |
| 4 | **Pilot valve assembly** | — |

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# *JSY3000/5000 Series*
# Valve Replacement Parts: Pilot Valve

## How to Order Pilot Valves (With a gasket and two mounting screws)*3

**V112 □ – 5 A**

**Coil type**

| | |
|---|---|
| — | Standard |
| T | With power-saving circuit (Made to Order) |

**Rated voltage**

| | |
|---|---|
| 5 | 24 VDC |

### ⚠Caution

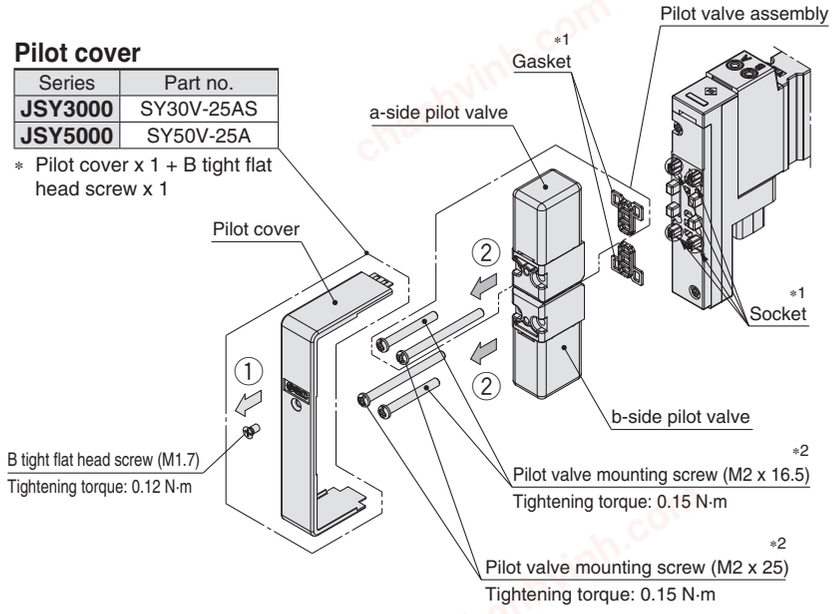
1. The coil specification and voltage (including light/surge voltage suppressor) cannot be changed by changing the pilot valve assembly.
2. When selecting the standard coil type, it is not possible to change to the power-saving circuit type.
3. Replacement pilot valve for the JSY3000/5000

## How to replace pilot valves

**Pilot cover**

| Series | Part no. |
|---|---|
| **JSY3000** | SY30V-25AS |
| **JSY5000** | SY50V-25A |

* Pilot cover x 1 + B tight flat head screw x 1




- Loosen B tight flat head screw to remove the pilot cover in the direction indicated by the arrow ①.
- Remove the pilot valve mounting screws.
- Remove the pilot valve in the direction indicated by the arrow ②.

* Assemble by following the removal procedure in reverse.

*1 Ensure the gasket is mounted, and take care not to bend the socket.
*2 Be noted for mounting that there are two types of lengths for the pilot valve mounting screws.
*3 **The pilot valve of the JSY1000 cannot be removed. This is irreplaceable.**

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# JSY1000/3000/5000 Series Type 10
# Plug-in Connector Connecting Base

## Manifold Specifications

| Model | | | D-sub connector | | | Flat ribbon cable | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | F type | FW type*1 | FC type*2 | P type | PG type | PH type | PC type*2 | PGC type*2 | PHC type*2 |
| **Manifold type** | | | Plug-in connector connecting base | | | | | | | | |
| **SUP/EXH port type** | | | Common SUP/EXH (Common for the 3/5 port) | | | | | | | | |
| **Valve stations** | | | 2 to 24 stations | | | 2 to 18 stations | 2 to 8 stations | 2 to 24 stations | 2 to 18 stations | 2 to 8 stations | |
| **Applicable connector** | | | D-sub connector conforming to MIL-C-24308 (Refer to page 39.) | Dedicated connector (Refer to page 39.) | D-sub connector conforming to MIL-C-24308 (Refer to page 39.) | Flat ribbon cable connector conforming to MIL-C-83503 (Refer to page 41.) | | | | | |
| | | | | | | Socket: 26 pins MIL type | Socket: 20 pins MIL type | Socket: 10 pins MIL type | Socket: 26 pins MIL type | Socket: 20 pins MIL type | Socket: 10 pins MIL type |
| **Internal wiring** | | | Positive common, Negative common | | | | | | | | |
| **Port size** | **1(P), 3/5(E) port** | **JSY1000** | Ø 8 One-touch fitting | | | | | | | | |
| | | **JSY3000** | Ø 10 One-touch fitting | | | | | | | | |
| | | **JSY5000** | Ø 12 One-touch fitting | | | | | | | | |
| | **4(A), 2(B) port** | **JSY1000** | Ø 2 One-touch fitting, Ø 4 One-touch fitting, Ø 6 One-touch fitting | | | | | | | | |
| | | **JSY3000** | Ø 6 One-touch fitting, Ø 8 One-touch fitting | | | | | | | | |
| | | **JSY5000** | Ø 10 One-touch fitting, Ø 12 One-touch fitting | | | | | | | | |
| **Enclosure (Based on IEC 60529)** | | **JSY1000** | IP40 | — | IP20 | IP40 | | | IP20 | | |
| | | **JSY3000** | | IP67 | | | | | | | |
| | | **JSY5000** | | | — | | | | — | | |

*1 The FW type is not available for the JSY1000. Protection class for the JSY1000 is IP20 or IP40.
*2 The FC, PC, PGC, and PHC types are not available for the JSY5000.

## Manifold Weight

Unit: g

| Model | | ① Per station | ② Wiring | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | D-sub connector | | | Flat ribbon cable | | | | | |
| | | | F type | FW type*2 | FC type*3 | P type | PG type | PH type | PC type*3 | PGC type*3 | PHC type*3 |
| **JSY1000** | **for Ø 4** | 21.3 | 308 | — | 233 | 306 | 304 | 298 | 233 | 231 | 225 |
| | **for Ø 6** | 26.9 | 319 | — | 244 | 317 | 315 | 309 | 244 | 242 | 236 |
| **JSY3000 for Ø 8** | | 42.7 | 332 | 330 | 287 | 330 | 328 | 322 | 257 | 255 | 249 |
| **JSY5000 for Ø 12** | | 104 | 509 | 507 | — | 507 | 505 | 499 | — | — | — |

**Formula for manifold weight***1
**W = ① x n1 + ②** (n1: stations)
JSY3000 series, D-sub connector, F type, 5 stations: (42.7 x 5) + 332 = 545.5 (g)

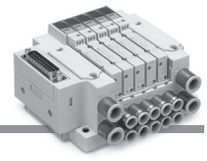
## Manifold Flow Rate Characteristics

| Model | Port size | | Valve flow rate characteristics | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1, 3/5 (P, E) | 4, 2 (A, B) | 1→4/2 (P→A/B) | | | 4/2→3/5 (A/B→E) | | |
| | | | C [dm³/(s·bar)] | b | Q [l/min (ANR)]*2 | C [dm³/(s·bar)] | b | Q [l/min (ANR)]*2 |
| **JJ5SY1-10 (Side ported)** | C8 | C4 | 0.63 | 0.46 | 179 | 0.87 | 0.47 | 250 |
| | | C6 | 0.96 | 0.30 | 244 | 0.91 | 0.48 | 263 |
| **JJ5SY3-10 (Side ported)** | C10 | C8 | 2.23 | 0.30 | 567 | 2.77 | 0.27 | 691 |
| **JJ5SY5-10 (Side ported)** | C12 | C12 | 6.40 | 0.22 | 1551 | 6.59 | 0.22 | 1597 |

* Calculation of effective area S and sonic conductance C: S = 5.0 x C
*1 Values measured in accordance with ISO 6358:1989, JIS B 8390:2000
*2 These values have been calculated according to ISO 6358 and indicate the flow rate under standard conditions with and inlet pressure of 0.6 MPa (relative pressure) and a pressure drop of 0.1 MPa.

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| | Terminal block box | | Lead wire | Serial wiring | | | | |
|---|---|---|---|---|---|---|---|---|
| | T type | TC type | L type | S6□ type (EX600) | SA□ type (EX245) | S□ type (EX250) | S□ type (EX260) | S3□ type (EX120) |
| | Plug-in connector connecting base | | | | | | | |
| | Common SUP/EXH (Common for the 3/5 port) | | | | | | | |
| | 2 to 20 stations | 2 to 24 stations | | | | | | 2 to 16 stations |
| | — | | | | | | | |
| | Positive common, Negative common | | | | Negative common | Positive common, Negative common | | |
| | Ø 8 One-touch fitting | | | | | | | |
| | Ø 10 One-touch fitting | | | | | | | |
| | Ø 12 One-touch fitting | | | | | | | |
| | Ø 2 One-touch fitting, Ø 4 One-touch fitting, Ø 6 One-touch fitting | | | | | | | |
| | Ø 6 One-touch fitting, Ø 8 One-touch fitting | | | | | | | |
| | Ø 10 One-touch fitting, Ø 12 One-touch fitting | | | | | | | |
| | IP40 | | | | | | | IP20 |
| | IP67 | | | IP67 (I/O unit: partially IP40) | IP65 | IP67 | IP67 (D-sub communication connector: IP40) | |

Unit: g

| | ② Wiring | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Terminal block box | | Lead wire | | | Serial wiring | | | | |
| | T type | TC type | L type (0.6 m) | L type (1.5 m) | L type (3 m) | S6□ type (EX600)*4 | SA□ type (EX245)*4 | S□ type (EX250)*4 | S□ type (EX260) | S3□ type (EX120) |
| | 680 | 471 | 404 | 514 | 698 | 829 | — | 520 | 448 | 367 |
| | 689 | 480 | 413 | 523 | 707 | 838 | — | 529 | 457 | 367 |
| | 709 | 500 | 433 | 543 | 727 | 858 | 935 | 549 | 477 | 391 |
| | 914 | 705 | 638 | 748 | 932 | 1063 | 1100 | 754 | 682 | 568 |

∗1 Weight: "W" is the value for the internal pilot specification, the max. fitting size, and the manifold only. The valve weight is not included. To obtain the weight with valves attached, add the valve weight given on page 14 for the appropriate number of stations.
∗2 The FW type is not available for the JSY1000.
∗3 The FC, PC, PGC, and PHC types are not available for the JSY5000.
∗4 The serial unit weight is included, but the I/O unit weight is not included. Add the weight of the I/O unit for calculation.

## ZK2 Combination Manifold Weight

### Single Unit

| Single unit model | Weight [g] |
|---|---|
| ZK2 (1 station for manifold, Without pressure sensor/switch) | 99 |

### Pressure Sensor/Pressure Switch for Vacuum

| Pressure sensor/Pressure switch for vacuum model | Weight [g] |
|---|---|
| ZK2-PS□-A (Excludes the cable portion weight) | 5 |
| ZK2-ZS□-A (Excludes the lead wire with connector weight) | 14 |

### Formula for ZK2 combination manifold weight

**Wz = ① x $n_1$ + ② + 3 x $n_2$ + ③** (n1: JSY3000 stations, n2: ZK2 stations)

| JSY3000 P, E port entry | ③ |
|---|---|
| D side | 158 |
| U side | 275 |
| B side | 292 |

The weight "Wz" is the value for the internal pilot specification, the max. fitting size, and the manifold only. To obtain the weight with valves and ejectors mounted, add the valve weight and the weight of the ejector, pressure sensor, and pressure switch for vacuum above, respectively, for the appropriate number of stations.

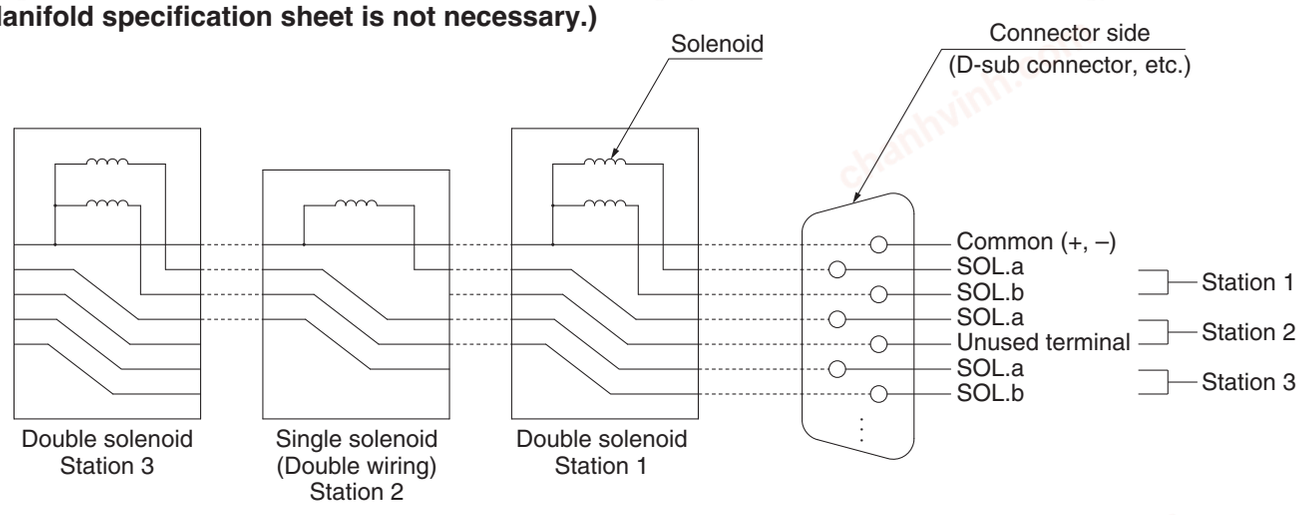
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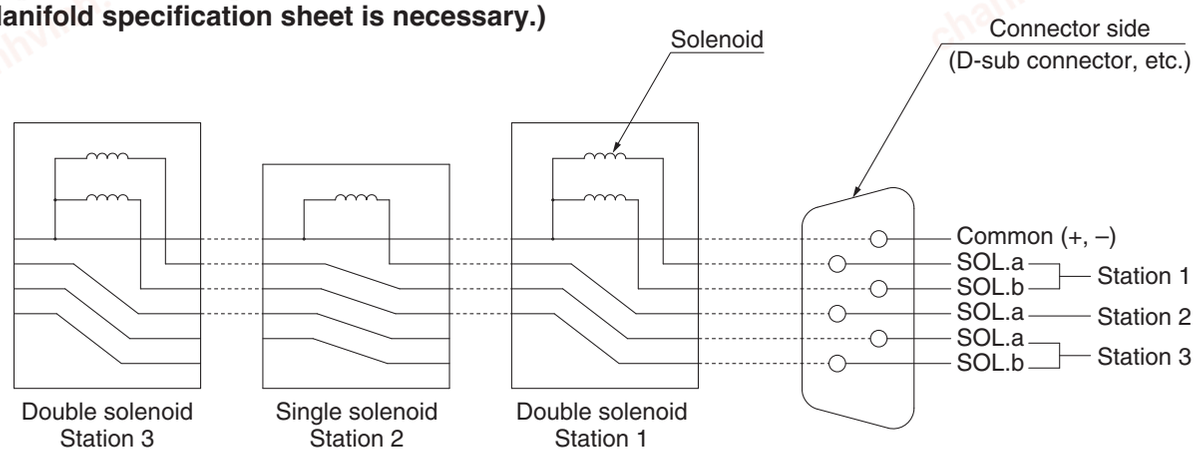
## Connector Wiring Layout

For both serial and parallel wiring, additional valves are sequentially assigned pins on the connector.
This makes it completely unnecessary to disassemble the connector unit.

### ■ Single solenoid valve is installed to all double wiring. (in the case of all double wiring) (Manifold specification sheet is not necessary.)




### ■ Single/double wiring are mixed. (Manifold specification sheet is necessary.)




∗ These diagrams are for the purpose of explanation, and differ from the actual connector wiring.

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# Plug-in Connector Connecting Base

## D-sub Connector Flat Ribbon Cable

Type 10 Side Ported

# JSY1000/3000/5000 Series

Internal Pilot

## How to Order Manifolds

**JJ5SY 3 – 10 F 1 – 05 D □ – C6 □**

❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽ ❾

Made to Order **Made to Order** (Refer to page 135 for details.)

| Specification |
|---|
| External pilot (SUP/EXH block assembly) |

### ❶ Series

| | |
|---|---|
| 1 | JSY1000 |
| 3 | JSY3000 |
| 5 | JSY5000 |

### ❷ Type

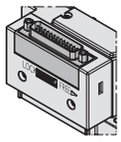
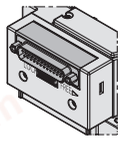
| | |
|---|---|
| 10 | Side ported |

### ❸ Connector type

| | | |
|---|---|---|
| **F**: D-sub connector <IP40> (25 pins) Connector entry derection adjustable | **FW**: D-sub connector*1 <IP67> (25 pins) | **FC**: D-sub connector*2 <IP20> (25 pins) Compact type |
| **P**: Flat ribbon cable <IP40> (26 pins) Connector entry derection adjustable | **PG**: Flat ribbon cable <IP40> (20 pins) Connector entry derection adjustable | **PH**: Flat ribbon cable <IP40> (10 pins) Connector entry derection adjustable |
| **PC**: Flat ribbon cable*2 <IP20> (26 pins) Compact type | **PGC**: Flat ribbon cable*2 <IP20> (20 pins) Compact type | **PHC**: Flat ribbon cable*2 <IP20> (10 pins) Compact type |

*1 FW is not available for the JSY1000.
*2 Compact type is not available for the JSY5000.

### ❹ Connector entry direction

| 1: Upward | 2: Lateral |
|---|---|
|  |  |

* The connector entry direction for connector types “FW,” “FC,” and “P□C” cannot be rotated. If it is necessary to change, order connector block assembly and SUP/EXH block assembly (pages 103 and 104) separately.

### ❻ P, E port entry

| | |
|---|---|
| U | U side (2 to 10 stations) |
| D | D side (2 to 10 stations) |
| B | Both sides (2 to 24 stations) |

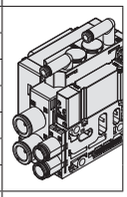
### ❼ SUP/EXH block assembly

| | |
|---|---|
| — | Internal pilot |
| S | Internal pilot, Built-in silencer |

* The 3/5(E) port is plugged for the built-in silencer type.
* The external pilot specification should be ordered as Made to Order. For details, refer to page 135.

### ❽ A, B port size (Metric/One-touch fitting)

| Symbol | A, B port | | JSY1000 | JSY3000 | JSY5000 |
|---|---|---|---|---|---|
| C2 | Straight | Ø 2 | ● | — | — |
| C4 | | Ø 4 | ● | — | — |
| C6 | | Ø 6 | ● | ● | — |
| C8 | | Ø 8 | — | ● | — |
| C10 | | Ø 10 | — | — | ● |
| C12 | | Ø 12 | — | — | ● |
| CM*1 | | Straight port, mixed sizes | ● | ● | ● |
| P, E port size (One-touch fittings) | | | Ø 8 | Ø 10 | Ø 12 |



*1 Indicate the sizes on the manifold specification sheet in the case of “CM.”
* The JSY1000 manifold pitch for C2 and C4 is 6.5 mm, and 9 mm for C6. When CM is selected, the manifold pitch is different depending on the selected fitting.

### ❾ Mounting and Option

| Symbol | Mounting |
|---|---|
| — | Direct mounting |
| D□ | DIN rail mounting |

**DIN Rail Option**

| | | |
|---|---|---|
| — | DIN rail mounting (With DIN rail) | |
| 0 | DIN rail mounting (Without DIN rail) | |
| 3 | For 3 stations | Specify a length longer than that of the standard rail. |
| ⋮ | ⋮ | |
| 24 | For 24 stations | |

* Enter the number of stations inside □ when it is larger than the number of valve stations. (Refer to “DIN Rail Option” shown on the left.)
* Refer to page 139 for details on securing the DIN rail mounting type manifold.

### ❺ Valve stations

**F/FW/FC**: D-sub connector (25 pins)

| Symbol | Stations | Note |
|---|---|---|
| 02 | 2 stations | Double wiring*1 |
| ⋮ | ⋮ | |
| 12 | 12 stations | |
| 02 | 2 stations | Specified layout*2 (Up to 24 solenoids available) |
| ⋮ | ⋮ | |
| 24 | 24 stations | |

**P/PC**: Flat ribbon cable (26 pins)

| Symbol | Stations | Note |
|---|---|---|
| 02 | 2 stations | Double wiring*1 |
| ⋮ | ⋮ | |
| 12 | 12 stations | |
| 02 | 2 stations | Specified layout*2 (Up to 24 solenoids available) |
| ⋮ | ⋮ | |
| 24 | 24 stations | |

**PG/PGC**: Flat ribbon cable (20 pins)

| Symbol | Stations | Note |
|---|---|---|
| 02 | 2 stations | Double wiring*1 |
| ⋮ | ⋮ | |
| 09 | 9 stations | |
| 02 | 2 stations | Specified layout*2 (Up to 18 solenoids available) |
| ⋮ | ⋮ | |
| 18 | 18 stations | |

**PH/PHC**: Flat ribbon cable (10 pins)

| Symbol | Stations | Note |
|---|---|---|
| 02 | 2 stations | Double wiring*1 |
| ⋮ | ⋮ | |
| 04 | 4 stations | |
| 02 | 2 stations | Specified layout*2 (Up to 8 solenoids available) |
| ⋮ | ⋮ | |
| 08 | 8 stations | |

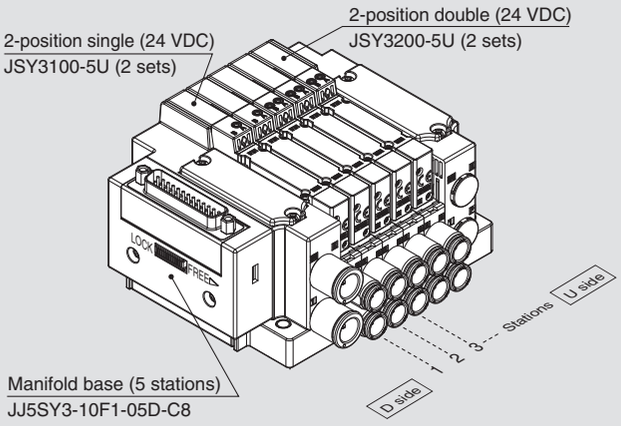
*1 Double wiring: 2-position single, double, 3-position, and 4-position valves can be used on all manifold stations.
The use of a 2-position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.
*2 Specified layout: Indicate the wiring specifications on the manifold specification sheet. (Note that 2-position double, 3-position, and 4-position valves cannot be used where single wiring has been specified.)
* This also includes the number of blanking plates.

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## How to Order Manifold Assembly

### Example (JJ5SY3-10F1-□)




**JJ5SY3-10F1-05D-C8 ··· 1 set (Type 10 5-station manifold base part no.)**
*** JSY3100-5U ····· 2 sets (2-position single part no.)**
*** JSY3200-5U ····· 3 sets (2-position double part no.)**
**→The asterisk denotes the symbol for the assembly. Prefix it to the part numbers of the valve, etc.**

- For the valve arrangement, the valve closest to the D side is considered the 1st station.
- Under the manifold part number, state the valves to be mounted in order starting with the 1st station as shown in the figure. If the arrangement becomes too complicated, specify the details on a manifold specification sheet.

**Internal Pilot**

## How to Order Valves (With mounting screw)

Refer to page 13 for valve specifications.

**JSY1000 Series**

**JSY3000/5000 Series**

With power-saving circuit

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| JSY | 1 | 1 | 0 | 0 | T | – 5 | Z | □ |
| JSY | 3 | 1 | 0 | 0 | | – 5 | Z | □ |
| | ❶ | ❷ | ❸ | | | ❹ | ❺ | ❻ |

Base mounted

**Made to Order**
(Refer to page 135 for details.)

| Specification |
|---|
| With power-saving circuit (Continuous duty type): 0.1 W (JSY3000/5000) |
| External pilot |

### ❶ Series

| | |
|---|---|
| 1 | JSY1000 |
| 3 | JSY3000 |
| 5 | JSY5000 |

### ❷ Type of actuation

| | | |
|---|---|---|
| 1 | 2-position | Single |
| 2 | | Double |
| 3 | 3-position | Closed centre |
| 4 | | Exhaust centre |
| 5 | | Pressure centre |
| A | 4-position dual 3-port | N.C./N.C. |
| B | | N.O./N.O. |
| C | | N.C./N.O. |

### ❸ Pilot valve exhaust method

| | |
|---|---|
| 0 | Pilot valve individual exhaust |

### ❹ Rated voltage

| | |
|---|---|
| 5 | 24 VDC |

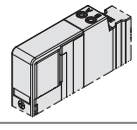
### ❺ Light/surge voltage suppressor and common specification

| Symbol | With light | Surge voltage suppressor | Common specification |
|---|---|---|---|
| U | ● | ● | Non-polar |
| Z | | | Positive common |
| NZ | | | Negative common |

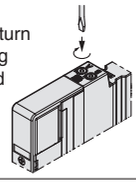
* Only "Z" and "NZ" types are available for the JSY1000 series.
* When the non-polar common specification type is selected, take measures to prevent surge voltage. For details, refer to page 138.

### ❻ Manual override

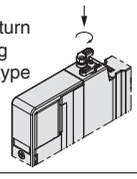
—: Non-locking push type



D: Push-turn locking slotted type



E: Push-turn locking lever type



* Push-turn locking lever type "E" is not available for the JSY1000.

* **When ordering a valve individually, the base gasket is not included.**
Since the base gasket is attached to the manifold, please order the base gasket separately if it is needed for maintenance. Refer to page 116 for base gasket and mounting screw part numbers.

### ⚠ Caution

**If the JSY3000/5000 series is to be continuously energised, please be sure to select the power-saving circuit (continuous duty type) specification. Refer to "Made to Order" on page 135.**
**For the JSY1000 series, only the power-saving circuit specification is available.**

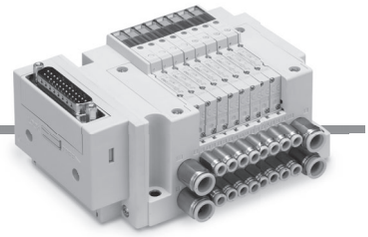
⚠ Protective class class Ⅲ (Mark: Ⅲ)

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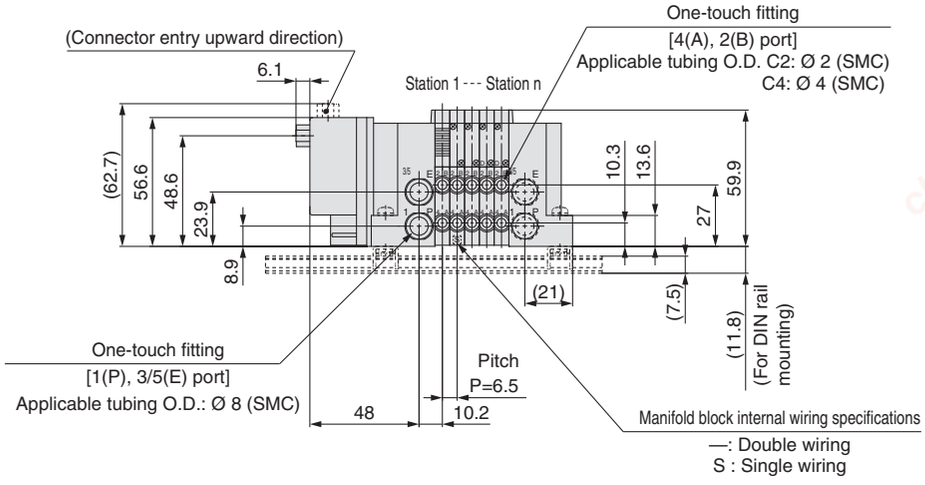
# JSY1000/3000/5000 Series

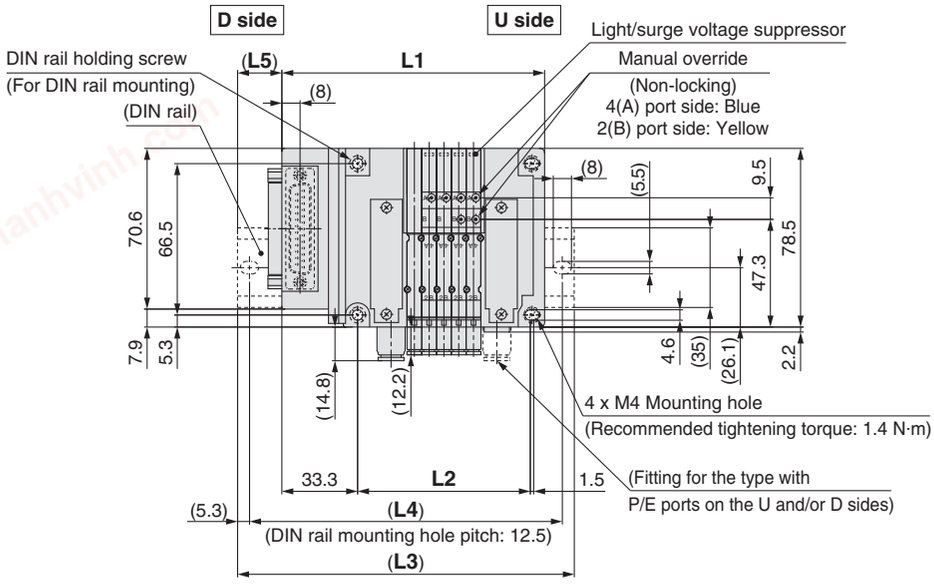
## Dimensions: JSY1000 Series

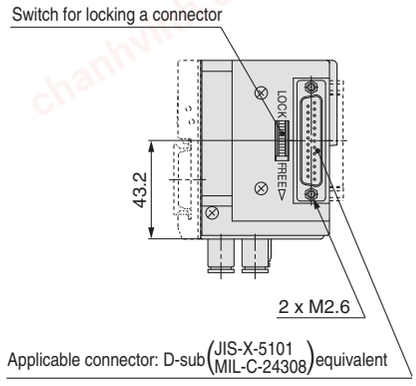
**Type 10/Side Ported** (Applicable to Ø 2 and Ø 4 fittings)
**D-sub Connector (IP40/Connector Entry Direction Adjustable)**



### JJ5SY1-10F$^{1}_{2}$-[Stations] $^{U}_{B}$-$^{C2}_{C4}$(D)




* These figures show the "JJ5SY1-10F2-05D-C4."
* Refer to page 97 for dimensions of external pilot (Made to Order) and silencer.
* When CM is selected for mixed A, B port size and C6 (9 mm pitch) is included, refer to page 100 for dimensions.

### L: Dimensions

n: Stations

| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L1 | 96 | 102.5 | 109 | 115.5 | 122 | 128.5 | 135 | 141.5 | 148 | 154.5 | 161 | 167.5 | 174 | 180.5 | 187 |
| L2 | 56.4 | 62.9 | 69.4 | 75.9 | 82.4 | 88.9 | 95.4 | 101.9 | 108.4 | 114.9 | 121.4 | 127.9 | 134.4 | 140.9 | 147.4 |
| L3 | 135.5 | 135.5 | 148 | 148 | 160.5 | 160.5 | 173 | 173 | 185.5 | 185.5 | 198 | 198 | 210.5 | 210.5 | 223 |
| L4 | 125 | 125 | 137.5 | 137.5 | 150 | 150 | 162.5 | 162.5 | 175 | 175 | 187.5 | 187.5 | 200 | 200 | 212.5 |
| L5 | 23 | 19.5 | 22.5 | 19.5 | 22.5 | 19 | 22 | 19 | 22 | 18.5 | 21.5 | 18.5 | 21.5 | 18 | 21 |

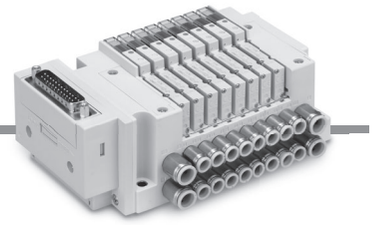
| L \ n | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|
| L1 | 193.5 | 200 | 206.5 | 213 | 219.5 | 226 | 232.5 | 239 |
| L2 | 153.9 | 160.4 | 166.9 | 173.4 | 179.9 | 186.4 | 192.9 | 199.4 |
| L3 | 223 | 235.5 | 248 | 248 | 260.5 | 260.5 | 273 | 273 |
| L4 | 212.5 | 225 | 237.5 | 237.5 | 250 | 250 | 262.5 | 262.5 |
| L5 | 18 | 21 | 24 | 20.5 | 23.5 | 20.5 | 23.5 | 20 |

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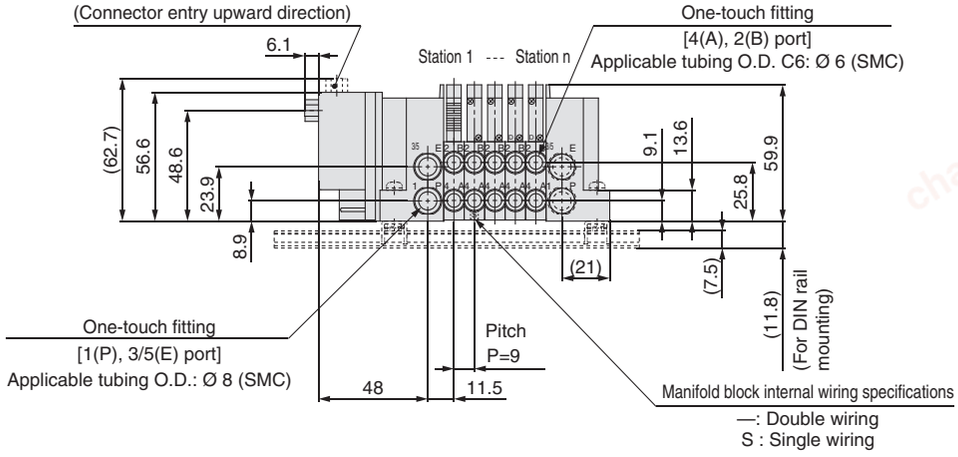


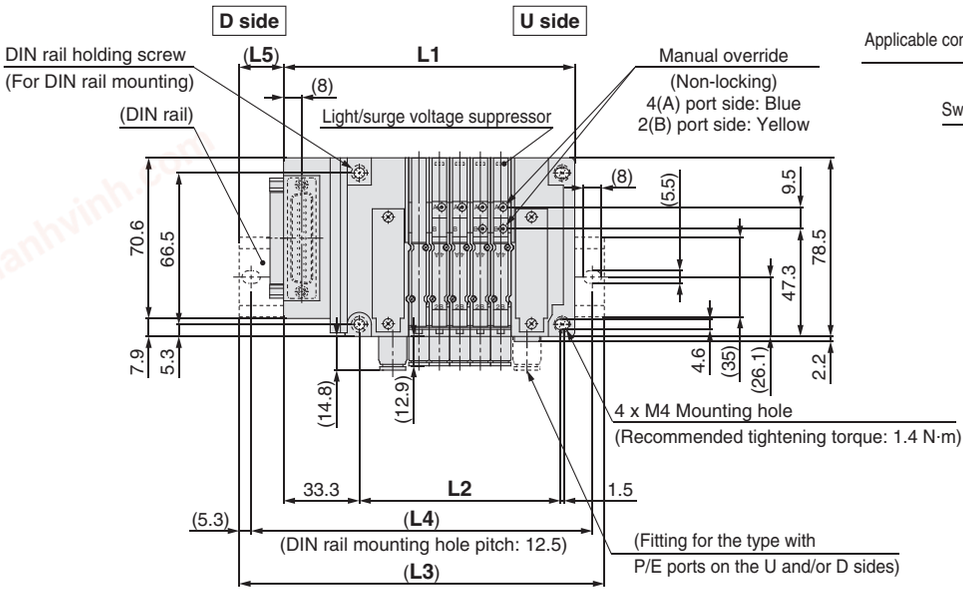
## Dimensions: JSY1000 Series

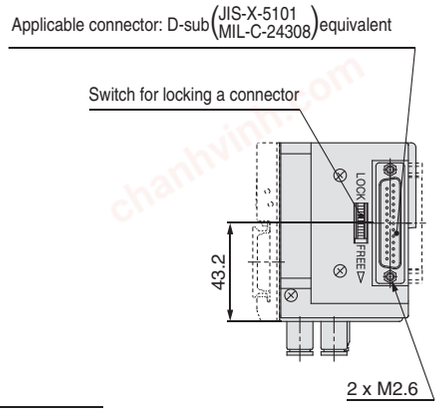
**Type 10/Side Ported** (Applicable to Ø 6 fittings)
**D-sub Connector (IP40/Connector Entry Direction Adjustable)**



### JJ5SY1-10F$^{1}_{2}$-[Stations]$^{U}_{D}$-C6(D)




* These figures show the "JJ5SY1-10F2-05D-C6."
* Refer to page 97 for dimensions of external pilot (Made to Order) and silencer.
* When CM is selected for mixed A, B port size, refer to page 100 for dimensions.

### L: Dimensions

n: Stations

| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **L1** | 101 | 110 | 119 | 128 | 137 | 146 | 155 | 164 | 173 | 182 | 191 | 200 | 209 | 218 | 227 |
| **L2** | 61.4 | 70.4 | 79.4 | 88.4 | 97.4 | 106.4 | 115.4 | 124.4 | 133.4 | 142.4 | 151.4 | 160.4 | 169.4 | 178.4 | 187.4 |
| **L3** | 135.5 | 148 | 160.5 | 160.5 | 173 | 185.5 | 185.5 | 198 | 210.5 | 223 | 223 | 235.5 | 248 | 248 | 260.5 |
| **L4** | 125 | 137.5 | 150 | 150 | 162.5 | 175 | 175 | 187.5 | 200 | 212.5 | 212.5 | 225 | 237.5 | 237.5 | 250 |
| **L5** | 20.5 | 22 | 24 | 19.5 | 21 | 23 | 18.5 | 20 | 22 | 23.5 | 19 | 21 | 22.5 | 18 | 20 |

| L \ n | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|
| **L1** | 236 | 245 | 254 | 263 | 272 | 281 | 290 | 299 |
| **L2** | 196.4 | 205.4 | 214.4 | 223.4 | 232.4 | 241.4 | 250.4 | 259.4 |
| **L3** | 273 | 285.5 | 285.5 | 298 | 310.5 | 310.5 | 323 | 335.5 |
| **L4** | 262.5 | 275 | 275 | 287.5 | 300 | 300 | 312.5 | 325 |
| **L5** | 21.5 | 23.5 | 19 | 20.5 | 22.5 | 18 | 19.5 | 21.5 |

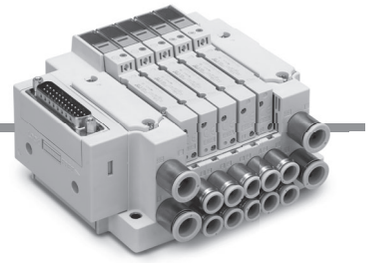
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# JSY1000/3000/5000 Series

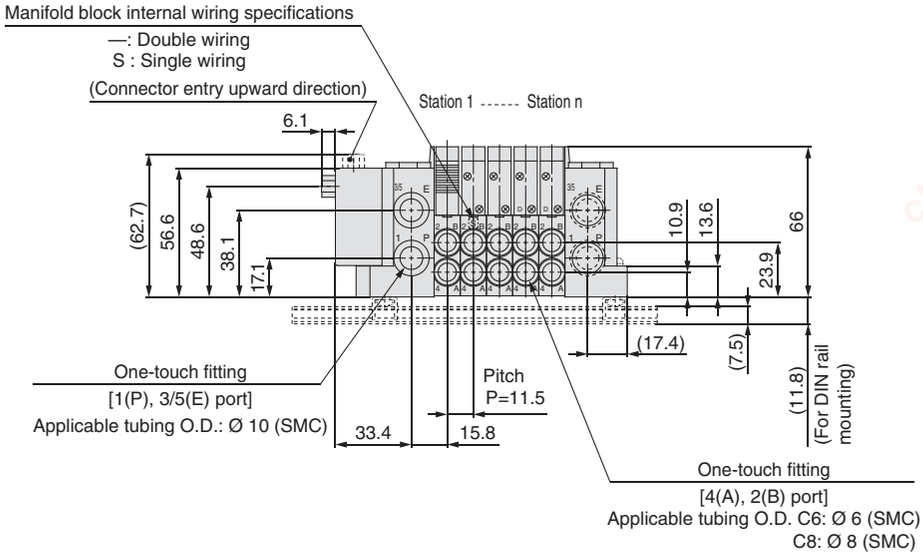
## Dimensions: JSY3000 Series

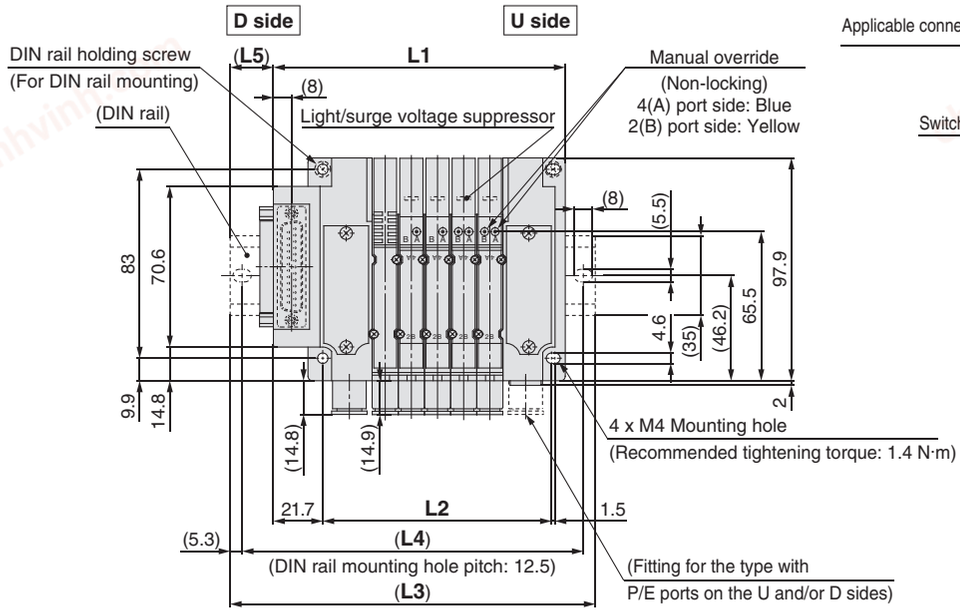
**Type 10/Side Ported**

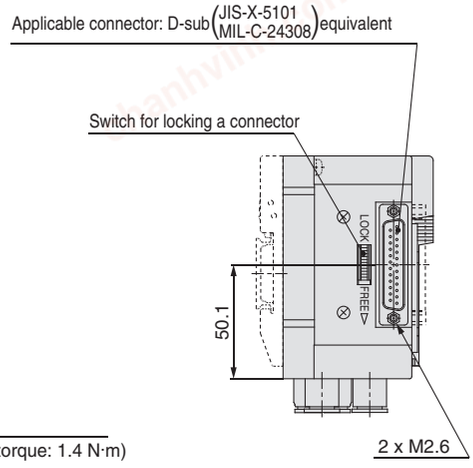
**D-sub Connector (IP40/Connector Entry Direction Adjustable)**



### JJ5SY3-10F$^{1}_{2}$-Stations $^{U}_{B}$-$^{C6}_{C8}$(D)




* These figures show the "JJ5SY3-10F2-05D-C8."
* Refer to page 98 for dimensions of external pilot (Made to Order) and silencer.

### L: Dimensions

n: Stations

| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L1 | 93.8 | 105.3 | 116.8 | 128.3 | 139.8 | 151.3 | 162.8 | 174.3 | 185.8 | 197.3 | 208.8 | 220.3 | 231.8 | 243.3 | 254.8 |
| L2 | 66.1 | 77.6 | 89.1 | 100.6 | 112.1 | 123.6 | 135.1 | 146.6 | 158.1 | 169.6 | 181.1 | 192.6 | 204.1 | 215.6 | 227.1 |
| L3 | 123 | 135.5 | 148 | 160.5 | 173 | 185.5 | 198 | 210.5 | 223 | 235.5 | 248 | 260.5 | 273 | 273 | 285.5 |
| L4 | 112.5 | 125 | 137.5 | 150 | 162.5 | 175 | 187.5 | 200 | 212.5 | 225 | 237.5 | 250 | 262.5 | 262.5 | 275 |
| L5 | 17.5 | 18 | 18.5 | 19 | 19.5 | 20 | 20.5 | 21 | 21.5 | 22 | 22.5 | 23 | 23.5 | 18 | 18.5 |

| L \ n | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|
| L1 | 266.3 | 277.8 | 289.3 | 300.8 | 312.3 | 323.8 | 335.3 | 346.8 |
| L2 | 238.6 | 250.1 | 261.6 | 273.1 | 284.6 | 296.1 | 307.6 | 319.1 |
| L3 | 298 | 310.5 | 323 | 335.5 | 348 | 360.5 | 373 | 385.5 |
| L4 | 287.5 | 300 | 312.5 | 325 | 337.5 | 350 | 362.5 | 375 |
| L5 | 19 | 19.5 | 20 | 20.5 | 21 | 21.5 | 22 | 22.5 |

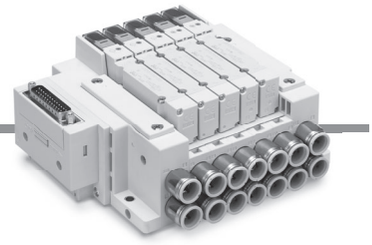
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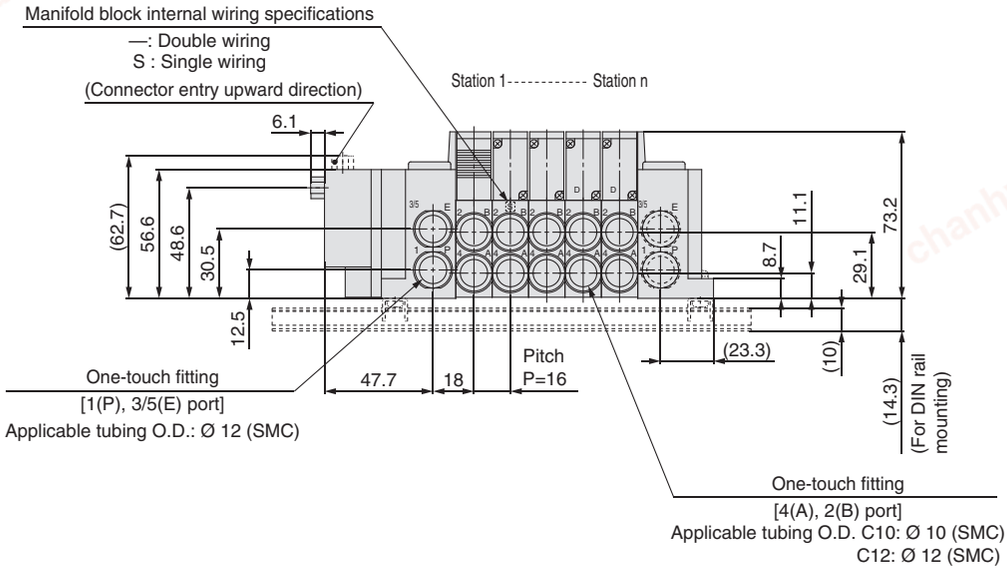
## Dimensions: JSY5000 Series

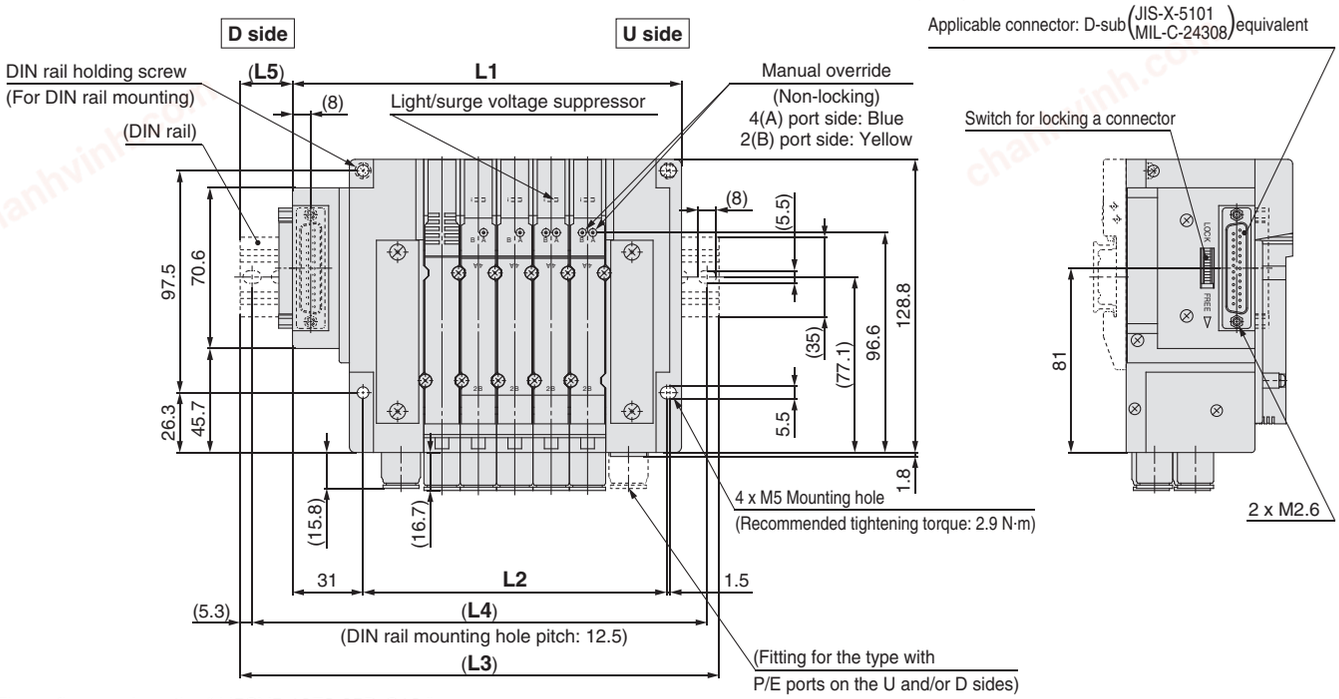
**Type 10/Side Ported**

**D-sub Connector (IP40/Connector Entry Direction Adjustable)**



### JJ5SY5-10F$^{1}_{2}$-Stations$^{U}_{D}$-$^{C10}_{C12}$(D)




∗ These figures show the “JJ5SY5-10F2-05D-C12.”
∗ Refer to page 99 for dimensions of external pilot (Made to Order) and silencer.

### L: Dimensions

n: Stations

| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L1 | 123 | 139 | 155 | 171 | 187 | 203 | 219 | 235 | 251 | 267 | 283 | 299 | 315 | 331 | 347 |
| L2 | 85.5 | 101.5 | 117.5 | 133.5 | 149.5 | 165.5 | 181.5 | 197.5 | 213.5 | 229.5 | 245.5 | 261.5 | 277.5 | 293.5 | 309.5 |
| L3 | 160.5 | 173 | 185.5 | 210.5 | 223 | 235.5 | 260.5 | 273 | 285.5 | 298 | 323 | 335.5 | 348 | 360.5 | 385.5 |
| L4 | 150 | 162.5 | 175 | 200 | 212.5 | 225 | 250 | 262.5 | 275 | 287.5 | 312.5 | 325 | 337.5 | 350 | 375 |
| L5 | 22 | 20 | 18.5 | 23 | 21 | 19.5 | 24 | 22 | 20.5 | 18.5 | 23 | 21.5 | 19.5 | 18 | 22.5 |

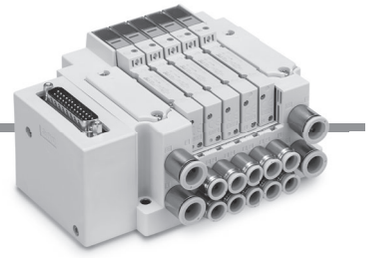
| L \ n | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|
| L1 | 363 | 379 | 395 | 411 | 427 | 443 | 459 | 475 |
| L2 | 325.5 | 341.5 | 357.5 | 373.5 | 389.5 | 405.5 | 421.5 | 437.5 |
| L3 | 398 | 410.5 | 435.5 | 448 | 460.5 | 473 | 498 | 510.5 |
| L4 | 387.5 | 400 | 425 | 437.5 | 450 | 462.5 | 487.5 | 500 |
| L5 | 20.5 | 19 | 23.5 | 21.5 | 20 | 18 | 22.5 | 21 |

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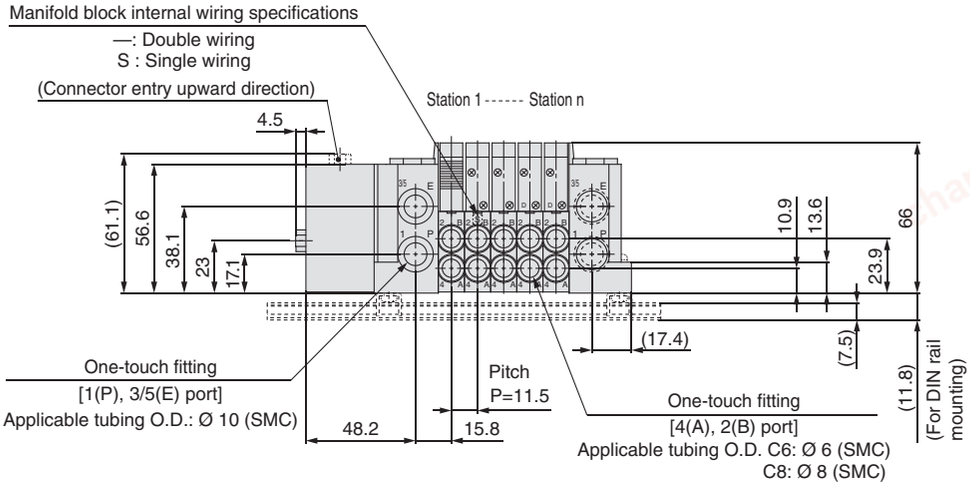
# JSY1000/3000/5000 Series

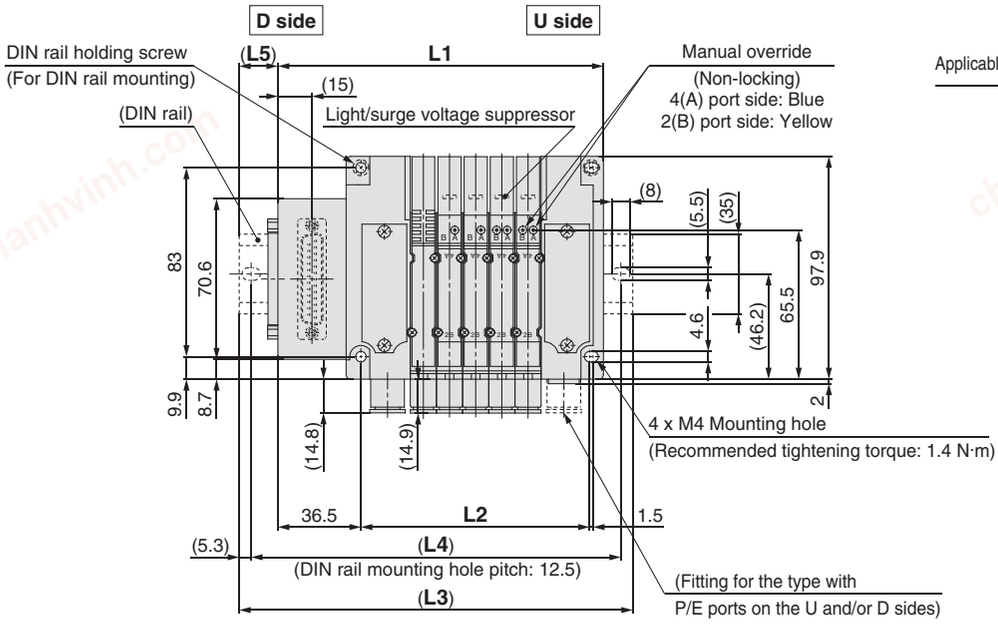
## Dimensions: JSY3000 Series

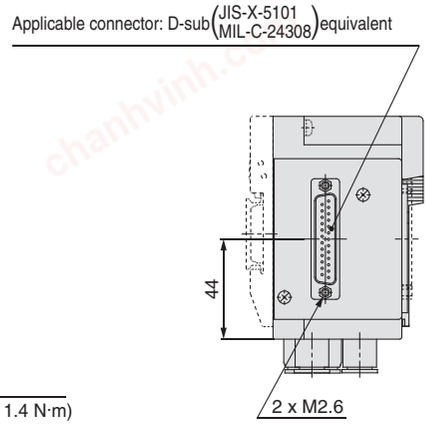
**Type 10/Side Ported**
**D-sub Connector (IP67)**



### JJ5SY3-10FW$\frac{1}{2}$- Stations $\frac{U}{D}$-$\frac{C6}{C8}$(D)




* These figures show the "JJ5SY3-10FW2-05D-C8."
* Refer to page 98 for dimensions of external pilot (Made to Order) and silencer.

### L: Dimensions

n: Stations

| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **L1** | 108.6 | 120.1 | 131.6 | 143.1 | 154.6 | 166.1 | 177.6 | 189.1 | 200.6 | 212.1 | 223.6 | 235.1 | 246.6 | 258.1 | 269.6 |
| **L2** | 66.1 | 77.6 | 89.1 | 100.6 | 112.1 | 123.6 | 135.1 | 146.6 | 158.1 | 169.6 | 181.1 | 192.6 | 204.1 | 215.6 | 227.1 |
| **L3** | 148 | 148 | 160.5 | 173 | 185.5 | 198 | 210.5 | 223 | 235.5 | 248 | 260.5 | 273 | 285.5 | 298 | 298 |
| **L4** | 137.5 | 137.5 | 150 | 162.5 | 175 | 187.5 | 200 | 212.5 | 225 | 237.5 | 250 | 262.5 | 275 | 287.5 | 287.5 |
| **L5** | 22 | 16 | 16.5 | 17 | 17.5 | 18 | 18.5 | 19 | 19.5 | 20 | 20.5 | 21 | 21.5 | 22 | 16.5 |

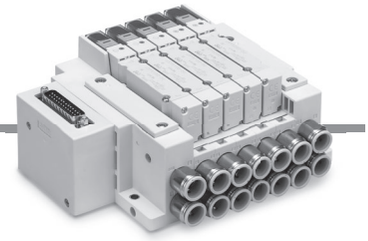
| L \ n | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|
| **L1** | 281.1 | 292.6 | 304.1 | 315.6 | 327.1 | 338.6 | 350.1 | 361.6 |
| **L2** | 238.6 | 250.1 | 261.6 | 273.1 | 284.6 | 296.1 | 307.6 | 319.1 |
| **L3** | 310.5 | 323 | 335.5 | 348 | 360.5 | 373 | 385.5 | 398 |
| **L4** | 300 | 312.5 | 325 | 337.5 | 350 | 362.5 | 375 | 387.5 |
| **L5** | 17 | 17.5 | 18 | 18.5 | 19 | 19.5 | 20 | 20.5 |

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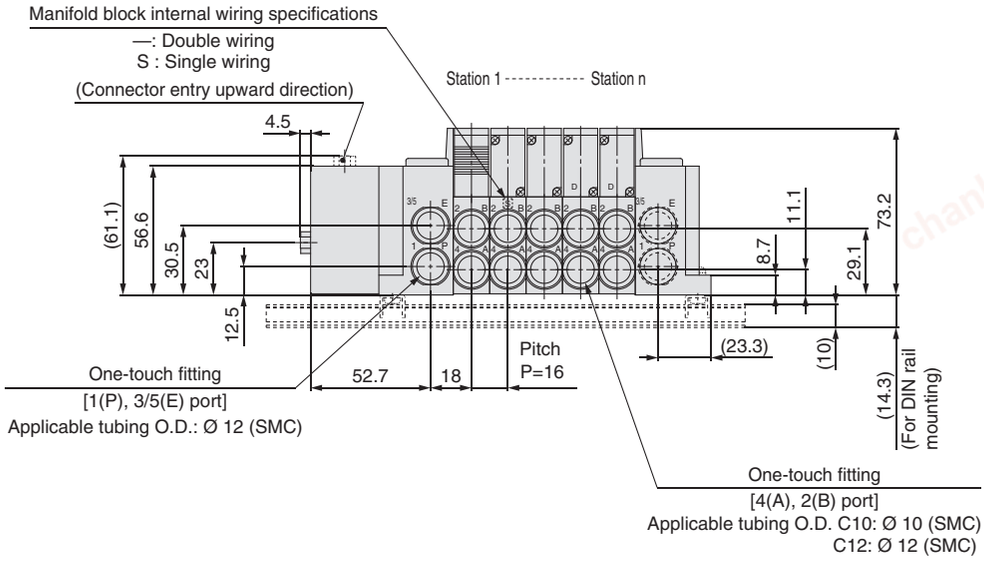


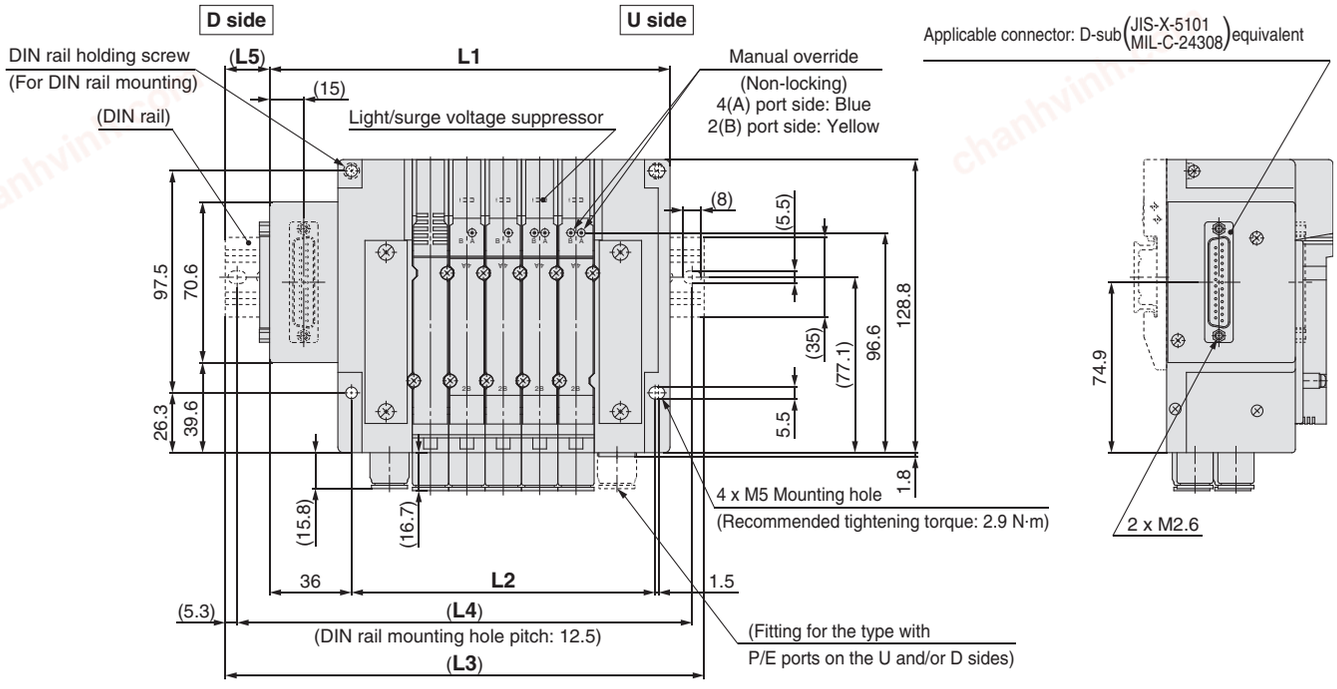
## Dimensions: JSY5000 Series

**Type 10/Side Ported**
**D-sub Connector (IP67)**



### JJ5SY5-10FW$^{1}_{2}$-[Stations]$^{U}_{D}$-$^{C10}_{C12}$(D)




∗ These figures show the "JJ5SY5-10FW2-05D-C12."
∗ Refer to page 99 for dimensions of external pilot (Made to Order) and silencer.

### L: Dimensions

n: Stations

| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **L1** | 128 | 144 | 160 | 176 | 192 | 208 | 224 | 240 | 256 | 272 | 288 | 304 | 320 | 336 | 352 |
| **L2** | 85.5 | 101.5 | 117.5 | 133.5 | 149.5 | 165.5 | 181.5 | 197.5 | 213.5 | 229.5 | 245.5 | 261.5 | 277.5 | 293.5 | 309.5 |
| **L3** | 160.5 | 173 | 198 | 210.5 | 223 | 248 | 260.5 | 273 | 285.5 | 310.5 | 323 | 335.5 | 348 | 373 | 385.5 |
| **L4** | 150 | 162.5 | 187.5 | 200 | 212.5 | 237.5 | 250 | 262.5 | 275 | 300 | 312.5 | 325 | 337.5 | 362.5 | 375 |
| **L5** | 18.5 | 17 | 21.5 | 19.5 | 18 | 22.5 | 20.5 | 19 | 17 | 21.5 | 20 | 18 | 16.5 | 21 | 19 |

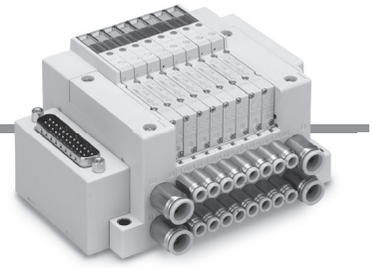
| L \ n | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|
| **L1** | 368 | 384 | 400 | 416 | 432 | 448 | 464 | 480 |
| **L2** | 325.5 | 341.5 | 357.5 | 373.5 | 389.5 | 405.5 | 421.5 | 437.5 |
| **L3** | 398 | 423 | 435.5 | 448 | 460.5 | 485.5 | 498 | 510.5 |
| **L4** | 387.5 | 412.5 | 425 | 437.5 | 450 | 475 | 487.5 | 500 |
| **L5** | 17.5 | 22 | 20 | 18.5 | 16.5 | 21 | 19.5 | 17.5 |

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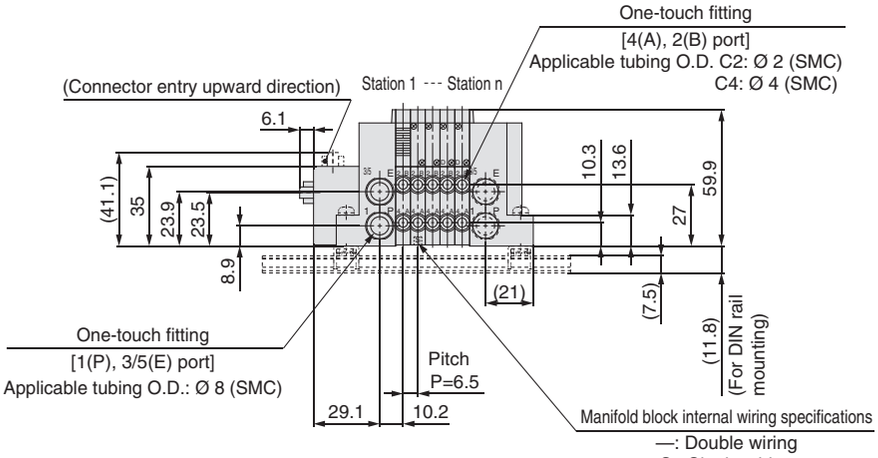
# JSY1000/3000/5000 Series

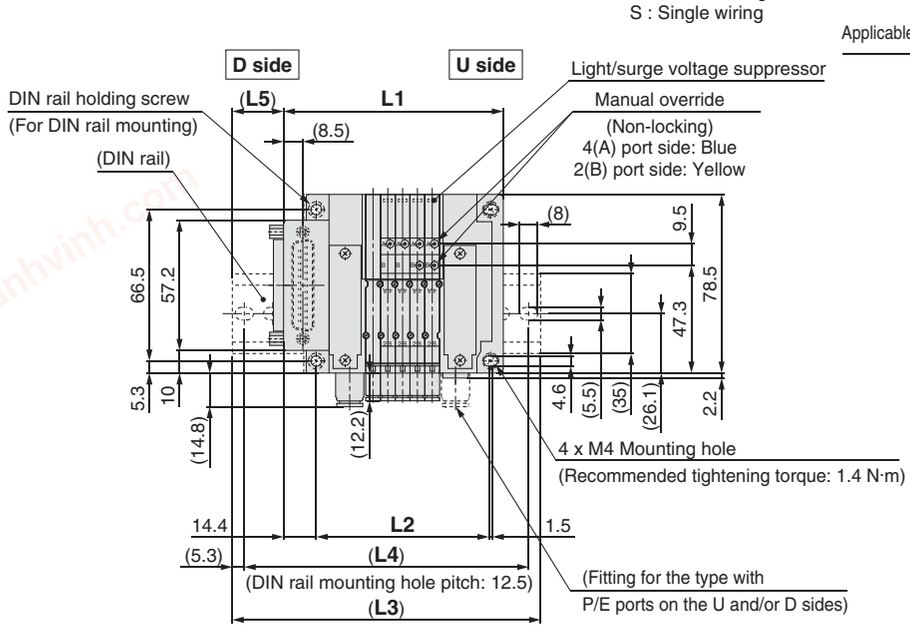
## Dimensions: JSY1000 Series

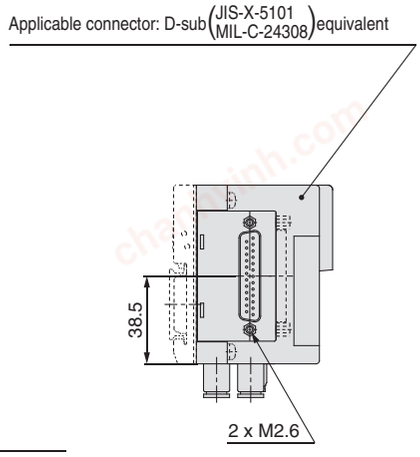
**Type 10/Side Ported** (Applicable to Ø 2 and Ø 4 fittings)
**D-sub Connector (IP20/Compact Type)**



### JJ5SY1-10FC$^{1}_{2}$- Stations $\frac{U}{D}$-$\frac{C2}{C4}$(D)




* These figures show the "JJ5SY1-10FC2-05D-C4."
* Refer to page 97 for dimensions of external pilot (Made to Order) and silencer.
* When CM is selected for mixed A, B port size and C6 (9 mm pitch) is included, refer to page 100 for dimensions.

### L: Dimensions

n: Stations

| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **L1** | 77.1 | 83.6 | 90.1 | 96.6 | 103.1 | 109.6 | 116.1 | 122.6 | 129.1 | 135.6 | 142.1 | 148.6 | 155.1 | 161.6 | 168.1 |
| **L2** | 56.4 | 62.9 | 69.4 | 75.9 | 82.4 | 88.9 | 95.4 | 101.9 | 108.4 | 114.9 | 121.4 | 127.9 | 134.4 | 140.9 | 147.4 |
| **L3** | 110.5 | 123 | 123 | 135.5 | 135.5 | 148 | 148 | 160.5 | 160.5 | 173 | 173 | 185.5 | 185.5 | 198 | 198 |
| **L4** | 100 | 112.5 | 112.5 | 125 | 125 | 137.5 | 137.5 | 150 | 150 | 162.5 | 162.5 | 175 | 175 | 187.5 | 187.5 |
| **L5** | 20 | 23 | 19.5 | 22.5 | 19.5 | 22.5 | 19 | 22 | 19 | 22 | 18.5 | 21.5 | 18.5 | 21.5 | 18 |

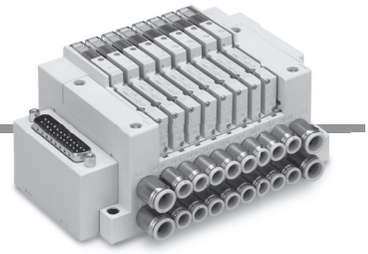
| L \ n | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|
| **L1** | 174.6 | 181.1 | 187.6 | 194.1 | 200.6 | 207.1 | 213.6 | 220.1 |
| **L2** | 153.9 | 160.4 | 166.9 | 173.4 | 179.9 | 186.4 | 192.9 | 199.4 |
| **L3** | 210.5 | 210.5 | 223 | 235.5 | 235.5 | 248 | 248 | 260.5 |
| **L4** | 200 | 200 | 212.5 | 225 | 225 | 237.5 | 237.5 | 250 |
| **L5** | 21 | 18 | 21 | 24 | 20.5 | 23.5 | 20.5 | 23.5 |

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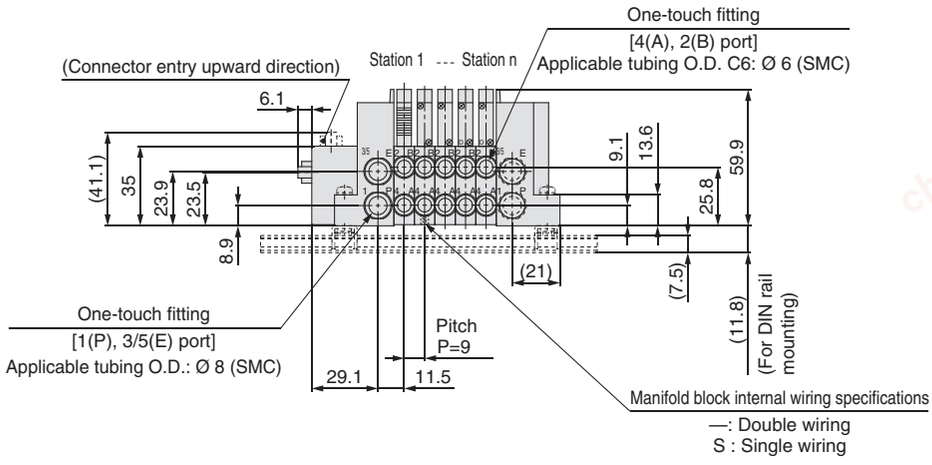


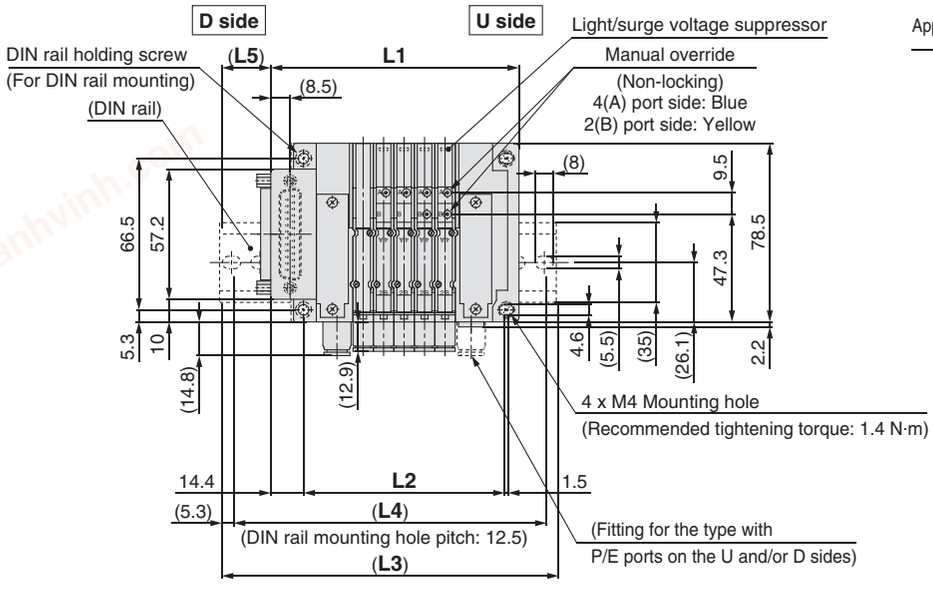
## Dimensions: JSY1000 Series

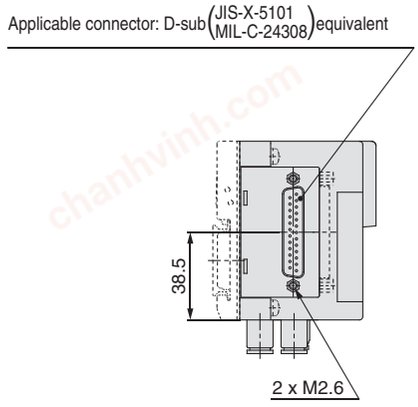
**Type 10/Side Ported** (Applicable to Ø 6 fittings)
**D-sub Connector (IP20/Compact Type)**



### JJ5SY1-10FC$\frac{1}{2}$- Stations $\frac{U}{B}$- C6(D)




* These figures show the "JJ5SY1-10FC2-05D-C6."
* Refer to page 97 for dimensions of external pilot (Made to Order) and silencer.
* When CM is selected for mixed A, B port size, refer to page 100 for dimensions.

### L: Dimensions

n: Stations

| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L1 | 82.1 | 91.1 | 100.1 | 109.1 | 118.1 | 127.1 | 136.1 | 145.1 | 154.1 | 163.1 | 172.1 | 181.1 | 190.1 | 199.1 | 208.1 |
| L2 | 61.4 | 70.4 | 79.4 | 88.4 | 97.4 | 106.4 | 115.4 | 124.4 | 133.4 | 142.4 | 151.4 | 160.4 | 169.4 | 178.4 | 187.4 |
| L3 | 123 | 123 | 135.5 | 148 | 148 | 160.5 | 173 | 185.5 | 185.5 | 198 | 210.5 | 210.5 | 223 | 235.5 | 248 |
| L4 | 112.5 | 112.5 | 125 | 137.5 | 137.5 | 150 | 162.5 | 175 | 175 | 187.5 | 200 | 200 | 212.5 | 225 | 237.5 |
| L5 | 23.5 | 19 | 21 | 22.5 | 18 | 20 | 21.5 | 23.5 | 19 | 20.5 | 22.5 | 18 | 19.5 | 21.5 | 23 |

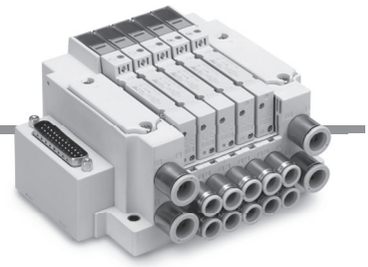
| L \ n | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|
| L1 | 217.1 | 226.1 | 235.1 | 244.1 | 253.1 | 262.1 | 271.1 | 280.1 |
| L2 | 196.4 | 205.4 | 214.4 | 223.4 | 232.4 | 241.4 | 250.4 | 259.4 |
| L3 | 248 | 260.5 | 273 | 285.5 | 285.5 | 298 | 310.5 | 310.5 |
| L4 | 237.5 | 250 | 262.5 | 275 | 275 | 287.5 | 300 | 300 |
| L5 | 18.5 | 20.5 | 22 | 24 | 19.5 | 21 | 23 | 18.5 |

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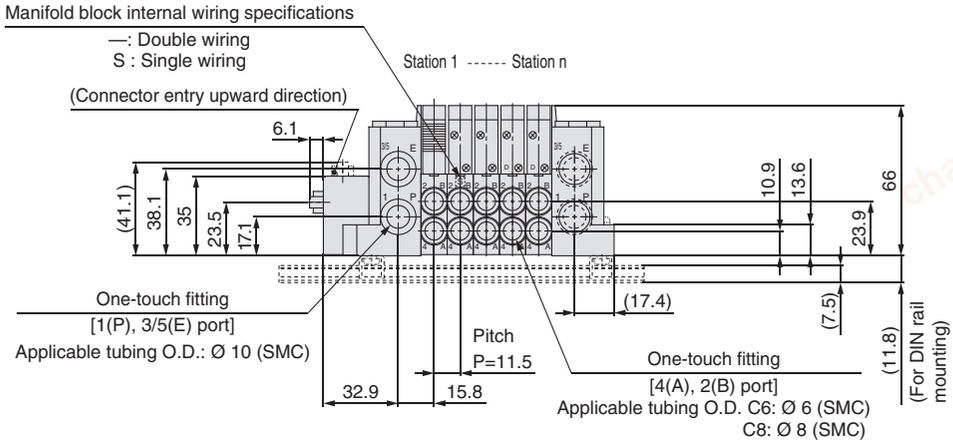
# JSY1000/3000/5000 Series

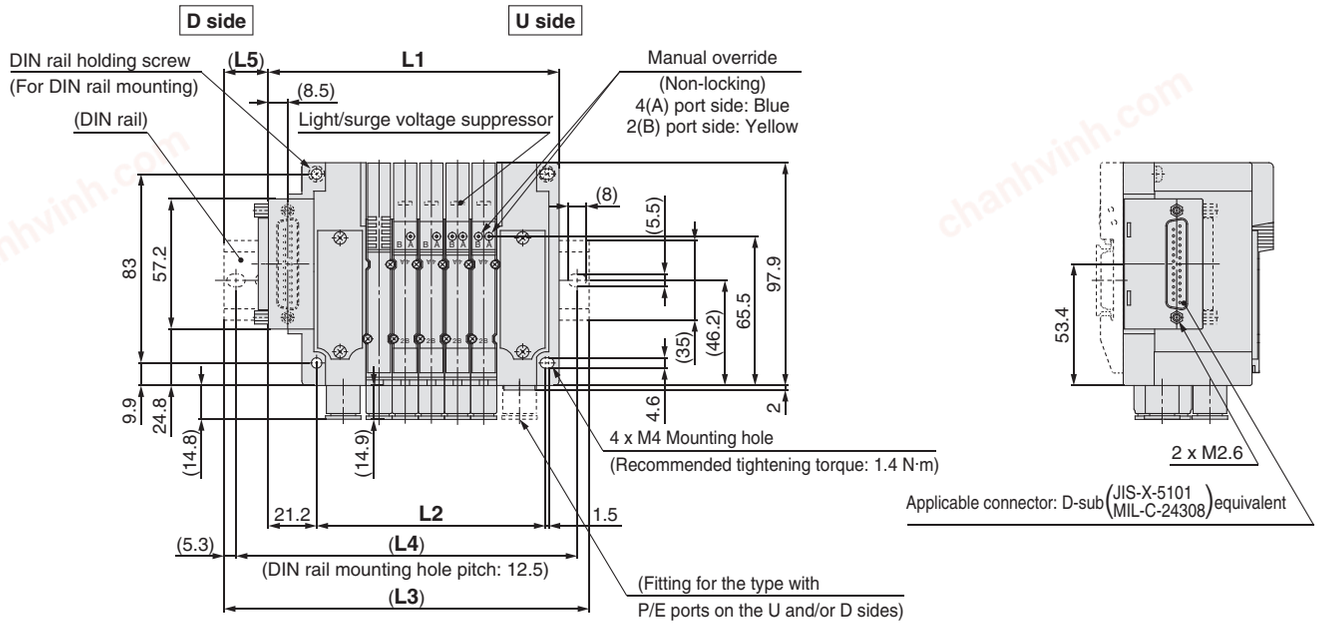
## Dimensions: JSY3000 Series

**Type 10/Side Ported**
**D-sub Connector (IP20/Compact Type)**



### JJ5SY3-10FC$^{1}_{2}$-Stations $\frac{U}{D}$-$\frac{C6}{C8}$(D)




∗ These figures show the “JJ5SY3-10FC2-05D-C8.”
∗ Refer to page 98 for dimensions of external pilot (Made to Order) and silencer.

### L: Dimensions

n: Stations

| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L1 | 93.3 | 104.8 | 116.3 | 127.8 | 139.3 | 150.8 | 162.3 | 173.8 | 185.3 | 196.8 | 208.3 | 219.8 | 231.3 | 242.8 | 254.3 |
| L2 | 66.1 | 77.6 | 89.1 | 100.6 | 112.1 | 123.6 | 135.1 | 146.6 | 158.1 | 169.6 | 181.1 | 192.6 | 204.1 | 215.6 | 227.1 |
| L3 | 123 | 135.5 | 148 | 160.5 | 173 | 185.5 | 198 | 210.5 | 223 | 235.5 | 248 | 260.5 | 260.5 | 273 | 285.5 |
| L4 | 112.5 | 125 | 137.5 | 150 | 162.5 | 175 | 187.5 | 200 | 212.5 | 225 | 237.5 | 250 | 250 | 262.5 | 275 |
| L5 | 18 | 18.5 | 19 | 19.5 | 20 | 20.5 | 21 | 21.5 | 22 | 22.5 | 23 | 23.5 | 17.5 | 18 | 18.5 |

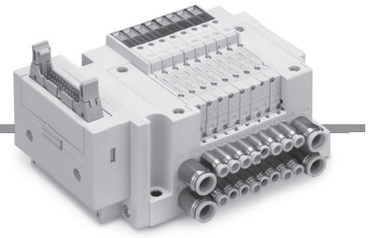
| L \ n | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|
| L1 | 265.8 | 277.3 | 288.8 | 300.3 | 311.8 | 323.3 | 334.8 | 346.3 |
| L2 | 238.6 | 250.1 | 261.6 | 273.1 | 284.6 | 296.1 | 307.6 | 319.1 |
| L3 | 298 | 310.5 | 323 | 335.5 | 348 | 360.5 | 373 | 385.5 |
| L4 | 287.5 | 300 | 312.5 | 325 | 337.5 | 350 | 362.5 | 375 |
| L5 | 19 | 19.5 | 20 | 20.5 | 21 | 21.5 | 22 | 22.5 |

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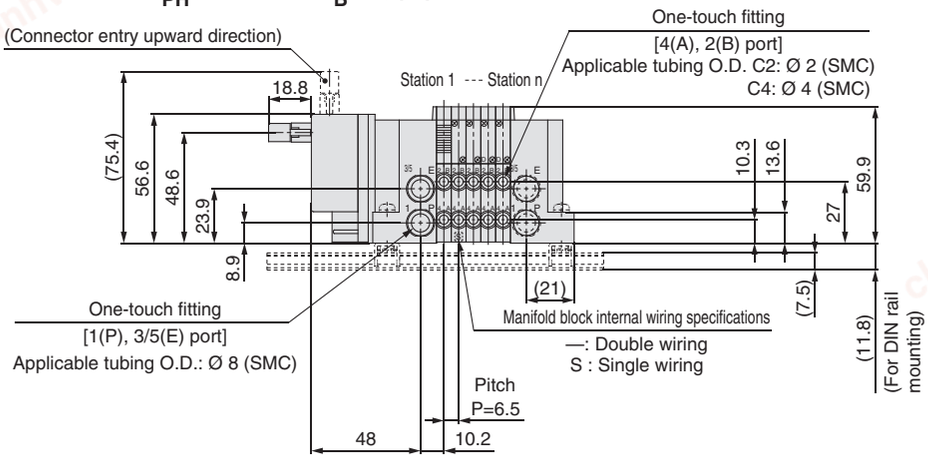


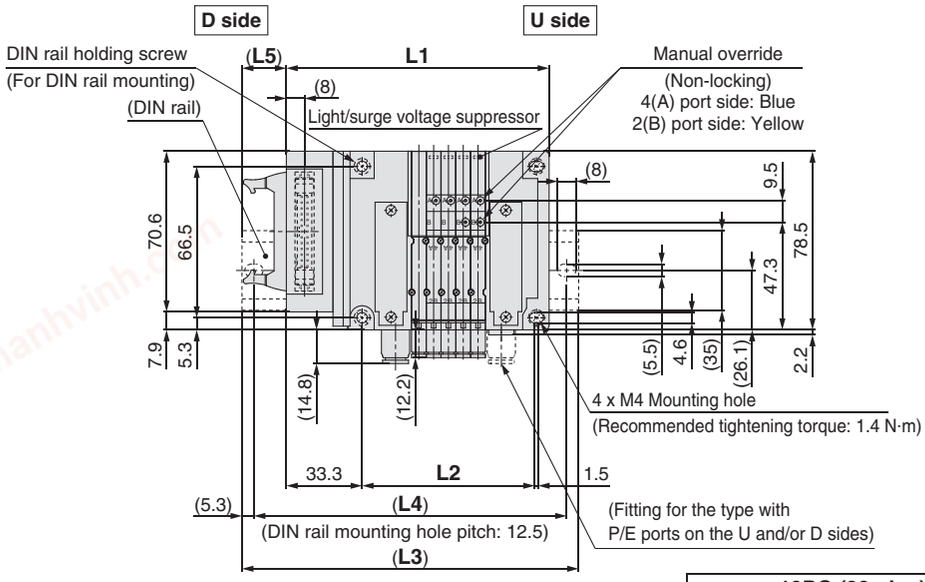
## Dimensions: JSY1000 Series

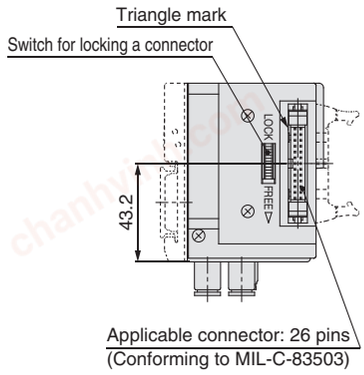
**Type 10/Side Ported** (Applicable to Ø 2 and Ø 4 fittings)
**Flat Ribbon Cable** (IP40/Connector Entry Direction Adjustable)

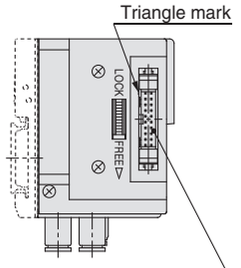
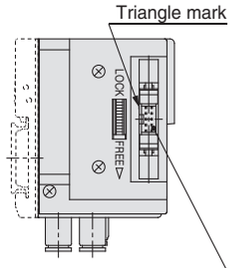


### JJ5SY1-10 P/PG/PH 1/2- Stations U/D/B- C2/C4 (D)




| 10PG (20 pins) | 10Ph (10 pins) |
|---|---|
|  |  |



* These figures show the "JJ5SY1-10P2-05D-C4."
* Refer to page 97 for dimensions of external pilot (Made to Order) and silencer.
* Only connectors are different for 10PG and 10PH. L1 to L5 dimensions are the same as 10P type.
* When CM is selected for mixed A, B port size and C6 (9 mm pitch) is included, refer to page 100 for dimensions.

### L: Dimensions

n: Stations

| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L1 | 96 | 102.5 | 109 | 115.5 | 122 | 128.5 | 135 | 141.5 | 148 | 154.5 | 161 | 167.5 | 174 | 180.5 | 187 |
| L2 | 56.4 | 62.9 | 69.4 | 75.9 | 82.4 | 88.9 | 95.4 | 101.9 | 108.4 | 114.9 | 121.4 | 127.9 | 134.4 | 140.9 | 147.4 |
| L3 | 135.5 | 135.5 | 148 | 148 | 160.5 | 160.5 | 173 | 173 | 185.5 | 185.5 | 198 | 198 | 210.5 | 210.5 | 223 |
| L4 | 125 | 125 | 137.5 | 137.5 | 150 | 150 | 162.5 | 162.5 | 175 | 175 | 187.5 | 187.5 | 200 | 200 | 212.5 |
| L5 | 23 | 19.5 | 22.5 | 19.5 | 22.5 | 19 | 22 | 19 | 22 | 18.5 | 21.5 | 18.5 | 21.5 | 18 | 21 |

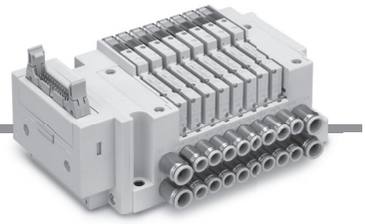
| L \ n | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|
| L1 | 193.5 | 200 | 206.5 | 213 | 219.5 | 226 | 232.5 | 239 |
| L2 | 153.9 | 160.4 | 166.9 | 173.4 | 179.9 | 186.4 | 192.9 | 199.4 |
| L3 | 223 | 235.5 | 248 | 248 | 260.5 | 260.5 | 273 | 273 |
| L4 | 212.5 | 225 | 237.5 | 237.5 | 250 | 250 | 262.5 | 262.5 |
| L5 | 18 | 21 | 24 | 20.5 | 23.5 | 20.5 | 23.5 | 20 |

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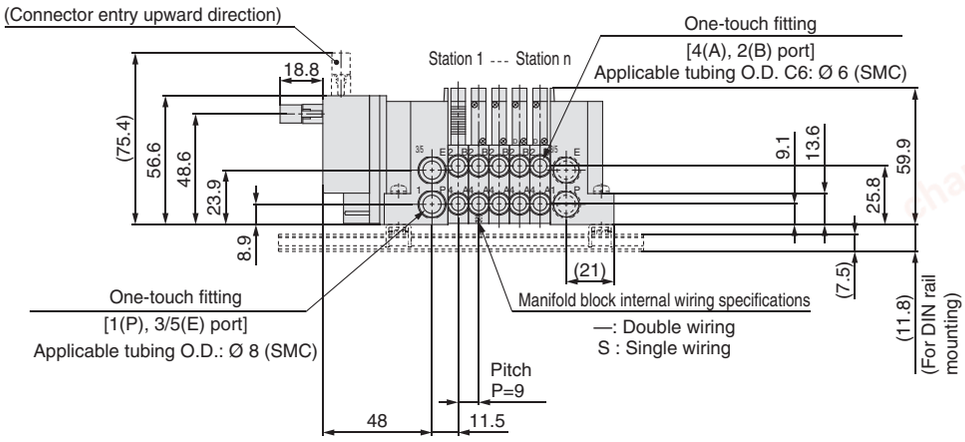
# JSY1000/3000/5000 Series

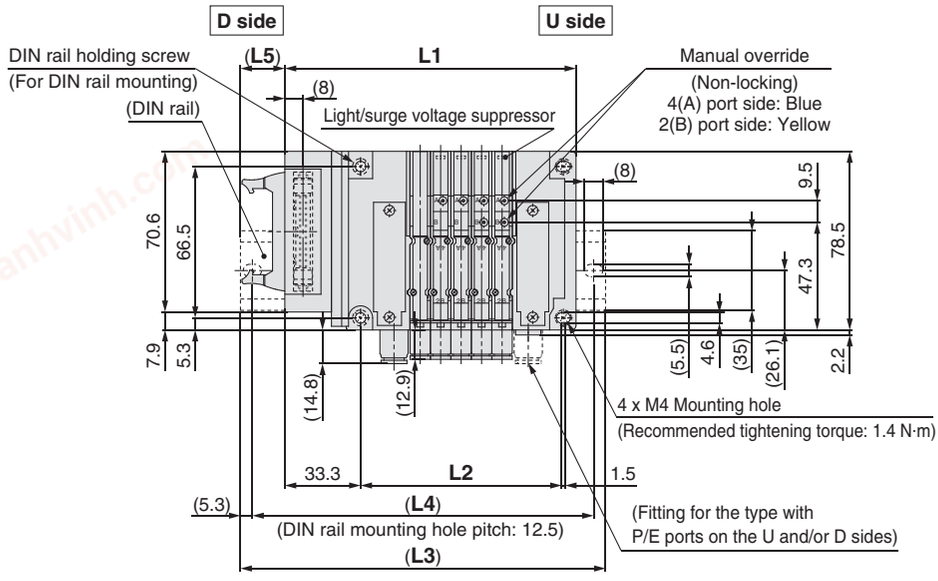
## Dimensions: JSY1000 Series

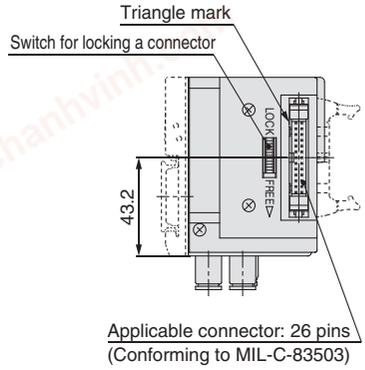
**Type 10/Side Ported** (Applicable to Ø 6 fittings)
Flat Ribbon Cable (IP40/Connector Entry Direction Adjustable)



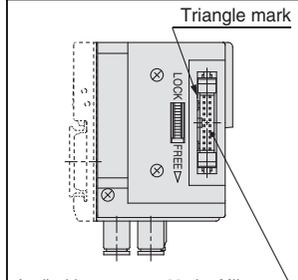
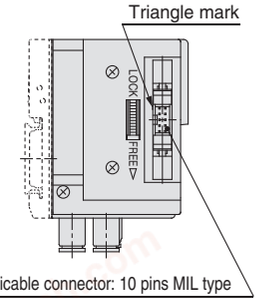
### JJ5SY1-10 P/PG/PH 1/2- Stations U/D/B- C6(D)




* These figures show the "JJ5SY1-10P2-05D-C6."
* Refer to page 97 for dimensions of external pilot (Made to Order) and silencer.
* Only connectors are different for 10PG and 10PH. L1 to L5 dimensions are the same as 10P type.
* When CM is selected for mixed A, B port size, refer to page 100 for dimensions.

| 10PG (20 pins) | 10PH (10 pins) |
|---|---|
|  |  |





### L: Dimensions

n: Stations

| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L1 | 101 | 110 | 119 | 128 | 137 | 146 | 155 | 164 | 173 | 182 | 191 | 200 | 209 | 218 | 227 | 236 | 245 | 254 | 263 | 272 | 281 | 290 | 299 |
| L2 | 61.4 | 70.4 | 79.4 | 88.4 | 97.4 | 106.4 | 115.4 | 124.4 | 133.4 | 142.4 | 151.4 | 160.4 | 169.4 | 178.4 | 187.4 | 196.4 | 205.4 | 214.4 | 223.4 | 232.4 | 241.4 | 250.4 | 259.4 |
| L3 | 135.5 | 148 | 160.5 | 160.5 | 173 | 185.5 | 185.5 | 198 | 210.5 | 223 | 223 | 235.5 | 248 | 248 | 260.5 | 273 | 285.5 | 285.5 | 298 | 310.5 | 310.5 | 323 | 335.5 |
| L4 | 125 | 137.5 | 150 | 150 | 162.5 | 175 | 175 | 187.5 | 200 | 212.5 | 212.5 | 225 | 237.5 | 237.5 | 250 | 262.5 | 275 | 275 | 287.5 | 300 | 300 | 312.5 | 325 |
| L5 | 20.5 | 22 | 24 | 19.5 | 21 | 23 | 18.5 | 20 | 22 | 23.5 | 19 | 21 | 22.5 | 18 | 20 | 21.5 | 23.5 | 19 | 20.5 | 22.5 | 18 | 19.5 | 21.5 |

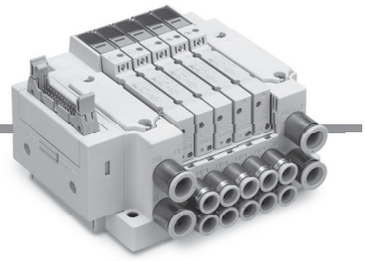
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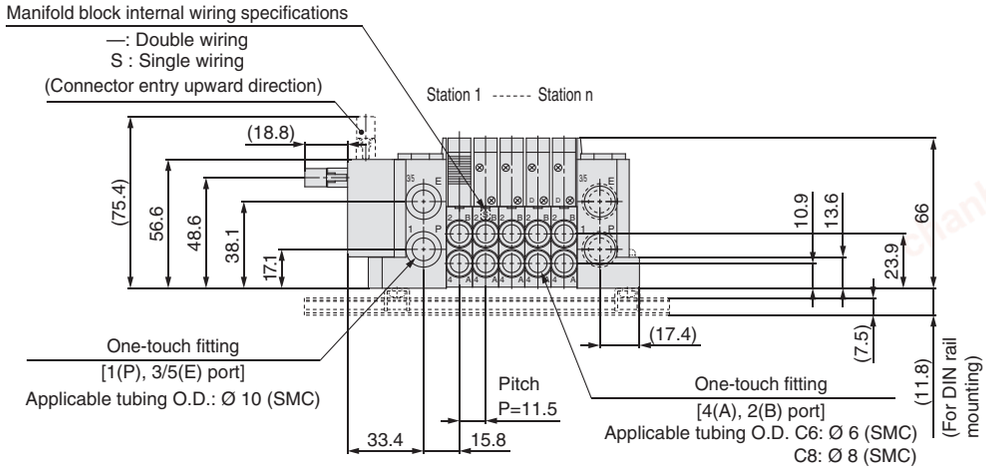
## Dimensions: JSY3000 Series

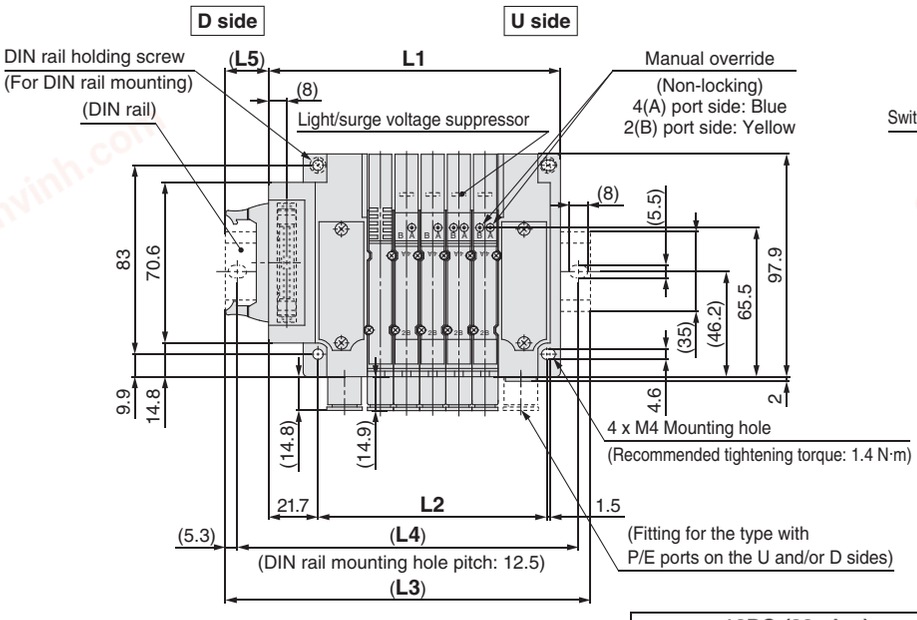
**Type 10/Side Ported**

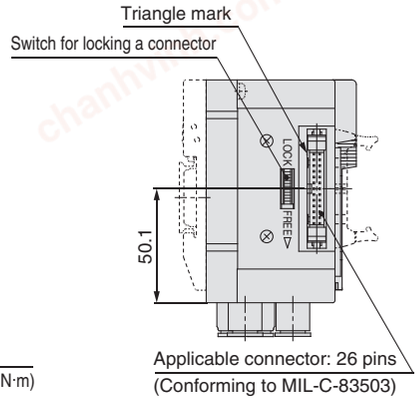
**Flat Ribbon Cable (IP40/Connector Entry Direction Adjustable)**



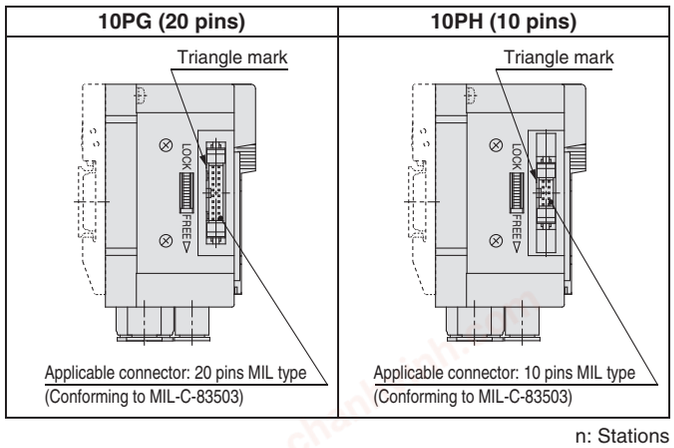
**JJ5SY3-10 P/PG/PH 1/2- Stations U/D/B- C6/C8 (D)**




* These figures show the "JJ5SY3-10P2-05D-C8."
* Refer to page 98 for dimensions of external pilot (Made to Order) and silencer.
* Only connectors are different for 10PG and 10PH. L1 to L5 dimensions are the same as 10P type.




### L: Dimensions

n: Stations

| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L1 | 93.8 | 105.3 | 116.8 | 128.3 | 139.8 | 151.3 | 162.8 | 174.3 | 185.8 | 197.3 | 208.8 | 220.3 | 231.8 | 243.3 | 254.8 | 266.3 | 277.8 | 289.3 | 300.8 | 312.3 | 323.8 | 335.3 | 346.8 |
| L2 | 66.1 | 77.6 | 89.1 | 100.6 | 112.1 | 123.6 | 135.1 | 146.6 | 158.1 | 169.6 | 181.1 | 192.6 | 204.1 | 215.6 | 227.1 | 238.6 | 250.1 | 261.6 | 273.1 | 284.6 | 296.1 | 307.6 | 319.1 |
| L3 | 123 | 135.5 | 148 | 160.5 | 173 | 185.5 | 198 | 210.5 | 223 | 235.5 | 248 | 260.5 | 273 | 273 | 285.5 | 298 | 310.5 | 323 | 335.5 | 348 | 360.5 | 373 | 385.5 |
| L4 | 112.5 | 125 | 137.5 | 150 | 162.5 | 175 | 187.5 | 200 | 212.5 | 225 | 237.5 | 250 | 262.5 | 262.5 | 275 | 287.5 | 300 | 312.5 | 325 | 337.5 | 350 | 362.5 | 375 |
| L5 | 17.5 | 18 | 18.5 | 19 | 19.5 | 20 | 20.5 | 21 | 21.5 | 22 | 22.5 | 23 | 23.5 | 18 | 18.5 | 19 | 19.5 | 20 | 20.5 | 21 | 21.5 | 22 | 22.5 |

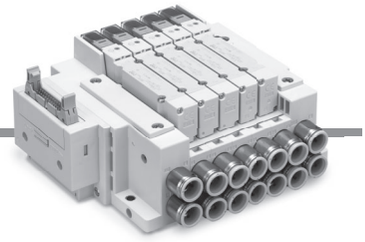
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# JSY1000/3000/5000 Series

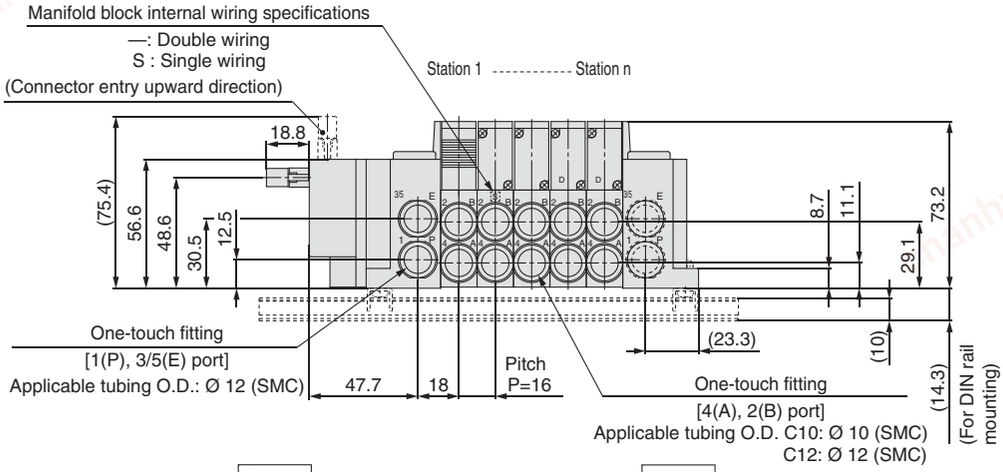
## Dimensions: JSY5000 Series

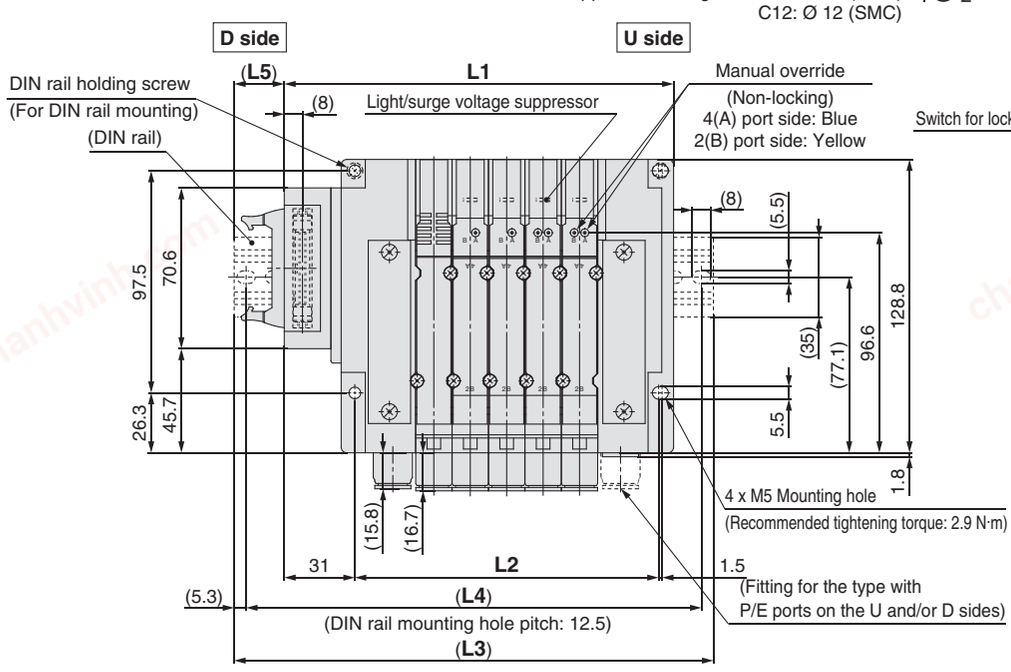
**Type 10/Side Ported**

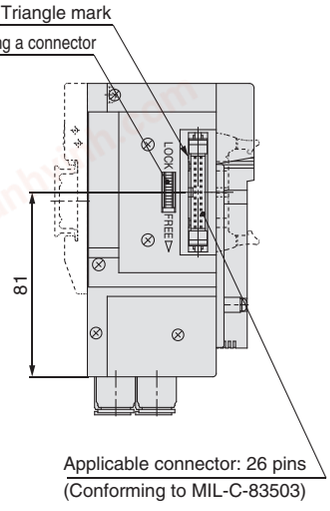
**Flat Ribbon Cable (IP40/Connector Entry Direction Adjustable)**

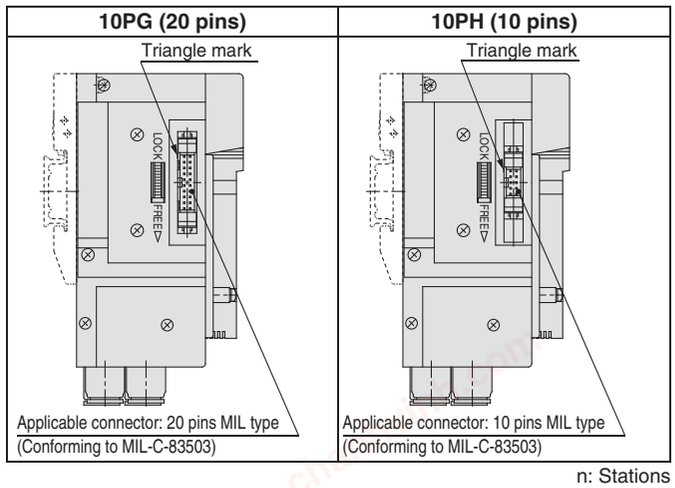


### JJ5SY5-10 P/PG/PH 1/2 - Stations U/D/B - C10/C12 (D)




* These figures show the "JJ5SY5-10P2-05D-C12."
* Refer to page 99 for dimensions of external pilot (Made to Order) and silencer.
* Only connectors are different for 10PG and 10PH. L1 to L5 dimensions are the same as 10P type.

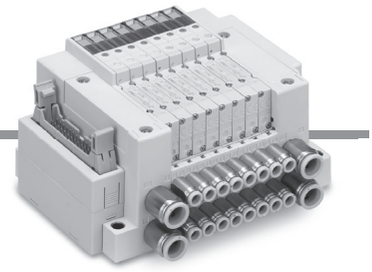
### L: Dimensions

n: Stations

| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **L1** | 123 | 139 | 155 | 171 | 187 | 203 | 219 | 235 | 251 | 267 | 283 | 299 | 315 | 331 | 347 | 363 | 379 | 395 | 411 | 427 | 443 | 459 | 475 |
| **L2** | 85.5 | 101.5 | 117.5 | 133.5 | 149.5 | 165.5 | 181.5 | 197.5 | 213.5 | 229.5 | 245.5 | 261.5 | 277.5 | 293.5 | 309.5 | 325.5 | 341.5 | 357.5 | 373.5 | 389.5 | 405.5 | 421.5 | 437.5 |
| **L3** | 160.5 | 173 | 185.5 | 210.5 | 223 | 235.5 | 260.5 | 273 | 285.5 | 298 | 323 | 335.5 | 348 | 360.5 | 385.5 | 398 | 410.5 | 435.5 | 448 | 460.5 | 473 | 498 | 510.5 |
| **L4** | 150 | 162.5 | 175 | 200 | 212.5 | 225 | 250 | 262.5 | 275 | 287.5 | 312.5 | 325 | 337.5 | 350 | 375 | 387.5 | 400 | 425 | 437.5 | 450 | 462.5 | 487.5 | 500 |
| **L5** | 22 | 20 | 18.5 | 23 | 21 | 19.5 | 24 | 22 | 20.5 | 18.5 | 23 | 21.5 | 19.5 | 18 | 22.5 | 20.5 | 19 | 23.5 | 21.5 | 20 | 18 | 22.5 | 21 |

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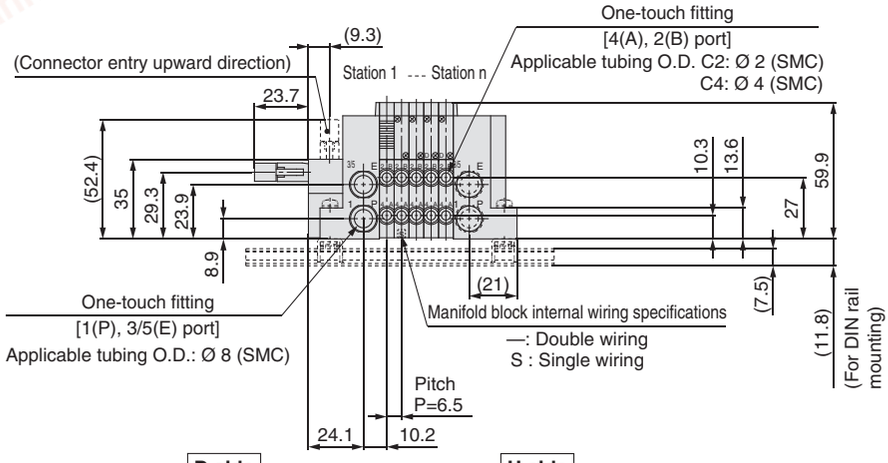


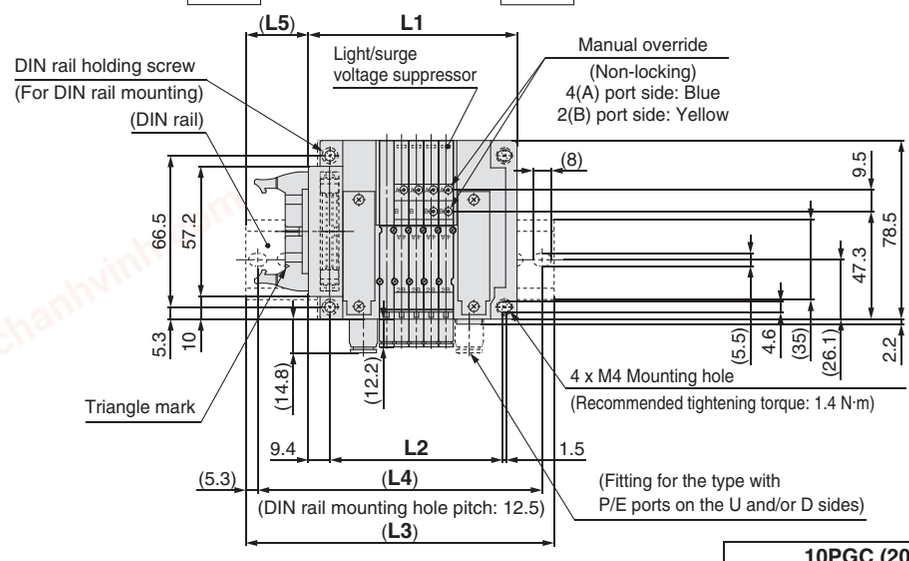


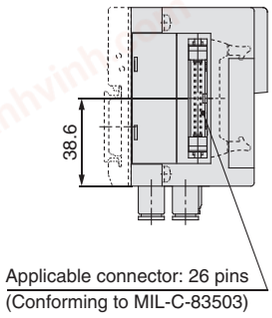
Type 10/Side Ported (Applicable to Ø 2 and Ø 4 fittings)
Flat Ribbon Cable (IP20/Compact Type)

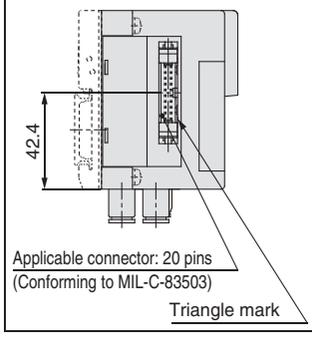
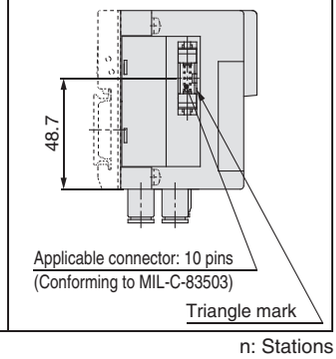
## Dimensions: JSY1000 Series

**JJ5SY1-10 P/PG/PH C2/C4 - Stations U/D - C2/C4 (D)**




| 10PGC (20 pins) | 10PHC (10 pins) |
|---|---|
|  |  |





* These figures show the "JJ5SY1-10PC2-05D-C4."
* Refer to page 97 for dimensions of external pilot (Made to Order) and silencer.
* Only connectors are different for 10PGC and 10PHC. L1 to L5 dimensions are the same as 10PC type.
* When CM is selected for mixed A, B port size and C6 (9 mm pitch) is included, refer to page 100 for dimensions.

### L: Dimensions

n: Stations

| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L1 | 72.1 | 78.6 | 85.1 | 91.6 | 98.1 | 104.6 | 111.1 | 117.6 | 124.1 | 130.6 | 137.1 | 143.6 | 150.1 | 156.6 | 163.1 |
| L2 | 56.4 | 62.9 | 69.4 | 75.9 | 82.4 | 88.9 | 95.4 | 101.9 | 108.4 | 114.9 | 121.4 | 127.9 | 134.4 | 140.9 | 147.4 |
| L3 | 110.5 | 123 | 123 | 135.5 | 135.5 | 148 | 148 | 160.5 | 160.5 | 173 | 173 | 185.5 | 185.5 | 198 | 198 |
| L4 | 100 | 112.5 | 112.5 | 125 | 125 | 137.5 | 137.5 | 150 | 150 | 162.5 | 162.5 | 175 | 175 | 187.5 | 187.5 |
| L5 | 25 | 28 | 24.5 | 27.5 | 24.5 | 27.5 | 24 | 27 | 24 | 27 | 23.5 | 26.5 | 23.5 | 26.5 | 23 |

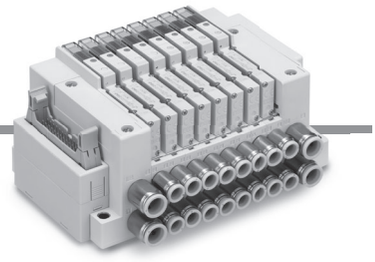
| L \ n | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|
| L1 | 169.6 | 176.1 | 182.6 | 189.1 | 195.6 | 202.1 | 208.6 | 215.1 |
| L2 | 153.9 | 160.4 | 166.9 | 173.4 | 179.9 | 186.4 | 192.9 | 199.4 |
| L3 | 210.5 | 210.5 | 223 | 235.5 | 235.5 | 248 | 248 | 260.5 |
| L4 | 200 | 200 | 212.5 | 225 | 225 | 237.5 | 237.5 | 250 |
| L5 | 26 | 23 | 26 | 29 | 25.5 | 28.5 | 25.5 | 28.5 |

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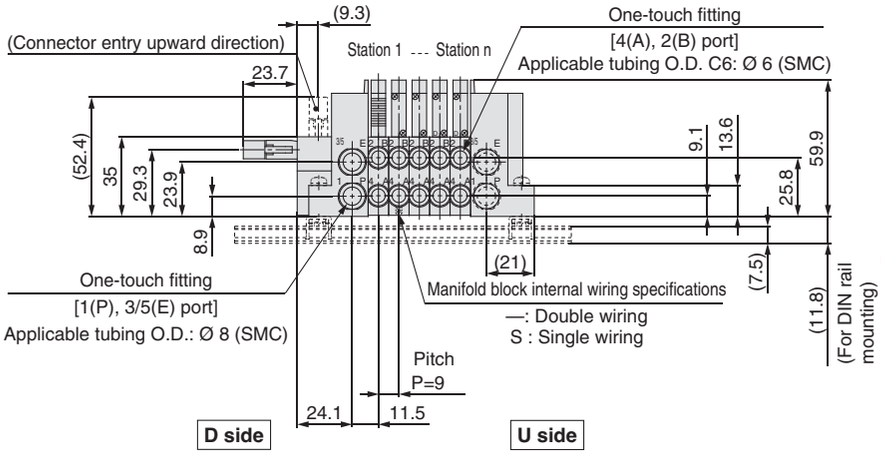
# JSY1000/3000/5000 Series

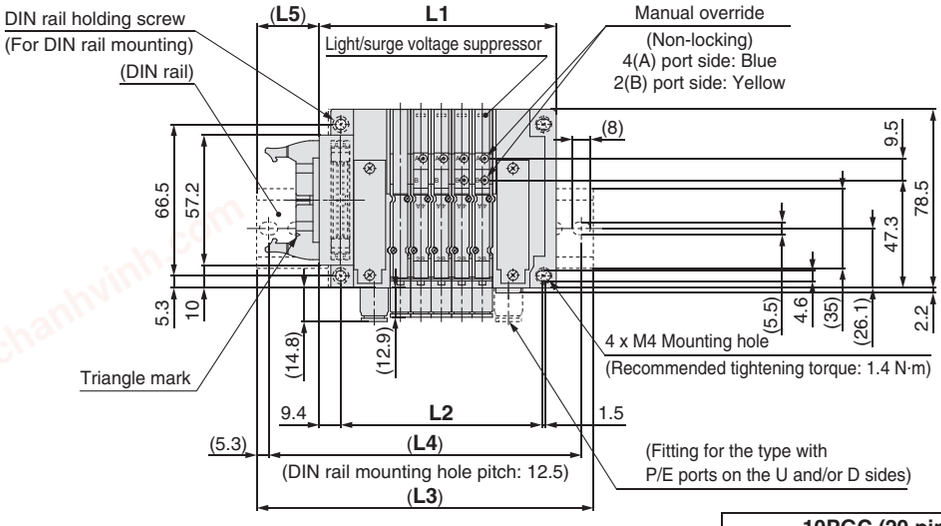
## Dimensions: JSY1000 Series

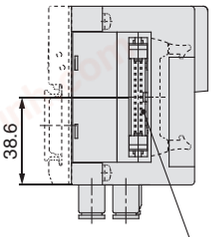
**Type 10/Side Ported** (Applicable to Ø 6 fittings)
**Flat Ribbon Cable (IP20/Compact Type)**

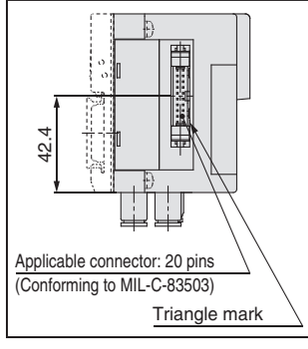
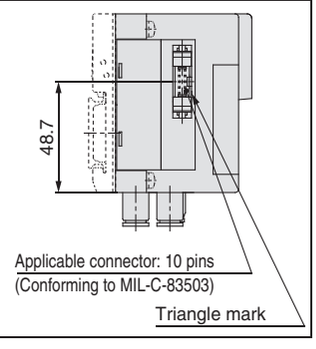


### JJ5SY1-10 P/PG/PH C2 1- Stations U/D/B - C6(D)




| 10PGC (20 pins) | 10PHC (10 pins) |
|---|---|
|  |  |





* These figures show the "JJ5SY1-10PC2-05D-C6."
* Refer to page 97 for dimensions of external pilot (Made to Order) and silencer.
* Only connectors are different for 10PGC and 10PHC. L1 to L5 dimensions are the same as 10PC type.
* When CM is selected for mixed A, B port size, refer to page 100 for dimensions.

### L: Dimensions

n: Stations

| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **L1** | 77.1 | 86.1 | 95.1 | 104.1 | 113.1 | 122.1 | 131.1 | 140.1 | 149.1 | 158.1 | 167.1 | 176.1 | 185.1 | 194.1 | 203.1 |
| **L2** | 61.4 | 70.4 | 79.4 | 88.4 | 97.4 | 106.4 | 115.4 | 124.4 | 133.4 | 142.4 | 151.4 | 160.4 | 169.4 | 178.4 | 187.4 |
| **L3** | 123 | 123 | 135.5 | 148 | 148 | 160.5 | 173 | 185.5 | 185.5 | 198 | 210.5 | 210.5 | 223 | 235.5 | 248 |
| **L4** | 112.5 | 112.5 | 125 | 137.5 | 137.5 | 150 | 162.5 | 175 | 175 | 187.5 | 200 | 200 | 212.5 | 225 | 237.5 |
| **L5** | 28.5 | 24 | 26 | 27.5 | 23 | 25 | 26.5 | 28.5 | 24 | 25.5 | 27.5 | 23 | 24.5 | 26.5 | 28 |

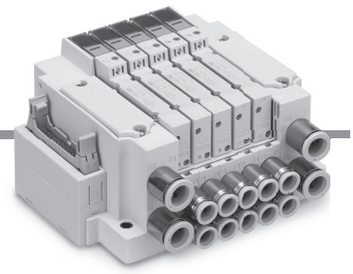
| L \ n | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|
| **L1** | 212.1 | 221.1 | 230.1 | 239.1 | 248.1 | 257.1 | 266.1 | 275.1 |
| **L2** | 196.4 | 205.4 | 214.4 | 223.4 | 232.4 | 241.4 | 250.4 | 259.4 |
| **L3** | 248 | 260.5 | 273 | 285.5 | 285.5 | 298 | 310.5 | 310.5 |
| **L4** | 237.5 | 250 | 262.5 | 275 | 275 | 287.5 | 300 | 300 |
| **L5** | 23.5 | 25.5 | 27 | 29 | 24.5 | 26 | 28 | 23.5 |

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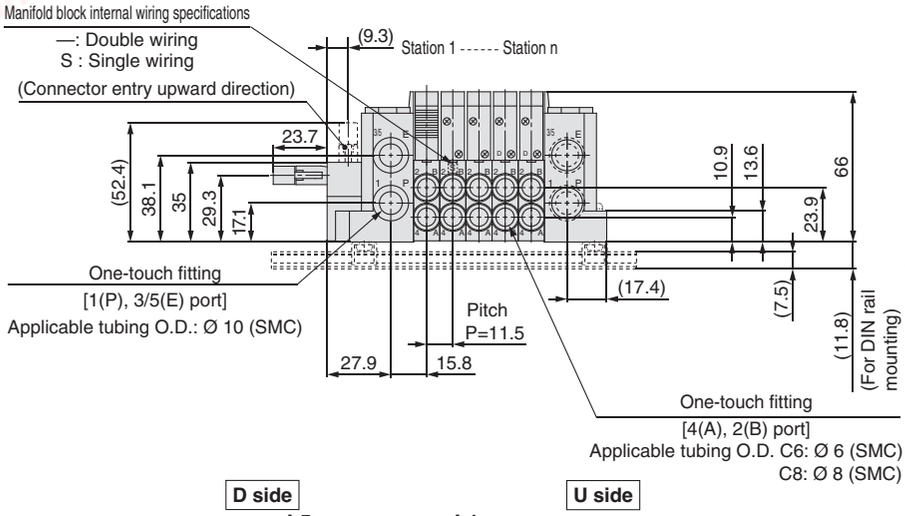


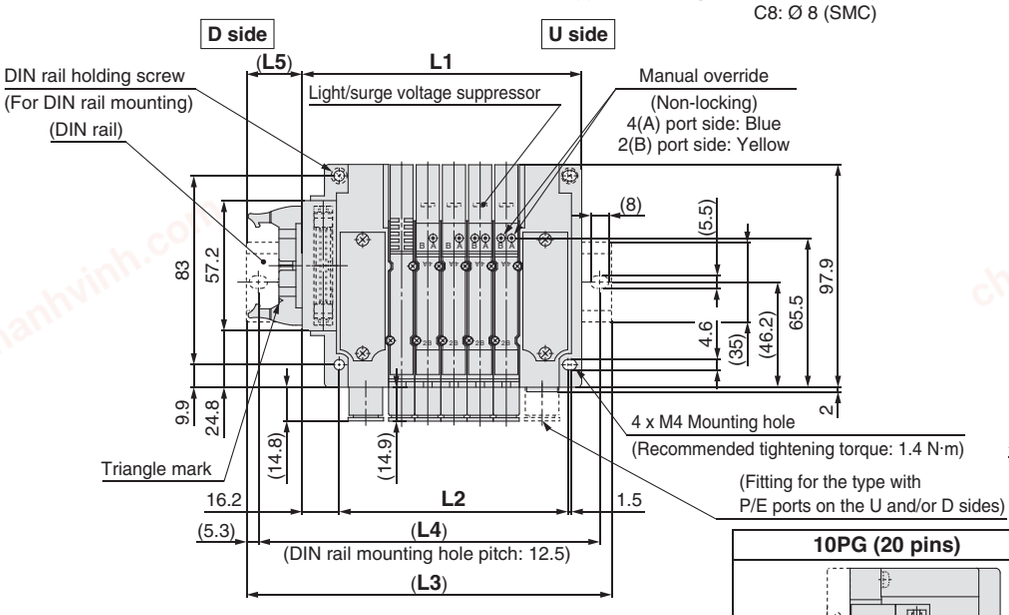
## Dimensions: JSY3000 Series

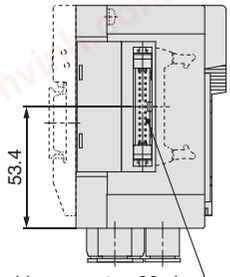
**Type 10/Side Ported**
**Flat Ribbon Cable (IP20/Compact Type)**

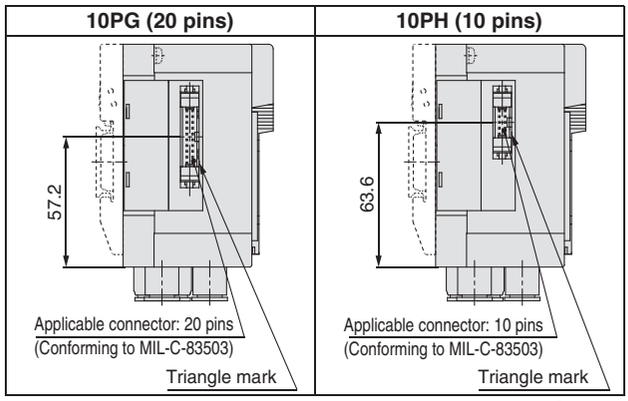


**JJ5SY3-10 P/PG/PH C2/1- Stations U/D/B - C6/C8 (D)**




* These figures show the "JJ5SY3-10PC2-05D-C8."
* Refer to page 98 for dimensions of external pilot (Made to Order) and silencer.
* Only connectors are different for 10PGC and 10PHC. L1 to L5 dimensions are the same as 10PC type.

### L: Dimensions

n: Stations

| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L1 | 88.3 | 99.8 | 111.3 | 122.8 | 134.3 | 145.8 | 157.3 | 168.8 | 180.3 | 191.8 | 203.3 | 214.8 | 226.3 | 237.8 | 249.3 |
| L2 | 66.1 | 77.6 | 89.1 | 100.6 | 112.1 | 123.6 | 135.1 | 146.6 | 158.1 | 169.6 | 181.1 | 192.6 | 204.1 | 215.6 | 227.1 |
| L3 | 123 | 135.5 | 148 | 160.5 | 173 | 185.5 | 198 | 210.5 | 223 | 235.5 | 248 | 260.5 | 273 | 273 | 285.5 |
| L4 | 112.5 | 125 | 137.5 | 150 | 162.5 | 175 | 187.5 | 200 | 212.5 | 225 | 237.5 | 250 | 262.5 | 262.5 | 275 |
| L5 | 23 | 23.5 | 24 | 24.5 | 25 | 25.5 | 26 | 26.5 | 27 | 27.5 | 28 | 28.5 | 29 | 23 | 23.5 |

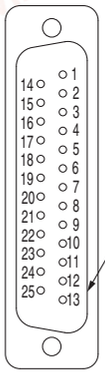
| L \ n | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|
| L1 | 260.8 | 272.3 | 283.8 | 295.3 | 306.8 | 318.3 | 329.8 | 341.3 |
| L2 | 238.6 | 250.1 | 261.6 | 273.1 | 284.6 | 296.1 | 307.6 | 319.1 |
| L3 | 298 | 310.5 | 323 | 335.5 | 348 | 360.5 | 373 | 385.5 |
| L4 | 287.5 | 300 | 312.5 | 325 | 337.5 | 350 | 362.5 | 375 |
| L5 | 24 | 24.5 | 25 | 25.5 | 26 | 26.5 | 27 | 27.5 |

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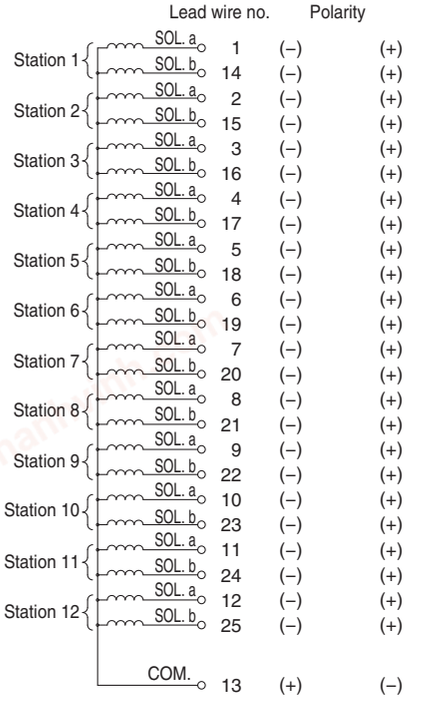
# JSY1000/3000/5000 Series

## Electrical Wiring Specifications

### D-sub connector




If alignment is not specified, the internal wiring is double wiring (connected to SOL. a and SOL. b) regardless of number of stations, valve and option types.




∗ When using a valve with no polarity, either positive common or negative common can be used.

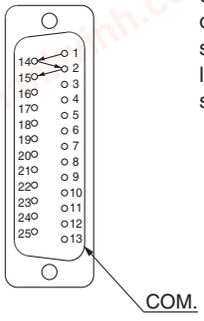
Wire colour table by terminal number of D-sub connector cable assembly

| Terminal no. | Lead wire colour | 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 | Grey | Black |
| 10 | White | Black |
| 11 | White | Red |
| 12 | Yellow | Red |
| 13 | Orange | Red |
| 14 | Yellow | Black |
| 15 | Pink | Black |
| 16 | Yellow | White |
| 17 | White | None |
| 18 | Grey | None |
| 19 | Orange | Black |
| 20 | Red | White |
| 21 | Brown | White |
| 22 | Pink | Red |
| 23 | Grey | Red |
| 24 | Black | White |
| 25 | White | None |

∗ Connector madeinconformity with DIN47100.

## Specified Layout

**(25 pins)**




Mixed wiring of single and double wiring can be specified on the manifold specification sheet. The maximum number of stations is determined according to the number of solenoids. The total number of solenoids should be 24 or less. 1 solenoid is required for 2-position single, and 2 solenoids for 2-position double, 3-position and 4-position.

## Connector Cable [IP20/IP40]

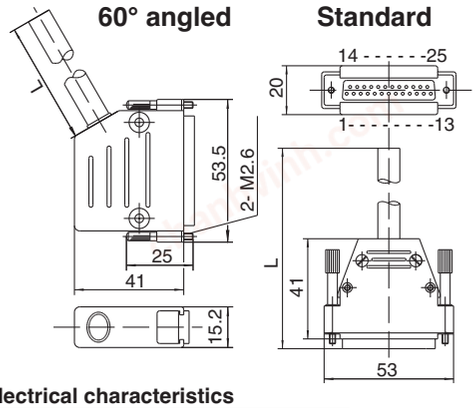
### GVVZS3000-21A-□

**D-sub connector cable**

| Cable length (L) | Assembly part no. | Note |
|---|---|---|
| 1 m | GVVZS3000-21A-160 | 60°angled |
| 3 m | GVVZS3000-21A-260 | 60°angled |
| 5 m | GVVZS3000-21A-360 | 60°angled |
| 8 m | GVVZS3000-21A-460 | 60°angled |
| 3 m | GVVZS3000-21A-2 | Standard |
| 5 m | GVVZS3000-21A-3 | Standard |
| 8 m | GVVZS3000-21A-4 | Standard |

**Shielded cable**

| Cable length (L) | Assembly part no. | Note |
|---|---|---|
| 1 m | GVVZS3000-21A-1S | Shieled |
| 3 m | GVVZS3000-21A-2S | Shieled |
| 5 m | GVVZS3000-21A-3S | Shieled |
| 8 m | GVVZS3000-21A-4S | Shieled |
| 20 m | GVVZS3000-21A-5S | Mode to order |




**Electrical characteristics**

| Item | Property |
|---|---|
| Conductor resistance Ω/km, 20 °C | Max. 57 |
| Voltage limit V, 5 minute, AC | 1500 |
| Insulation resistance MΩ/km, 20 °C | 20 |

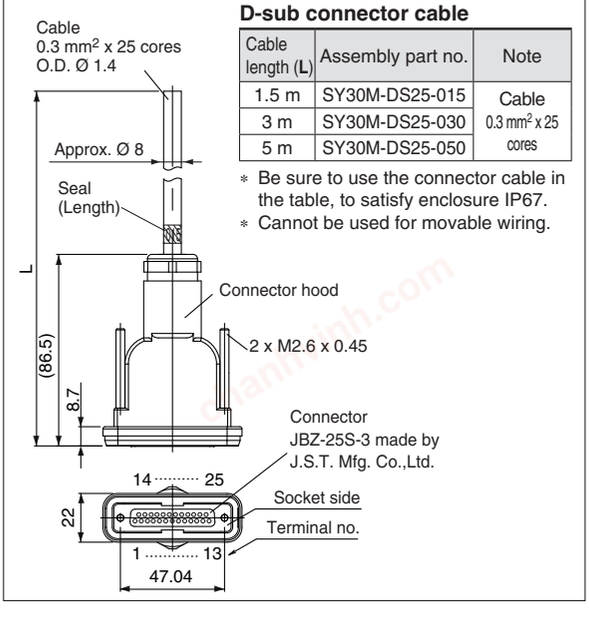
## Connector Cable [IP67]

### SY30M-DS25-015/030/050 [IP67]

**D-sub connector cable**

| Cable length (L) | Assembly part no. | Note |
|---|---|---|
| 1.5 m | SY30M-DS25-015 | Cable 0.3 mm² x 25 cores |
| 3 m | SY30M-DS25-030 | |
| 5 m | SY30M-DS25-050 | |

∗ Be sure to use the connector cable in the table, to satisfy enclosure IP67.
∗ Cannot be used for movable wiring.

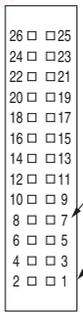


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## Electrical Wiring Specifications

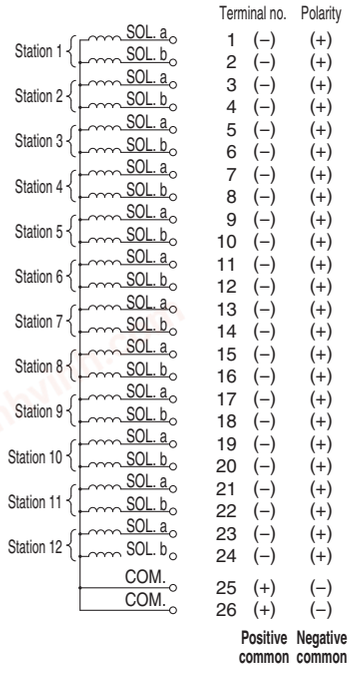
### Flat ribbon cable connector




If alignment is not specified, the internal wiring will be double wiring (connected to SOL. a and SOL. b) regardless of number of stations, valve types, and option types.

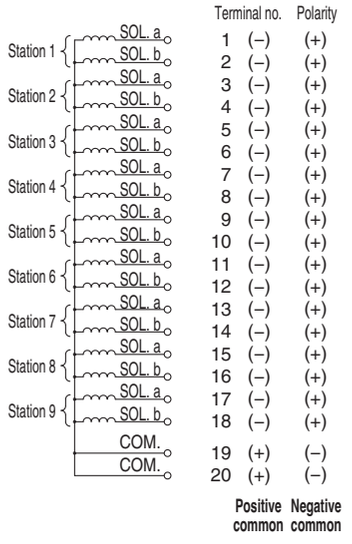
#### P, PC: Flat ribbon cable (26 pins)

**<Double wiring>**



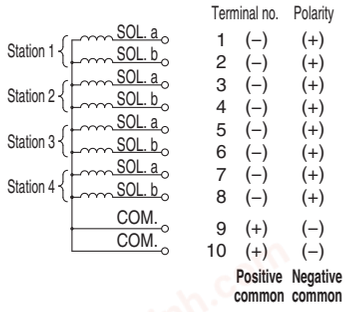

#### PG, PGC: Flat ribbon cable (20 pins)

**<Double wiring>**




#### PH, PHC: Flat ribbon cable (10 pins)

**<Double wiring>**



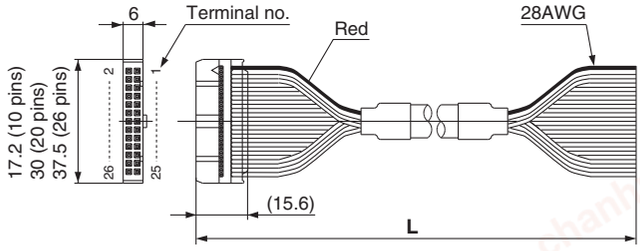

* When using a valve with no polarity, either positive common or negative common can be used.

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## Flat Ribbon Cable Connector

**AXT100-FC** 10 1 / 20 2 / 26 3




**Flat ribbon cable connector**

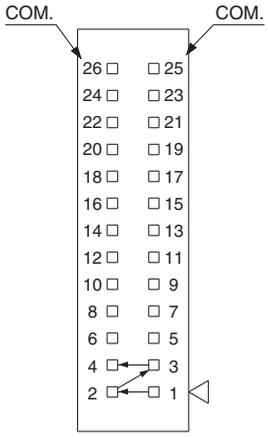
| Cable length (**L**) | Assembly part no. | | |
|---|---|---|---|
| | 26 pins | 20 pins | 10 pins |
| 1.5 m | AXT100-FC26-1 | AXT100-FC20-1 | AXT100-FC10-1 |
| 3 m | AXT100-FC26-2 | AXT100-FC20-2 | AXT100-FC10-2 |
| 5 m | AXT100-FC26-3 | AXT100-FC20-3 | AXT100-FC10-3 |

∗ When using a standard commercial connector, use a 26-pin, 20-pin, or 10-pin type connector conforming to MIL-C-83503 with strain relief.
∗ Cannot be used for movable wiring
∗ Lengths other than the above are also available. Please contact SMC for details.

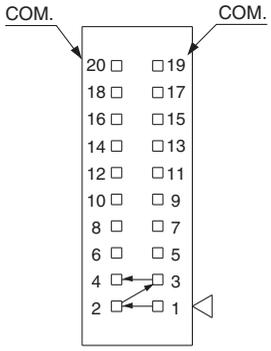
**Connector Manufacturer's Example**

- HIROSE ELECTRIC CO., LTD.
- 3M Japan Limited
- Fujitsu Limited
- Japan Aviation Electronics Industry, Limited
- J.S.T. Mfg. Co., Ltd.
- Oki Electric Cable Co., Ltd.

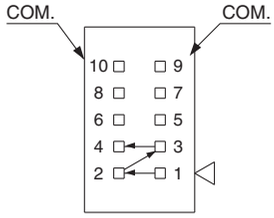
## Specified Layout




**(P, PC: 26 pins)**




**(PG, PGC: 20 pins)**




**(PH, PHC: 10 pins)**

A mixture of single and double wiring can be specified on the manifold specification sheet. The maximum number of stations is determined according to the number of solenoids. The total number of solenoids should be 24 or less for P and PC, 18 or less for PG and PGC, and 8 or less for PH and PHC. 1 solenoid is required for the 2-position single, and 2 solenoids for the 2-position double, 3-position, and 4-position.

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# Plug-in Connector Connecting Base

**Spring Type Terminal Block Box** **Terminal Block Box**

**Type 10 Side Ported**

# JSY1000/3000/5000 Series

CE UKCA RoHS

**Internal Pilot**

## How to Order Manifolds

**JJ5SY** [3] – 10 [TC] – [05] [D] [ ] – [C6] [ ]

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

Made to Order **Made to Order**
(Refer to page 135 for details.)

| Specification |
|---|
| External pilot (SUP/EXH block assembly) |

### ① Series

| | |
|---|---|
| 1 | JSY1000 |
| 3 | JSY3000 |
| 5 | JSY5000 |

### ② Type

| | |
|---|---|
| 10 | Side ported |

### ③ Wiring

| | |
|---|---|
| TC | Spring type terminal block box |
| T | Terminal block box |

### ④ Valve stations

**TC**: Spring type terminal block box

| Symbol | Stations | Note |
|---|---|---|
| 02 | 2 stations | Double wiring*1 |
| ⋮ | ⋮ | |
| 16 | 16 stations | |
| 02 | 2 stations | Specified layout*2 (Up to 32 solenoids available) |
| ⋮ | ⋮ | |
| 24 | 24 stations | |

**T**: Terminal block box

| Symbol | Stations | Note |
|---|---|---|
| 02 | 2 stations | Double wiring*1 |
| ⋮ | ⋮ | |
| 10 | 10 stations | |
| 02 | 2 stations | Specified layout*2 (Up to 20 solenoids available) |
| ⋮ | ⋮ | |
| 20 | 20 stations | |

*1 Double wiring: 2-position single, double, 3-position, and 4-position valves can be used on all manifold stations.
The use of a 2-position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.
*2 Specified layout: Indicate the wiring specifications on the manifold specification sheet. (Note that 2-position double, 3-position, and 4-position valves cannot be used where single wiring has been specified.)
*3 This also includes the number of blanking plates.

### ⑤ P, E port entry

| | |
|---|---|
| U | U side (2 to 10 stations) |
| D | D side (2 to 10 stations) |
| B | Both sides (2 to 24 stations) |

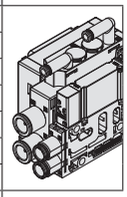
### ⑥ SUP/EXH block assembly

| | |
|---|---|
| — | Internal pilot |
| S | Internal pilot, Built-in silencer |

* The 3/5(E) port is plugged for the built-in silencer type.
* When the built-in silencer type is used, keep the exhaust port from coming into direct contact with water or other liquids.
* The external pilot specification should be ordered as Made to Order. For details, refer to page 135.

### ⑦ A, B port size (Metric/One-touch fitting)

| Symbol | A, B port | | JSY1000 | JSY3000 | JSY5000 |
|---|---|---|---|---|---|
| C2 | Straight | Ø 2 | ● | — | — |
| C4 | | Ø 4 | ● | — | — |
| C6 | | Ø 6 | ● | ● | — |
| C8 | | Ø 8 | — | ● | — |
| C10 | | Ø 10 | — | — | ● |
| C12 | | Ø 12 | — | — | ● |
| CM*1 | | Straight port, mixed sizes | ● | ● | ● |
| P, E port size (One-touch fittings) | | | Ø 8 | Ø 10 | Ø 12 |



*1 Indicate the sizes on the manifold specification sheet in the case of "CM."
* The JSY1000 manifold pitch for C2 and C4 is 6.5 mm, and 9 mm for C6. When CM is selected, the manifold pitch is different depending on the selected fitting.

### ⑧ Mounting and Option

| Symbol | Mounting |
|---|---|
| — | Direct mounting |
| D□ | DIN rail mounting |

* Enter the number of stations inside □ when it is larger than the number of valve stations. (Refer to "DIN Rail Option" shown below.)
* Refer to page 139 for details on securing the DIN rail mounting type manifold.

**DIN Rail Option**

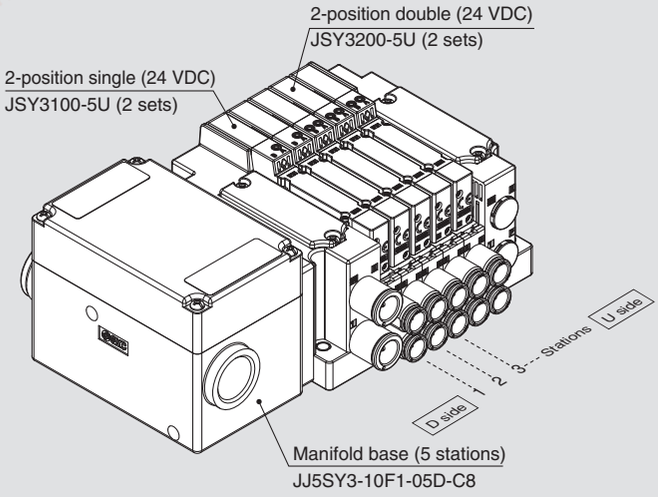
| | | |
|---|---|---|
| — | DIN rail mounting (With DIN rail) | |
| 0 | DIN rail mounting (Without DIN rail) | |
| 3 | For 3 stations | Specify a length longer than that of the standard rail. |
| ⋮ | ⋮ | |
| 24 | For 24 stations | |

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## How to Order Manifold Assembly

### Example (JJ5SY3-10TC-□)




**JJ5SY3-10TC-05D-C8 ·· 1 set (Type 10 5-station manifold base part no.)**
*** JSY3100-5U ····· 2 sets (2-position single part no.)**
*** JSY3200-5U ····· 3 sets (2-position double part no.)**
**The asterisk denotes the symbol for the assembly. Prefix it to the part numbers of the valve, etc.**

- For the valve arrangement, the valve closest to the D side is considered the 1st station.
- Under the manifold part number, state the valves to be mounted in order starting with the 1st station as shown in the figure. If the arrangement becomes too complicated, specify the details on a manifold specification sheet.

**Internal Pilot**

## How to Order Valves (With mounting screw)

Refer to page 13 for valve specifications.

**JSY1000 Series**
**JSY3000/5000 Series**

With power-saving circuit

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| JSY | 1 | 1 | 0 | 0 | T | – 5 | Z | |
| JSY | 3 | 1 | 0 | 0 | | – 5 | Z | |
| | ❶ | ❷ | ❸ | | | ❹ | ❺ | ❻ |

Base mounted

**Made to Order**
(Refer to page 135 for details.)

| Specification |
|---|
| With power-saving circuit (Continuous duty type): 0.1 W (JSY3000/5000) |
| External pilot |

### ❶ Series

| | |
|---|---|
| 1 | JSY1000 |
| 3 | JSY3000 |
| 5 | JSY5000 |

### ❷ Type of actuation

| | | |
|---|---|---|
| 1 | 2-position | Single |
| 2 | | Double |
| 3 | 3-position | Closed centre |
| 4 | | Exhaust centre |
| 5 | | Pressure centre |
| A | 4-position dual 3-port | N.C./N.C. |
| B | | N.O./N.O. |
| C | | N.C./N.O. |

### ❸ Pilot valve exhaust method

| | |
|---|---|
| 0 | Pilot valve individual exhaust |

### ❹ Rated voltage

| | |
|---|---|
| 5 | 24 VDC |

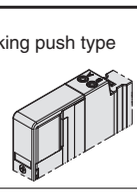
### ❺ Light/surge voltage suppressor and common specification

| Symbol | With light | Surge voltage suppressor | Common specification |
|---|---|---|---|
| U | ● | ● | Non-polar |
| Z | | | Positive common |
| NZ | | | Negative common |

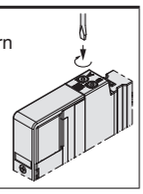
* Only "Z" and "NZ" types are available for the JSY1000 series.
* When the non-polar common specification type is selected, take measures to prevent surge voltage. For details, refer to page 138.

### ❻ Manual override

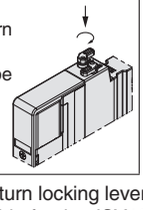
—: Non-locking push type



D: Push-turn locking slotted type



E: Push-turn locking lever type



* Push-turn locking lever type "E" is not available for the JSY1000.

* **When ordering a valve individually, the base gasket is not included.**
Since the base gasket is attached to the manifold, please order the base gasket separately if it is needed for maintenance. Refer to page 116 for base gasket and mounting screw part numbers.

### ⚠ Caution

**If the JSY3000/5000 series is to be continuously energised, please be sure to select the power-saving circuit (continuous duty type) specification. Refer to "Made to Order" on page 135.**
**For the JSY1000 series, only the power-saving circuit specification is available.**

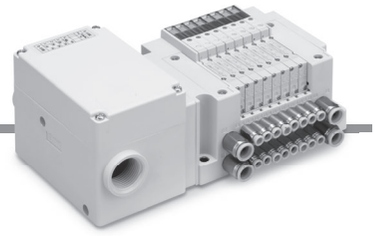
⚠ Protective class class Ⅲ (Mark: Ⅲ)

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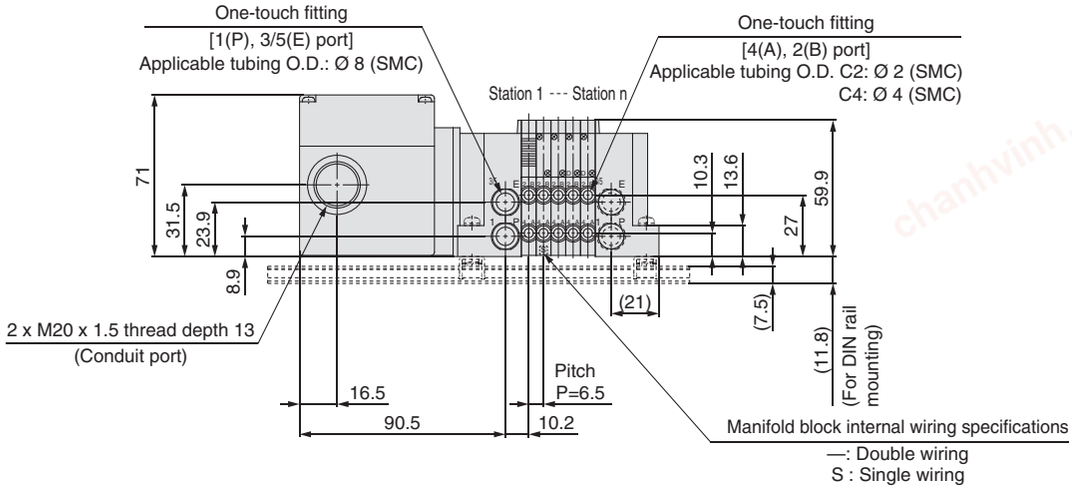
# JSY1000/3000/5000 Series

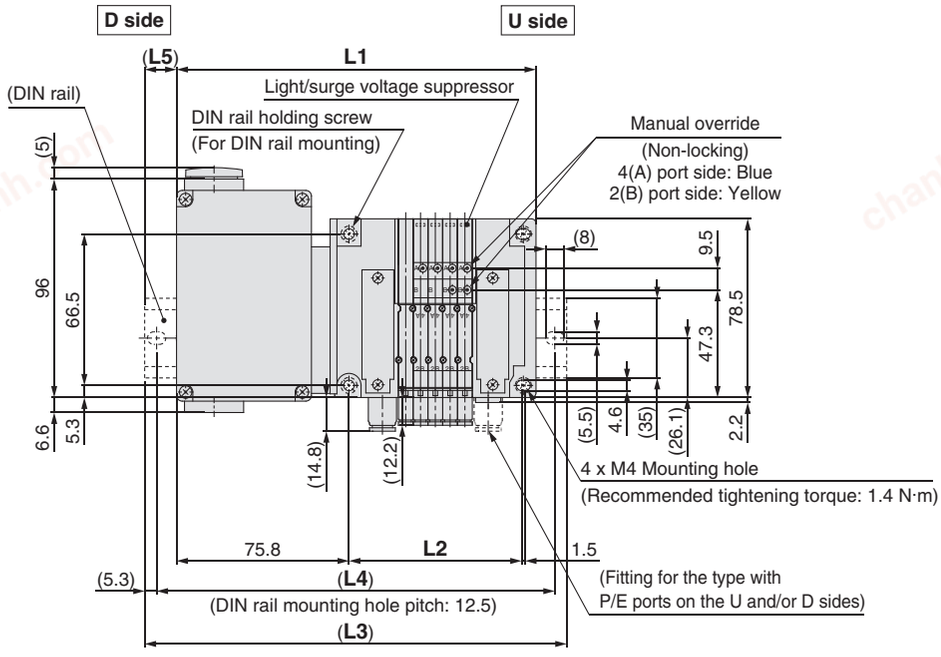
## Dimensions: JSY1000 Series

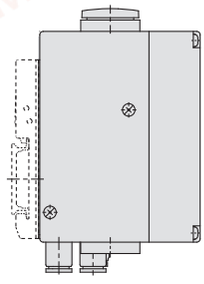
**Type 10/Side Ported** (Applicable to Ø 2 and Ø 4 fittings)
**Spring Type Terminal Block Box**



### JJ5SY1-10TC-Stations U/D/B-C2/C4(D)



* These figures show the "JJ5SY1-10TC-05D-C4."
* Refer to page 97 for dimensions of external pilot (Made to Order) and silencer.
* When CM is selected for mixed A, B port size and C6 (9 mm pitch) is included, refer to page 100 for dimensions.

### L: Dimensions

n: Stations

| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L1 | 138.5 | 145 | 151.5 | 158 | 164.5 | 171 | 177.5 | 184 | 190.5 | 197 | 203.5 | 210 | 216.5 | 223 | 229.5 |
| L2 | 56.4 | 62.9 | 69.4 | 75.9 | 82.4 | 88.9 | 95.4 | 101.9 | 108.4 | 114.9 | 121.4 | 127.9 | 134.4 | 140.9 | 147.4 |
| L3 | 173 | 173 | 185.5 | 185.5 | 198 | 198 | 210.5 | 210.5 | 223 | 223 | 235.5 | 235.5 | 248 | 248 | 260.5 |
| L4 | 162.5 | 162.5 | 175 | 175 | 187.5 | 187.5 | 200 | 200 | 212.5 | 212.5 | 225 | 225 | 237.5 | 237.5 | 250 |
| L5 | 17.5 | 14 | 17 | 14 | 17 | 13.5 | 16.5 | 13.5 | 16.5 | 13 | 16 | 13 | 16 | 12.5 | 15.5 |

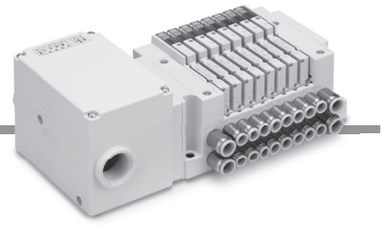
| L \ n | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|
| L1 | 236 | 242.5 | 249 | 255.5 | 262 | 268.5 | 275 | 281.5 |
| L2 | 153.9 | 160.4 | 166.9 | 173.4 | 179.9 | 186.4 | 192.9 | 199.4 |
| L3 | 260.5 | 273 | 273 | 285.5 | 285.5 | 298 | 310.5 | 310.5 |
| L4 | 250 | 262.5 | 262.5 | 275 | 275 | 287.5 | 300 | 300 |
| L5 | 12.5 | 15.5 | 12 | 15 | 12 | 15 | 18 | 14.5 |

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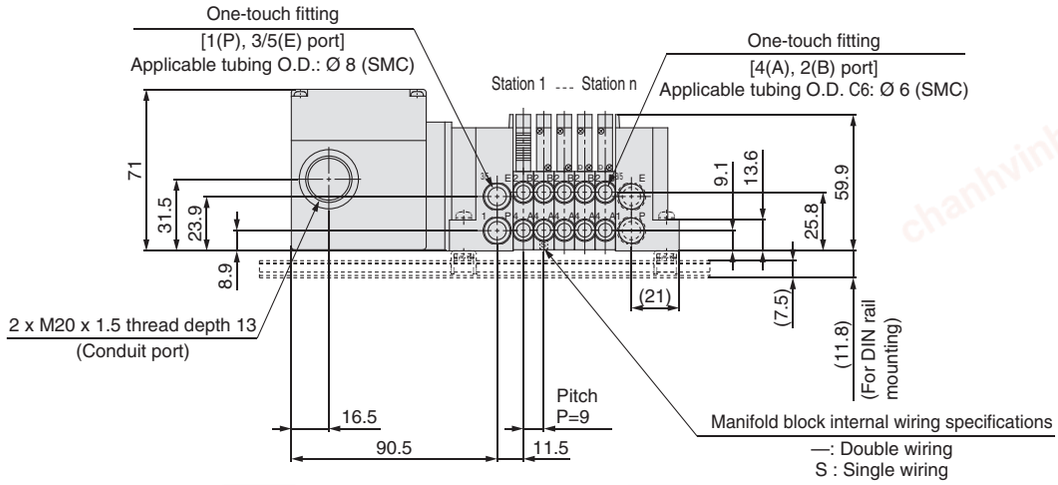


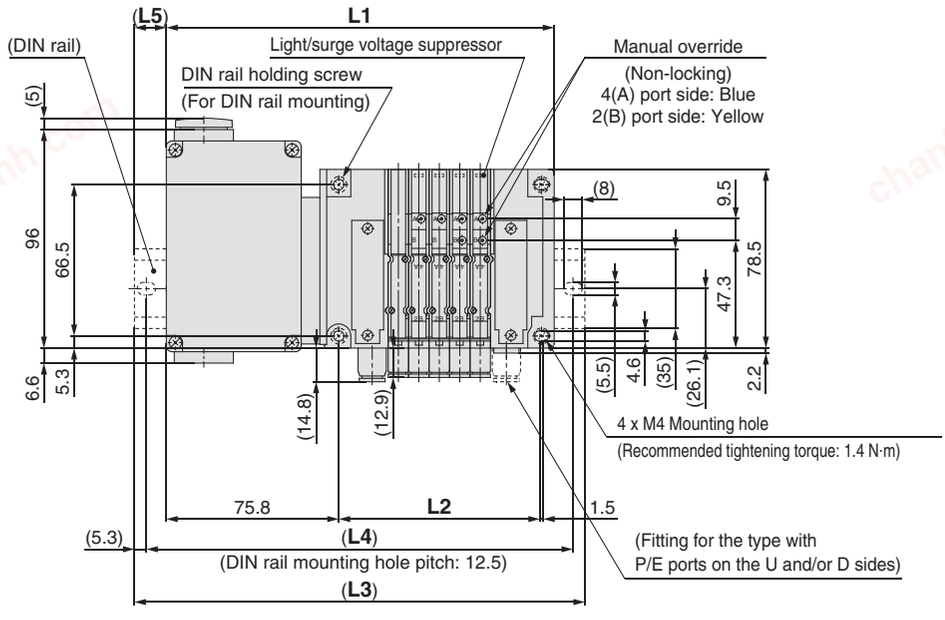
## Dimensions: JSY1000 Series

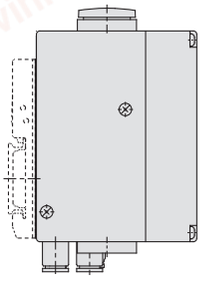
**Type 10/Side Ported** (Applicable to Ø 6 fittings)
**Spring Type Terminal Block Box**



### JJ5SY1-10TC- Stations U/D/B - C6(D)



* These figures show the "JJ5SY1-10TC-05D-C6."
* Refer to page 97 for dimensions of external pilot (Made to Order) and silencer.
* When CM is selected for mixed A, B port size, refer to page 100 for dimensions.

### L: Dimensions

n: Stations

| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L1 | 143.5 | 152.5 | 161.5 | 170.5 | 179.5 | 188.5 | 197.5 | 206.5 | 215.5 | 224.5 | 233.5 | 242.5 | 251.5 | 260.5 | 269.5 |
| L2 | 61.4 | 70.4 | 79.4 | 88.4 | 97.4 | 106.4 | 115.4 | 124.4 | 133.4 | 142.4 | 151.4 | 160.4 | 169.4 | 178.4 | 187.4 |
| L3 | 173 | 185.5 | 185.5 | 198 | 210.5 | 223 | 223 | 235.5 | 248 | 248 | 260.5 | 273 | 285.5 | 285.5 | 298 |
| L4 | 162.5 | 175 | 175 | 187.5 | 200 | 212.5 | 212.5 | 225 | 237.5 | 237.5 | 250 | 262.5 | 275 | 275 | 287.5 |
| L5 | 15 | 16.5 | 12 | 14 | 15.5 | 17.5 | 13 | 14.5 | 16.5 | 12 | 13.5 | 15.5 | 17 | 12.5 | 14.5 |

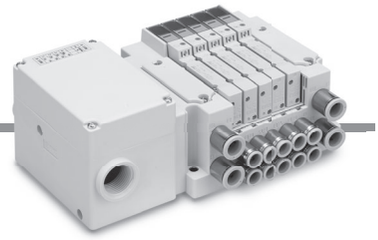
| L \ n | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|
| L1 | 278.5 | 287.5 | 296.5 | 305.5 | 314.5 | 323.5 | 332.5 | 341.5 |
| L2 | 196.4 | 205.4 | 214.4 | 223.4 | 232.4 | 241.4 | 250.4 | 259.4 |
| L3 | 310.5 | 323 | 323 | 335.5 | 348 | 348 | 360.5 | 373 |
| L4 | 300 | 312.5 | 312.5 | 325 | 337.5 | 337.5 | 350 | 362.5 |
| L5 | 16 | 18 | 13.5 | 15 | 17 | 12.5 | 14 | 16 |

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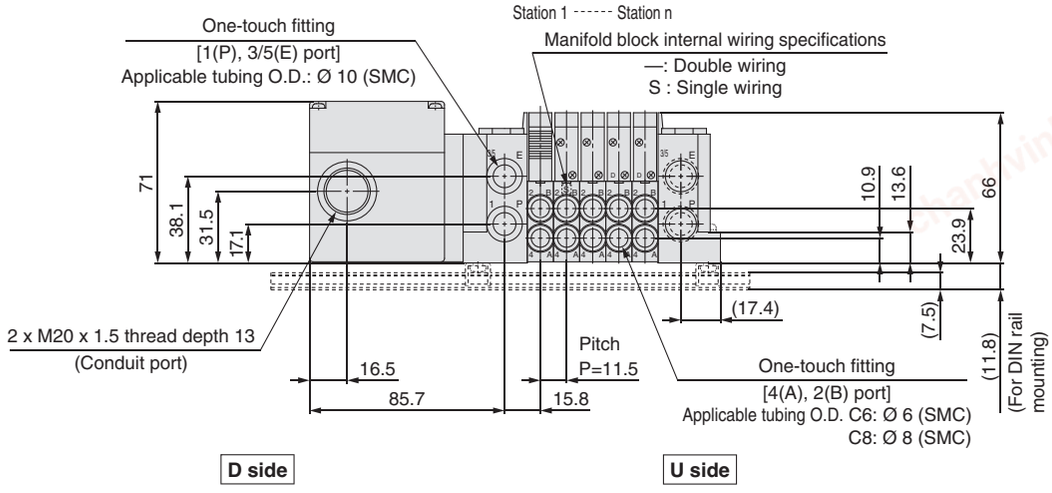
# JSY1000/3000/5000 Series

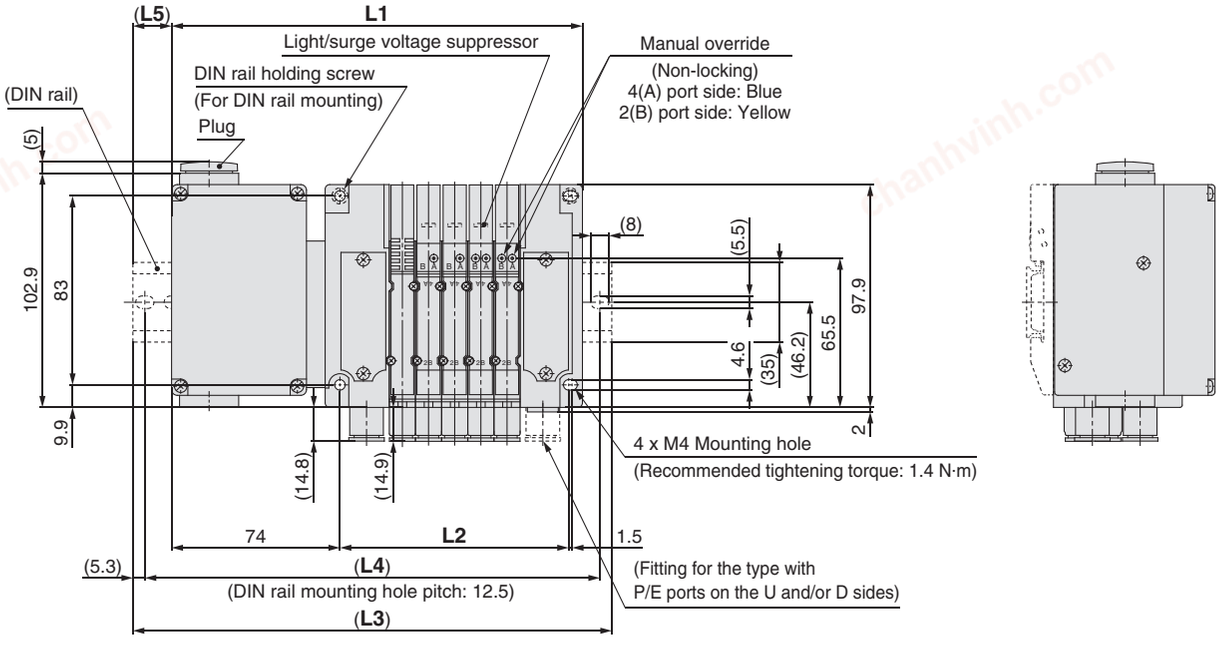
## Dimensions: JSY3000 Series

**Type 10/Side Ported**
**Spring Type Terminal Block Box**



### JJ5SY3-10TC-Stations U/D/B-C6/C8(D)




∗ These figures show the “JJ5SY3-10TC-05D-C8.”
∗ Refer to page 98 for dimensions of external pilot (Made to Order) and silencer.

### L: Dimensions

n: Stations

| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L1 | 146.1 | 157.6 | 169.1 | 180.6 | 192.1 | 203.6 | 215.1 | 226.6 | 238.1 | 249.6 | 261.1 | 272.6 | 284.1 | 295.6 | 307.1 |
| L2 | 66.1 | 77.6 | 89.1 | 100.6 | 112.1 | 123.6 | 135.1 | 146.6 | 158.1 | 169.6 | 181.1 | 192.6 | 204.1 | 215.6 | 227.1 |
| L3 | 173 | 185.5 | 198 | 210.5 | 223 | 235.5 | 248 | 260.5 | 273 | 273 | 285.5 | 298 | 310.5 | 323 | 335.5 |
| L4 | 162.5 | 175 | 187.5 | 200 | 212.5 | 225 | 237.5 | 250 | 262.5 | 262.5 | 275 | 287.5 | 300 | 312.5 | 325 |
| L5 | 13.5 | 14 | 14.5 | 15 | 15.5 | 16 | 16.5 | 17 | 17.5 | 11.5 | 12 | 12.5 | 13 | 13.5 | 14 |

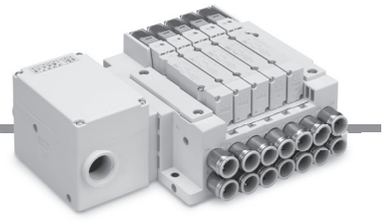
| L \ n | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|
| L1 | 318.6 | 330.1 | 341.6 | 353.1 | 364.6 | 376.1 | 387.6 | 399.1 |
| L2 | 238.6 | 250.1 | 261.6 | 273.1 | 284.6 | 296.1 | 307.6 | 319.1 |
| L3 | 348 | 360.5 | 373 | 385.5 | 398 | 410.5 | 423 | 423 |
| L4 | 337.5 | 350 | 362.5 | 375 | 387.5 | 400 | 412.5 | 412.5 |
| L5 | 14.5 | 15 | 15.5 | 16 | 16.5 | 17 | 17.5 | 12 |

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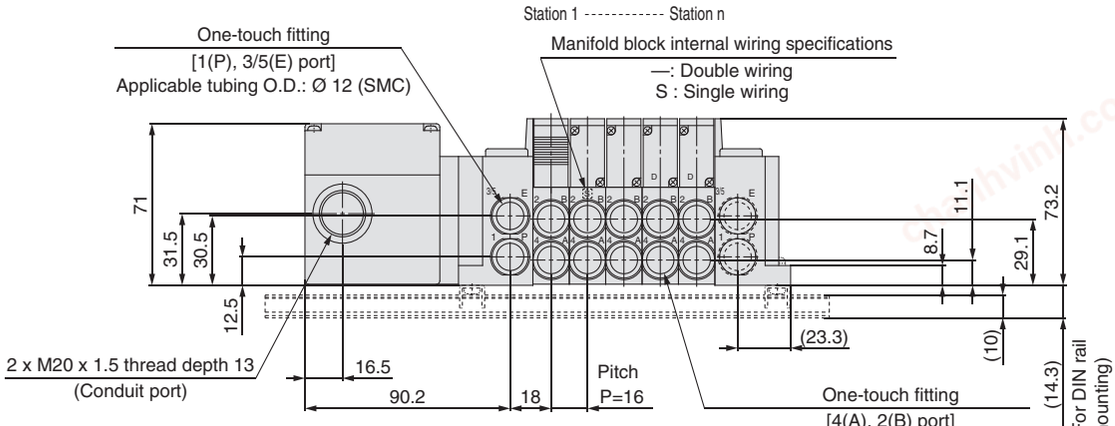


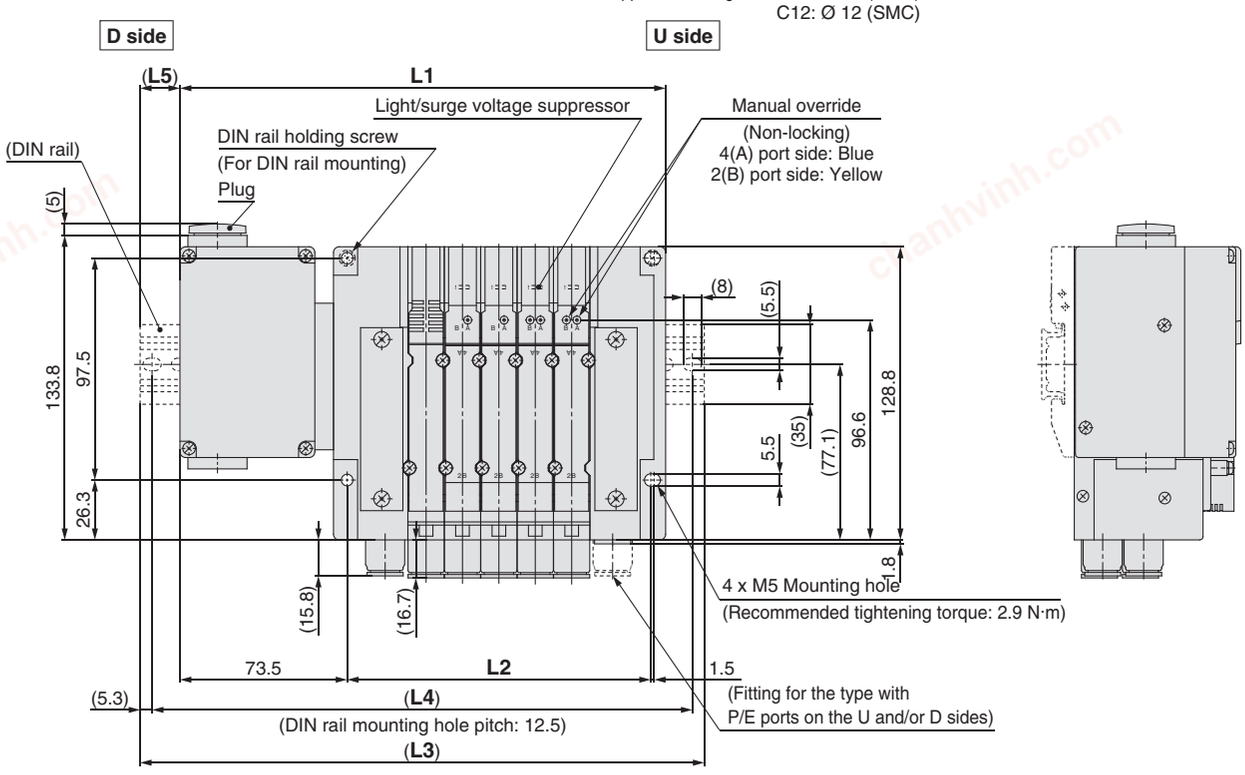
## Dimensions: JSY5000 Series

**Type 10/Side Ported**
**Spring Type Terminal Block Box**



### JJ5SY5-10TC-[Stations][U/D/B]-[C10/C12](D)




∗ These figures show the "JJ5SY5-10TC-05D-C12."
∗ Refer to page 99 for dimensions of external pilot (Made to Order) and silencer.

### L: Dimensions

n: Stations

| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L1 | 165.5 | 181.5 | 197.5 | 213.5 | 229.5 | 245.5 | 261.5 | 277.5 | 293.5 | 309.5 | 325.5 | 341.5 | 357.5 | 373.5 | 389.5 |
| L2 | 85.5 | 101.5 | 117.5 | 133.5 | 149.5 | 165.5 | 181.5 | 197.5 | 213.5 | 229.5 | 245.5 | 261.5 | 277.5 | 293.5 | 309.5 |
| L3 | 198 | 210.5 | 223 | 248 | 260.5 | 273 | 285.5 | 310.5 | 323 | 335.5 | 360.5 | 373 | 385.5 | 398 | 423 |
| L4 | 187.5 | 200 | 212.5 | 237.5 | 250 | 262.5 | 275 | 300 | 312.5 | 325 | 350 | 362.5 | 375 | 387.5 | 412.5 |
| L5 | 16.5 | 14.5 | 13 | 17.5 | 15.5 | 14 | 12 | 16.5 | 15 | 13 | 17.5 | 16 | 14 | 12.5 | 17 |

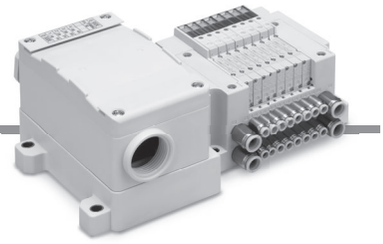
| L \ n | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|
| L1 | 405.5 | 421.5 | 437.5 | 453.5 | 469.5 | 485.5 | 501.5 | 517.5 |
| L2 | 325.5 | 341.5 | 357.5 | 373.5 | 389.5 | 405.5 | 421.5 | 437.5 |
| L3 | 435.5 | 448 | 473 | 485.5 | 498 | 510.5 | 535.5 | 548 |
| L4 | 425 | 437.5 | 462.5 | 475 | 487.5 | 500 | 525 | 537.5 |
| L5 | 15 | 13.5 | 18 | 16 | 14.5 | 12.5 | 17 | 15.5 |

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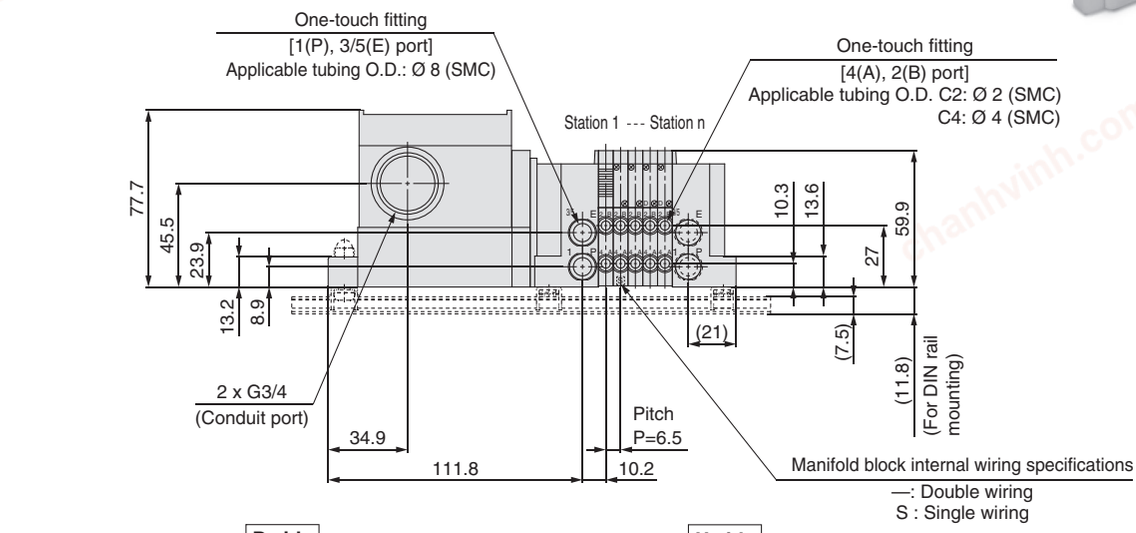
# JSY1000/3000/5000 Series

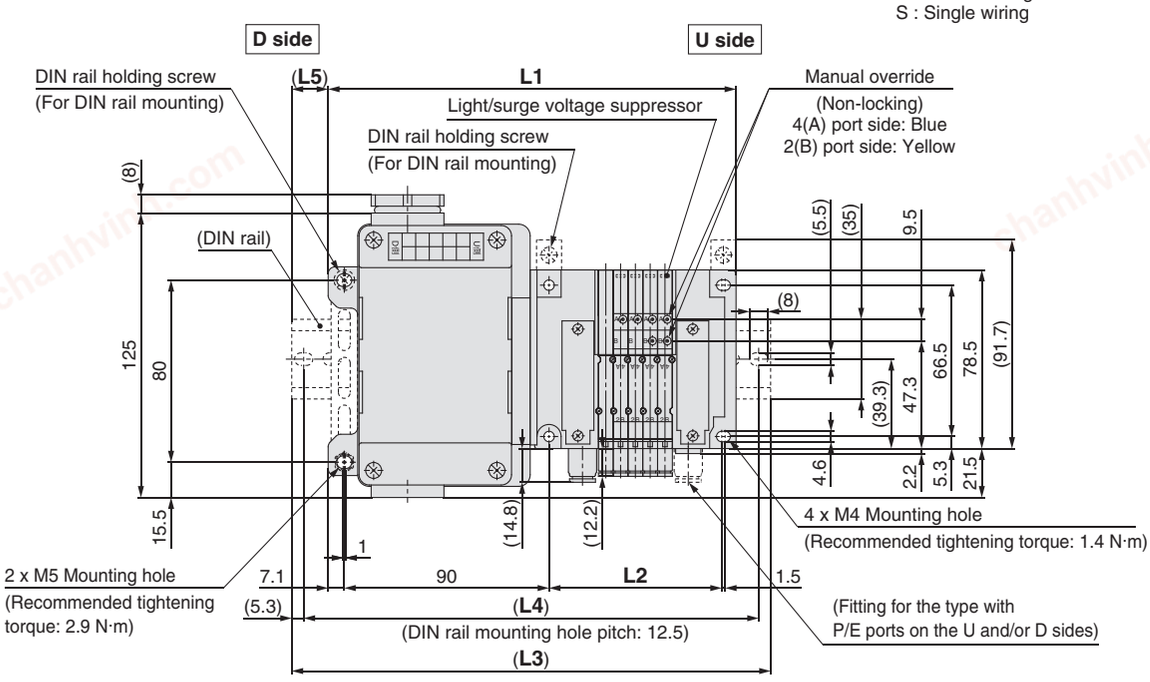
## Dimensions: JSY1000 Series

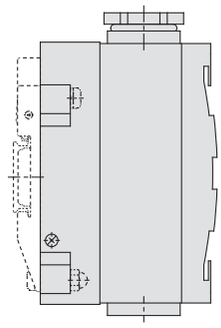
**Type 10/Side Ported** (Applicable to Ø 2 and Ø 4 fittings)
**Terminal Block Box**



### JJ5SY1-10T-[Stations] [U/D/B]-[C2/C4] (D)



* These figures show the “JJ5SY1-10T-05D-C4.”
* Refer to page 97 for dimensions of external pilot (Made to Order) and silencer.
* When CM is selected for mixed A, B port size and C6 (9 mm pitch) is included, refer to page 100 for dimensions.

### L: Dimensions

n: Stations

| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **L1** | 159.8 | 166.3 | 172.8 | 179.3 | 185.8 | 192.3 | 198.8 | 205.3 | 211.8 | 218.3 | 224.8 | 231.3 | 237.8 | 244.3 | 250.8 |
| **L2** | 56.4 | 62.9 | 69.4 | 75.9 | 82.4 | 88.9 | 95.4 | 101.9 | 108.4 | 114.9 | 121.4 | 127.9 | 134.4 | 140.9 | 147.4 |
| **L3** | 185.5 | 198 | 198 | 210.5 | 210.5 | 223 | 223 | 235.5 | 235.5 | 248 | 248 | 260.5 | 273 | 273 | 285.5 |
| **L4** | 175 | 187.5 | 187.5 | 200 | 200 | 212.5 | 212.5 | 225 | 225 | 237.5 | 237.5 | 250 | 262.5 | 262.5 | 275 |
| **L5** | 13 | 16 | 13 | 16 | 13 | 16 | 12 | 15 | 12 | 15 | 12 | 15 | 18 | 15 | 18 |

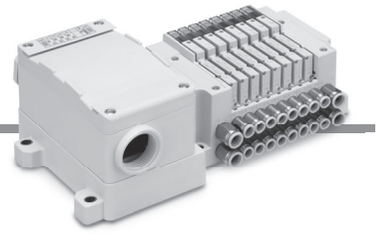
| L \ n | 17 | 18 | 19 | 20 |
|---|---|---|---|---|
| **L1** | 257.3 | 263.8 | 270.3 | 276.8 |
| **L2** | 153.9 | 160.4 | 166.9 | 173.4 |
| **L3** | 285.5 | 298 | 298 | 310.5 |
| **L4** | 275 | 287.5 | 287.5 | 300 |
| **L5** | 14 | 17 | 14 | 17 |

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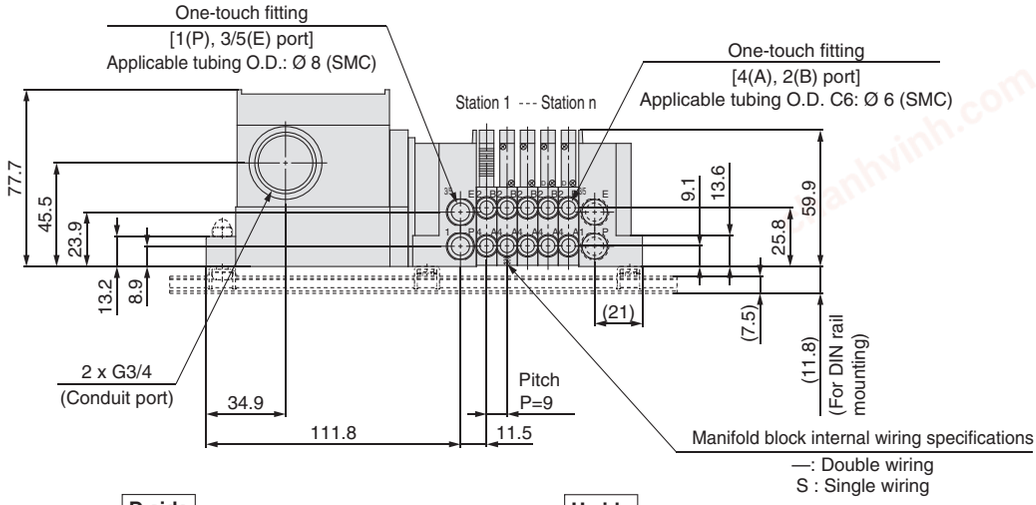


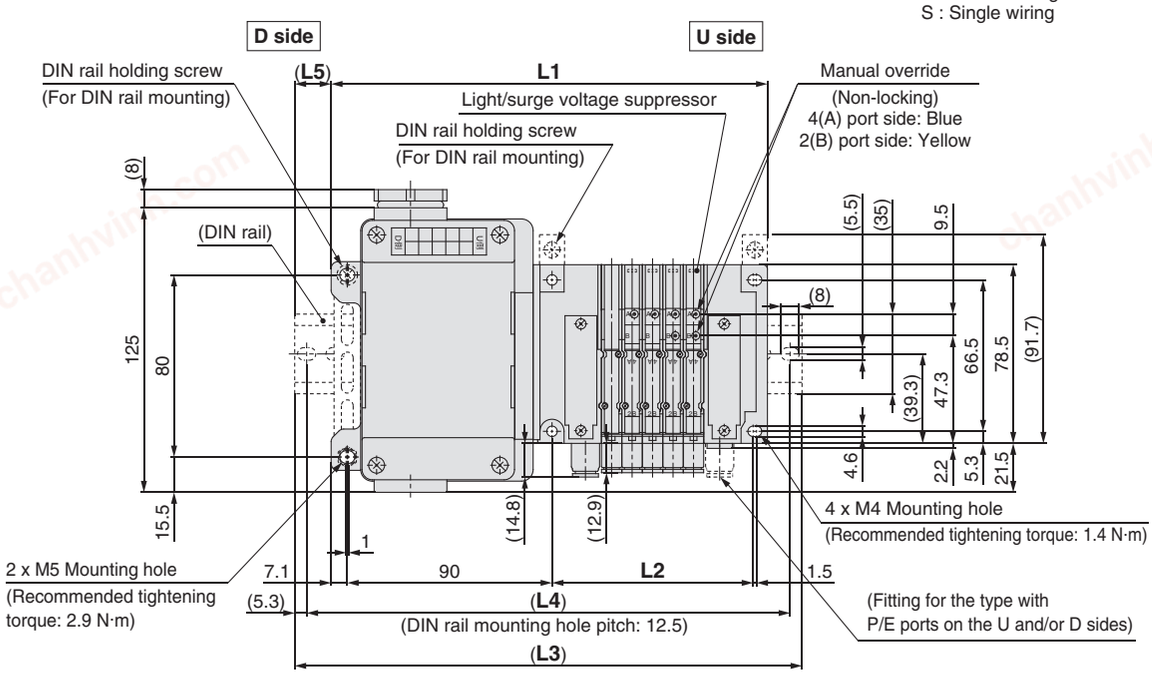
## Dimensions: JSY1000 Series

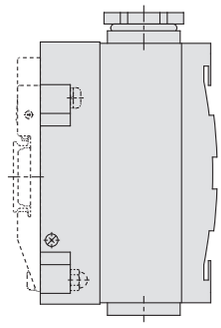
**Type 10/Side Ported (Applicable to Ø 6 fittings)**
**Terminal Block Box**



### JJ5SY1-10T-[Stations][U/D/B]-C6(D)



* These figures show the "JJ5SY1-10T-05D-C6."
* Refer to page 97 for dimensions of external pilot (Made to Order) and silencer.
* When CM is selected for mixed A, B port size, refer to page 100 for dimensions.

### L: Dimensions

n: Stations

| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L1 | 164.8 | 173.8 | 182.8 | 191.8 | 200.8 | 209.8 | 218.8 | 227.8 | 236.8 | 245.8 | 254.8 | 263.8 | 272.8 | 281.8 | 290.8 |
| L2 | 61.4 | 70.4 | 79.4 | 88.4 | 97.4 | 106.4 | 115.4 | 124.4 | 133.4 | 142.4 | 151.4 | 160.4 | 169.4 | 178.4 | 187.4 |
| L3 | 198 | 198 | 210.5 | 223 | 235.5 | 235.5 | 248 | 260.5 | 260.5 | 273 | 285.5 | 298 | 298 | 310.5 | 323 |
| L4 | 187.5 | 187.5 | 200 | 212.5 | 225 | 225 | 237.5 | 250 | 250 | 262.5 | 275 | 287.5 | 287.5 | 300 | 312.5 |
| L5 | 17 | 12 | 14 | 16 | 18 | 13 | 15 | 17 | 12 | 14 | 16 | 17 | 13 | 15 | 16 |

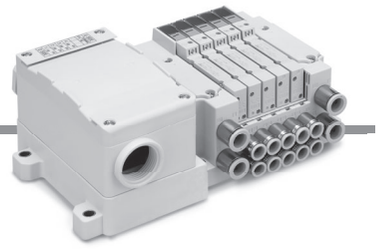
| L \ n | 17 | 18 | 19 | 20 |
|---|---|---|---|---|
| L1 | 299.8 | 308.8 | 317.8 | 326.8 |
| L2 | 196.4 | 205.4 | 214.4 | 223.4 |
| L3 | 323 | 335.5 | 348 | 360.5 |
| L4 | 312.5 | 325 | 337.5 | 350 |
| L5 | 12 | 14 | 15 | 17 |

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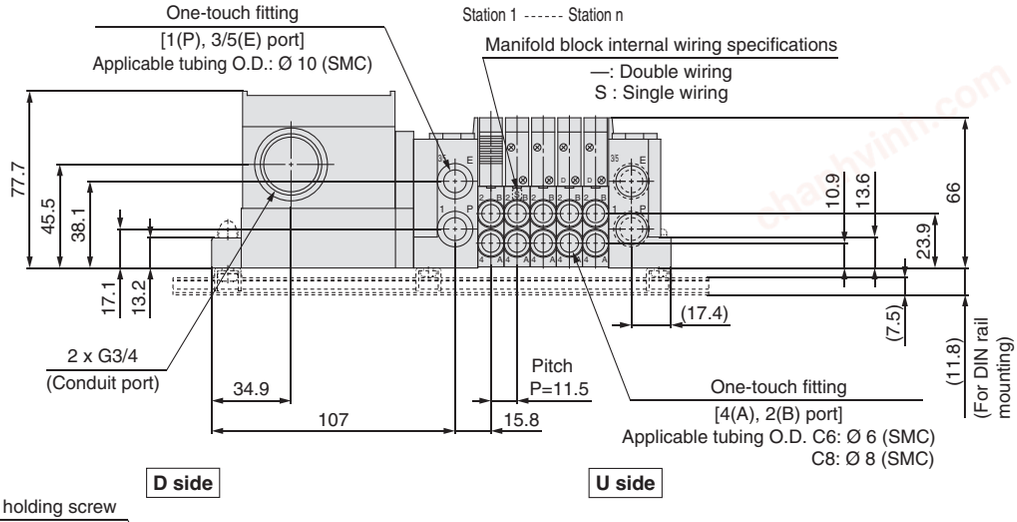
# JSY1000/3000/5000 Series

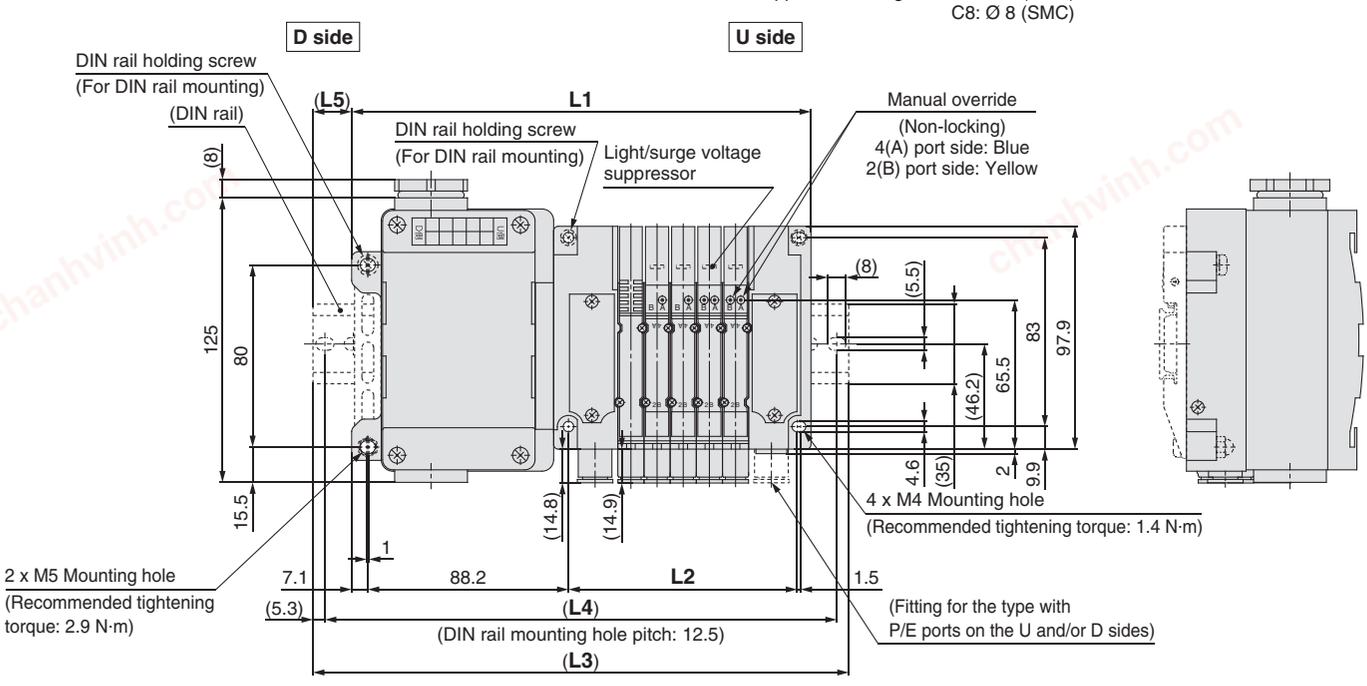
## Dimensions: JSY3000 Series

**Type 10/Side Ported**
**Terminal Block Box**



### JJ5SY3-10T- Stations U/D/B - C6/C8 (D)




∗ These figures show the “JJ5SY3-10T-05D-C8.”
∗ Refer to page 98 for dimensions of external pilot (Made to Order) and silencer.

### L: Dimensions

n: Stations

| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L1 | 167.4 | 178.9 | 190.4 | 201.9 | 213.4 | 224.9 | 236.4 | 247.9 | 259.4 | 270.9 | 282.4 | 293.9 | 305.4 | 316.9 | 328.4 |
| L2 | 66.1 | 77.6 | 89.1 | 100.6 | 112.1 | 123.6 | 135.1 | 146.6 | 158.1 | 169.6 | 181.1 | 192.6 | 204.1 | 215.6 | 227.1 |
| L3 | 198 | 210.5 | 223 | 235.5 | 248 | 248 | 260.5 | 273 | 285.5 | 298 | 310.5 | 323 | 335.5 | 348 | 360.5 |
| L4 | 187.5 | 200 | 212.5 | 225 | 237.5 | 237.5 | 250 | 262.5 | 275 | 287.5 | 300 | 312.5 | 325 | 337.5 | 350 |
| L5 | 16 | 16 | 17 | 17 | 18 | 12 | 12 | 13 | 13 | 14 | 14 | 15 | 15 | 16 | 16 |

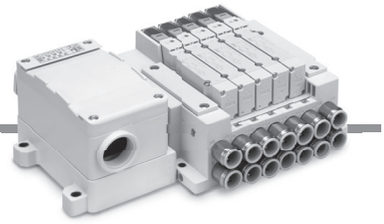
| L \ n | 17 | 18 | 19 | 20 |
|---|---|---|---|---|
| L1 | 339.9 | 351.4 | 362.9 | 374.4 |
| L2 | 238.6 | 250.1 | 261.6 | 273.1 |
| L3 | 373 | 385.5 | 398 | 398 |
| L4 | 362.5 | 375 | 387.5 | 387.5 |
| L5 | 17 | 17 | 18 | 12 |

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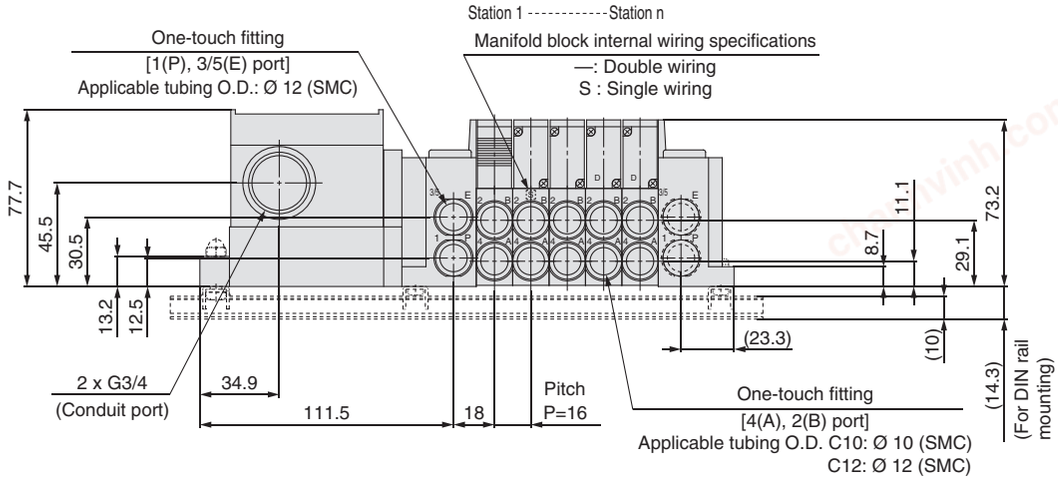


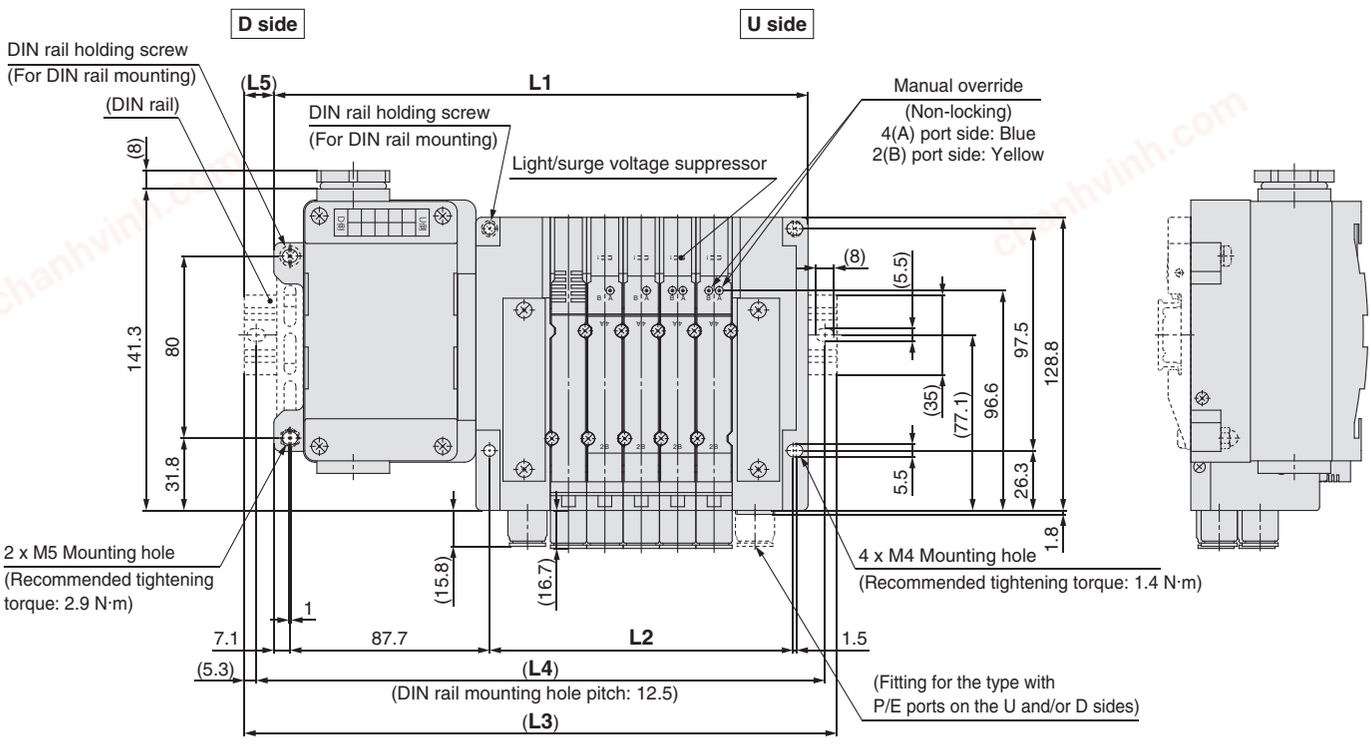
## Dimensions: JSY5000 Series

**Type 10/Side Ported**
**Terminal Block Box**



### JJ5SY5-10T-Stations U/D/B-C10/C12(D)




∗ These figures show the "JJ5SY5-10T-05D-C12."
∗ Refer to page 99 for dimensions of external pilot (Made to Order) and silencer.

### L: Dimensions

n: Stations

| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L1 | 186.8 | 202.8 | 218.8 | 234.8 | 250.8 | 266.8 | 282.8 | 298.8 | 314.8 | 330.8 | 346.8 | 362.8 | 378.8 | 394.8 | 410.8 |
| L2 | 85.5 | 101.5 | 117.5 | 133.5 | 149.5 | 165.5 | 181.5 | 197.5 | 213.5 | 229.5 | 245.5 | 261.5 | 277.5 | 293.5 | 309.5 |
| L3 | 210.5 | 235.5 | 248 | 260.5 | 285.5 | 298 | 310.5 | 323 | 348 | 360.5 | 373 | 398 | 410.5 | 423 | 435.5 |
| L4 | 200 | 225 | 237.5 | 250 | 275 | 287.5 | 300 | 312.5 | 337.5 | 350 | 362.5 | 387.5 | 400 | 412.5 | 425 |
| L5 | 12 | 16.5 | 14.5 | 13 | 17.5 | 15.5 | 14 | 12 | 16.5 | 15 | 13 | 17.5 | 16 | 14 | 12.5 |

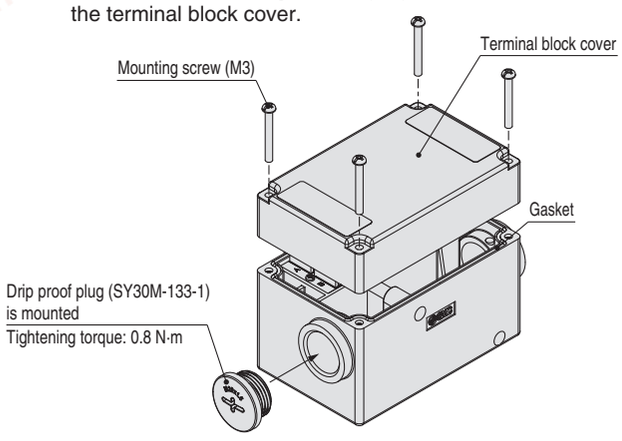
| L \ n | 17 | 18 | 19 | 20 |
|---|---|---|---|---|
| L1 | 426.8 | 442.8 | 458.8 | 474.8 |
| L2 | 325.5 | 341.5 | 357.5 | 373.5 |
| L3 | 460.5 | 473 | 485.5 | 498 |
| L4 | 450 | 462.5 | 475 | 487.5 |
| L5 | 17 | 15 | 13.5 | 11.5 |

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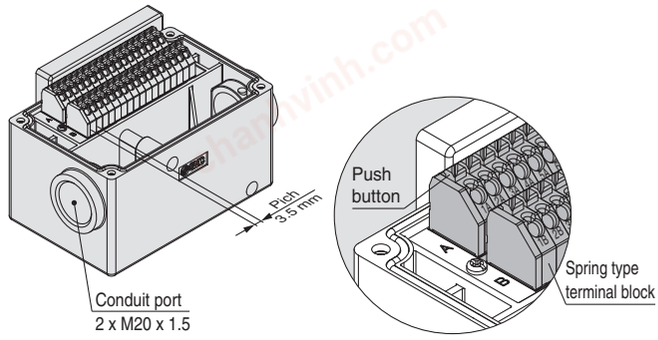
# JSY1000/3000/5000 Series

## Spring Type Terminal Block "TC" Connection

**Step 1. Remove the terminal block cover.**
Loosen the 4 mounting screws (M3) to remove the terminal block cover.




**Step 2. The diagram below shows the terminal block wiring. All stations are provided with double wiring regardless of the mounted valves.**
Connect each wire to the power supply side, according to the markings provided inside the terminal block. Be sure to connect the wire with the push button pressed down.

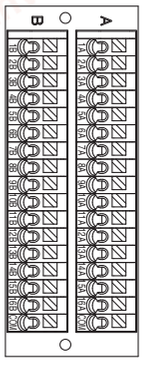



**Step 3. Mount the terminal block cover.**
Securely tighten the mounting screws (M3) to the torque shown below only after confirming that the gasket is installed correctly.

| Proper tightening torque [N·m] |
|---|
| 0.54 to 0.66 |

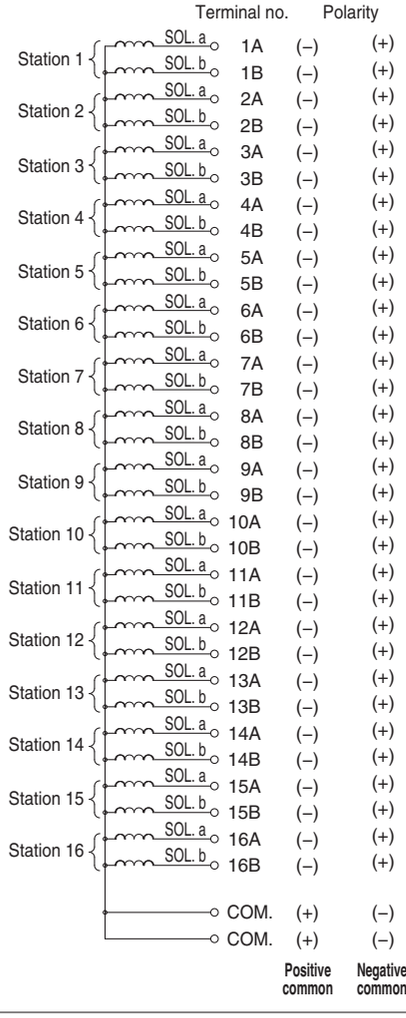
• Applicable wire range: Conductor diameter Ø 0.5 to Ø 1.2 mm, Stranded wire AWG24 to 16

## Electrical Wiring Specifications (IP67 compliant)



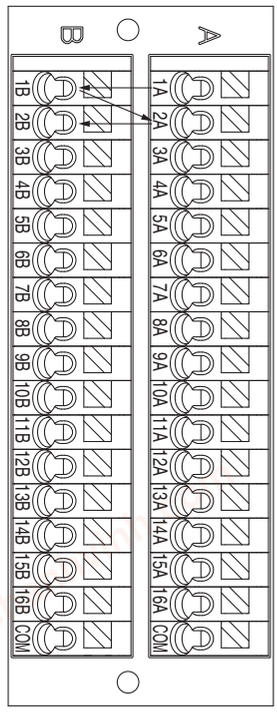

If alignment is not specified, the internal wiring will be double wiring (connected to SOL. a and SOL. b) regardless of number of stations, valve types, and option types.

* When using a valve with no polarity, either positive common or negative common can be used.




## Specified Layout

A mixture of single and double wiring can be specified on the manifold specification sheet. The maximum number of stations is determined according to the number of solenoids. The total number of solenoids should be 32 or less. 1 solenoid is required for the 2-position single, and 2 solenoids for the 2-position double, 3-position, and 4-position.

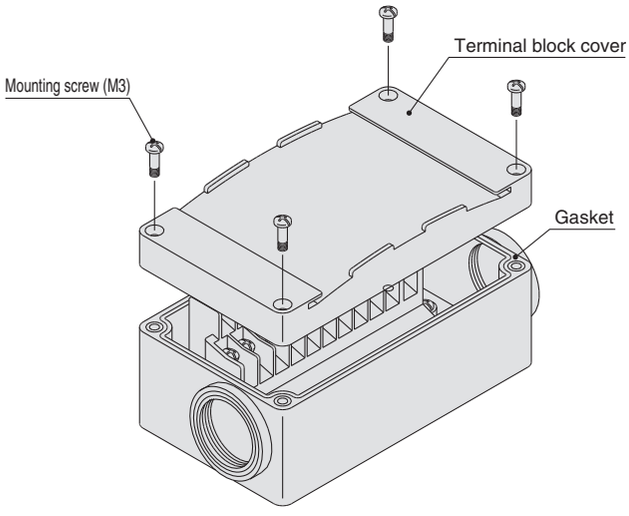


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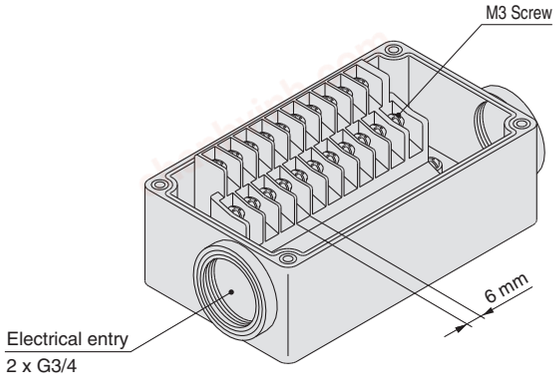


## Terminal Block "T" Connection

**Step 1. Remove the terminal block cover.**
Loosen the 4 mounting screws (M4) to remove the terminal block cover.




**Step 2. The diagram below shows the terminal block wiring. All stations are provided with double wiring regardless of the mounted valves.**
Connect each wire to the power supply side, according to the markings provided inside the terminal block.



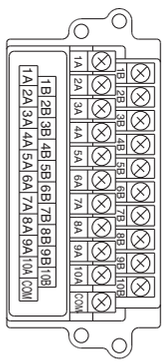

**Step 3. Mount the terminal block cover.**
Securely tighten the screws to the torque shown below only after confirming that the gasket is installed correctly.

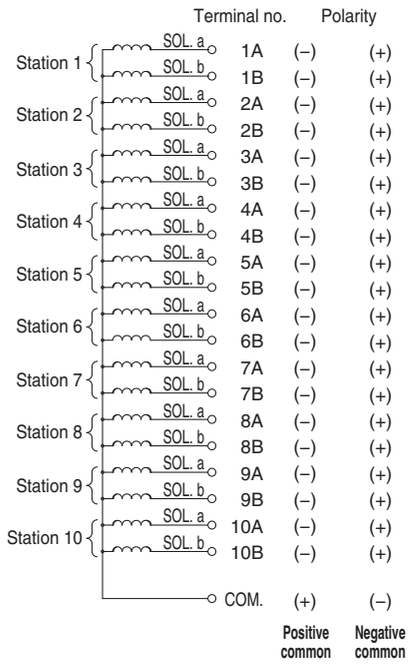
| Proper tightening torque [N·m] |
|---|
| 0.7 to 1.2 |

- Applicable crimped terminal: 1.25-3S, 1.25Y-3, 1.25Y-3N, 1.25Y-3.5
- Name plate: VVQ5000-N-T
- Drip proof plug assembly (for G3/4): AXT100-B06A

## Electrical Wiring Specifications (IP67 compliant)

**Standard wiring**



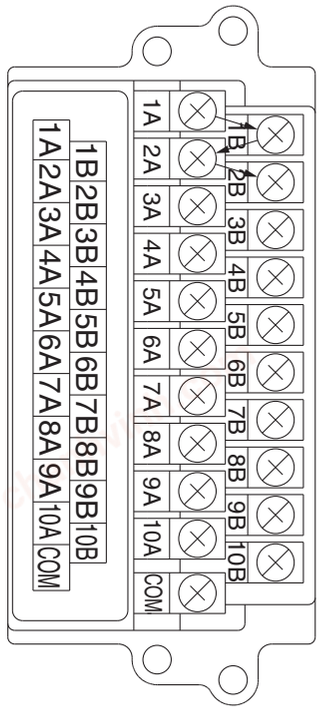




If alignment is not specified, the internal wiring will be double wiring (connected to SOL. a and SOL. b) regardless of number of stations, valve types, and option types.

* When using a valve with no polarity, either positive common or negative common can be used.

### Specified Layout

A mixture of single and double wiring can be specified on the manifold specification sheet. The maximum number of stations is determined according to the number of solenoids. The total number of solenoids should be 20 or less. 1 solenoid is required for the 2-position single, and 2 solenoids for the 2-position double, 3-position, and 4-position.



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# Plug-in Connector Connecting Base

## Lead Wire

Type 10
Side Ported

# JSY1000/3000/5000 Series

Internal Pilot

## How to Order Manifolds

JJ5SY 3 – 10 L1 1 – 05 U □ – C6 □

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

Made to Order

**Made to Order**
(Refer to page 135 for details.)

| Specification |
|---|
| External pilot (SUP/EXH block assembly) |

### ① Series

| | |
|---|---|
| 1 | JSY1000 |
| 3 | JSY3000 |
| 5 | JSY5000 |

### ② Type

| | |
|---|---|
| 10 | Side ported |

### ③ Number of cores (Lead wire)

| | |
|---|---|
| L1 | 34 cores |
| L2 | 17 cores |
| L3 | 9 cores |

### ④ Lead wire length

| | |
|---|---|
| 1 | 0.6 m |
| 2 | 1.5 m |
| 3 | 3 m |

### ⑤ Valve stations

**L1□: 34 cores**

| Symbol | Stations | Note |
|---|---|---|
| 02 | 2 stations | Double wiring*1 |
| ⋮ | ⋮ | |
| 16 | 16 stations | |
| 02 | 2 stations | Specified layout*2 (Up to 32 solenoids available) |
| ⋮ | ⋮ | |
| 24 | 24 stations | |

**L2□: 17 cores**

| Symbol | Stations | Note |
|---|---|---|
| 02 | 2 stations | Double wiring*1 |
| ⋮ | ⋮ | |
| 08 | 8 stations | |
| 02 | 2 stations | Specified layout*2 (Up to 16 solenoids available) |
| ⋮ | ⋮ | |
| 16 | 16 stations | |

**L3□: 9 cores**

| Symbol | Stations | Note |
|---|---|---|
| 02 | 2 stations | Double wiring*1 |
| ⋮ | ⋮ | |
| 4 | 4 stations | |
| 02 | 2 stations | Specified layout*2 (Up to 8 solenoids available) |
| ⋮ | ⋮ | |
| 08 | 8 stations | |

*1 Double wiring: 2-position single, double, 3-position, and 4-position valves can be used on all manifold stations.
The use of a 2-position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.
*2 Specified layout: Indicate the wiring specifications on the manifold specification sheet. (Note that 2-position double, 3-position, and 4-position valves cannot be used where single wiring has been specified.)
*3 This also includes the number of blanking plates.

### ⑥ P, E port entry

| | |
|---|---|
| U | U side (2 to 10 stations) |
| D | D side (2 to 10 stations) |
| B | Both sides (2 to 24 stations) |

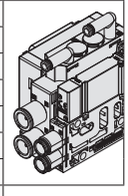
### ⑦ SUP/EXH block assembly

| | |
|---|---|
| — | Internal pilot |
| S | Internal pilot, Built-in silencer |

* The 3/5(E) port is plugged for the built-in silencer type.
* When the built-in silencer type is used, keep the exhaust port from coming into direct contact with water or other liquids.
* The external pilot specification should be ordered as Made to Order. For details, refer to page 135.

### ⑧ A, B port size (Metric/One-touch fitting)

| Symbol | A, B port | | JSY1000 | JSY3000 | JSY5000 |
|---|---|---|---|---|---|
| C2 | Straight | Ø 2 | ● | — | — |
| C4 | | Ø 4 | ● | — | — |
| C6 | | Ø 6 | ● | ● | — |
| C8 | | Ø 8 | — | ● | — |
| C10 | | Ø 10 | — | — | ● |
| C12 | | Ø 12 | — | — | ● |
| CM*1 | | Straight port, mixed sizes | ● | ● | ● |
| P, E port size (One-touch fittings) | | | Ø 8 | Ø 10 | Ø 12 |



*1 Indicate the sizes on the manifold specification sheet in the case of "CM."
* The JSY1000 manifold pitch for C2 and C4 is 6.5 mm, and 9 mm for C6. When CM is selected, the manifold pitch is different depending on the selected fitting.

### ⑨ Mounting and Option

| Symbol | Mounting |
|---|---|
| — | Direct mounting |
| D□ | DIN rail mounting |

* Enter the number of stations inside □ when it is larger than the number of valve stations. (Refer to "DIN Rail Option" shown below.)
* Refer to page 139 for details on securing the DIN rail mounting type manifold.

**DIN Rail Option**

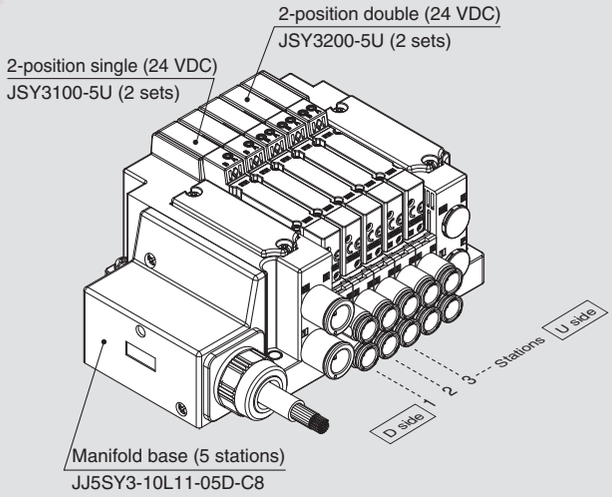
| | | |
|---|---|---|
| — | DIN rail mounting (With DIN rail) | |
| 0 | DIN rail mounting (Without DIN rail) | |
| 3 | For 3 stations | Specify a length longer than that of the standard rail. |
| ⋮ | ⋮ | |
| 24 | For 24 stations | |

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## How to Order Manifold Assembly

### Example (JJ5SY3-10L11-□)




**JJ5SY3-10L11-05D-C8·· 1 set (Type 10 5-station manifold base part no.)**
*** JSY3100-5U····· 2 sets (2-position single part no.)**
*** JSY3200-5U····· 3 sets (2-position double part no.)**
**The asterisk denotes the symbol for the assembly. Prefix it to the part numbers of the valve, etc.**

- For the valve arrangement, the valve closest to the D side is considered the 1st station.
- Under the manifold part number, state the valves to be mounted in order starting with the 1st station as shown in the figure. If the arrangement becomes too complicated, specify the details on a manifold specification sheet.

**Internal Pilot**

## How to Order Valves (With mounting screw)

Refer to page 13 for valve specifications.

**JSY1000 Series**
**JSY3000/5000 Series**

With power-saving circuit

JSY 1 1 0 0 T – 5 Z □
JSY 3 1 0 0 – 5 Z □
① ② ③ ④ ⑤ ⑥

Base mounted

**Made to Order** (Refer to page 135 for details.)

| Specification |
|---|
| With power-saving circuit (Continuous duty type): 0.1 W (JSY3000/5000) |
| External pilot |

### ① Series

| | |
|---|---|
| 1 | JSY1000 |
| 3 | JSY3000 |
| 5 | JSY5000 |

### ② Type of actuation

| | | |
|---|---|---|
| 1 | 2-position | Single |
| 2 | | Double |
| 3 | 3-position | Closed centre |
| 4 | | Exhaust centre |
| 5 | | Pressure centre |
| A | 4-position dual 3-port | N.C./N.C. |
| B | | N.O./N.O. |
| C | | N.C./N.O. |

### ③ Pilot valve exhaust method

| | |
|---|---|
| 0 | Pilot valve individual exhaust |

### ④ Rated voltage

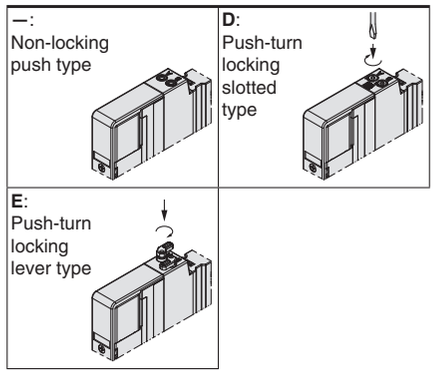
| | |
|---|---|
| 5 | 24 VDC |

### ⑤ Light/surge voltage suppressor and common specification

| Symbol | With light | Surge voltage suppressor | Common specification |
|---|---|---|---|
| U | ● | ● | Non-polar |
| Z | | | Positive common |
| NZ | | | Negative common |

* Only "Z" and "NZ" types are available for the JSY1000 series.
* When the non-polar common specification type is selected, take measures to prevent surge voltage. For details, refer to page 138.

### ⑥ Manual override




* Push-turn locking lever type "E" is not available for the JSY1000.

* **When ordering a valve individually, the base gasket is not included.**
Since the base gasket is attached to the manifold, please order the base gasket separately if it is needed for maintenance. Refer to page 116 for base gasket and mounting screw part numbers.

### ⚠ Caution

**If the JSY3000/5000 series is to be continuously energised, please be sure to select the power-saving circuit (continuous duty type) specification. Refer to "Made to Order" on page 135.**
**For the JSY1000 series, only the power-saving circuit specification is available.**

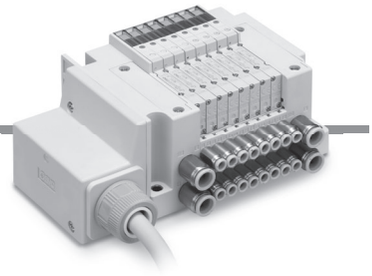
⚠ Protective class class Ⅲ (Mark: ⧫)

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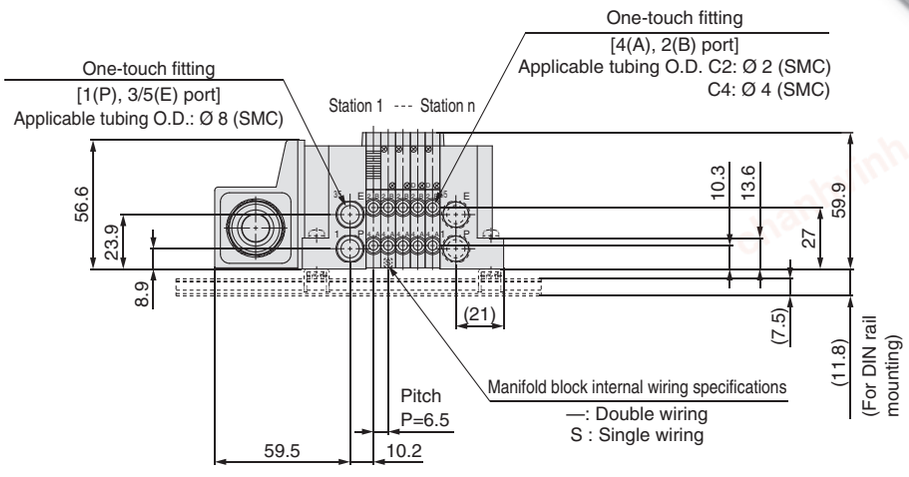
# JSY1000/3000/5000 Series

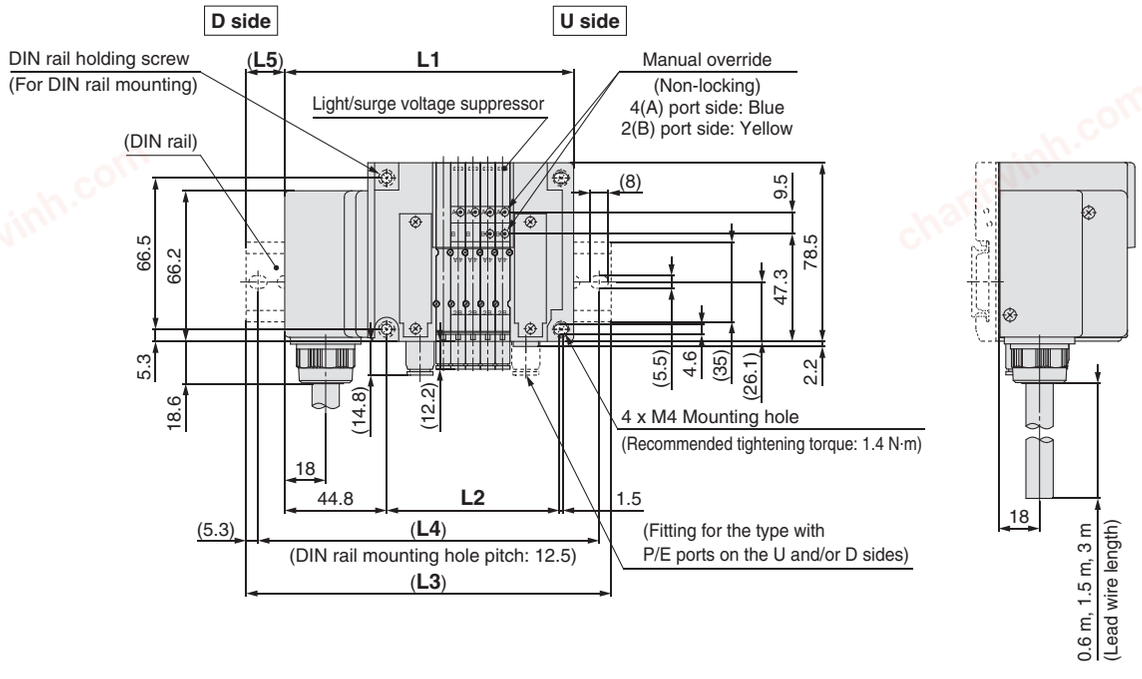
## Dimensions: JSY1000 Series

**Type 10/Side Ported** (Applicable to Ø 2 and Ø 4 fittings)
**Lead Wire**



**JJ5SY1-10L$\begin{smallmatrix}1\\2\\3\end{smallmatrix}$□-Stations$\begin{smallmatrix}U\\D\\B\end{smallmatrix}$-$\begin{smallmatrix}C2\\C4\end{smallmatrix}$(D)**




* These figures show the "JJ5SY1-10L1□-05D-C4."
* Refer to page 97 for dimensions of external pilot (Made to Order) and silencer.
* When CM is selected for mixed A, B port size and C6 (9 mm pitch) is included, refer to page 100 for dimensions.

### L: Dimensions

n: Stations

| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **L1** | 107.5 | 114 | 120.5 | 127 | 133.5 | 140 | 146.5 | 153 | 159.5 | 166 | 172.5 | 179 | 185.5 | 192 | 198.5 |
| **L2** | 56.4 | 62.9 | 69.4 | 75.9 | 82.4 | 88.9 | 95.4 | 101.9 | 108.4 | 114.9 | 121.4 | 127.9 | 134.4 | 140.9 | 147.4 |
| **L3** | 135.5 | 148 | 148 | 160.5 | 160.5 | 173 | 173 | 185.5 | 185.5 | 198 | 198 | 210.5 | 210.5 | 223 | 223 |
| **L4** | 125 | 137.5 | 137.5 | 150 | 150 | 162.5 | 162.5 | 175 | 175 | 187.5 | 187.5 | 200 | 200 | 212.5 | 212.5 |
| **L5** | 14 | 17 | 14 | 17 | 13.5 | 16.5 | 13.5 | 16.5 | 13 | 16 | 13 | 16 | 12.5 | 15.5 | 12.5 |

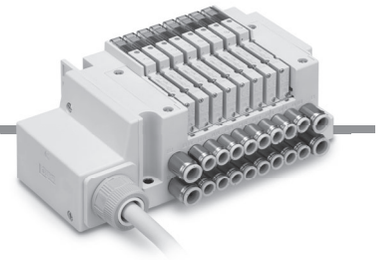
| L \ n | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|
| **L1** | 205 | 211.5 | 218 | 224.5 | 231 | 237.5 | 244 | 250.5 |
| **L2** | 153.9 | 160.4 | 166.9 | 173.4 | 179.9 | 186.4 | 192.9 | 199.4 |
| **L3** | 235.5 | 235.5 | 248 | 248 | 260.5 | 273 | 273 | 285.5 |
| **L4** | 225 | 225 | 237.5 | 237.5 | 250 | 262.5 | 262.5 | 275 |
| **L5** | 15.5 | 12 | 15 | 12 | 15 | 18 | 14.5 | 17.5 |

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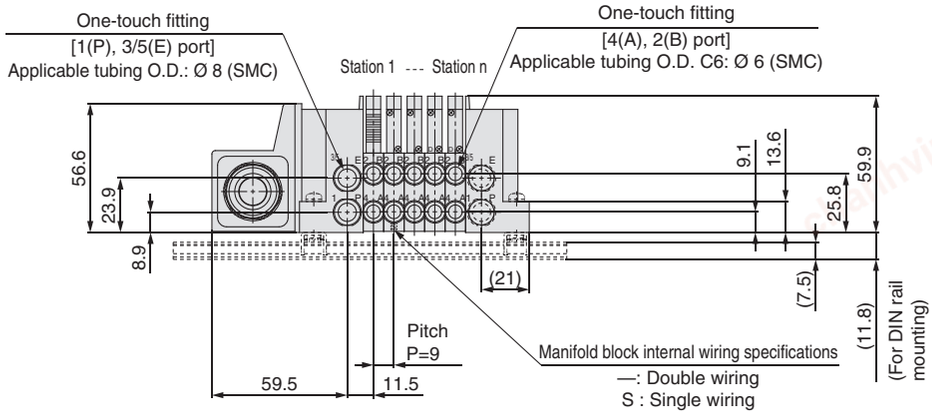


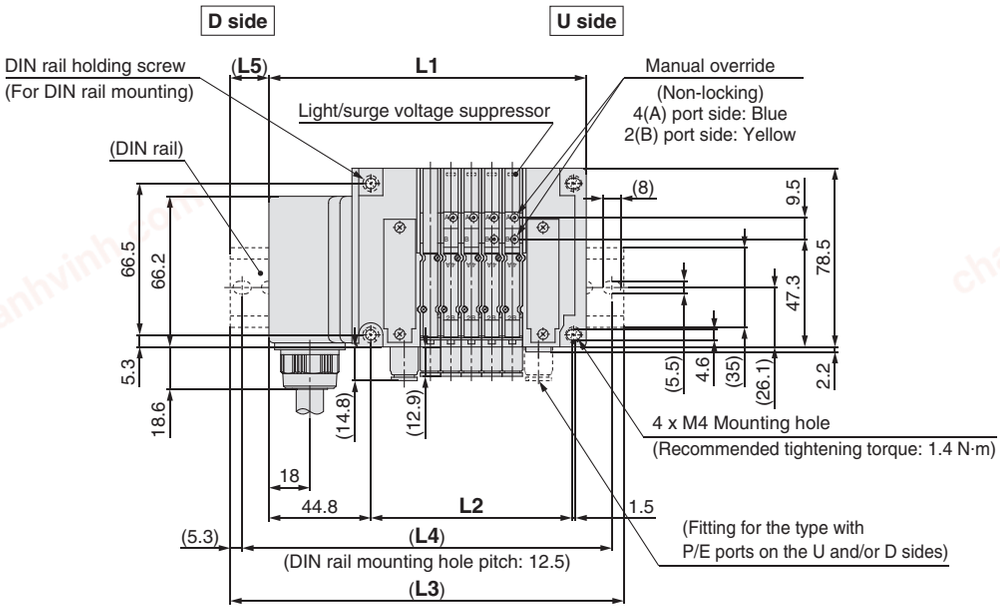
## Dimensions: JSY1000 Series

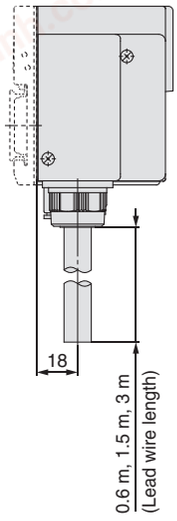
**Type 10/Side Ported (Applicable to Ø 6 fittings)**
**Lead Wire**



**JJ5SY1-10L$^{1}_{2}$$_{3}$□ - Stations $^{U}_{D}$$_{B}$ - C6(D)**




* These figures show the "JJ5SY1-10L1□-05D-C6."
* Refer to page 97 for dimensions of external pilot (Made to Order) and silencer.
* When CM is selected for mixed A, B port size, refer to page 100 for dimensions.

### L: Dimensions

n: Stations

| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L1 | 112.5 | 121.5 | 130.5 | 139.5 | 148.5 | 157.5 | 166.5 | 175.5 | 184.5 | 193.5 | 202.5 | 211.5 | 220.5 | 229.5 | 238.5 |
| L2 | 61.4 | 70.4 | 79.4 | 88.4 | 97.4 | 106.4 | 115.4 | 124.4 | 133.4 | 142.4 | 151.4 | 160.4 | 169.4 | 178.4 | 187.4 |
| L3 | 148 | 148 | 160.5 | 173 | 173 | 185.5 | 198 | 210.5 | 210.5 | 223 | 235.5 | 235.5 | 248 | 260.5 | 273 |
| L4 | 137.5 | 137.5 | 150 | 162.5 | 162.5 | 175 | 187.5 | 200 | 200 | 212.5 | 225 | 225 | 237.5 | 250 | 262.5 |
| L5 | 18 | 13.5 | 15 | 17 | 12.5 | 14 | 16 | 17.5 | 13 | 15 | 16.5 | 12 | 14 | 15.5 | 17.5 |

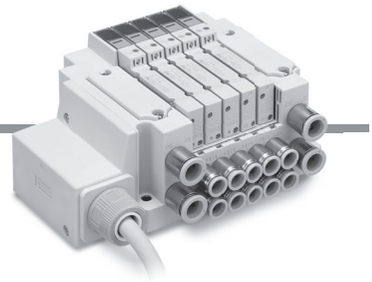
| L \ n | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|
| L1 | 247.5 | 256.5 | 265.5 | 274.5 | 283.5 | 292.5 | 301.5 | 310.5 |
| L2 | 196.4 | 205.4 | 214.4 | 223.4 | 232.4 | 241.4 | 250.4 | 259.4 |
| L3 | 273 | 285.5 | 298 | 298 | 310.5 | 323 | 335.5 | 335.5 |
| L4 | 262.5 | 275 | 287.5 | 287.5 | 300 | 312.5 | 325 | 325 |
| L5 | 13 | 14.5 | 16.5 | 12 | 13.5 | 15.5 | 17 | 12.5 |

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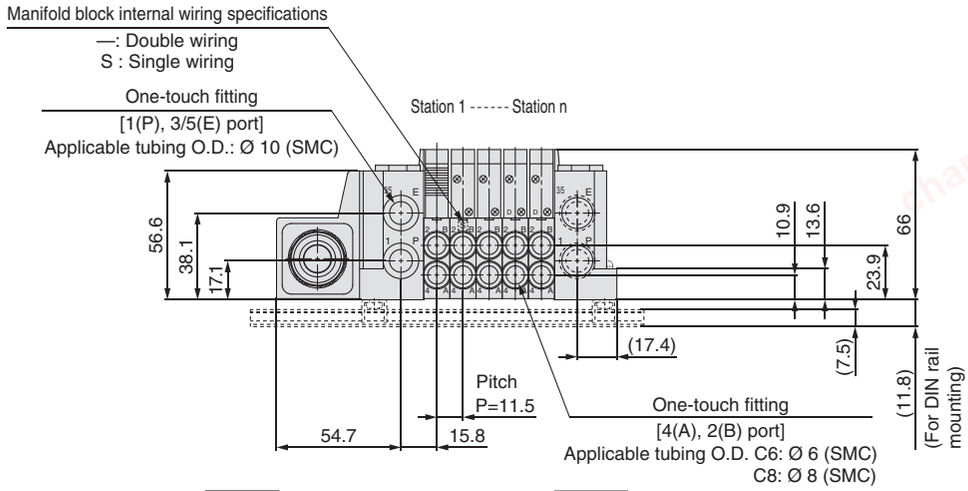
# JSY1000/3000/5000 Series

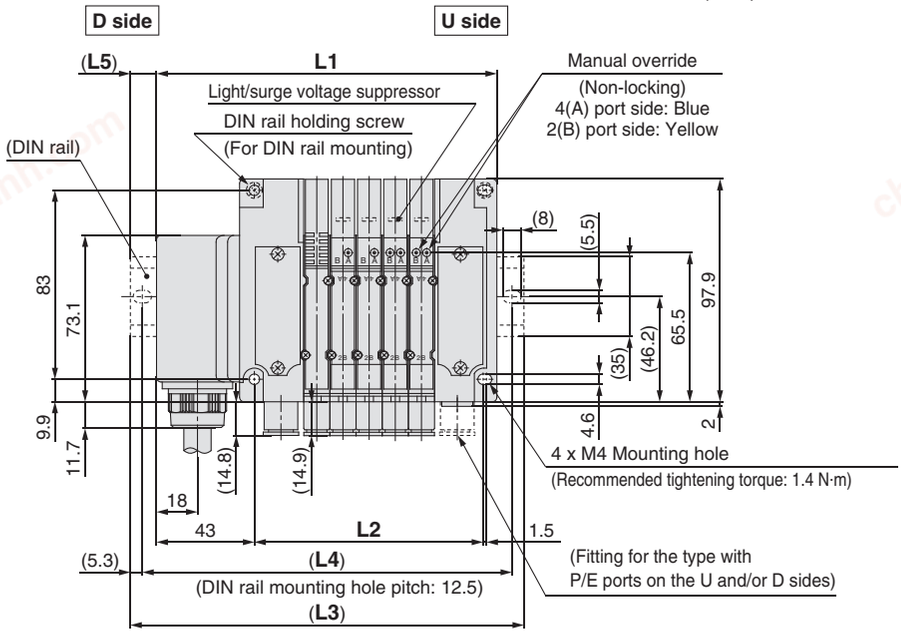
## Dimensions: JSY3000 Series

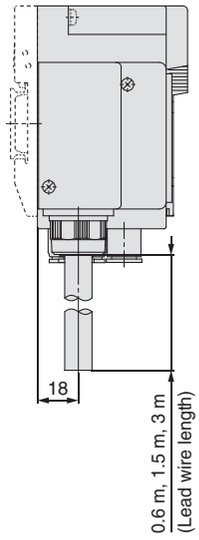
**Type 10/Side Ported**
**Lead Wire**



**JJ5SY3-10L$\frac{1}{2}_{3}$□-Stations$\frac{U}{D}_{B}$-$\frac{C6}{C8}$(D)**




* These figures show the "JJ5SY3-10L1□-05D-C8."
* Refer to page 98 for dimensions of external pilot (Made to Order) and silencer.

### L: Dimensions

n: Stations

| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **L1** | 115.1 | 126.6 | 138.1 | 149.6 | 161.1 | 172.6 | 184.1 | 195.6 | 207.1 | 218.6 | 230.1 | 241.6 | 253.1 | 264.6 | 276.1 |
| **L2** | 66.1 | 77.6 | 89.1 | 100.6 | 112.1 | 123.6 | 135.1 | 146.6 | 158.1 | 169.6 | 181.1 | 192.6 | 204.1 | 215.6 | 227.1 |
| **L3** | 148 | 160.5 | 173 | 173 | 185.5 | 198 | 210.5 | 223 | 235.5 | 248 | 260.5 | 273 | 285.5 | 298 | 310.5 |
| **L4** | 137.5 | 150 | 162.5 | 162.5 | 175 | 187.5 | 200 | 212.5 | 225 | 237.5 | 250 | 262.5 | 275 | 287.5 | 300 |
| **L5** | 16.5 | 17 | 17.5 | 11.5 | 12 | 12.5 | 13 | 13.5 | 14 | 14.5 | 15 | 15.5 | 16 | 16.5 | 17 |

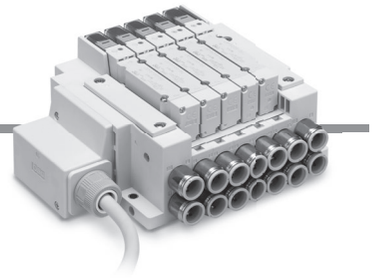
| L \ n | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|
| **L1** | 287.6 | 299.1 | 310.6 | 322.1 | 333.6 | 345.1 | 356.6 | 368.1 |
| **L2** | 238.6 | 250.1 | 261.6 | 273.1 | 284.6 | 296.1 | 307.6 | 319.1 |
| **L3** | 323 | 323 | 335.5 | 348 | 360.5 | 373 | 385.5 | 398 |
| **L4** | 312.5 | 312.5 | 325 | 337.5 | 350 | 362.5 | 375 | 387.5 |
| **L5** | 17.5 | 12 | 12.5 | 13 | 13.5 | 14 | 14.5 | 15 |

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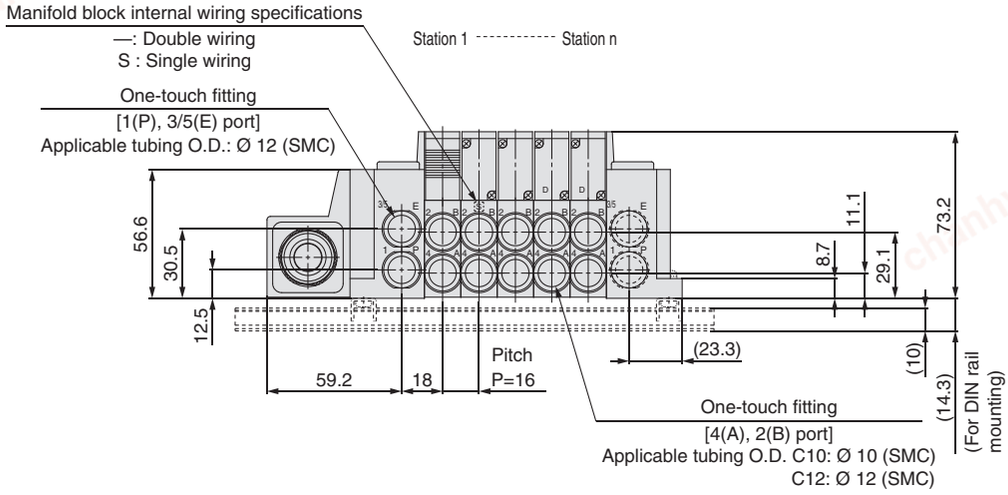


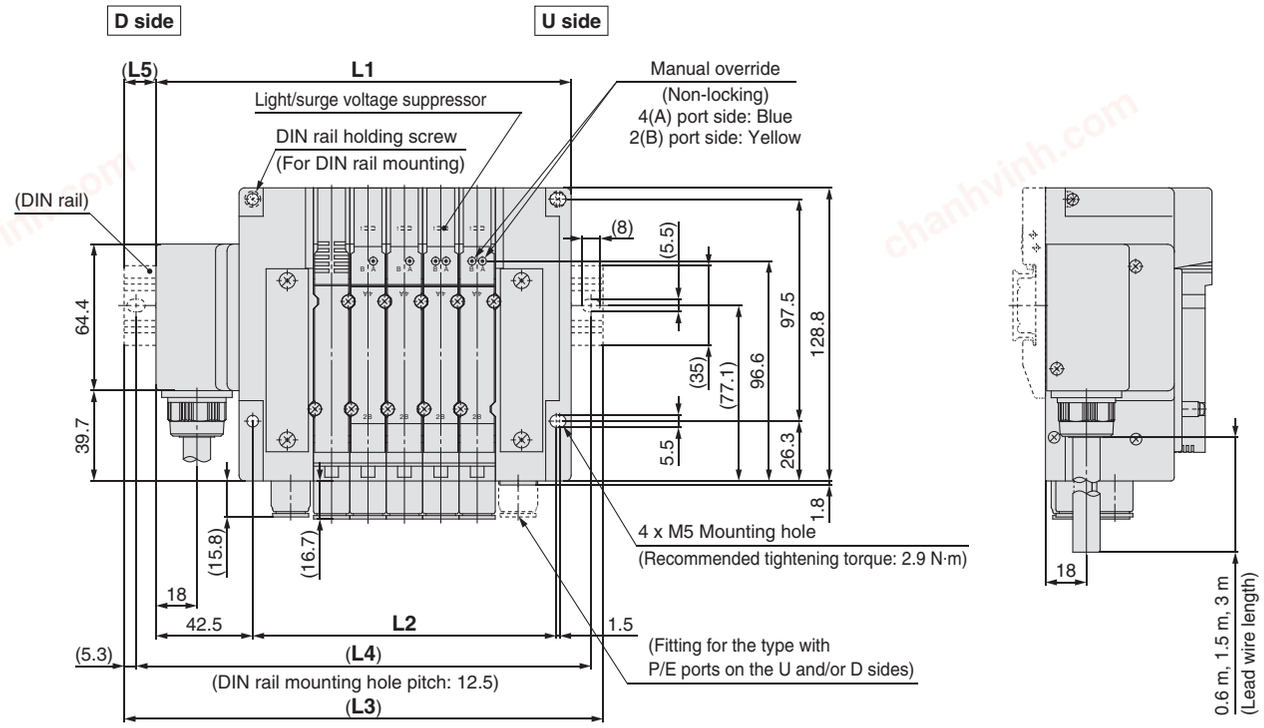
## Dimensions: JSY5000 Series

**Type 10/Side Ported**
**Lead Wire**



### JJ5SY5-10L[1/2/3]□-[Stations][U/D/B]-[C10/C12](D)




∗ These figures show the "JJ5SY5-10L1□-05D-C12."
∗ Refer to page 99 for dimensions of external pilot (Made to Order) and silencer.

### L: Dimensions

n: Stations

| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L1 | 134.5 | 150.5 | 166.5 | 182.5 | 198.5 | 214.5 | 230.5 | 246.5 | 262.5 | 278.5 | 294.5 | 310.5 | 326.5 | 342.5 | 358.5 |
| L2 | 85.5 | 101.5 | 117.5 | 133.5 | 149.5 | 165.5 | 181.5 | 197.5 | 213.5 | 229.5 | 245.5 | 261.5 | 277.5 | 293.5 | 309.5 |
| L3 | 173 | 185.5 | 198 | 210.5 | 235.5 | 248 | 260.5 | 285.5 | 298 | 310.5 | 323 | 348 | 360.5 | 373 | 398 |
| L4 | 162.5 | 175 | 187.5 | 200 | 225 | 237.5 | 250 | 275 | 287.5 | 300 | 312.5 | 337.5 | 350 | 362.5 | 387.5 |
| L5 | 19.5 | 17.5 | 16 | 14 | 18.5 | 17 | 15 | 19.5 | 18 | 16 | 14.5 | 19 | 17 | 15.5 | 20 |

| L \ n | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|
| L1 | 374.5 | 390.5 | 406.5 | 422.5 | 438.5 | 454.5 | 470.5 | 486.5 |
| L2 | 325.5 | 341.5 | 357.5 | 373.5 | 389.5 | 405.5 | 421.5 | 437.5 |
| L3 | 410.5 | 423 | 435.5 | 460.5 | 473 | 485.5 | 510.5 | 523 |
| L4 | 400 | 412.5 | 425 | 450 | 462.5 | 475 | 500 | 512.5 |
| L5 | 18 | 16.5 | 14.5 | 19 | 17.5 | 15.5 | 20 | 18.5 |

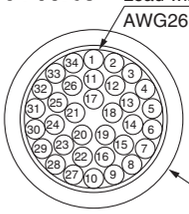
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# JSY1000/3000/5000 Series

## Electrical Wiring Specifications

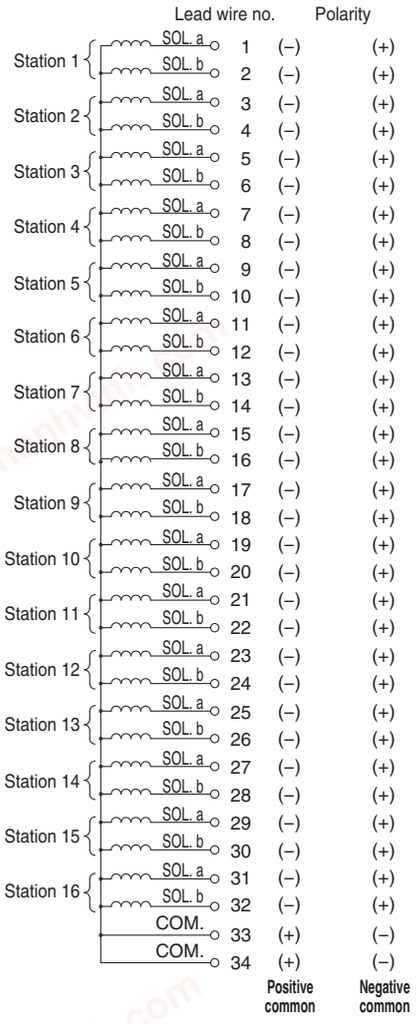
### Lead wire

**34 cores** Lead wire
AWG26 (0.14 mm²) x 34 cores



Sheath O.D.
Approx. Ø 8.8

If alignment is not specified, the internal wiring will be double wiring (connected to SOL. a and SOL. b) regardless of number of stations, valve types, and option types.




| Lead wire colour | Printed mark (Both sides) | |
|---|---|---|
| | Type | Colour |
| Orange | – | Red |
| | | Black |
| Light grey | – | Red |
| | | Black |
| White | – | Red |
| | | Black |
| Yellow | – | Red |
| | | Black |
| Pink | – | Red |
| | | Black |
| Orange | – – | Red |
| | | Black |
| Light grey | – – | Red |
| | | Black |
| White | – – | Red |
| | | Black |
| Yellow | – – | Red |
| | | Black |
| Pink | – – | Red |
| | | Black |
| Orange | – – – | Red |
| | | Black |
| Light grey | – – – | Red |
| | | Black |
| White | – – – | Red |
| | | Black |
| Yellow | – – – | Red |
| | | Black |
| Pink | – – – | Red |
| | | Black |
| Orange | – – – – | Red |
| | | Black |
| Light grey | – – – – | Red |
| | | Black |

∗ For negative common specification, a valve for negative common or a valve without polarity should be used.

### Electrical characteristics

| Item | Property |
|---|---|
| Conductor resistance Ω/km, 20 °C | 143 or less |
| Voltage limit V, 1 minute, AC | 2000 |
| Insulation resistance MΩ/km, 20 °C | 10 or more |

∗ Cannot be used for movable wiring
The minimum bending radius of the cable is 55 mm.

## Specified Layout

A mixture of single and double wiring can be specified on the manifold specification sheet. The maximum number of stations is determined according to the number of solenoids. The total number of solenoids should be 32 or less. 1 solenoid is required for the 2-position single, and 2 solenoids for the 2-position double, 3-position, and 4-position.

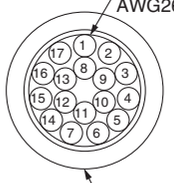
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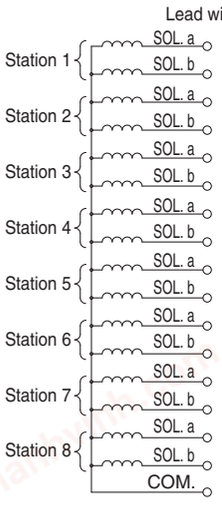
## Electrical Wiring Specifications

### Lead wire

**17 cores**

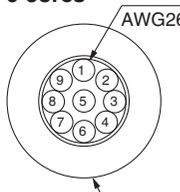



∗ Cannot be used for movable wiring
The minimum bending radius of the cable is 45 mm.

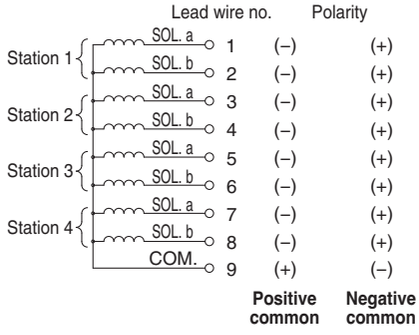



| Lead wire colour | Printed mark (Both sides) | |
|---|---|---|
| | Type | Colour |
| Orange | – | Red |
| | | Black |
| Light grey | – | Red |
| | | Black |
| White | – | Red |
| | | Black |
| Yellow | – | Red |
| | | Black |
| Pink | – | Red |
| | | Black |
| Orange | – – | Red |
| | | Black |
| Light grey | – – | Red |
| | | Black |
| White | – – | Red |
| | | Black |
| Yellow | – – | Red |

**9 cores**




∗ Cannot be used for movable wiring
The minimum bending radius of the cable is 40 mm.




| Lead wire colour | Printed mark (Both sides) | |
|---|---|---|
| | Type | Colour |
| Orange | – | Red |
| | | Black |
| Light grey | – | Red |
| | | Black |
| White | – | Red |
| | | Black |
| Yellow | – | Red |
| | | Black |
| Pink | – | Red |

### Electrical characteristics

| Item | Property |
|---|---|
| Conductor resistance Ω/km, 20 °C | 143 or less |
| Voltage limit V, 1 minute, AC | 2000 |
| Insulation resistance MΩ/km, 20 °C | 10 or more |

∗ For negative common specification, a valve for negative common or a valve without polarity should be used.

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Plug-in Connector Connecting Base

EX600

Type 10
Side Ported

# JSY1000/3000/5000 Series

Internal Pilot

## How to Order Manifolds

JJ5SY 3 – 10 S6 Q 2 2 – 05 U – C6 ❑

❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽ ❾

### ❶ Series

| | |
|---|---|
| 1 | JSY1000 |
| 3 | JSY3000 |
| 5 | JSY5000 |

### ❷ Type

| | |
|---|---|
| 10 | Side ported |

### ❸ SI unit

| | |
|---|---|
| 0 | Without SI unit |
| Q | DeviceNet® (Version A) |
| N | PROFIBUS DP (Version A) |
| V | CC-Link |
| EA | EtherNet/IP™ (2 ports) |
| EB | EtherNet/IP™ (IO-Link unit) |
| DA | EtherCAT (IO-Link unit) |
| F | PROFINET |
| FA | PROFINET (IO-Link unit) |
| WE | EtherNet/IP™ compatible wireless base*1 |
| WF | PROFINET compatible wireless base*1 |
| WS | Wireless remote*1 |

*1 The wireless system is suitable for use only in a country where it is in accordance with the Radio Act and regulations of that country.
* I/O unit cannot be mounted without SI unit.
* Valve plate which connects manifold and SI unit is included, but it is not mounted to a valve without SI unit. For mounting, refer to the EX600 series on page 108.

### ❹ SI unit output polarity, End plate type (Part no.)

| SI unit output polarity | M12 power supply connector B-coded (EX600-ED2) | 7/8 inch power supply connector (EX600-ED3) | M12 power supply connector IN/OUT, A-coded | |
|---|---|---|---|---|
| | | | Pin arrangement 1 (EX600-ED4) | Pin arrangement 2 (EX600-ED5) |
| Without SI unit | — | | | |
| SI unit positive common | 2 | 3 | 6 | 8 |
| SI unit negative common | 4 | 5 | 7 | 9 |

* Ensure a match with the common specification of the valve to be used.
* When not selecting an SI unit, the symbol will be "—."

### ❺ I/O unit stations

| | |
|---|---|
| — | None |
| 1 | 1 station |
| ⋮ | ⋮ |
| 9 | 9 stations |

* When not selecting an SI unit, the symbol will be "—."
* SI unit is not included in I/O unit stations.
* When I/O unit is selected, it is shipped separately, and assembled by users. Refer to the attached operation manual for mounting.

### Made to Order

**(Refer to page 135 for details.)**

| Specification |
|---|
| External pilot (SUP/EXH block assembly) |

### ❻ Valve stations

| Symbol | Stations | Note |
|---|---|---|
| 02 | 2 stations | Double wiring*1 |
| ⋮ | ⋮ | |
| 16 | 16 stations | |
| 02 | 2 stations | Specified layout*2 (Up to 32 solenoids available) |
| ⋮ | ⋮ | |
| 24 | 24 stations | |

*1 Double wiring: 2-position single, double, 3-position, and 4-position valves can be used on all manifold stations.
The use of a 2-position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.
*2 Specified layout: Indicate the wiring specifications on the manifold specification sheet. (Note that 2-position double, 3-position, and 4-position valves cannot be used where single wiring has been specified.)
* This also includes the number of blanking plates.

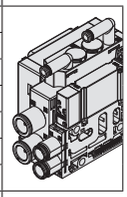
### ❼ P, E port entry, SUP/EXH block assembly

| P, E port entry | Internal pilot | Internal pilot, Built-in silencer |
|---|---|---|
| U side (2 to 10 stations) | U | C |
| D side (2 to 10 stations) | D | E |
| Both sides (2 to 24 stations) | B | F |

* The 3/5(E) port is plugged for the built-in silencer type.
* When the built-in silencer type is used, keep the exhaust port from coming into direct contact with water or other liquids.
* The external pilot specification should be ordered as Made to Order. For details, refer to page 135.

### ❽ A, B port size (Metric/One-touch fitting)

| Symbol | A, B port | | JSY1000 | JSY3000 | JSY5000 |
|---|---|---|---|---|---|
| C2 | Straight | Ø 2 | ● | — | — |
| C4 | | Ø 4 | ● | — | — |
| C6 | | Ø 6 | ● | ● | — |
| C8 | | Ø 8 | — | ● | — |
| C10 | | Ø 10 | — | — | ● |
| C12 | | Ø 12 | — | — | ● |
| CM*1 | | Straight port, mixed sizes | ● | ● | ● |
| P, E port size (One-touch fittings) | | | Ø 8 | Ø 10 | Ø 12 |



*1 Indicate the sizes on the manifold specification sheet in the case of "CM."
* The JSY1000 manifold pitch for C2 and C4 is 6.5 mm, and 9 mm for C6. When CM is selected, the manifold pitch is different depending on the selected fitting.

### ❾ Mounting and Option

| Symbol | Mounting |
|---|---|
| — | Direct mounting |
| D❑ | DIN rail mounting |

* Enter the number of stations inside ☐ when it is larger than the number of valve stations. (Refer to "DIN Rail Option" shown below.)
* Refer to page 139 for details on securing the DIN rail mounting type manifold.

**DIN Rail Option**

| | | |
|---|---|---|
| — | DIN rail mounting (With DIN rail) | |
| 0 | DIN rail mounting (Without DIN rail) | |
| 3 | For 3 stations | Specify a length longer than that of the standard rail. |
| ⋮ | ⋮ | |
| 24 | For 24 stations | |

* If the DIN rail must be mounted without an SI unit, select D0. Refer to L3 of the dimensions for the DIN rail length and order separately. (Refer to page 131 for the DIN rail part number.)

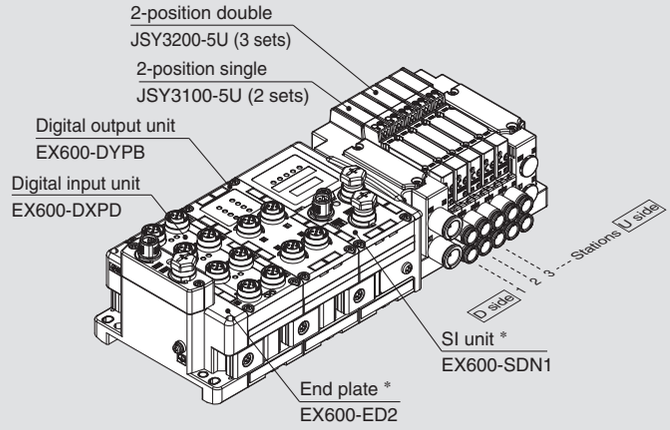
**For details on the EX600 Integrated Type (For Input/Output) Serial Transmission System, refer to the Web Catalogue and the Operation Manual. For the part numbers of the SI units to be mounted, refer to pages 108 and 109. (IP40 specifications may be required according to the I/O unit to be selected.) Please download the Operation Manual via the SMC website, https://www.smc.eu**

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## How to Order Manifold Assembly

### Example (JJ5SY3-10S6□-□)




JJ5SY3-10S6Q72-05D-C8 ·· 1 set (Type 10 5-station manifold base part no.)
* JSY3100-5U ····· 2 sets (2-position single part no.)
* JSY3200-5U ····· 3 sets (2-position double part no.)
* EX600-DXPD ····· 1 set I/O unit part number (Station 1)
* EX600-DYPB ····· 1 set I/O unit part number (Station 2)

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

· For the valve arrangement, the valve closest to the D side is considered the 1st station.
· Under the manifold part number, state the valves to be mounted, then the I/O units in order starting with the 1st station as shown in the figure. If the arrangement becomes too complicated, specify the details on a manifold specification sheet.

*1 Do not enter the SI unit part number and the end plate part number together.

**Internal Pilot**

## How to Order Valves (With mounting screw)

Refer to page 13 for valve specifications.

**JSY1000 Series**

**JSY3000/5000 Series**

With power-saving circuit

JSY 1 1 0 0 T – 5 Z □
JSY 3 1 0 0 – 5 Z □
① ② ③ ④ ⑤ ⑥

Base mounted

Made to Order **Made to Order**
(Refer to page 135 for details.)

| Specification |
|---|
| With power-saving circuit (Continuous duty type): 0.1 W (JSY3000/5000) |
| External pilot |

### ① Series

| | |
|---|---|
| 1 | JSY1000 |
| 3 | JSY3000 |
| 5 | JSY5000 |

### ② Type of actuation

| | | |
|---|---|---|
| 1 | 2-position | Single |
| 2 | | Double |
| 3 | 3-position | Closed centre |
| 4 | | Exhaust centre |
| 5 | | Pressure centre |
| A | 4-position dual 3-port | N.C./N.C. |
| B | | N.O./N.O. |
| C | | N.C./N.O. |

### ③ Pilot valve exhaust method

| | |
|---|---|
| 0 | Pilot valve individual exhaust |

### ④ Rated voltage

| | |
|---|---|
| 5 | 24 VDC |

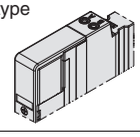
### ⑤ Light/surge voltage suppressor and common specification

| Symbol | With light | Surge voltage suppressor | Common specification |
|---|---|---|---|
| U | ● | ● | Non-polar |
| Z | | | Positive common |
| NZ | | | Negative common |

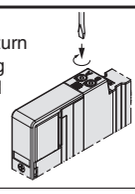
* Select "U" or "Z" for the valve when the SI unit output polarity is positive common. Select "U" or "NZ" for the valve when the SI unit output polarity is negative common.
* Only "Z" and "NZ" types are available for the JSY1000 series.
* When the non-polar common specification type is selected, take measures to prevent surge voltage. For details, refer to page 138.

### ⑥ Manual override

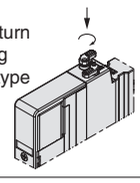
—: Non-locking push type



D: Push-turn locking slotted type



E: Push-turn locking lever type



* Push-turn locking lever type "E" is not available for the JSY1000.

* **When ordering a valve individually, the base gasket is not included.**
Since the base gasket is attached to the manifold, please order the base gasket separately if it is needed for maintenance. Refer to page 116 for base gasket and mounting screw part numbers.

### ⚠ Caution

**If the JSY3000/5000 series is to be continuously energised, please be sure to select the power-saving circuit (continuous duty type) specification. Refer to "Made to Order" on page 135.**
**For the JSY1000 series, only the power-saving circuit specification is available.**

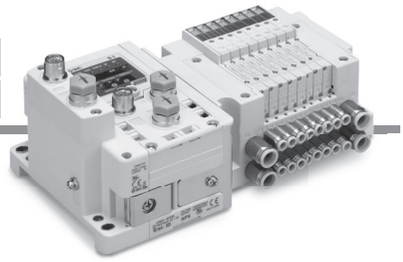
Protective class class Ⅲ (Mark: Ⅲ)

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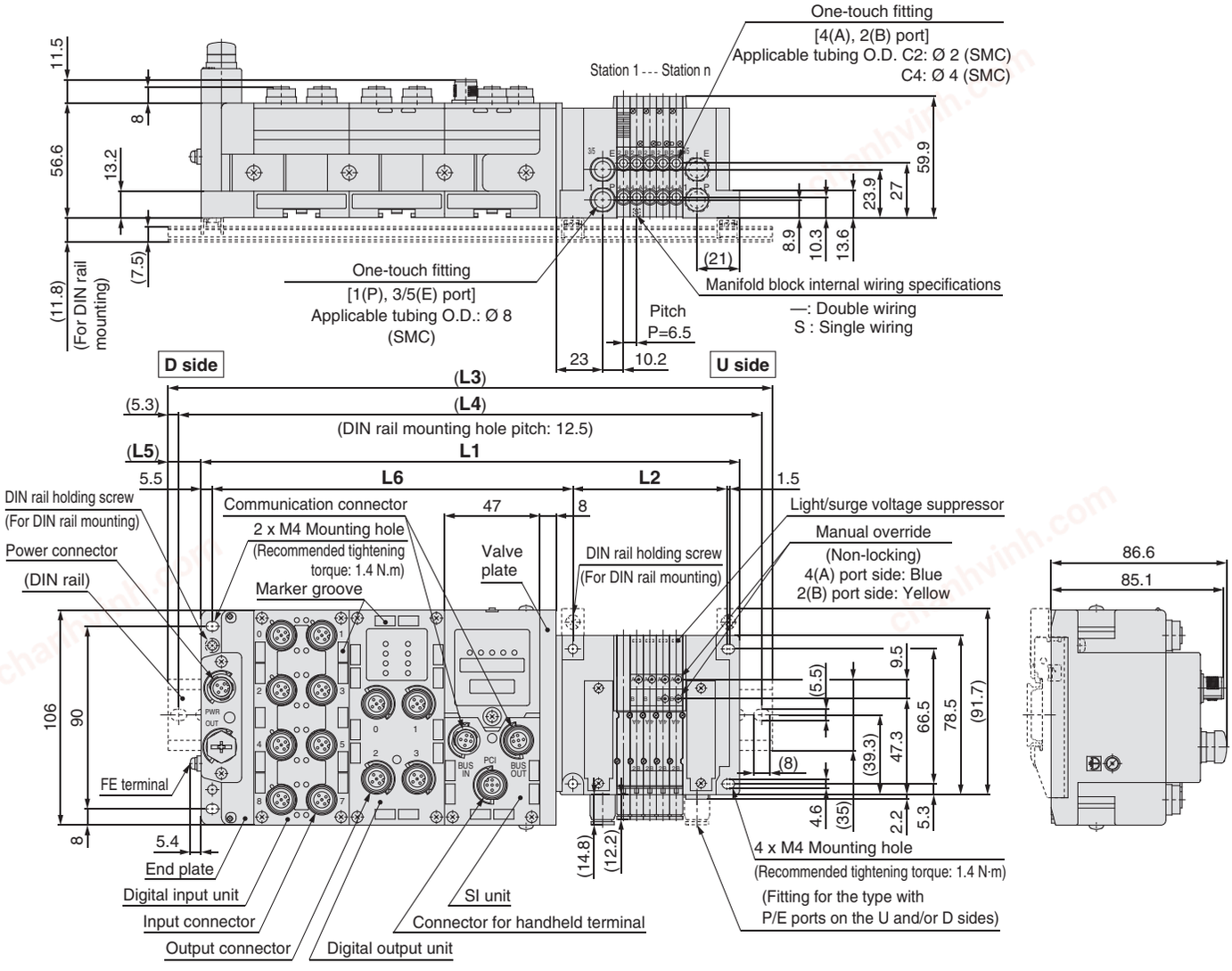
# JSY1000/3000/5000 Series

## Dimensions: JSY1000 Series

**Type 10/Side Ported** (Applicable to Ø 2 and Ø 4 fittings)
**EX600** (M12 Connector)



**JJ5SY1-10S6□ 2/4/6/7/8/9 □ - Stations U/D/B - C2/C4 (D)**







L1 = 6.5 x n1 + 139 + 47 x n2
L2 = 6.5 x n1 + 43.4
L4 = L3 – 10.5
L5 = (L3 – L1) / 2
L6 = 47 x n2 + 83.8

n1: Valve stations
n2: I/O unit stations

* These figures show the "JJ5SY1-10S6Q22-05D-C4."
* Refer to page 97 for dimensions of external pilot (Made to Order) and silencer.
* When CM is selected for mixed A, B port size and C6 (9 mm pitch) is included, refer to page 100 for dimensions.

### L3: DIN Rail Overall Length

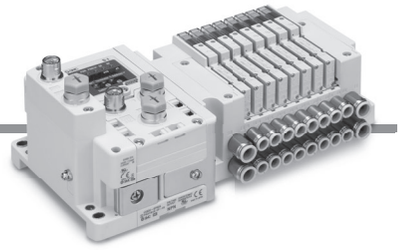
| Valve stations (n1) / I/O unit stations (n2) | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **0** | 185.5 | 185.5 | 198 | 198 | 210.5 | 210.5 | 223 | 223 | 235.5 | 235.5 | 248 | 248 | 260.5 | 260.5 | 273 | 273 | 285.5 | 298 | 298 | 310.5 | 310.5 | 323 | 323 |
| **1** | 223 | 235.5 | 235.5 | 248 | 260.5 | 260.5 | 273 | 273 | 285.5 | 285.5 | 298 | 298 | 310.5 | 310.5 | 323 | 323 | 335.5 | 335.5 | 348 | 348 | 360.5 | 360.5 | 373 |
| **2** | 273 | 285.5 | 285.5 | 298 | 298 | 310.5 | 310.5 | 323 | 323 | 335.5 | 335.5 | 348 | 348 | 360.5 | 360.5 | 373 | 385.5 | 385.5 | 398 | 398 | 410.5 | 410.5 | 423 |
| **3** | 323 | 323 | 335.5 | 348 | 348 | 360.5 | 360.5 | 373 | 373 | 385.5 | 385.5 | 398 | 398 | 410.5 | 410.5 | 423 | 423 | 435.5 | 435.5 | 448 | 448 | 460.5 | 460.5 |
| **4** | 373 | 373 | 385.5 | 385.5 | 398 | 398 | 410.5 | 410.5 | 423 | 423 | 435.5 | 435.5 | 448 | 448 | 460.5 | 473 | 473 | 485.5 | 485.5 | 498 | 498 | 510.5 | 510.5 |
| **5** | 410.5 | 423 | 435.5 | 435.5 | 448 | 448 | 460.5 | 460.5 | 473 | 473 | 485.5 | 485.5 | 498 | 498 | 510.5 | 510.5 | 523 | 523 | 535.5 | 535.5 | 548 | 548 | 560.5 |
| **6** | 460.5 | 473 | 473 | 485.5 | 485.5 | 498 | 498 | 510.5 | 510.5 | 523 | 523 | 535.5 | 535.5 | 548 | 560.5 | 560.5 | 573 | 573 | 585.5 | 585.5 | 598 | 598 | 610.5 |
| **7** | 510.5 | 523 | 523 | 535.5 | 535.5 | 548 | 548 | 560.5 | 560.5 | 573 | 573 | 585.5 | 585.5 | 598 | 598 | 610.5 | 610.5 | 623 | 623 | 635.5 | 635.5 | 648 | 648 |
| **8** | 560.5 | 560.5 | 573 | 573 | 585.5 | 585.5 | 598 | 598 | 610.5 | 610.5 | 623 | 623 | 635.5 | 648 | 648 | 660.5 | 660.5 | 673 | 673 | 685.5 | 685.5 | 698 | 698 |
| **9** | 610.5 | 610.5 | 623 | 623 | 635.5 | 635.5 | 648 | 648 | 660.5 | 660.5 | 673 | 673 | 685.5 | 685.5 | 698 | 698 | 710.5 | 710.5 | 723 | 723 | 735.5 | 735.5 | 748 |

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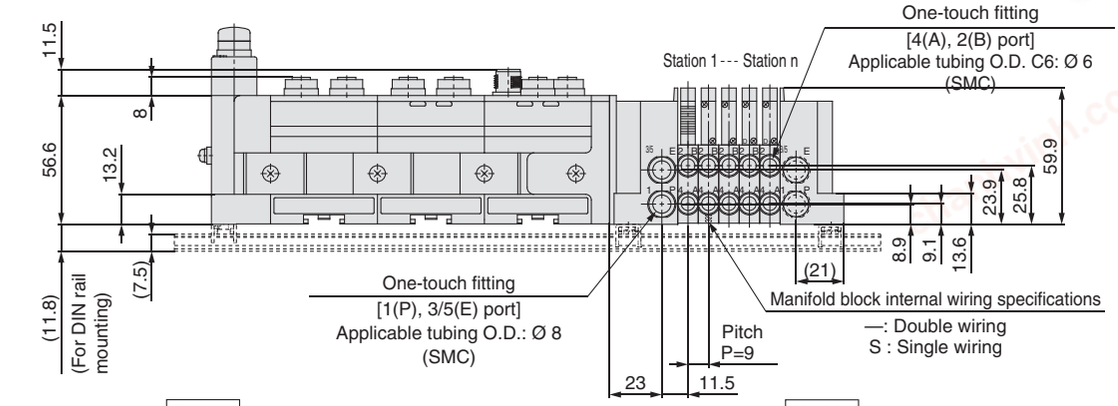


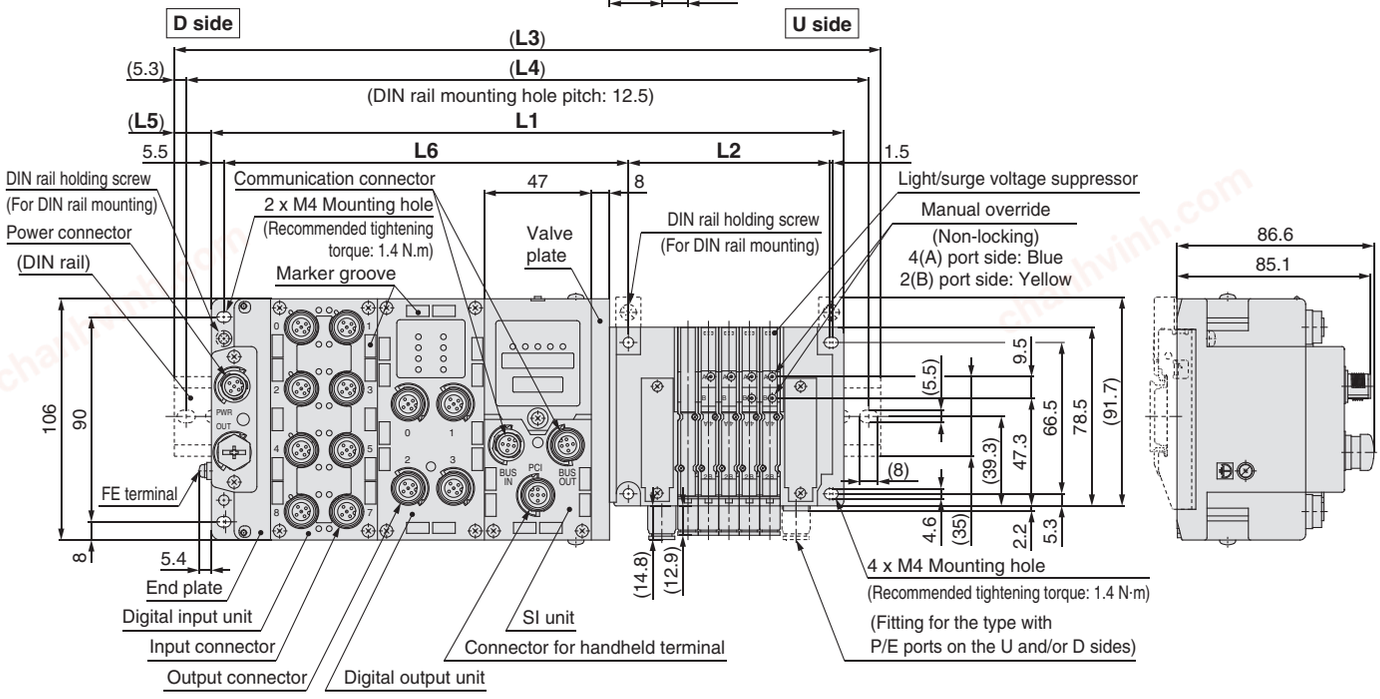
## Dimensions: JSY1000 Series

**Type 10/Side Ported** (Applicable to Ø 6 fittings)
**EX600** (M12 Connector)



**JJ5SY1-10S6□ 2 4 6 7 8 9 □ - Stations U D B - C6(D)**




L1 = 9 x n1 + 139 + 47 x n2
L2 = 9 x n1 + 43.4
L4 = L3 – 10.5
L5 = (L3 – L1) / 2
L6 = 47 x n2 + 83.8

n1: Valve stations
n2: I/O unit stations

* These figures show the "JJ5SY1-10S6Q22-05D-C6."
* Refer to page 97 for dimensions of external pilot (Made to Order) and silencer.
* When CM is selected for mixed A, B port size, refer to page 100 for dimensions.

### L3: DIN Rail Overall Length

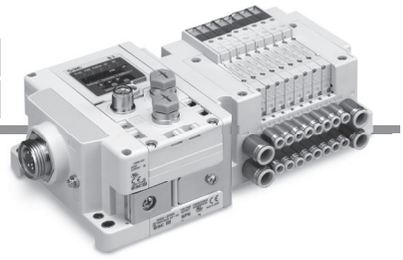
| I/O unit stations (n2) \ Valve stations (n1) | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **0** | 185.5 | 198 | 210.5 | 210.5 | 223 | 235.5 | 235.5 | 248 | 260.5 | 273 | 273 | 285.5 | 298 | 298 | 310.5 | 323 | 335.5 | 335.5 | 348 | 360.5 | 360.5 | 373 | 385.5 |
| **1** | 235.5 | 248 | 248 | 260.5 | 273 | 273 | 285.5 | 298 | 310.5 | 310.5 | 323 | 335.5 | 335.5 | 348 | 360.5 | 373 | 373 | 385.5 | 398 | 410.5 | 410.5 | 423 | 435.5 |
| **2** | 285.5 | 285.5 | 298 | 310.5 | 310.5 | 323 | 335.5 | 348 | 348 | 360.5 | 373 | 385.5 | 385.5 | 398 | 410.5 | 410.5 | 423 | 435.5 | 448 | 448 | 460.5 | 473 | 473 |
| **3** | 323 | 335.5 | 348 | 360.5 | 360.5 | 373 | 385.5 | 385.5 | 398 | 410.5 | 423 | 423 | 435.5 | 448 | 448 | 460.5 | 473 | 485.5 | 485.5 | 498 | 510.5 | 510.5 | 523 |
| **4** | 373 | 385.5 | 398 | 398 | 410.5 | 423 | 423 | 435.5 | 448 | 460.5 | 460.5 | 473 | 485.5 | 485.5 | 498 | 510.5 | 523 | 523 | 535.5 | 548 | 560.5 | 560.5 | 573 |
| **5** | 423 | 435.5 | 435.5 | 448 | 460.5 | 460.5 | 473 | 485.5 | 498 | 498 | 510.5 | 523 | 535.5 | 535.5 | 548 | 560.5 | 560.5 | 573 | 585.5 | 598 | 598 | 610.5 | 623 |
| **6** | 473 | 473 | 485.5 | 498 | 510.5 | 510.5 | 523 | 535.5 | 535.5 | 548 | 560.5 | 573 | 573 | 585.5 | 598 | 598 | 610.5 | 623 | 635.5 | 635.5 | 648 | 660.5 | 660.5 |
| **7** | 510.5 | 523 | 535.5 | 548 | 548 | 560.5 | 573 | 573 | 585.5 | 598 | 610.5 | 610.5 | 623 | 635.5 | 635.5 | 648 | 660.5 | 673 | 673 | 685.5 | 698 | 710.5 | 710.5 |
| **8** | 560.5 | 573 | 585.5 | 585.5 | 598 | 610.5 | 610.5 | 623 | 635.5 | 648 | 648 | 660.5 | 673 | 685.5 | 685.5 | 698 | 710.5 | 710.5 | 723 | 735.5 | 748 | 748 | 760.5 |
| **9** | 610.5 | 623 | 623 | 635.5 | 648 | 660.5 | 660.5 | 673 | 685.5 | 685.5 | 698 | 710.5 | 723 | 723 | 735.5 | 748 | 748 | 760.5 | 773 | 785.5 | 785.5 | 798 | 810.5 |

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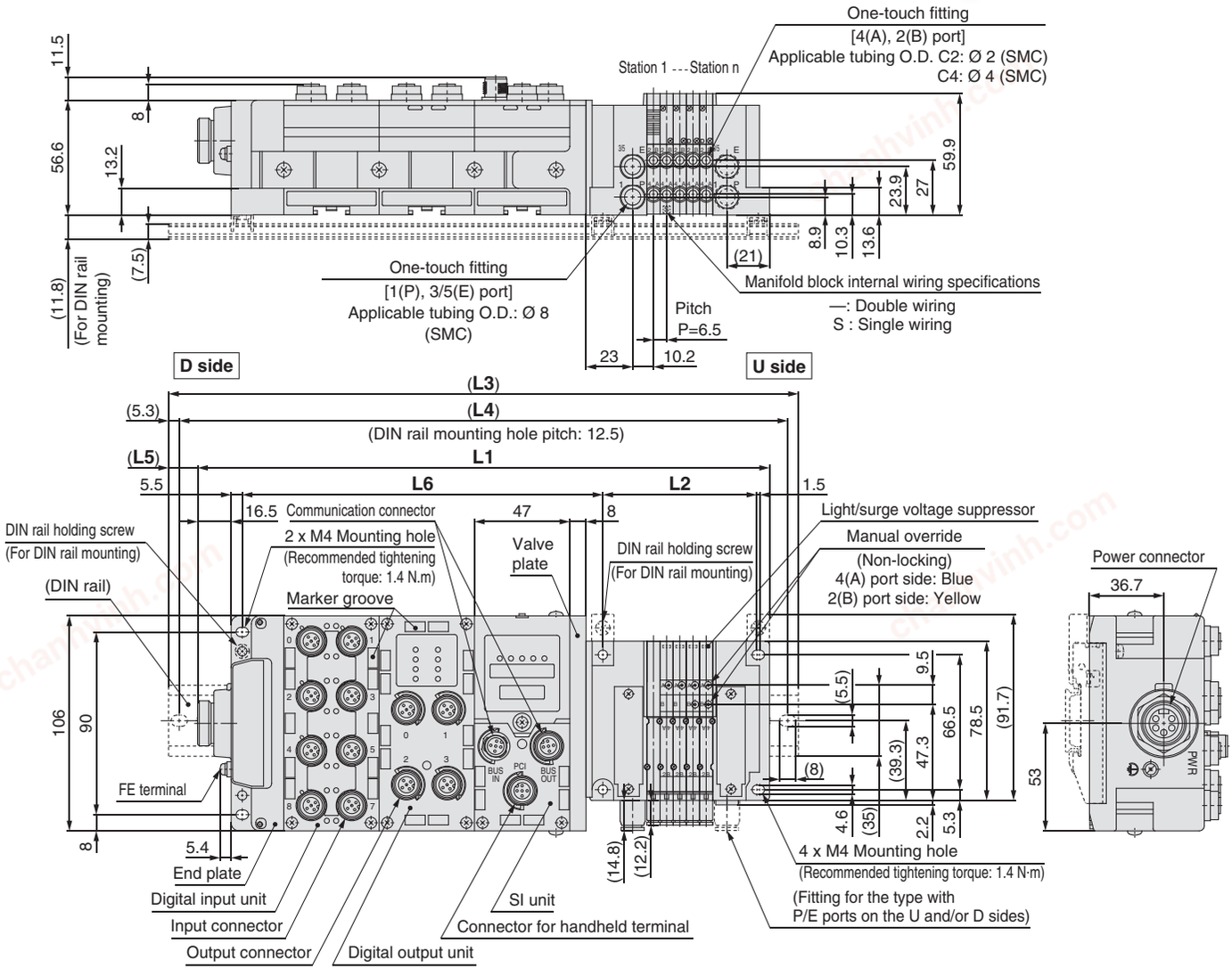
# JSY1000/3000/5000 Series

## Dimensions: JSY1000 Series

**Type 10/Side Ported** (Applicable to Ø 2 and Ø 4 fittings)
**EX600** (7/8 Inch Connector)



**JJ5SY1-10S6□ 3/5 □ - Stations U/B - C2/C4 (D)**




L1 = 6.5 x n1 + 155.5 + 47 x n2
L2 = 6.5 x n1 + 43.4
L4 = L3 – 10.5
L5 = (L3 – L1) / 2
L6 = 47 x n2 + 83.8

n1: Valve stations
n2: I/O unit stations

* These figures show the "JJ5SY1-10S6Q32-05D-C4."
* Refer to page 97 for dimensions of external pilot (Made to Order) and silencer.
* When CM is selected for mixed A, B port size and C6 (9 mm pitch) is included, refer to page 100 for dimensions.

### L3: DIN Rail Overall Length

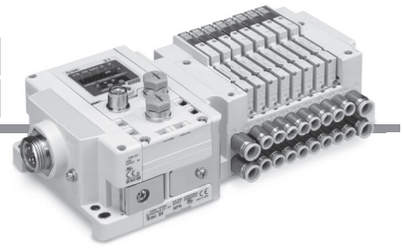
| I/O unit stations (n2) \ Valve stations (n1) | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **0** | 198 | 210.5 | 210.5 | 223 | 223 | 235.5 | 235.5 | 248 | 248 | 260.5 | 260.5 | 273 | 273 | 285.5 | 285.5 | 298 | 298 | 310.5 | 310.5 | 323 | 323 | 335.5 | 335.5 |
| **1** | 248 | 248 | 260.5 | 260.5 | 273 | 273 | 285.5 | 285.5 | 298 | 298 | 310.5 | 310.5 | 323 | 335.5 | 335.5 | 348 | 348 | 360.5 | 360.5 | 373 | 373 | 385.5 | 385.5 |
| **2** | 298 | 298 | 310.5 | 310.5 | 323 | 323 | 335.5 | 335.5 | 348 | 348 | 360.5 | 360.5 | 373 | 373 | 385.5 | 385.5 | 398 | 398 | 410.5 | 410.5 | 423 | 423 | 435.5 |
| **3** | 335.5 | 348 | 348 | 360.5 | 360.5 | 373 | 373 | 385.5 | 385.5 | 398 | 398 | 410.5 | 423 | 423 | 435.5 | 435.5 | 448 | 448 | 460.5 | 460.5 | 473 | 473 | 485.5 |
| **4** | 385.5 | 398 | 398 | 410.5 | 410.5 | 423 | 423 | 435.5 | 435.5 | 448 | 448 | 460.5 | 460.5 | 473 | 473 | 485.5 | 485.5 | 498 | 498 | 510.5 | 510.5 | 523 | 523 |
| **5** | 435.5 | 435.5 | 448 | 448 | 460.5 | 460.5 | 473 | 473 | 485.5 | 485.5 | 498 | 510.5 | 510.5 | 523 | 523 | 535.5 | 535.5 | 548 | 548 | 560.5 | 560.5 | 573 | 573 |
| **6** | 485.5 | 485.5 | 498 | 498 | 510.5 | 510.5 | 523 | 523 | 535.5 | 535.5 | 548 | 548 | 560.5 | 560.5 | 573 | 573 | 585.5 | 585.5 | 598 | 598 | 610.5 | 610.5 | 623 |
| **7** | 523 | 535.5 | 535.5 | 548 | 548 | 560.5 | 560.5 | 573 | 573 | 585.5 | 598 | 598 | 610.5 | 610.5 | 623 | 623 | 635.5 | 635.5 | 648 | 648 | 660.5 | 660.5 | 673 |
| **8** | 573 | 585.5 | 585.5 | 598 | 598 | 610.5 | 610.5 | 623 | 623 | 635.5 | 635.5 | 648 | 648 | 660.5 | 660.5 | 673 | 673 | 685.5 | 685.5 | 698 | 698 | 710.5 | 723 |
| **9** | 623 | 623 | 635.5 | 635.5 | 648 | 648 | 660.5 | 660.5 | 673 | 685.5 | 685.5 | 698 | 698 | 710.5 | 710.5 | 723 | 723 | 735.5 | 735.5 | 748 | 748 | 760.5 | 760.5 |

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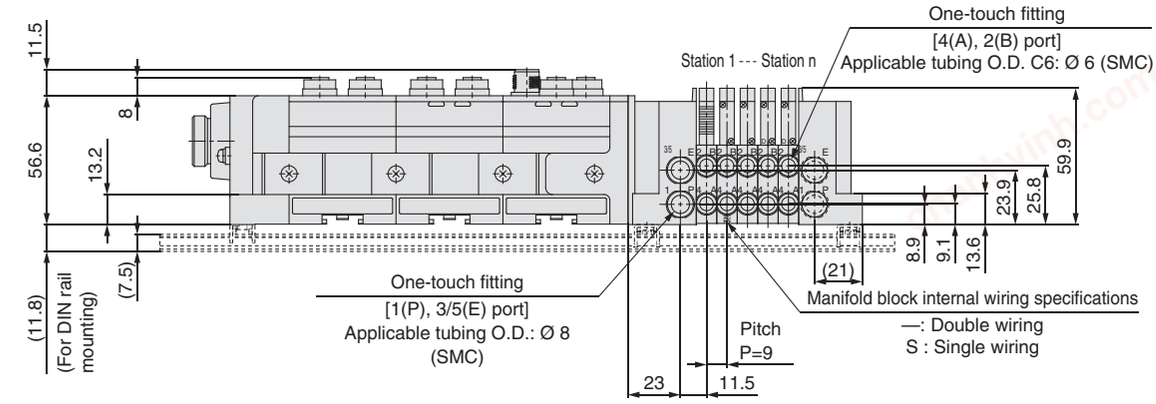


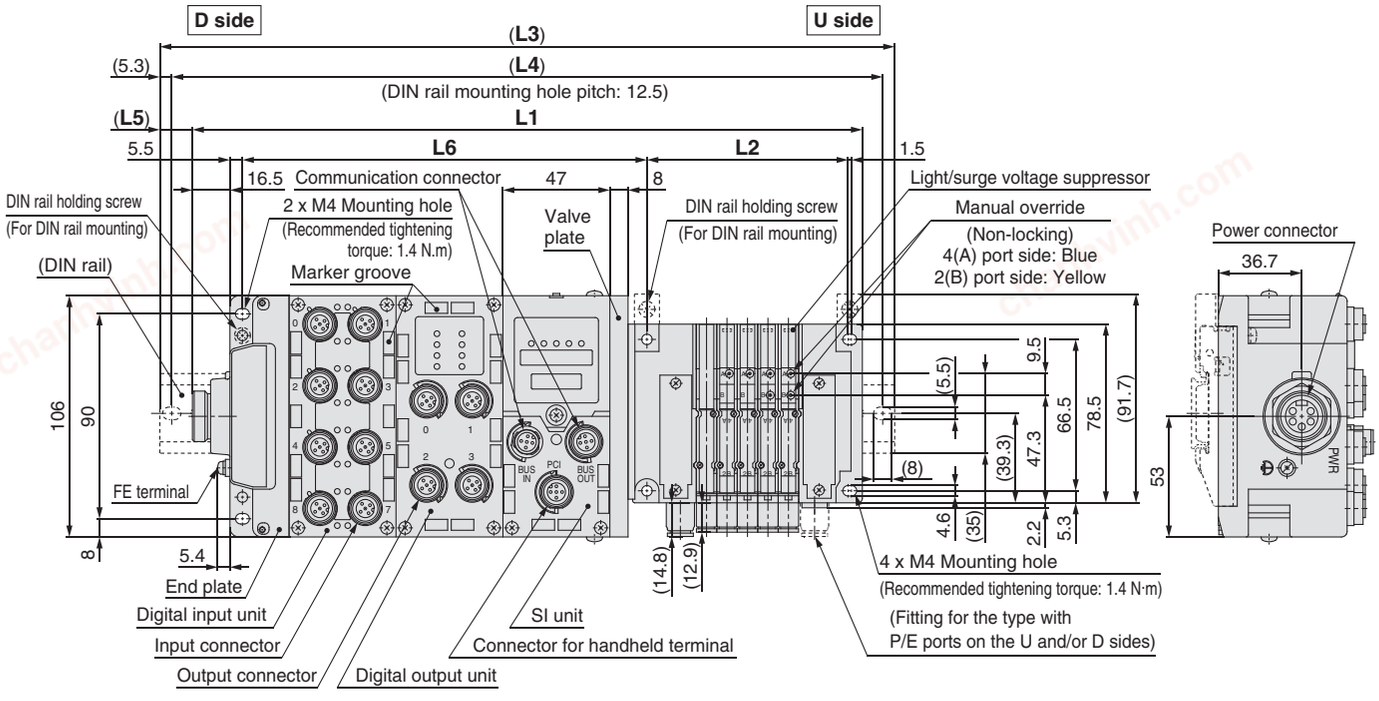
## Dimensions: JSY1000 Series

**Type 10/Side Ported** (Applicable to Ø 6 fittings)
**EX600** (7/8 Inch Connector)



### JJ5SY1-10S6□ 3/5 □ - Stations U/D - C6(D)




L1 = 9 x n1 + 155.5 + 47 x n2
L2 = 9 x n1 + 43.4
L4 = L3 – 10.5
L5 = (L3 – L1) / 2
L6 = 47 x n2 + 83.8

n1: Valve stations
n2: I/O unit stations

* These figures show the "JJ5SY1-10S6Q32-05D-C6."
* Refer to page 97 for dimensions of external pilot (Made to Order) and silencer.
* When CM is selected for mixed A, B port size, refer to page 100 for dimensions.

### L3: DIN Rail Overall Length

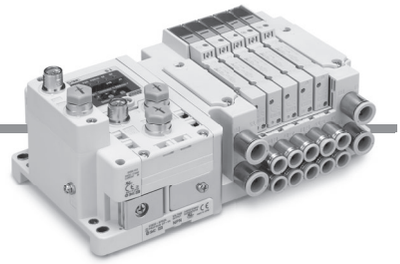
| I/O unit stations (n2) \ Valve stations (n1) | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **0** | 198 | 210.5 | 223 | 235.5 | 235.5 | 248 | 260.5 | 260.5 | 273 | 285.5 | 298 | 298 | 310.5 | 323 | 323 | 335.5 | 348 | 360.5 | 360.5 | 373 | 385.5 | 398 | 398 |
| **1** | 248 | 260.5 | 273 | 273 | 285.5 | 298 | 298 | 310.5 | 323 | 335.5 | 335.5 | 348 | 360.5 | 373 | 373 | 385.5 | 398 | 398 | 410.5 | 423 | 435.5 | 435.5 | 448 |
| **2** | 298 | 310.5 | 310.5 | 323 | 335.5 | 348 | 348 | 360.5 | 373 | 373 | 385.5 | 398 | 410.5 | 410.5 | 423 | 435.5 | 435.5 | 448 | 460.5 | 473 | 473 | 485.5 | 498 |
| **3** | 348 | 348 | 360.5 | 373 | 385.5 | 385.5 | 398 | 410.5 | 410.5 | 423 | 435.5 | 448 | 448 | 460.5 | 473 | 473 | 485.5 | 498 | 510.5 | 510.5 | 523 | 535.5 | 548 |
| **4** | 385.5 | 398 | 410.5 | 423 | 423 | 435.5 | 448 | 448 | 460.5 | 473 | 485.5 | 485.5 | 498 | 510.5 | 523 | 523 | 535.5 | 548 | 548 | 560.5 | 573 | 585.5 | 585.5 |
| **5** | 435.5 | 448 | 460.5 | 460.5 | 473 | 485.5 | 498 | 498 | 510.5 | 523 | 523 | 535.5 | 548 | 560.5 | 560.5 | 573 | 585.5 | 585.5 | 598 | 610.5 | 623 | 623 | 635.5 |
| **6** | 485.5 | 498 | 498 | 510.5 | 523 | 535.5 | 535.5 | 548 | 560.5 | 560.5 | 573 | 585.5 | 598 | 598 | 610.5 | 623 | 623 | 635.5 | 648 | 660.5 | 660.5 | 673 | 685.5 |
| **7** | 535.5 | 535.5 | 548 | 560.5 | 573 | 573 | 585.5 | 598 | 598 | 610.5 | 623 | 635.5 | 635.5 | 648 | 660.5 | 673 | 673 | 685.5 | 698 | 698 | 710.5 | 723 | 735.5 |
| **8** | 573 | 585.5 | 598 | 610.5 | 610.5 | 623 | 635.5 | 648 | 648 | 660.5 | 673 | 673 | 685.5 | 698 | 710.5 | 710.5 | 723 | 735.5 | 735.5 | 748 | 760.5 | 773 | 773 |
| **9** | 623 | 635.5 | 648 | 648 | 660.5 | 673 | 685.5 | 685.5 | 698 | 710.5 | 710.5 | 723 | 735.5 | 748 | 748 | 760.5 | 773 | 773 | 785.5 | 798 | 810.5 | 810.5 | 823 |

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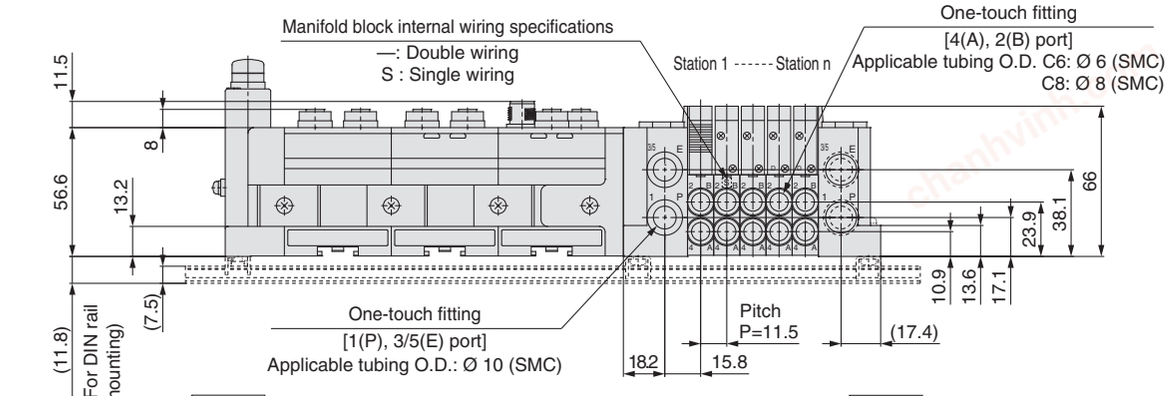
# JSY1000/3000/5000 Series

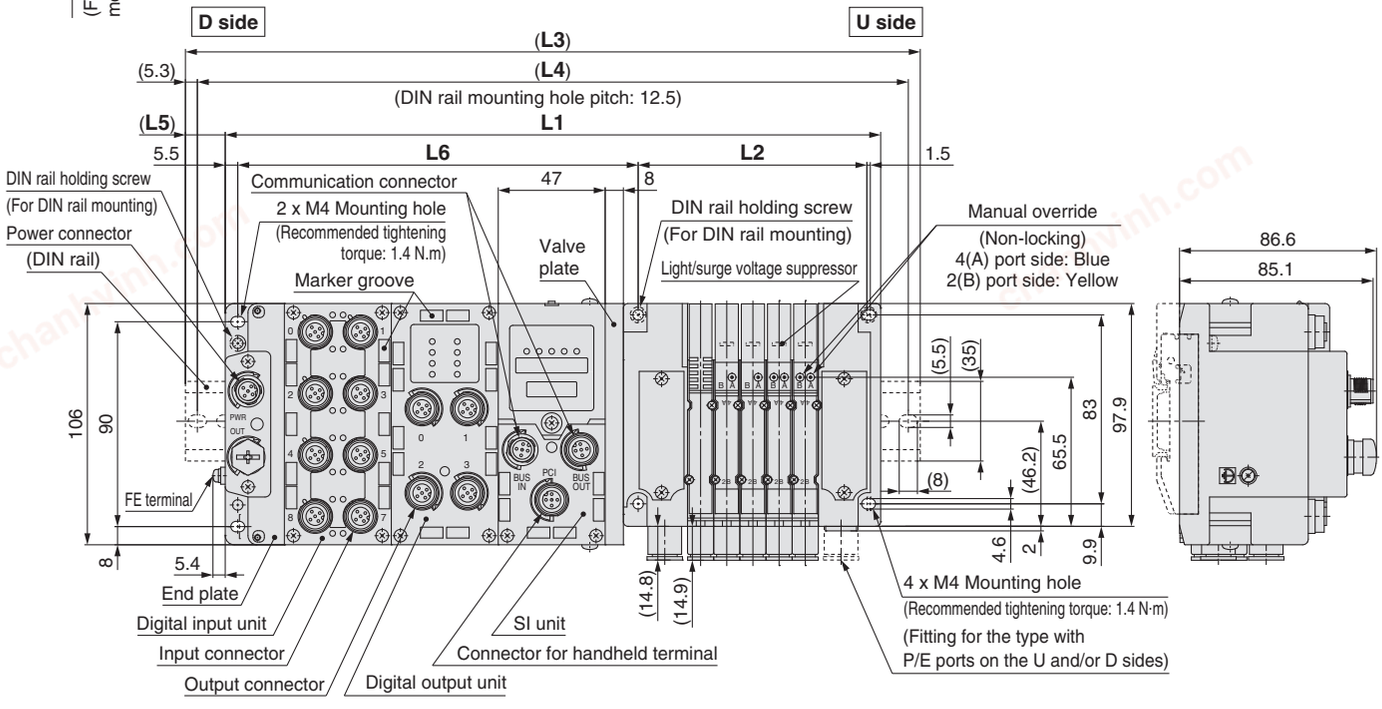
## Dimensions: JSY3000 Series

**Type 10/Side Ported**
**EX600 (M12 Connector)**



**JJ5SY3-10S6□ 2/4/6/7/8/9 □ - Stations U/D/B - C6/C8 (D)**




L1 = 11.5 x n1 + 136.6 + 47 x n2
L2 = 11.5 x n1 + 43.1
L4 = L3 – 10.5
L5 = (L3 – L1) / 2
L6 = 47 x n2 + 82

n1: Valve stations
n2: I/O unit stations

* These figures show the “JJ5SY3-10S6Q22-05D-C8.”
* Refer to page 98 for dimensions of external pilot (Made to Order) and silencer.

### L3: DIN Rail Overall Length

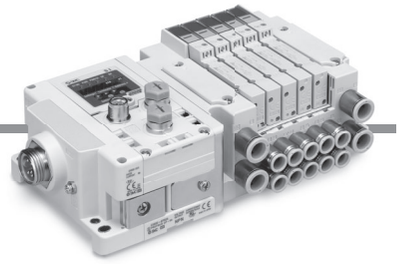
| Valve stations (n1) / I/O unit stations (n2) | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **0** | 185.5 | 198 | 210.5 | 223 | 235.5 | 248 | 260.5 | 273 | 285.5 | 298 | 298 | 310.5 | 323 | 335.5 | 348 | 360.5 | 373 | 385.5 | 398 | 410.5 | 423 | 435.5 | 448 |
| **1** | 235.5 | 248 | 260.5 | 273 | 285.5 | 298 | 310.5 | 310.5 | 323 | 335.5 | 348 | 360.5 | 373 | 385.5 | 398 | 410.5 | 423 | 435.5 | 448 | 460.5 | 460.5 | 473 | 485.5 |
| **2** | 285.5 | 298 | 310.5 | 323 | 323 | 335.5 | 348 | 360.5 | 373 | 385.5 | 398 | 410.5 | 423 | 435.5 | 448 | 460.5 | 473 | 473 | 485.5 | 498 | 510.5 | 523 | 535.5 |
| **3** | 335.5 | 335.5 | 348 | 360.5 | 373 | 385.5 | 398 | 410.5 | 423 | 435.5 | 448 | 460.5 | 473 | 485.5 | 485.5 | 498 | 510.5 | 523 | 535.5 | 548 | 560.5 | 573 | 585.5 |
| **4** | 373 | 385.5 | 398 | 410.5 | 423 | 435.5 | 448 | 460.5 | 473 | 485.5 | 498 | 498 | 510.5 | 523 | 535.5 | 548 | 560.5 | 573 | 585.5 | 598 | 610.5 | 623 | 635.5 |
| **5** | 423 | 435.5 | 448 | 460.5 | 473 | 485.5 | 498 | 510.5 | 510.5 | 523 | 535.5 | 548 | 560.5 | 573 | 585.5 | 598 | 610.5 | 623 | 635.5 | 648 | 648 | 660.5 | 673 |
| **6** | 473 | 485.5 | 498 | 510.5 | 523 | 523 | 535.5 | 548 | 560.5 | 573 | 585.5 | 598 | 610.5 | 623 | 635.5 | 648 | 660.5 | 660.5 | 673 | 685.5 | 698 | 710.5 | 723 |
| **7** | 523 | 535.5 | 535.5 | 548 | 560.5 | 573 | 585.5 | 598 | 610.5 | 623 | 635.5 | 648 | 660.5 | 673 | 673 | 685.5 | 698 | 710.5 | 723 | 735.5 | 748 | 760.5 | 773 |
| **8** | 560.5 | 573 | 585.5 | 598 | 610.5 | 623 | 635.5 | 648 | 660.5 | 673 | 685.5 | 685.5 | 698 | 710.5 | 723 | 735.5 | 748 | 760.5 | 773 | 785.5 | 798 | 810.5 | 823 |
| **9** | 610.5 | 623 | 635.5 | 648 | 660.5 | 673 | 685.5 | 698 | 698 | 710.5 | 723 | 735.5 | 748 | 760.5 | 773 | 785.5 | 798 | 810.5 | 823 | 835.5 | 848 | 848 | 860.5 |

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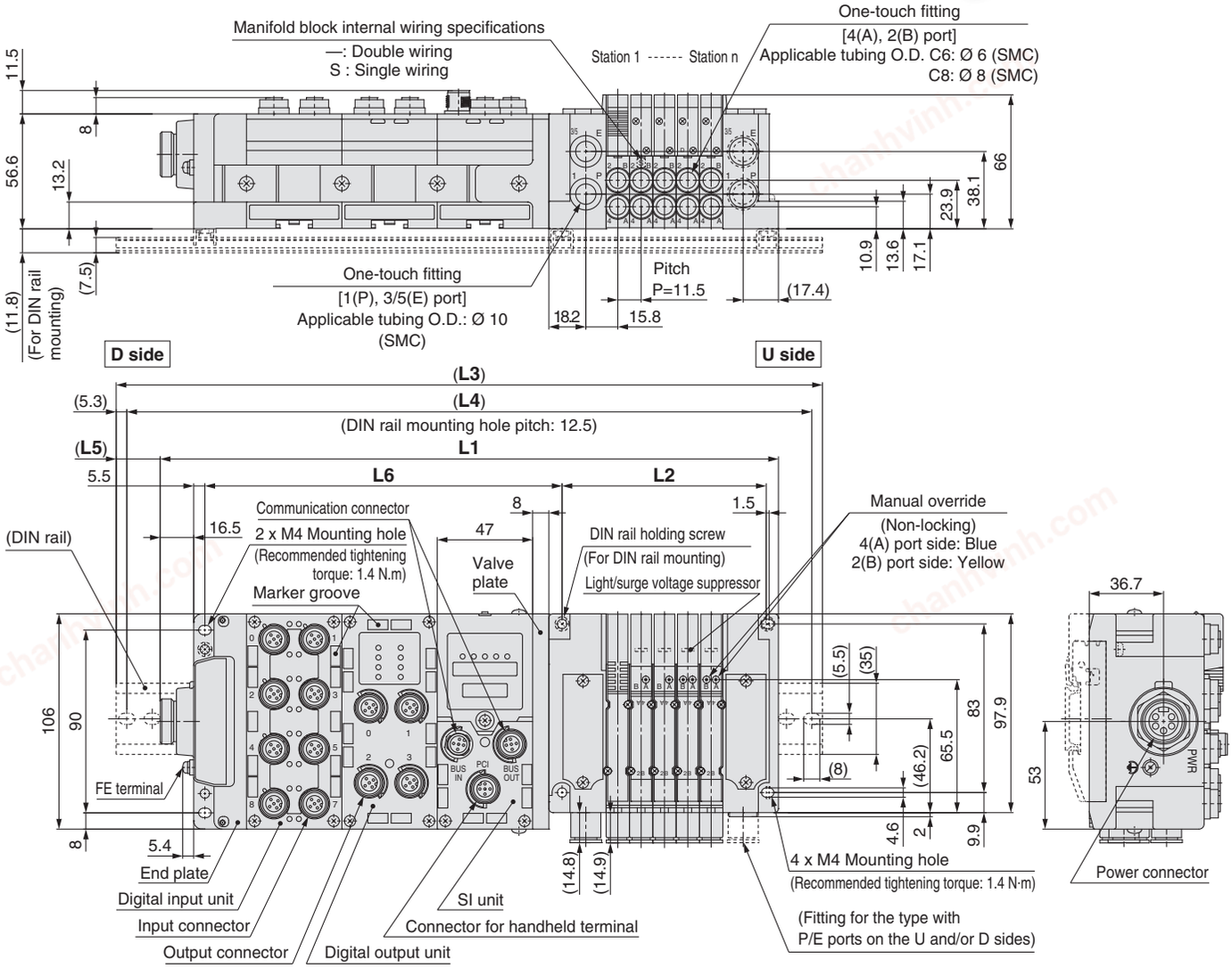


## Dimensions: JSY3000 Series

**Type 10/Side Ported**
**EX600 (7/8 Inch Connector)**



**JJ5SY3-10S6□ 3/5 □ - Stations U/D - C6/C8 (D)**




L1 = 11.5 x n1 + 153.1 + 47 x n2
L2 = 11.5 x n1 + 43.1
L4 = L3 – 10.5
L5 = (L3 – L1) / 2
L6 = 47 x n2 + 82

n1: Valve stations
n2: I/O unit stations

* These figures show the "JJ5SY3-10S6Q32-05D-C8."
* Refer to page 98 for dimensions of external pilot (Made to Order) and silencer.

### L3: DIN Rail Overall Length

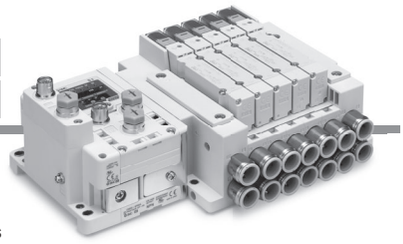
| Valve stations (n1) / I/O unit stations (n2) | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **0** | 223 | 235.5 | 248 | 260.5 | 273 | 285.5 | 285.5 | 298 | 310.5 | 323 | 335.5 | 348 | 360.5 | 373 | 385.5 | 398 | 410.5 | 423 | 423 | 435.5 | 448 | 460.5 | 473 |
| **1** | 273 | 285.5 | 298 | 298 | 310.5 | 323 | 335.5 | 348 | 360.5 | 373 | 385.5 | 398 | 410.5 | 423 | 435.5 | 435.5 | 448 | 460.5 | 473 | 485.5 | 498 | 510.5 | 523 |
| **2** | 310.5 | 323 | 335.5 | 348 | 360.5 | 373 | 385.5 | 398 | 410.5 | 423 | 435.5 | 448 | 448 | 460.5 | 473 | 485.5 | 498 | 510.5 | 523 | 535.5 | 548 | 560.5 | 573 |
| **3** | 360.5 | 373 | 385.5 | 398 | 410.5 | 423 | 435.5 | 448 | 460.5 | 460.5 | 473 | 485.5 | 498 | 510.5 | 523 | 535.5 | 548 | 560.5 | 573 | 585.5 | 598 | 610.5 | 610.5 |
| **4** | 410.5 | 423 | 435.5 | 448 | 460.5 | 473 | 473 | 485.5 | 498 | 510.5 | 523 | 535.5 | 548 | 560.5 | 573 | 585.5 | 598 | 610.5 | 623 | 623 | 635.5 | 648 | 660.5 |
| **5** | 460.5 | 473 | 485.5 | 485.5 | 498 | 510.5 | 523 | 535.5 | 548 | 560.5 | 573 | 585.5 | 598 | 610.5 | 623 | 635.5 | 635.5 | 648 | 660.5 | 673 | 685.5 | 698 | 710.5 |
| **6** | 498 | 510.5 | 523 | 535.5 | 548 | 560.5 | 573 | 585.5 | 598 | 610.5 | 623 | 635.5 | 648 | 648 | 660.5 | 673 | 685.5 | 698 | 710.5 | 723 | 735.5 | 748 | 760.5 |
| **7** | 548 | 560.5 | 573 | 585.5 | 598 | 610.5 | 623 | 635.5 | 648 | 660.5 | 660.5 | 673 | 685.5 | 698 | 710.5 | 723 | 735.5 | 748 | 760.5 | 773 | 785.5 | 798 | 798 |
| **8** | 598 | 610.5 | 623 | 635.5 | 648 | 660.5 | 673 | 673 | 685.5 | 698 | 710.5 | 723 | 735.5 | 748 | 760.5 | 773 | 785.5 | 798 | 810.5 | 810.5 | 823 | 835.5 | 848 |
| **9** | 648 | 660.5 | 673 | 685.5 | 685.5 | 698 | 710.5 | 723 | 735.5 | 748 | 760.5 | 773 | 785.5 | 798 | 810.5 | 823 | 823 | 835.5 | 848 | 860.5 | 873 | 885.5 | 898 |

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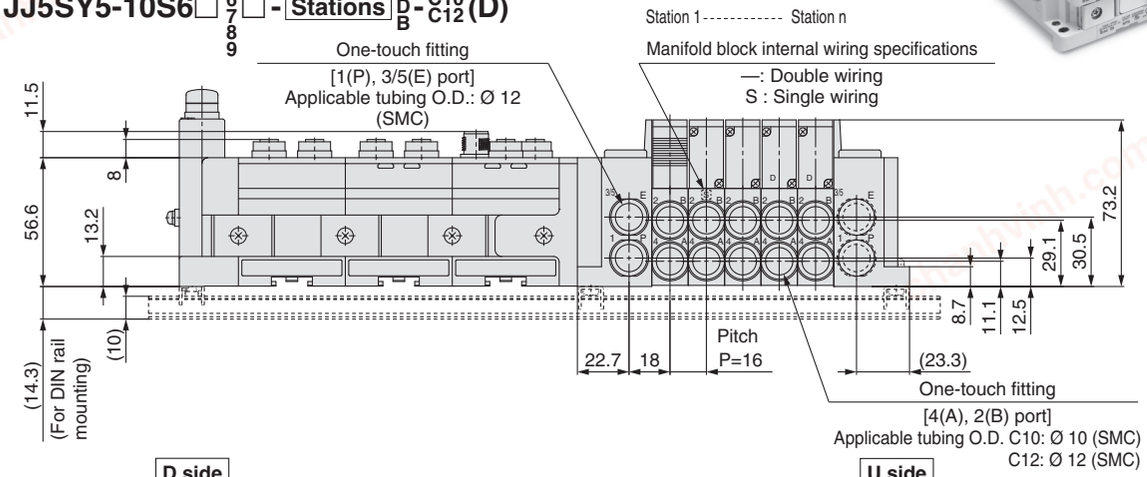
# JSY1000/3000/5000 Series

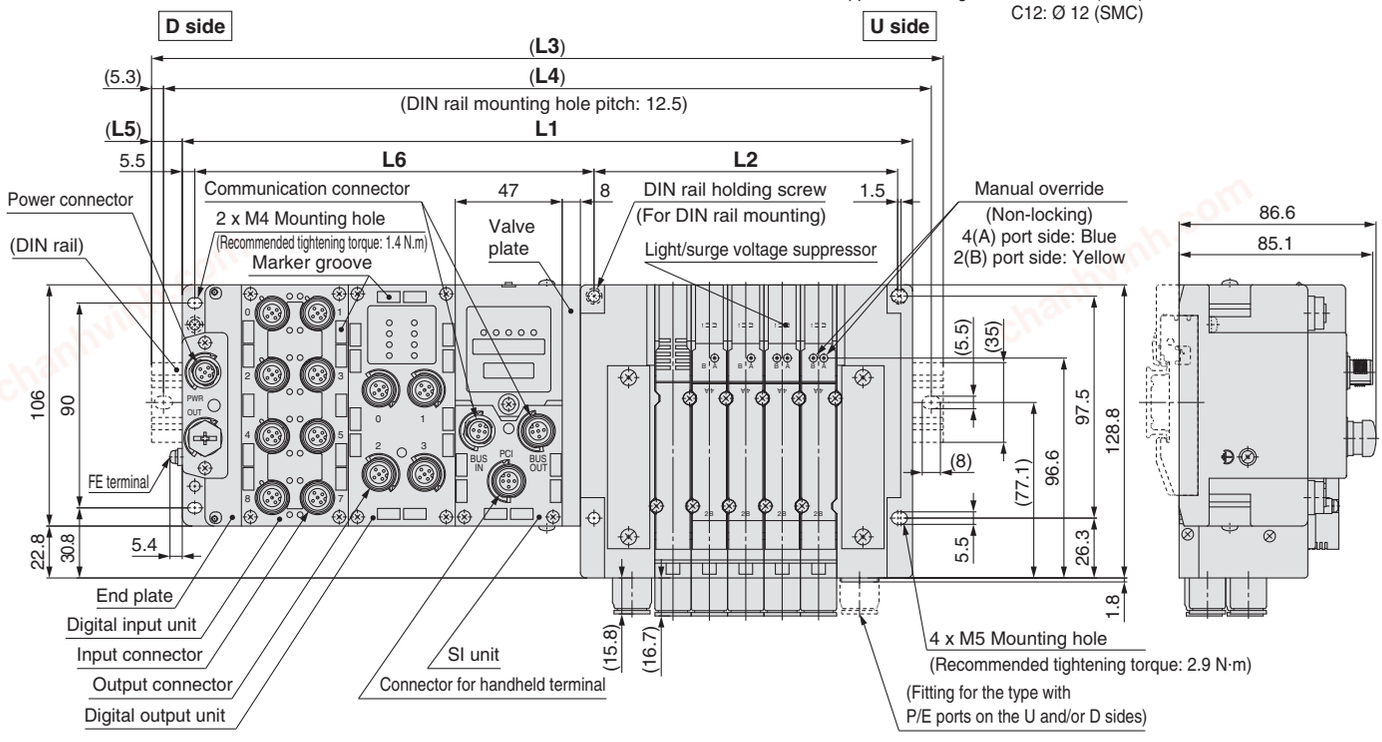
## Dimensions: JSY5000 Series

**Type 10/Side Ported**
**EX600 (M12 Connector)**



**JJ5SY5-10S6□ 2/4/6/7/8/9 □ - Stations U/D/B - C10/C12 (D)**




L1 = 16 x n1 + 147 + 47 x n2
L2 = 16 x n1 + 53.5
L4 = L3 – 10.5
L5 = (L3 – L1) / 2
L6 = 47 x n2 + 81.5

n1: Valve stations
n2: I/O unit stations

∗ These figures show the “JJ5SY5-10S6Q22-05D-C12.”
∗ Refer to page 99 for dimensions of external pilot (Made to Order) and silencer.

### L3: DIN Rail Overall Length

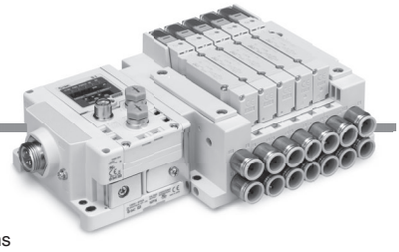
| Valve stations (n1) / I/O unit stations (n2) | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **0** | 210.5 | 223 | 235.5 | 260.5 | 273 | 285.5 | 310.5 | 323 | 335.5 | 348 | 373 | 385.5 | 398 | 410.5 | 435.5 | 448 | 460.5 | 485.5 | 498 | 510.5 | 523 | 548 | 560.5 |
| **1** | 260.5 | 273 | 285.5 | 298 | 323 | 335.5 | 348 | 373 | 385.5 | 398 | 410.5 | 435.5 | 448 | 460.5 | 485.5 | 498 | 510.5 | 523 | 548 | 560.5 | 573 | 585.5 | 610.5 |
| **2** | 298 | 323 | 335.5 | 348 | 360.5 | 385.5 | 398 | 410.5 | 435.5 | 448 | 460.5 | 473 | 498 | 510.5 | 523 | 548 | 560.5 | 573 | 585.5 | 610.5 | 623 | 635.5 | 660.5 |
| **3** | 348 | 360.5 | 385.5 | 398 | 410.5 | 435.5 | 448 | 460.5 | 473 | 498 | 510.5 | 523 | 535.5 | 560.5 | 573 | 585.5 | 610.5 | 623 | 635.5 | 648 | 673 | 685.5 | 698 |
| **4** | 398 | 410.5 | 423 | 448 | 460.5 | 473 | 498 | 510.5 | 523 | 535.5 | 560.5 | 573 | 585.5 | 610.5 | 623 | 635.5 | 648 | 673 | 685.5 | 698 | 710.5 | 735.5 | 748 |
| **5** | 448 | 460.5 | 473 | 485.5 | 510.5 | 523 | 535.5 | 560.5 | 573 | 585.5 | 598 | 623 | 635.5 | 648 | 673 | 685.5 | 698 | 710.5 | 735.5 | 748 | 760.5 | 785.5 | 798 |
| **6** | 485.5 | 510.5 | 523 | 535.5 | 560.5 | 573 | 585.5 | 598 | 623 | 635.5 | 648 | 660.5 | 685.5 | 698 | 710.5 | 735.5 | 748 | 760.5 | 773 | 798 | 810.5 | 823 | 848 |
| **7** | 535.5 | 548 | 573 | 585.5 | 598 | 623 | 635.5 | 648 | 660.5 | 685.5 | 698 | 710.5 | 735.5 | 748 | 760.5 | 773 | 798 | 810.5 | 823 | 835.5 | 860.5 | 873 | 885.5 |
| **8** | 585.5 | 598 | 610.5 | 635.5 | 648 | 660.5 | 685.5 | 698 | 710.5 | 723 | 748 | 760.5 | 773 | 798 | 810.5 | 823 | 835.5 | 860.5 | 873 | 885.5 | 910.5 | 923 | 935.5 |
| **9** | 635.5 | 648 | 660.5 | 685.5 | 698 | 710.5 | 723 | 748 | 760.5 | 773 | 785.5 | 810.5 | 823 | 835.5 | 860.5 | 873 | 885.5 | 898 | 923 | 935.5 | 948 | 973 | 985.5 |

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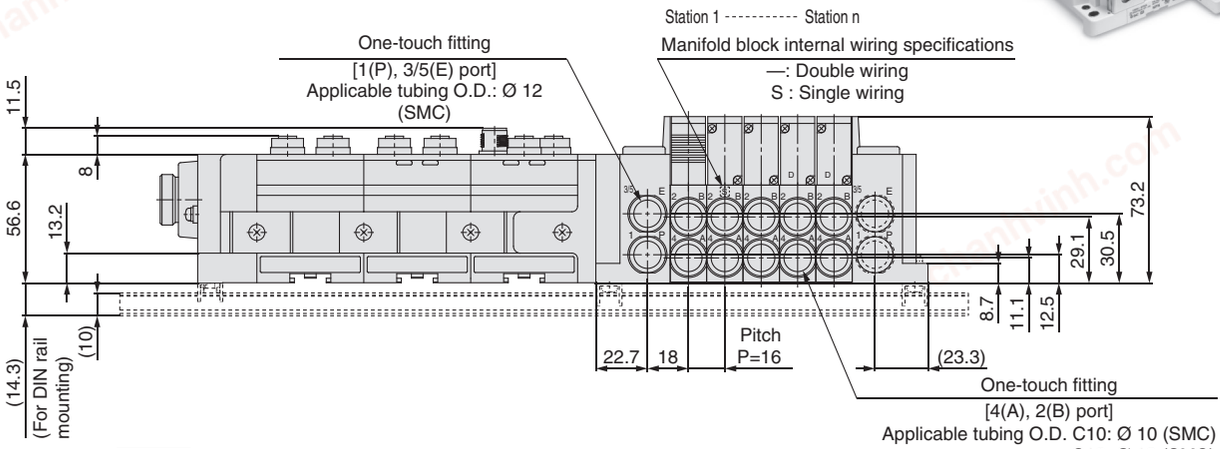


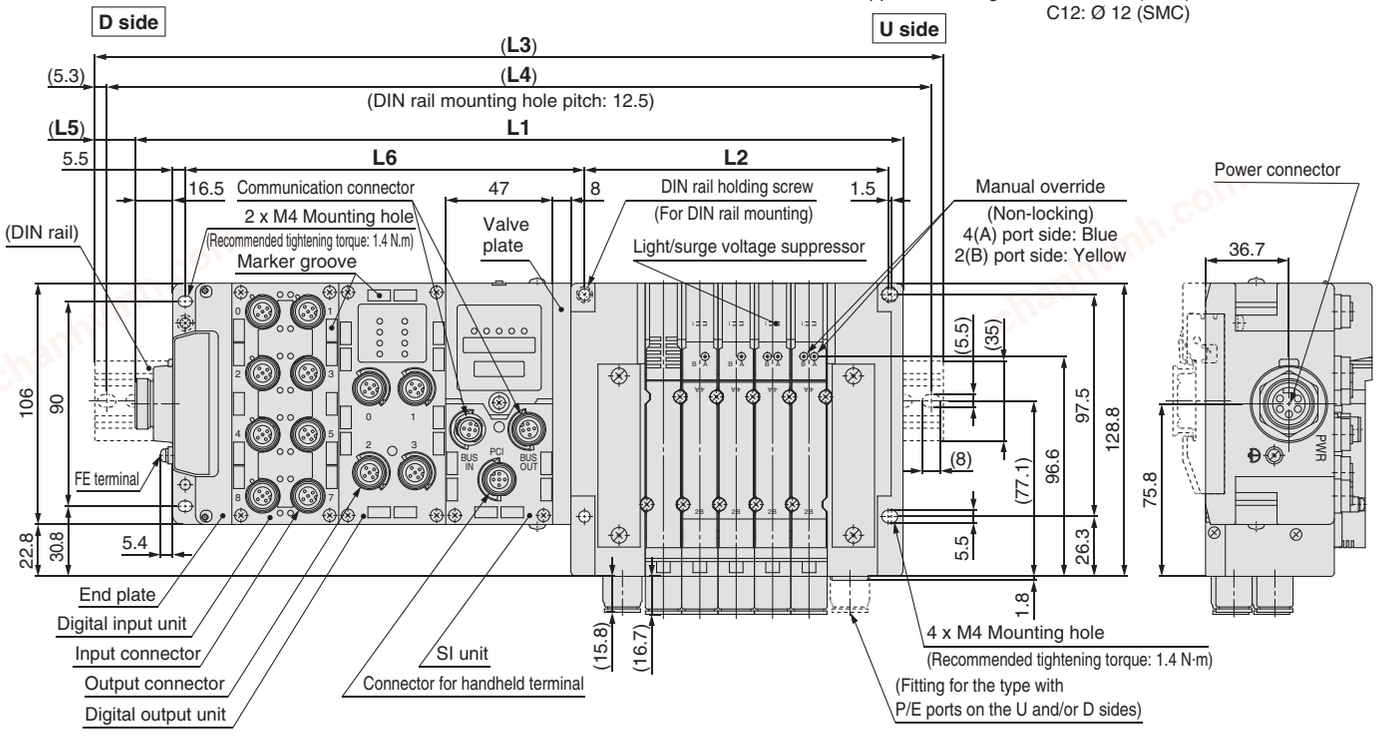
## Dimensions: JSY5000 Series

**Type 10/Side Ported**
**EX600 (7/8 Inch Connector)**



**JJ5SY5-10S6□ 3/5 □ - Stations U/D - C10/C12 (D)**




L1 = 16 x n1 + 163.5 + 47 x n2
L2 = 16 x n1 + 53.5
L4 = L3 – 10.5
L5 = (L3 – L1) / 2
L6 = 47 x n2 + 81.5

n1: Valve stations
n2: I/O unit stations

* These figures show the "JJ5SY5-10S6Q32-05D-C12."
* Refer to page 99 for dimensions of external pilot (Made to Order) and silencer.

### L3: DIN Rail Overall Length

| Valve stations (n1) / I/O unit stations (n2) | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **0** | 223 | 235.5 | 260.5 | 273 | 285.5 | 310.5 | 323 | 335.5 | 348 | 373 | 385.5 | 398 | 423 | 435.5 | 448 | 460.5 | 485.5 | 498 | 510.5 | 523 | 548 | 560.5 | 573 |
| **1** | 273 | 285.5 | 298 | 323 | 335.5 | 348 | 373 | 385.5 | 398 | 410.5 | 435.5 | 448 | 460.5 | 485.5 | 498 | 510.5 | 523 | 548 | 560.5 | 573 | 598 | 610.5 | 623 |
| **2** | 323 | 335.5 | 348 | 373 | 385.5 | 398 | 410.5 | 435.5 | 448 | 460.5 | 473 | 498 | 510.5 | 523 | 548 | 560.5 | 573 | 585.5 | 610.5 | 623 | 635.5 | 660.5 | 673 |
| **3** | 360.5 | 385.5 | 398 | 410.5 | 435.5 | 448 | 460.5 | 473 | 498 | 510.5 | 523 | 548 | 560.5 | 573 | 585.5 | 610.5 | 623 | 635.5 | 648 | 673 | 685.5 | 698 | 723 |
| **4** | 410.5 | 423 | 448 | 460.5 | 473 | 498 | 510.5 | 523 | 535.5 | 560.5 | 573 | 585.5 | 610.5 | 623 | 635.5 | 648 | 673 | 685.5 | 698 | 723 | 735.5 | 748 | 760.5 |
| **5** | 460.5 | 473 | 498 | 510.5 | 523 | 535.5 | 560.5 | 573 | 585.5 | 598 | 623 | 635.5 | 648 | 673 | 685.5 | 698 | 710.5 | 735.5 | 748 | 760.5 | 785.5 | 798 | 810.5 |
| **6** | 510.5 | 523 | 535.5 | 560.5 | 573 | 585.5 | 598 | 623 | 635.5 | 648 | 673 | 685.5 | 698 | 710.5 | 735.5 | 748 | 760.5 | 773 | 798 | 810.5 | 823 | 848 | 860.5 |
| **7** | 548 | 573 | 585.5 | 598 | 623 | 635.5 | 648 | 660.5 | 685.5 | 698 | 710.5 | 735.5 | 748 | 760.5 | 773 | 798 | 810.5 | 823 | 848 | 860.5 | 873 | 885.5 | 910.5 |
| **8** | 598 | 623 | 635.5 | 648 | 660.5 | 685.5 | 698 | 710.5 | 723 | 748 | 760.5 | 773 | 798 | 810.5 | 823 | 835.5 | 860.5 | 873 | 885.5 | 910.5 | 923 | 935.5 | 948 |
| **9** | 648 | 660.5 | 685.5 | 698 | 710.5 | 723 | 748 | 760.5 | 773 | 798 | 810.5 | 823 | 835.5 | 860.5 | 873 | 885.5 | 898 | 923 | 935.5 | 948 | 973 | 985.5 | — |

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Plug-in Connector Connecting Base

EX245

Type 10/
Side Ported

# JSY3000/5000 Series

## How to Order Manifolds

JJ5SY 3 – 10 S AAN ☐ ☐ – 05 D ☐ – C6

❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽ ❾

Only direct mounting is selectable for the manifold.

**Made to Order**
**(Refer to page 135 for details.)**

| Specification |
|---|
| External pilot (SUP/EXH block assembly) |

### ❶ Series

| | |
|---|---|
| 3 | JSY3000 |
| 5 | JSY5000 |

### ❷ Type

| | |
|---|---|
| 10 | Side ported |

### ❸ SI unit

| Symbol (Output polarity) / Negative common (PNP) | Protocol | Communication connector | Communication connector specifications |
|---|---|---|---|
| 0 | Without SI unit | | |
| AAN | PROFINET | Push/Pull (SCRJ): 2 pcs. | Push/Pull (24 V): 2 pcs. |
| ABN | | Push/Pull (RJ45): 2 pcs. | Push/Pull (24 V): 2 pcs. |
| ACN | | M12: 2 pcs. | 7/8 inch: 2 pcs. |

∗ The valve output polarity for the SI unit is negative common (PNP).

### ❹ With or without I/O modules

| | |
|---|---|
| — | Without I/O module |
| Y | With I/O module |

∗ When not selecting an SI unit, the symbol will be "—."

### ❺ Number of I/O modules

| | |
|---|---|
| — | Without I/O module |
| 1 | 1 station |
| ⋮ | ⋮ |
| 8 | 8 stations |

∗ When not selecting an SI unit, the symbol will be "—."

### ❻ Valve stations

| Symbol | Stations | Note |
|---|---|---|
| 02 | 2 stations | Double wiring∗1 |
| ⋮ | ⋮ | |
| 16 | 16 stations | |
| 02 | 2 stations | Specified layout∗2 (Available up to 32 solenoids) |
| ⋮ | ⋮ | |
| 24 | 24 stations | |

∗1 Double wiring: 2-position single, double, 3-position, and 4-position valves can be used on all manifold stations. The use of a 2-position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout

∗2 Specified layout: Indicate the wiring specifications on the manifold specification sheet.
(Note that 2-position double, 3-position, and 4-position valves cannot be used where single wiring has been specified.)

∗ This also includes the number of the blanking plate assembly.

### ❼ P, E port entry

| | |
|---|---|
| U | U side (2 to 10 stations) |
| D | D side (2 to 10 stations) |
| B | Both sides (2 to 24 stations) |

### ❽ SUP/EXH block assembly

| | |
|---|---|
| — | Internal pilot |
| S | Internal pilot, Built-in silencer |

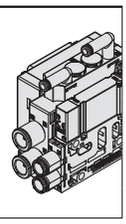
∗ The 3/5(E) port is plugged for the built-in silencer type.

∗ When the built-in silencer type is used, keep the exhaust port from coming into direct contact with water or other liquids.

∗ The external pilot specification should be ordered as Made to Order. For details, refer to page 135.

### ❾ A, B port size (Metric)

| Symbol | A, B port | | JSY3000 | JSY5000 |
|---|---|---|---|---|
| C6 | Straight | Ø 6 One-touch fitting | ● | — |
| C8 | | Ø 8 One-touch fitting | ● | — |
| C10 | | Ø 10 One-touch fitting | — | ● |
| C12 | | Ø 12 One-touch fitting | — | ● |
| CM∗1 | | Straight port, mixed sizes | ● | ● |
| P, E port size (One-touch fittings) | | | Ø 10 | Ø 12 |



∗1 Indicate the sizes on the manifold specification sheet in the case of "CM."

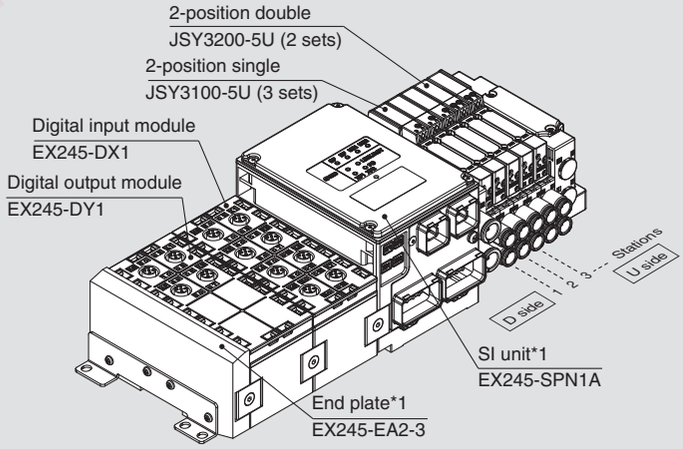
**For details on the EX245 Integrated Type (For Input/Output) Serial Transmission System, refer to the Web Catalogue and the Operation Manual. For the part numbers of the SI units to be mounted, refer to page 110. Please download the Operation Manual via the SMC website, https://www.smc.eu**

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## How to Order Manifold Assembly

### Example (JJ5SY3-10SAAN□-□)




JJ5SY3-10SAANY2-05D-C6 ··· 1 set (Type 10 5-station manifold base part no.)
* JSY3100-5U ····· 3 sets (2-position single part no.)
* JSY3200-5U ····· 2 sets (2-position double part no.)
* EX245-DX1 ····· 1 set I/O module part number
* EX245-DY1 ····· 1 set I/O module part number

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

- For the valve arrangement, the valve closest to the D side is considered the 1st station.
- The I/O module station arrangement is numbered starting from the SI unit side.
- Under the manifold part number, state the valves to be mounted, then the I/O modules in order starting with the 1st station as shown in the figure. If the arrangement becomes too complicated, specify the details on a manifold specification sheet.

*1 Do not enter the SI unit part number and the end plate part number together.

Internal Pilot

## How to Order Valves (With mounting screw)

Refer to page 13 for valve specifications.

**JSY3000/5000 Series**

JSY **3** **1** **0** **0** – **5** **NZ** □
① ② ③ ④ ⑤ ⑥

● Base mounted

Made to Order **Made to Order** (Refer to page 135 for details.)

| Specification |
|---|
| With power-saving circuit (Continuous duty type): 0.1 W (JSY3000/5000) |
| External pilot |

### ① Series

| | |
|---|---|
| 3 | JSY3000 |
| 5 | JSY5000 |

### ② Type of actuation

| | | |
|---|---|---|
| 1 | 2-position | Single |
| 2 | | Double |
| 3 | 3-position | Closed centre |
| 4 | | Exhaust centre |
| 5 | | Pressure centre |
| A | 4-position dual 3-port | N.C./N.C. |
| B | | N.O./N.O. |
| C | | N.C./N.O. |

### ③ Pilot valve exhaust method

| | |
|---|---|
| 0 | Pilot valve individual exhaust |

### ④ Rated voltage

| | |
|---|---|
| 5 | 24 VDC |

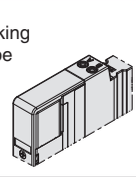
### ⑤ Light/surge voltage suppressor and common specification

| Symbol | With light | Surge voltage suppressor | Common specification |
|---|---|---|---|
| U | ● | ● | Non-polar |
| NZ | | | Negative common |

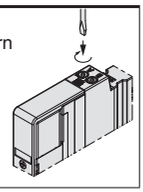
* When the non-polar common specification type is selected, take measures to prevent surge voltage. For details, refer to page 138.

### ⑥ Manual override

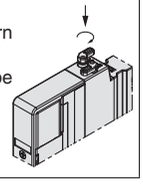
—: Non-locking push type



D: Push-turn locking slotted type



E: Push-turn locking lever type



* **When ordering a valve individually, the base gasket is not included.**
Since the base gasket is attached to the manifold, please order the base gasket separately if it is needed for maintenance. Refer to page 116 for base gasket and mounting screw part numbers.

### ⚠ Caution

**If the JSY3000/5000 series is to be continuously energised, please be sure to select the power-saving circuit (continuous duty type) specification. Refer to "Made to Order" on page 135.**

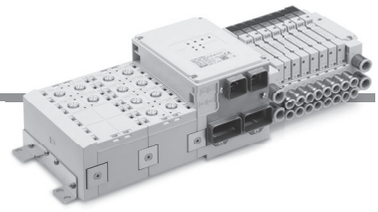
⚠ Protective class class Ⅲ (Mark: Ⅲ)

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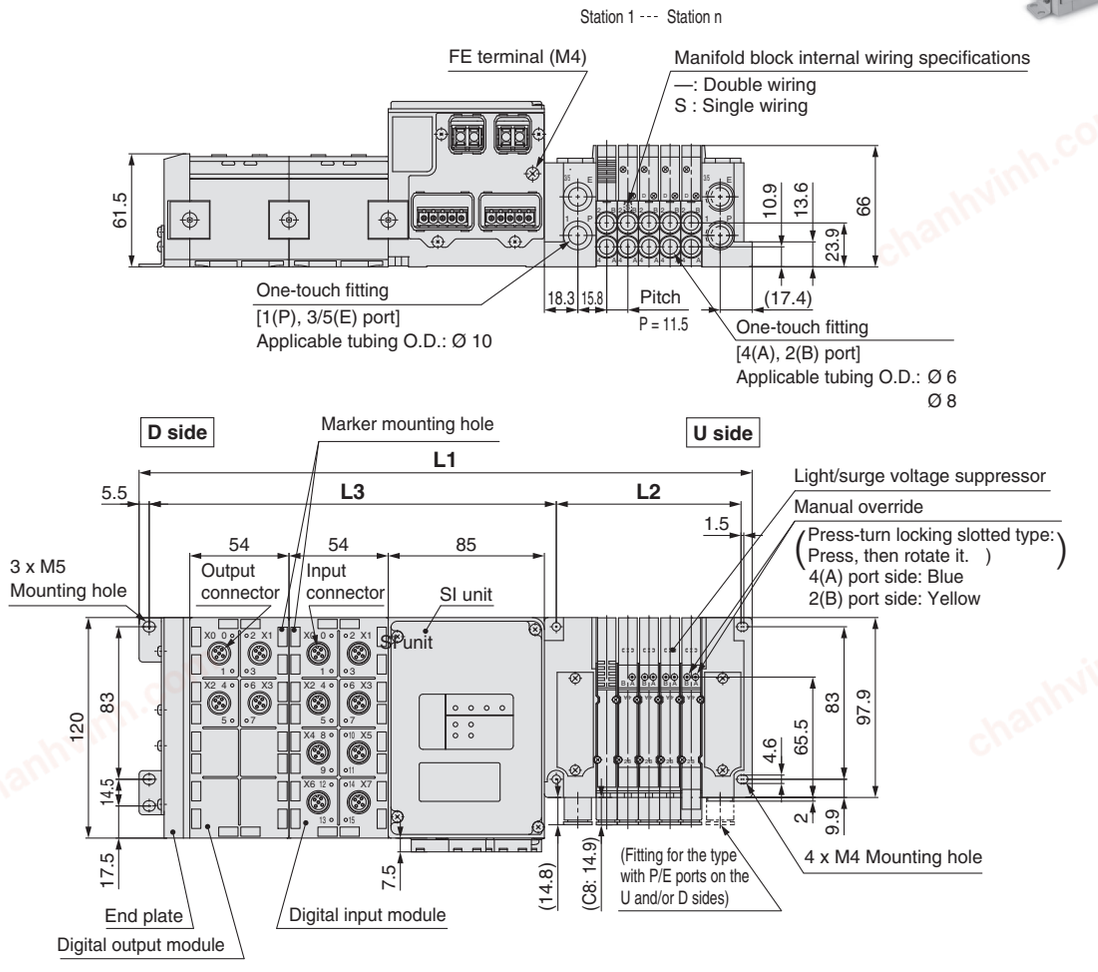
# JSY3000/5000 Series

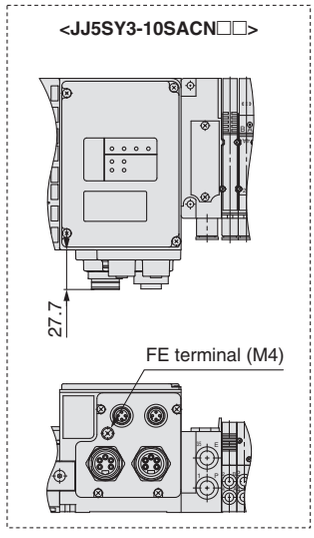
## Dimensions: JSY3000 Series

**Type 10/Side Ported**
**EX245**



### JJ5SY3-10SA□ - Stations U/D/B - C6/C8




L1 = 11.5n1 + 168.2
L2 = 11.5n1 + 43.1
L3 = 54n2 + 113.6

* These figures show the "JJ5SY3-10SAANY2-05D-C8."
* Refer to page 98 for dimensions of external pilot (Made to Order) and silencer.

### Dimensions

* The L1 dimension is the dimension without an I/O module. Add 54 mm to this dimension for each I/O module.
* n2 is the number of I/O module stations.

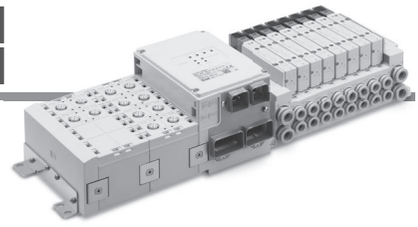
| Valve stations n1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **L1** | 191.2 | 202.7 | 214.2 | 225.7 | 237.2 | 248.7 | 260.2 | 271.7 | 283.2 | 294.7 | 306.2 | 317.7 | 329.2 | 340.7 | 352.2 | 363.7 | 375.2 | 386.7 | 398.2 | 409.7 | 421.2 | 432.7 | 444.2 |
| **L2** | 66.1 | 77.6 | 89.1 | 100.6 | 112.1 | 123.6 | 135.1 | 146.6 | 158.1 | 169.6 | 181.1 | 192.6 | 204.1 | 215.6 | 227.1 | 238.6 | 250.1 | 261.6 | 273.1 | 284.6 | 296.1 | 307.6 | 319.1 |

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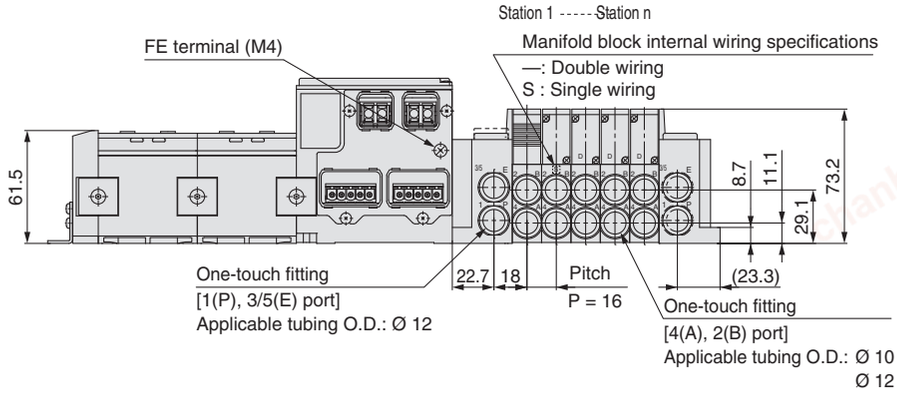


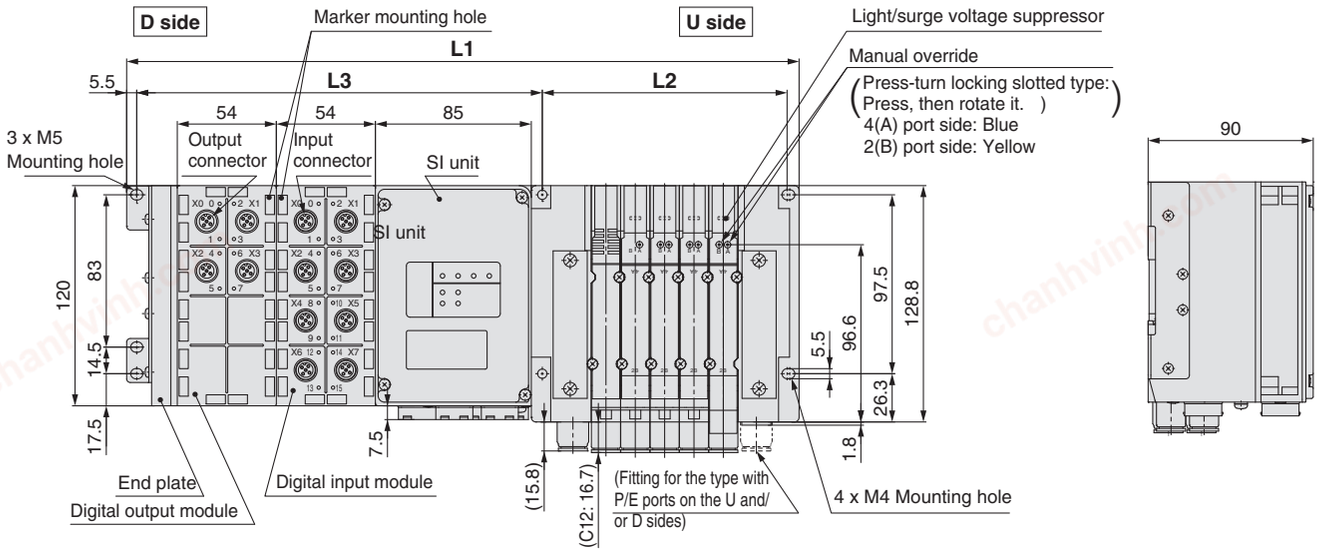
## Dimensions: JSY5000 Series

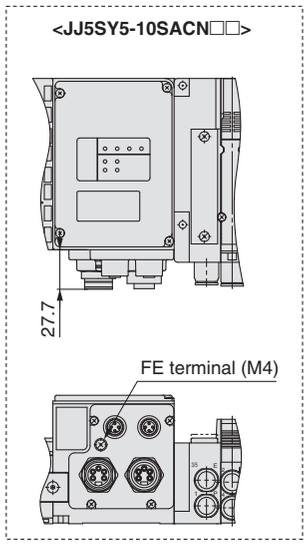
**Type 10/Side Ported**
**EX245**



### JJ5SY5-10SA□ - Stations U/D/B - C10/C12




L1 = 16n1 + 178.6
L2 = 16n1 + 53.5
L3 = 54n2 + 113.1

* These figures show the "JJ5SY5-10SAANY2-05D-C12."
* Refer to page 99 for dimensions of external pilot (Made to Order) and silencer.

### Dimensions

* The L1 dimension is the dimension without an I/O module. Add 54 mm to this dimension for each I/O module.
* n2 is the number of I/O module stations.

| Valve stations n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L1 | 210.6 | 226.6 | 242.6 | 258.6 | 274.6 | 290.6 | 306.6 | 322.6 | 338.6 | 354.6 | 370.6 | 386.6 | 402.6 | 418.6 | 434.6 | 450.6 | 466.6 | 482.6 | 498.6 | 514.6 | 530.6 | 546.6 | 562.6 |
| L2 | 85.5 | 101.5 | 117.5 | 133.5 | 149.5 | 165.5 | 181.5 | 197.5 | 213.5 | 229.5 | 245.5 | 261.5 | 277.5 | 293.5 | 309.5 | 325.5 | 341.5 | 357.5 | 373.5 | 389.5 | 405.5 | 421.5 | 437.5 |

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Plug-in Connector Connecting Base

EX250

Type 10
Side Ported

# JSY1000/3000/5000 Series

Internal Pilot

## How to Order Manifolds

JJ5SY 3 – 10 S Q 1 A – 05 U – C6 ❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽ ❾

### ❶ Series

| | |
|---|---|
| 1 | JSY1000 |
| 3 | JSY3000 |
| 5 | JSY5000 |

### ❷ Type

| | |
|---|---|
| 10 | Side ported |

### ❸ SI unit

| | | | |
|---|---|---|---|
| 0 | Without SI unit | | |
| Q | DeviceNet™ (Negative common) | | |
| TA | AS-Interface (Negative common) | 2 isolated common type | 8 in/8 out |
| TB | | | 4 in/4 out |
| TC | | 1 common type | 8 in/8 out |
| TD | | | 4 in/4 out |
| ZE | EtherNet/IP™ (Negative common) | | |

∗ Ensure a match with the common specification of the valve to be used.
∗ Input block cannot be mounted without SI unit.
∗ The supply current from the SI unit of AS-Interface applicable 1 power supply system specification to the input block and valve is limited.

### ❹ Input block stations

| | |
|---|---|
| — | None |
| 1 | 1 station |
| ⋮ | ⋮ |
| 8 | 8 stations |

∗ When not selecting an SI unit, the symbol will be "—." The maximum number of stations is limited for the AS-Interface applicable SI unit.

### ❺ Input block type

| | PNP sensor input | NPN sensor input |
|---|---|---|
| Without input block | — | |
| M12, 2 inputs | A | D |
| M12, 4 inputs | B | E |
| M8, 4 inputs | C | F |

∗ When not selecting an SI unit, the symbol will be "—."

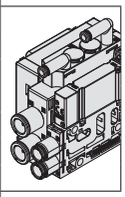
### ❼ P, E port entry, SUP/EXH block assembly

| P, E port entry | Internal pilot | Internal pilot, Built-in silencer |
|---|---|---|
| U side (2 to 10 stations) | U | C |
| D side (2 to 10 stations) | D | E |
| Both sides (2 to 24 stations) | B | F |

∗ The 3/5(E) port is plugged for the built-in silencer type.
∗ When the built-in silencer type is used, keep the exhaust port from coming into direct contact with water or other liquids.
∗ The external pilot specification should be ordered as Made to Order. For details, refer to page 135.

### ❽ A, B port size (Metric/One-touch fitting)

| Symbol | | A, B port | JSY1000 | JSY3000 | JSY5000 |
|---|---|---|---|---|---|
| C2 | Straight | Ø 2 | ● | — | — |
| C4 | | Ø 4 | ● | — | — |
| C6 | | Ø 6 | ● | ● | — |
| C8 | | Ø 8 | — | ● | — |
| C10 | | Ø 10 | — | — | ● |
| C12 | | Ø 12 | — | — | ● |
| CM∗1 | | Straight port, mixed sizes | ● | ● | ● |
| P, E port size (One-touch fittings) | | | Ø 8 | Ø 10 | Ø 12 |



∗1 Indicate the sizes on the manifold specification sheet in the case of "CM."
∗ The JSY1000 manifold pitch for C2 and C4 is 6.5 mm, and 9 mm for C6. When CM is selected, the manifold pitch is different depending on the selected fitting.

**For details on the EX250 Integrated Type (For Input/Output) Serial Transmission System, refer to the Web Catalogue and the Operation Manual. For the part numbers of the SI units to be mounted, refer to page 112. Please download the Operation Manual via the SMC website, https://www.smc.eu**

### Made to Order

**(Refer to page 135 for details.)**

| Specification |
|---|
| External pilot (SUP/EXH block assembly) |

### ❻ Valve stations

| Symbol | Stations | Note |
|---|---|---|
| 02 | 2 stations | Double wiring∗1 |
| ⋮ | ⋮ | |
| 16 | 16 stations | |
| 02 | 2 stations | Specified layout∗2 (Up to 32 solenoids available) |
| ⋮ | ⋮ | |
| 24 | 24 stations | |

∗1 Double wiring: 2-position single, double, 3-position, and 4-position valves can be used on all manifold stations.
The use of a 2-position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.
∗2 Specified layout: Indicate the wiring specifications on the manifold specification sheet. (Note that 2-position double, 3-position, and 4-position valves cannot be used where single wiring has been specified.)
When determining the number of valve stations, note that the maximum number of solenoids for the AS-Interface applicable SI unit specification is as follows.
· 8 in/8 out specification: Max. 8 solenoids
· 4 in/4 out specification: Max. 4 solenoids
∗ This also includes the number of blanking plates.
∗ For the product without the SI unit (S0), note the maximum number of solenoids of the SI unit that will be mounted. If the layout is specified, indicate it on the manifold specification sheet.

### ❾ Mounting and Option

| Symbol | Mounting |
|---|---|
| — | Direct mounting |
| D□ | DIN rail mounting |

∗ Enter the number of stations inside □ when it is larger than the number of valve stations. (Refer to "DIN Rail Option" shown below.)
∗ Refer to page 139 for details on securing the DIN rail mounting type manifold.
∗ DIN rail mounting (D□) is not available for the product without the SI unit (S0).

**DIN Rail Option**

| | | |
|---|---|---|
| — | DIN rail mounting (With DIN rail) | |
| 0 | DIN rail mounting (Without DIN rail) | |
| 3 | For 3 stations | Specify a length longer than that of the standard rail. |
| ⋮ | ⋮ | |
| 24 | For 24 stations | |

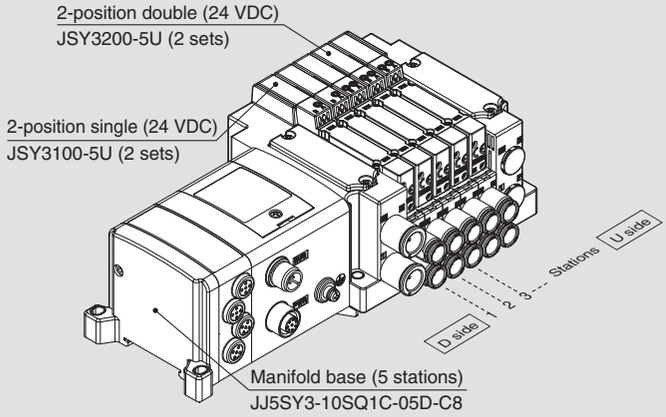
∗ Refer to L3 of the dimensions for the DIN rail length and order separately. (Refer to page 131 for the DIN rail part number.)

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## How to Order Manifold Assembly

### Example (JJ5SY3-10S□-□)




**JJ5SY3-10SQ1C-05D-C8 ··· 1 set (Type 10 5-station manifold base part no.)**
*** JSY3100-5U ····· 3 sets (2-position single part no.)**
*** JSY3200-5U ····· 2 sets (2-position double part no.)**
**The asterisk denotes the symbol for the assembly. Prefix it to the part numbers of the valve, etc.**

- For the valve arrangement, the valve closest to the D side is considered the 1st station.
- Under the manifold part number, state the valves to be mounted in order starting with the 1st station as shown in the figure. If the arrangement becomes too complicated, specify the details on a manifold specification sheet.

**Internal Pilot**

## How to Order Valves (With mounting screw)

Refer to page 13 for valve specifications.

**JSY1000 Series**

**JSY3000/5000 Series**

With power-saving circuit

JSY 1 1 0 0 T – 5 Z □

JSY 3 1 0 0 – 5 Z □

❶ ❷ ❸ ❹ ❺ ❻

Base mounted

**Made to Order** (Refer to page 135 for details.)

| Specification |
|---|
| With power-saving circuit (Continuous duty type): 0.1 W (JSY3000/5000) |
| External pilot |

### ❶ Series

| | |
|---|---|
| 1 | JSY1000 |
| 3 | JSY3000 |
| 5 | JSY5000 |

### ❷ Type of actuation

| | | |
|---|---|---|
| 1 | 2-position | Single |
| 2 | | Double |
| 3 | 3-position | Closed centre |
| 4 | | Exhaust centre |
| 5 | | Pressure centre |
| A | 4-position dual 3-port | N.C./N.C. |
| B | | N.O./N.O. |
| C | | N.C./N.C. |

### ❸ Pilot valve exhaust method

| | |
|---|---|
| 0 | Pilot valve individual exhaust |

### ❹ Rated voltage

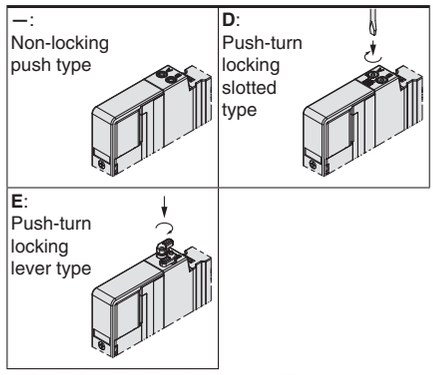
| | |
|---|---|
| 5 | 24 VDC |

### ❺ Light/surge voltage suppressor and common specification

| Symbol | With light | Surge voltage suppressor | Common specification |
|---|---|---|---|
| U | ● | ● | Non-polar |
| Z | | | Positive common |
| NZ | | | Negative common |

- "U" is applicable for every SI unit. However, "Z" can be used only for CC-Link applicable unit and "NZ" is for units which are not CC-Link applicable.
- Only "Z" and "NZ" types are available for the JSY1000 series.
- When the non-polar common specification type is selected, take measures to prevent surge voltage. For details, refer to page 138.

### ❻ Manual override




- Push-turn locking lever type "E" is not available for the JSY1000.

- **When ordering a valve individually, the base gasket is not included.**
  Since the base gasket is attached to the manifold, please order the base gasket separately if it is needed for maintenance. Refer to page 116 for base gasket and mounting screw part numbers.

### ⚠ Caution

**If the JSY3000/5000 series is to be continuously energised, please be sure to select the power-saving circuit (continuous duty type) specification. Refer to "Made to Order" on page 135.**
**For the JSY1000 series, only the power-saving circuit specification is available.**

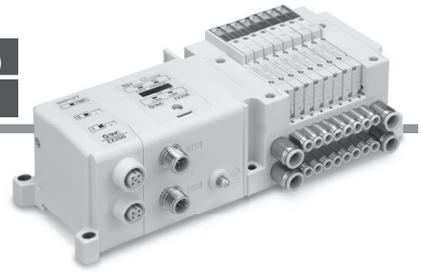
Protective class class Ⅲ (Mark: Ⅲ)

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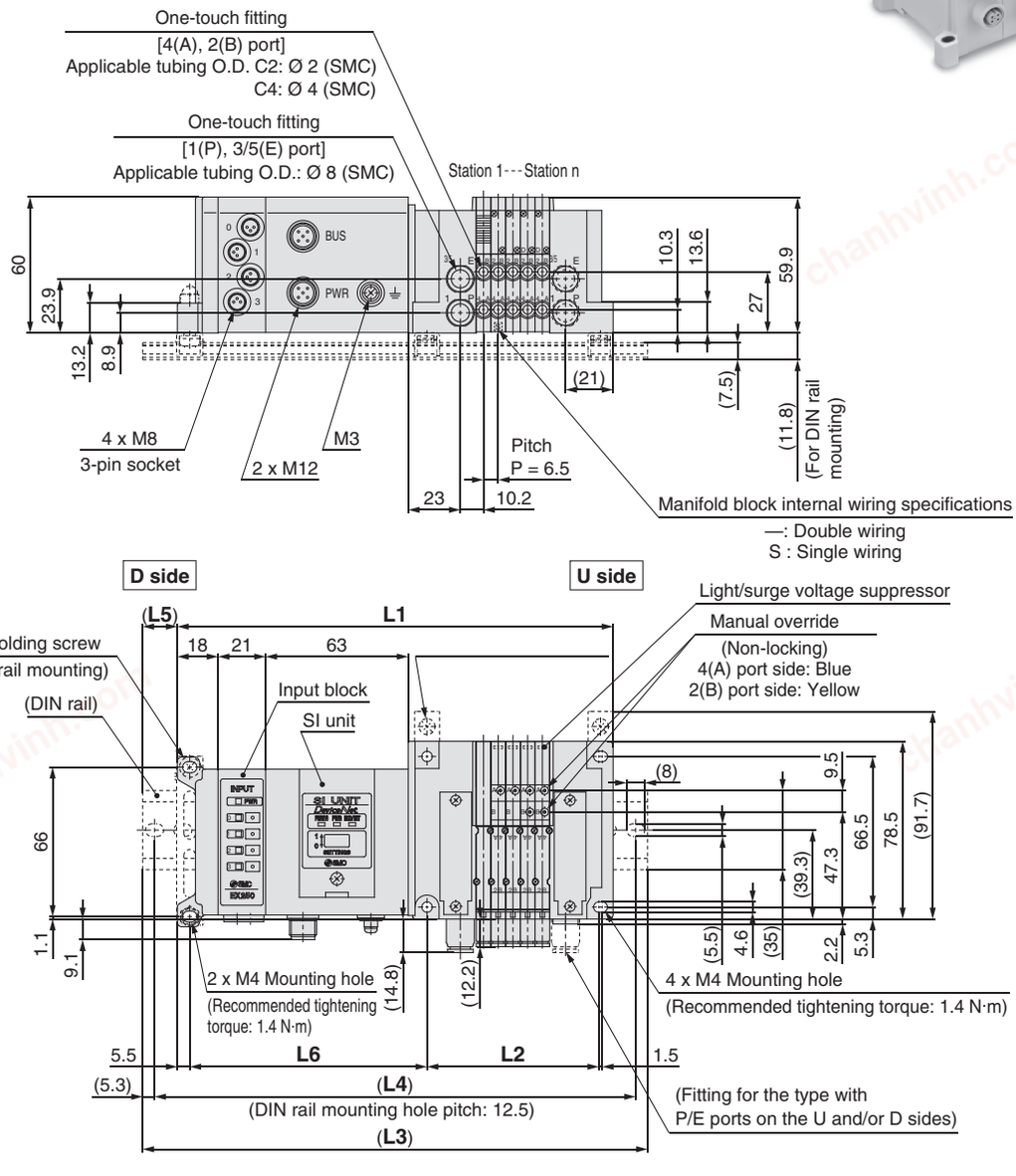
# JSY1000/3000/5000 Series

## Dimensions: JSY1000 Series

**Type 10/Side Ported** (Applicable to Ø 2 and Ø 4 fittings)
**EX250**

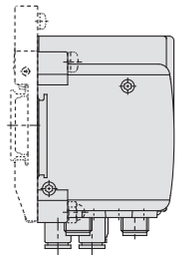


### JJ5SY1-10S□-Stations U/D/B-C2/C4(D)









L1 = 6.5 x n1 + 139 + 21 x n2
L2 = 6.5 x n1 + 43.4
L4 = L3 – 10.5
L5 = (L3 – L1) / 2
L6 = 21 x n2 + 83.8

n1: Number of valve stations of the JSY1000
n2: Input block stations

* These figures show the "JJ5SY1-10SQ1A-05D-C4."
* Refer to page 97 for dimensions of external pilot (Made to Order) and silencer.
* When CM is selected for mixed A, B port size and C6 (9 mm pitch) is included, refer to page 100 for dimensions.

### L3: DIN Rail Overall Length

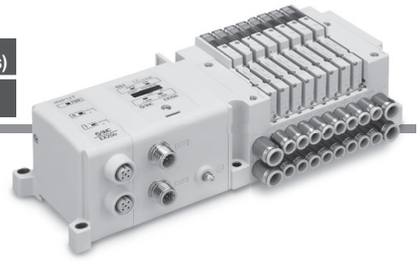
| Valve stations (n1) / I/O unit stations (n2) | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **0** | 185.5 | 185.5 | 198 | 198 | 210.5 | 210.5 | 223 | 223 | 235.5 | 235.5 | 248 | 248 | 260.5 | 260.5 | 273 | 273 | 285.5 | 298 | 298 | 310.5 | 310.5 | 323 | 323 |
| **1** | 198 | 210.5 | 210.5 | 223 | 223 | 235.5 | 235.5 | 248 | 260.5 | 260.5 | 273 | 273 | 285.5 | 285.5 | 298 | 298 | 310.5 | 310.5 | 323 | 323 | 335.5 | 335.5 | 348 |
| **2** | 223 | 235.5 | 235.5 | 248 | 248 | 260.5 | 260.5 | 273 | 273 | 285.5 | 285.5 | 298 | 298 | 310.5 | 310.5 | 323 | 323 | 335.5 | 335.5 | 348 | 348 | 360.5 | 360.5 |
| **3** | 248 | 248 | 260.5 | 260.5 | 273 | 273 | 285.5 | 285.5 | 298 | 298 | 310.5 | 310.5 | 323 | 323 | 335.5 | 348 | 348 | 360.5 | 360.5 | 373 | 373 | 385.5 | 385.5 |
| **4** | 260.5 | 273 | 273 | 285.5 | 285.5 | 298 | 310.5 | 310.5 | 323 | 323 | 335.5 | 335.5 | 348 | 348 | 360.5 | 360.5 | 373 | 373 | 385.5 | 385.5 | 398 | 398 | 410.5 |
| **5** | 285.5 | 298 | 298 | 310.5 | 310.5 | 323 | 323 | 335.5 | 335.5 | 348 | 348 | 360.5 | 360.5 | 373 | 373 | 385.5 | 385.5 | 398 | 398 | 410.5 | 410.5 | 423 | 435.5 |
| **6** | 310.5 | 310.5 | 323 | 323 | 335.5 | 335.5 | 348 | 348 | 360.5 | 360.5 | 373 | 373 | 385.5 | 398 | 398 | 410.5 | 410.5 | 423 | 423 | 435.5 | 435.5 | 448 | 448 |
| **7** | 323 | 335.5 | 335.5 | 348 | 360.5 | 360.5 | 373 | 373 | 385.5 | 385.5 | 398 | 398 | 410.5 | 410.5 | 423 | 423 | 435.5 | 435.5 | 448 | 448 | 460.5 | 460.5 | 473 |
| **8** | 348 | 360.5 | 360.5 | 373 | 373 | 385.5 | 385.5 | 398 | 398 | 410.5 | 410.5 | 423 | 423 | 435.5 | 435.5 | 448 | 448 | 460.5 | 460.5 | 473 | 485.5 | 485.5 | 498 |

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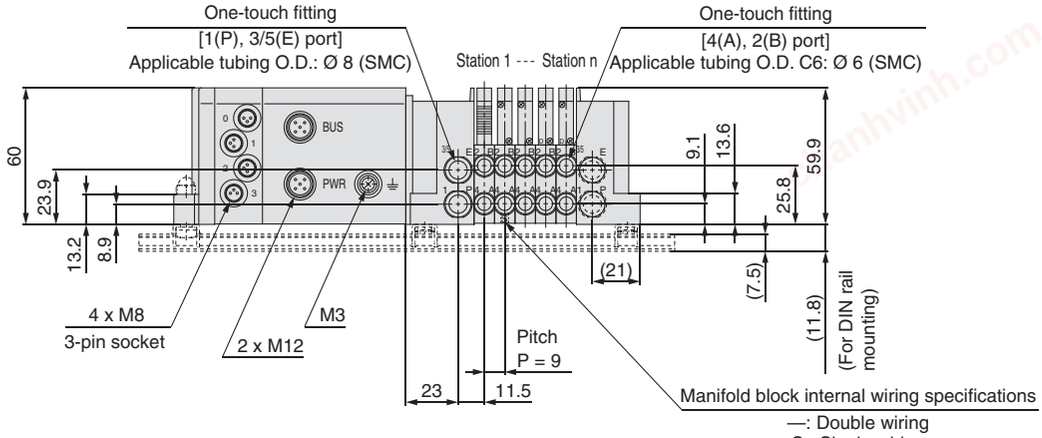


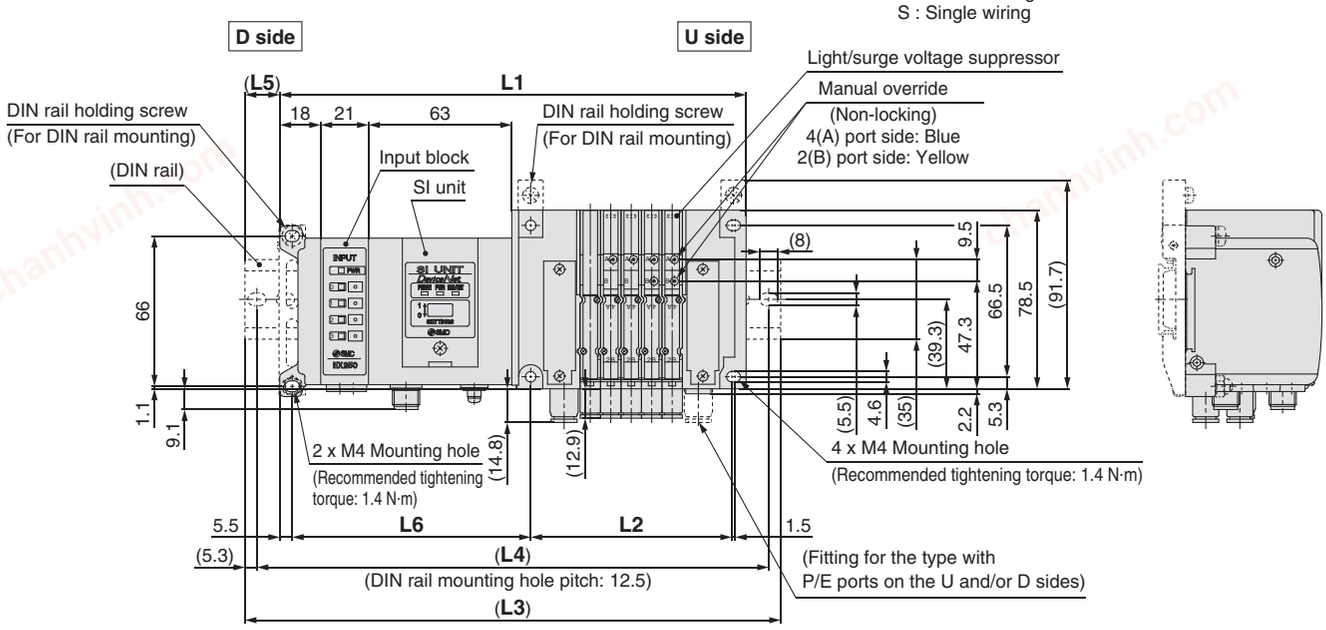
# Dimensions: JSY1000 Series

**Type 10/Side Ported (Applicable to Ø 6 fittings)**
**EX250**



## JJ5SY1-10S□-Stations U/D/B-C6(D)




L1 = 9 x n1 + 139 + 21 x n2
L2 = 9 x n1 + 43.4
L4 = L3 – 10.5
L5 = (L3 – L1) / 2
L6 = 21 x n2 + 83.8

n1: Number of valve stations of the JSY1000
n2: Input block stations

* These figures show the "JJ5SY1-10SQ1A-05D-C6."
* Refer to page 97 for dimensions of external pilot (Made to Order) and silencer.
* When CM is selected for mixed A, B port size, refer to page 100 for dimensions.

## L3: DIN Rail Overall Length

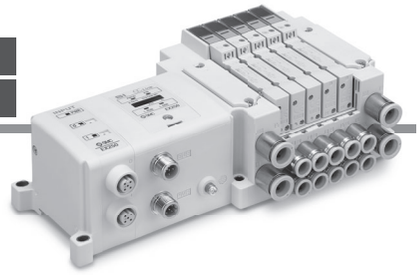
| I/O unit stations (n2) \ Valve stations (n1) | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **0** | 185.5 | 198 | 210.5 | 210.5 | 223 | 235.5 | 235.5 | 248 | 260.5 | 273 | 273 | 285.5 | 298 | 298 | 310.5 | 323 | 335.5 | 335.5 | 348 | 360.5 | 360.5 | 373 | 385.5 |
| **1** | 210.5 | 210.5 | 223 | 235.5 | 248 | 248 | 260.5 | 273 | 285.5 | 285.5 | 298 | 310.5 | 310.5 | 323 | 335.5 | 348 | 348 | 360.5 | 373 | 373 | 385.5 | 398 | 410.5 |
| **2** | 223 | 235.5 | 248 | 260.5 | 260.5 | 273 | 285.5 | 285.5 | 298 | 310.5 | 323 | 323 | 335.5 | 348 | 360.5 | 360.5 | 373 | 385.5 | 385.5 | 398 | 410.5 | 423 | 423 |
| **3** | 248 | 260.5 | 273 | 273 | 285.5 | 298 | 298 | 310.5 | 323 | 335.5 | 335.5 | 348 | 360.5 | 360.5 | 373 | 385.5 | 398 | 398 | 410.5 | 423 | 435.5 | 435.5 | 448 |
| **4** | 273 | 285.5 | 285.5 | 298 | 310.5 | 310.5 | 323 | 335.5 | 348 | 348 | 360.5 | 373 | 373 | 385.5 | 398 | 410.5 | 410.5 | 423 | 435.5 | 435.5 | 448 | 460.5 | 473 |
| **5** | 285.5 | 298 | 310.5 | 323 | 323 | 335.5 | 348 | 360.5 | 360.5 | 373 | 385.5 | 385.5 | 398 | 410.5 | 423 | 423 | 435.5 | 448 | 448 | 460.5 | 473 | 485.5 | 485.5 |
| **6** | 310.5 | 323 | 335.5 | 335.5 | 348 | 360.5 | 360.5 | 373 | 385.5 | 398 | 398 | 410.5 | 423 | 435.5 | 435.5 | 448 | 460.5 | 460.5 | 473 | 485.5 | 498 | 498 | 510.5 |
| **7** | 335.5 | 348 | 348 | 360.5 | 373 | 373 | 385.5 | 398 | 410.5 | 410.5 | 423 | 435.5 | 435.5 | 448 | 460.5 | 473 | 473 | 485.5 | 498 | 510.5 | 510.5 | 523 | 535.5 |
| **8** | 360.5 | 360.5 | 373 | 385.5 | 385.5 | 398 | 410.5 | 423 | 423 | 435.5 | 448 | 448 | 460.5 | 473 | 485.5 | 485.5 | 498 | 510.5 | 510.5 | 523 | 535.5 | 548 | 548 |

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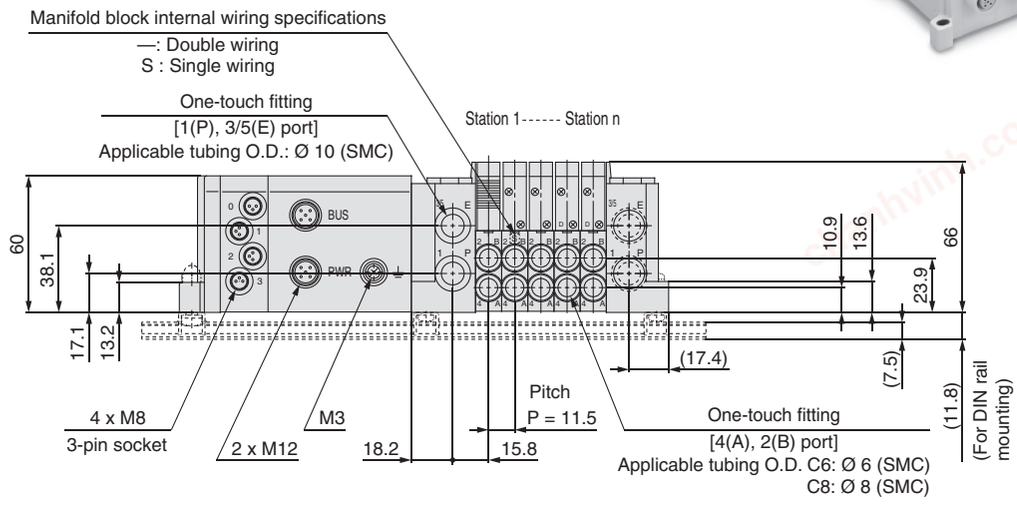
# JSY1000/3000/5000 Series

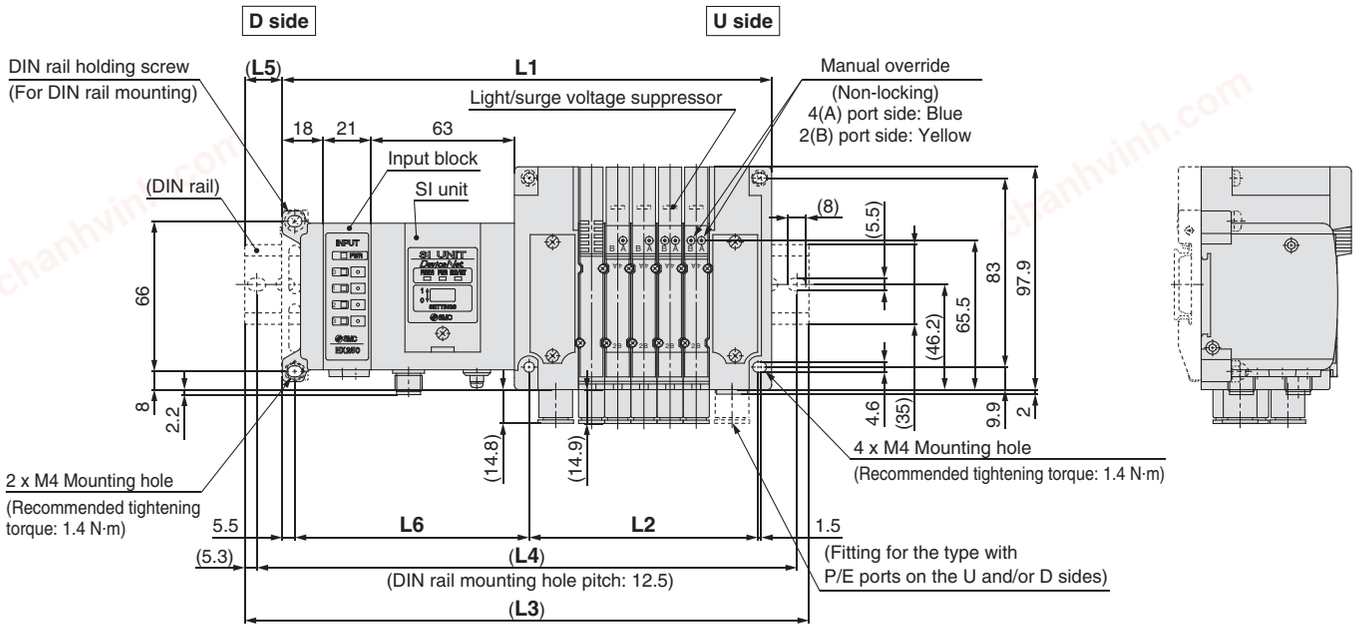
## Dimensions: JSY3000 Series

**Type 10/Side Ported**
**EX250**



### JJ5SY3-10S□ - Stations U/D/B - C6/C8 (D)






L1 = 11.5 x n1 + 136.6 + 21 x n2
L2 = 11.5 x n1 + 43.1
L4 = L3 – 10.5
L5 = (L3 – L1) / 2
L6 = 21 x n2 + 82

n1: Number of valve stations of the JSY3000
n2: Input block stations

∗ These figures show the "JJ5SY3-10SQ1A-05D-C8."
∗ Refer to page 98 for dimensions of external pilot (Made to Order) and silencer.

### L3: DIN Rail Overall Length

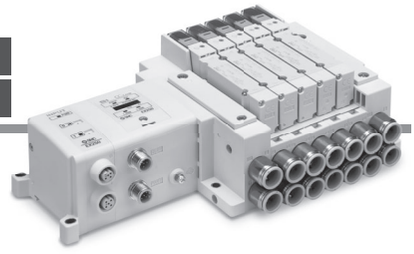
| Valve stations (n1) / I/O unit stations (n2) | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **0** | 185.5 | 198 | 210.5 | 223 | 235.5 | 248 | 260.5 | 273 | 285.5 | 298 | 298 | 310.5 | 323 | 335.5 | 348 | 360.5 | 373 | 385.5 | 398 | 410.5 | 423 | 435.5 | 448 |
| **1** | 210.5 | 223 | 235.5 | 248 | 260.5 | 273 | 273 | 285.5 | 298 | 310.5 | 323 | 335.5 | 348 | 360.5 | 373 | 385.5 | 398 | 410.5 | 423 | 423 | 435.5 | 448 | 460.5 |
| **2** | 235.5 | 248 | 248 | 260.5 | 273 | 285.5 | 298 | 310.5 | 323 | 335.5 | 348 | 360.5 | 373 | 385.5 | 398 | 398 | 410.5 | 423 | 435.5 | 448 | 460.5 | 473 | 485.5 |
| **3** | 248 | 260.5 | 273 | 285.5 | 298 | 310.5 | 323 | 335.5 | 348 | 360.5 | 373 | 373 | 385.5 | 398 | 410.5 | 423 | 435.5 | 448 | 460.5 | 473 | 485.5 | 498 | 510.5 |
| **4** | 273 | 285.5 | 298 | 310.5 | 323 | 335.5 | 348 | 348 | 360.5 | 373 | 385.5 | 398 | 410.5 | 423 | 435.5 | 448 | 460.5 | 473 | 485.5 | 485.5 | 498 | 510.5 | 523 |
| **5** | 298 | 310.5 | 323 | 323 | 335.5 | 348 | 360.5 | 373 | 385.5 | 398 | 410.5 | 423 | 435.5 | 448 | 460.5 | 460.5 | 473 | 485.5 | 498 | 510.5 | 523 | 535.5 | 548 |
| **6** | 310.5 | 323 | 335.5 | 348 | 360.5 | 373 | 385.5 | 398 | 410.5 | 423 | 435.5 | 435.5 | 448 | 460.5 | 473 | 485.5 | 498 | 510.5 | 523 | 535.5 | 548 | 560.5 | 573 |
| **7** | 335.5 | 348 | 360.5 | 373 | 385.5 | 398 | 410.5 | 410.5 | 423 | 435.5 | 448 | 460.5 | 473 | 485.5 | 498 | 510.5 | 523 | 535.5 | 548 | 560.5 | 560.5 | 573 | 585.5 |
| **8** | 360.5 | 373 | 385.5 | 385.5 | 398 | 410.5 | 423 | 435.5 | 448 | 460.5 | 473 | 485.5 | 498 | 510.5 | 523 | 535.5 | 535.5 | 548 | 560.5 | 573 | 585.5 | 598 | 610.5 |

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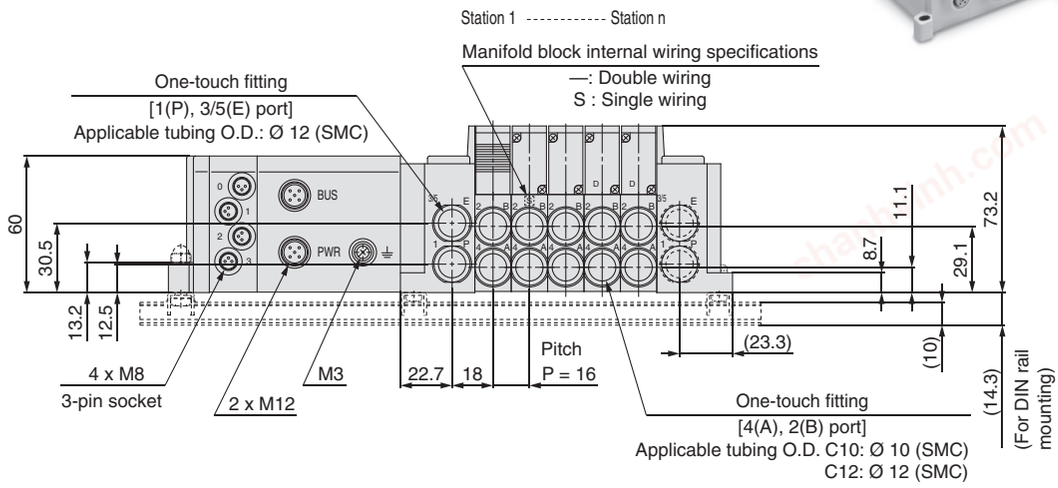


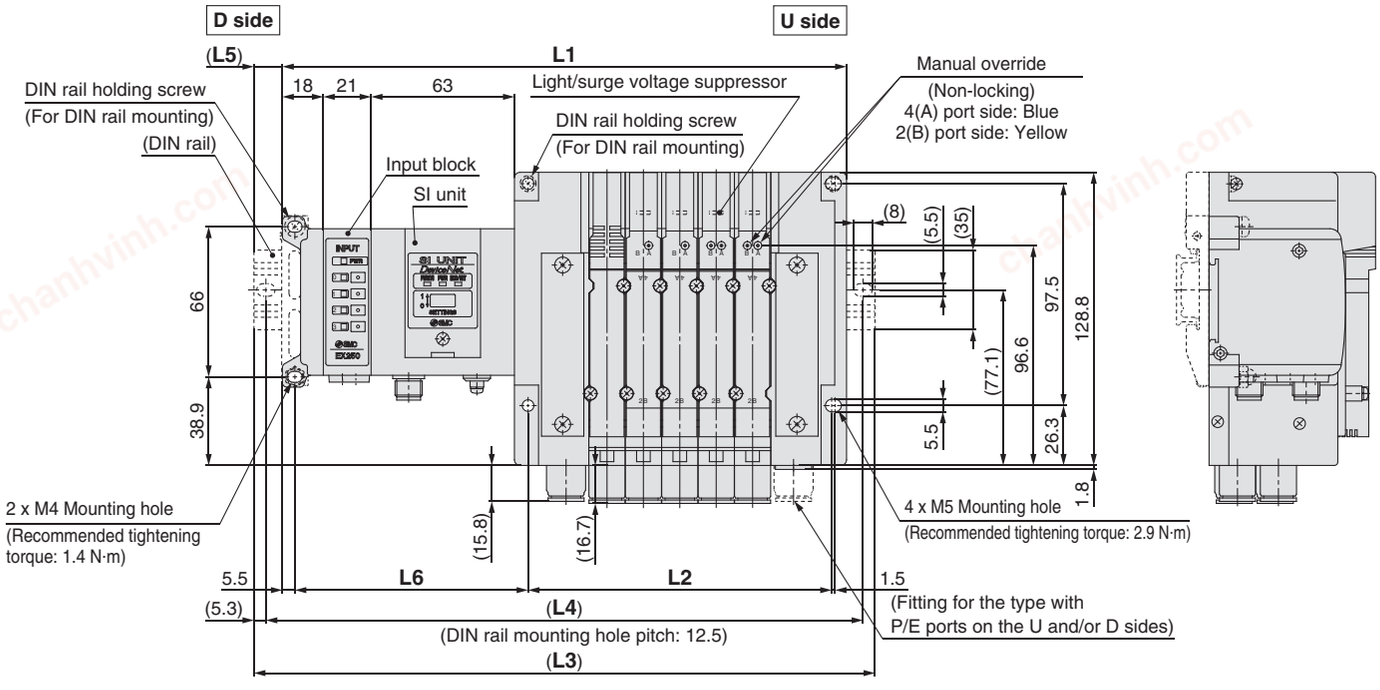
## Dimensions: JSY5000 Series

**Type 10/Side Ported**
**EX250**



### JJ5SY5-10S□ - Stations U/D/B - C10/C12 (D)






L1 = 16 x n1 + 147 + 21 x n2
L2 = 16 x n1 + 53.5
L4 = L3 – 10.5
L5 = (L3 – L1) / 2
L6 = 21 x n2 + 81.5

n1: Number of valve stations of the JSY5000
n2: Input block stations

* These figures show the "JJ5SY5-10SQ1A-05D-C12."
* Refer to page 99 for dimensions of external pilot (Made to Order) and silencer.

### L3: DIN Rail Overall Length

| Valve stations (n1) / I/O unit stations (n2) | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **0** | 210.5 | 223 | 235.5 | 260.5 | 273 | 285.5 | 310.5 | 323 | 335.5 | 348 | 373 | 385.5 | 398 | 410.5 | 435.5 | 448 | 460.5 | 485.5 | 498 | 510.5 | 523 | 548 | 560.5 |
| **1** | 235.5 | 248 | 260.5 | 273 | 298 | 310.5 | 323 | 335.5 | 360.5 | 373 | 385.5 | 410.5 | 423 | 435.5 | 448 | 473 | 485.5 | 498 | 523 | 535.5 | 548 | 560.5 | 585.5 |
| **2** | 248 | 260.5 | 285.5 | 298 | 310.5 | 335.5 | 348 | 360.5 | 373 | 398 | 410.5 | 423 | 448 | 460.5 | 473 | 485.5 | 510.5 | 523 | 535.5 | 560.5 | 573 | 585.5 | 598 |
| **3** | 273 | 285.5 | 298 | 323 | 335.5 | 348 | 373 | 385.5 | 398 | 410.5 | 435.5 | 448 | 460.5 | 485.5 | 498 | 510.5 | 523 | 548 | 560.5 | 573 | 585.5 | 610.5 | 623 |
| **4** | 298 | 310.5 | 323 | 335.5 | 360.5 | 373 | 385.5 | 410.5 | 423 | 435.5 | 448 | 473 | 485.5 | 498 | 510.5 | 535.5 | 548 | 560.5 | 585.5 | 598 | 610.5 | 623 | 648 |
| **5** | 310.5 | 335.5 | 348 | 360.5 | 373 | 398 | 410.5 | 423 | 435.5 | 460.5 | 473 | 485.5 | 510.5 | 523 | 535.5 | 548 | 573 | 585.5 | 598 | 623 | 635.5 | 648 | 660.5 |
| **6** | 335.5 | 348 | 360.5 | 385.5 | 398 | 410.5 | 435.5 | 448 | 460.5 | 473 | 498 | 510.5 | 523 | 548 | 560.5 | 573 | 585.5 | 610.5 | 623 | 635.5 | 660.5 | 673 | 685.5 |
| **7** | 360.5 | 373 | 385.5 | 398 | 423 | 435.5 | 448 | 473 | 485.5 | 498 | 510.5 | 535.5 | 548 | 560.5 | 585.5 | 598 | 610.5 | 623 | 648 | 660.5 | 673 | 685.5 | 710.5 |
| **8** | 373 | 398 | 410.5 | 423 | 435.5 | 460.5 | 473 | 485.5 | 510.5 | 523 | 535.5 | 548 | 573 | 585.5 | 598 | 610.5 | 635.5 | 648 | 660.5 | 685.5 | 698 | 710.5 | 723 |

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Plug-in Connector Connecting Base

EX260

Type 10
Side Ported

# JSY1000/3000/5000 Series

Refer to page 8 5 for details on manifolds that support safety communication (PROFIsafe).

Internal Pilot

## How to Order Manifolds

JJ5SY [3] – 10 S [QA] – [05] [D] [ ] – [C6] [ ]

❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽

### ❶ Series

| | |
|---|---|
| 1 | JSY1000 |
| 3 | JSY3000 |
| 5 | JSY5000 |

### ❷ Type

| | |
|---|---|
| 10 | Side ported |

### ❸ SI unit (Output polarity, Protocol, Number of outputs, Communication connector)

| Symbol (Output polarity) | | Protocol | Number of outputs | Communication connector |
|---|---|---|---|---|
| Positive common (NPN) | Negative common (PNP) | | | |
| 0*1 | | Without SI unit | | |
| QA | QAN | DeviceNet® | 32 | M12 |
| QB | QBN | | 16 | |
| NA | NAN | PROFIBUS DP | 32 | M12 |
| NB | NBN | | 16 | |
| NC | NCN | | 32 | *3 D-sub |
| ND | NDN | | 16 | |
| VA | VAN | CC-Link | 32 | M12 |
| VB | VBN | | 16 | |
| DA | DAN | EtherCAT | 32 | M12 |
| DB | DBN | | 16 | |
| FA | FAN | PROFINET | 32 | M12 |
| FB | FBN | | 16 | |
| EA | EAN | EtherNet/IP™ | 32 | M12 |
| EB | EBN | | 16 | |
| —*2 | GAN | Ethernet POWERLINK | 32 | M12 |
| —*2 | GBN | | 16 | |
| —*2 | KAN | IO-Link | 32*4 | M12 |

*1 Without SI unit, the output polarity is decided by the SI unit used.
Ensure a match with the common specification of the valves to be used.
*2 Positive common (NPN) type is not available.
*3 IP40 for the D-sub applicable communication connector specification.
*4 Only the 32 outputs type is available.
* DIN rail cannot be mounted without SI unit.

### ❺ P, E port entry

| | |
|---|---|
| U | U side (2 to 10 stations) |
| D | D side (2 to 10 stations) |
| B | Both sides (2 to 24 stations) |

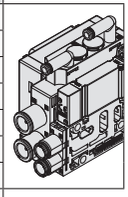
### ❻ SUP/EXH block assembly

| | |
|---|---|
| — | Internal pilot |
| S | Internal pilot, Built-in silencer |

* The 3/5(E) port is plugged for the built-in silencer type.
* When the built-in silencer type is used, keep the exhaust port from coming into direct contact with water or other liquids.
* The external pilot specification should be ordered as Made to Order. For details, refer to page 135.

### ❼ A, B port size (Metric/One-touch fitting)

| Symbol | | A, B port | JSY1000 | JSY3000 | JSY5000 |
|---|---|---|---|---|---|
| C2 | Straight | Ø 2 | ● | — | — |
| C4 | | Ø 4 | ● | — | — |
| C6 | | Ø 6 | ● | ● | — |
| C8 | | Ø 8 | — | ● | — |
| C10 | | Ø 10 | — | — | ● |
| C12 | | Ø 12 | — | — | ● |
| CM*1 | | Straight port, mixed sizes | ● | ● | ● |
| P, E port size (One-touch fittings) | | | Ø 8 | Ø 10 | Ø 12 |



*1 Indicate the sizes on the manifold specification sheet in the case of "CM."
* The JSY1000 manifold pitch for C2 and C4 is 6.5 mm, and 9 mm for C6. When CM is selected, the manifold pitch is different depending on the selected fitting.

**For details on the EX260 Integrated Type (For Output) Serial Transmission System, refer to the Web Catalogue and the Operation Manual. For the part numbers of the SI units to be mounted, refer to page 113. Please download the Operation Manual via the SMC website, https://www.smc.eu**

### Made to Order

**(Refer to page 135 for details.)**

| Specification |
|---|
| External pilot (SUP/EXH block assembly) |

### ❹ Valve stations

**In the case of the 32-output SI unit**

| Symbol | Stations | Note |
|---|---|---|
| 02 | 2 stations | Double wiring*1 |
| ⋮ | ⋮ | |
| 16 | 16 stations | |
| 02 | 2 stations | Specified layout*2 (Up to 32 solenoids available) |
| ⋮ | ⋮ | |
| 24 | 24 stations | |

**In the case of the 16-output SI unit**

| Symbol | Stations | Note |
|---|---|---|
| 02 | 2 stations | Double wiring*1 |
| ⋮ | ⋮ | |
| 08 | 8 stations | |
| 02 | 2 stations | Specified layout*2 (Up to 16 solenoids available) |
| ⋮ | ⋮ | |
| 16 | 16 stations | |

*1 Double wiring: 2-position single, double, 3-position, and 4-position valves can be used on all manifold stations.
The use of a 2-position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.
*2 Specified layout: Indicate the wiring specifications on the manifold specification sheet. (Note that 2-position double, 3-position, and 4-position valves cannot be used where single wiring has been specified.)
* This also includes the number of blanking plates.
* For the product without the SI unit (S0), note the maximum number of solenoids of the SI unit that will be mounted. If the layout is specified, indicate it on the manifold specification sheet.

### ❽ Mounting and Option

| Symbol | Mounting |
|---|---|
| — | Direct mounting |
| D□ | DIN rail mounting |

* Enter the number of stations inside □ when it is larger than the number of valve stations. (Refer to "DIN Rail Option" shown below.)
* Refer to page 139 for details on securing the DIN rail mounting type manifold.
* DIN rail mounting (D□) is not available for the product without the SI unit (S0).

**DIN Rail Option**

| | | |
|---|---|---|
| — | DIN rail mounting (With DIN rail) | |
| 0 | DIN rail mounting (Without DIN rail) | |
| 3 | For 3 stations | Specify a length longer than that of the standard rail. |
| ⋮ | ⋮ | |
| 24 | For 24 stations | |

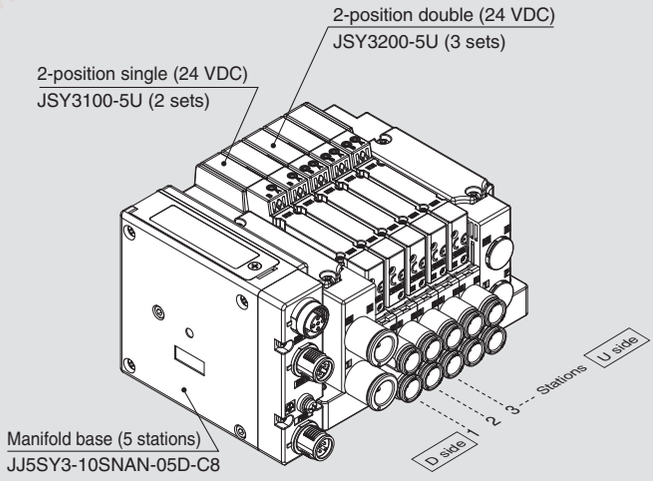
* Refer to L3 of the dimensions for the DIN rail length and order separately. (Refer to page 131 for the DIN rail part number.)

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## How to Order Manifold Assembly

### Example (JJ5SY3-10SNAN-□)




**JJ5SY3-10SNAN-05D-C8 ·· 1 set (Type 10 5-station manifold base part no.)**
*** JSY3100-5U ····· 2 sets (2-position single part no.)**
*** JSY3200-5U ····· 3 sets (2-position double part no.)**
**→The asterisk denotes the symbol for the assembly. Prefix it to the part numbers of the valve, etc.**

- For the valve arrangement, the valve closest to the D side is considered the 1st station.
- Under the manifold part number, state the valves to be mounted in order starting with the 1st station as shown in the figure. If the arrangement becomes too complicated, specify the details on a manifold specification sheet.

**Internal Pilot**

## How to Order Valves (With mounting screw)

Refer to page 13 for valve specifications.

**JSY1000 Series**

**JSY3000/5000 Series**

With power-saving circuit

JSY 1 1 0 0 T – 5 Z □
JSY 3 1 0 0 – 5 Z □
① ② ③ ④ ⑤ ⑥

Base mounted

**Made to Order (Refer to page 135 for details.)**

| Specification |
|---|
| With power-saving circuit (Continuous duty type): 0.1 W (JSY3000/5000) |
| External pilot |

### ① Series

| | |
|---|---|
| 1 | JSY1000 |
| 3 | JSY3000 |
| 5 | JSY5000 |

### ② Type of actuation

| | | |
|---|---|---|
| 1 | 2-position | Single |
| 2 | | Double |
| 3 | 3-position | Closed centre |
| 4 | | Exhaust centre |
| 5 | | Pressure centre |
| A | 4-position dual 3-port | N.C./N.C. |
| B | | N.O./N.O. |
| C | | N.C./N.O. |

### ③ Pilot valve exhaust method

| | |
|---|---|
| 0 | Pilot valve individual exhaust |

### ④ Rated voltage

| | |
|---|---|
| 5 | 24 VDC |

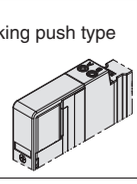
### ⑤ Light/surge voltage suppressor and common specification

| Symbol | With light | Surge voltage suppressor | Common specification |
|---|---|---|---|
| U | ● | ● | Non-polar |
| Z | | | Positive common |
| NZ | | | Negative common |

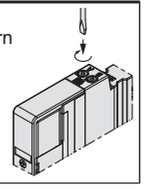
- Select “U” or “Z” for the valve when the SI unit output polarity is — (positive common). Select “U” or “NZ” for the valve when the SI unit output polarity is N (negative common).
- Only “Z” and “NZ” types are available for the JSY1000 series.
- When the non-polar common specification type is selected, take measures to prevent surge voltage. For details, refer to page 138.

### ⑥ Manual override

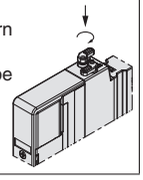
—: Non-locking push type



D: Push-turn locking slotted type



E: Push-turn locking lever type



- Push-turn locking lever type “E” is not available for the JSY1000.

- **When ordering a valve individually, the base gasket is not included.**
  Since the base gasket is attached to the manifold, please order the base gasket separately if it is needed for maintenance. Refer to page 116 for base gasket and mounting screw part numbers.

### ⚠ Caution

**If the JSY3000/5000 series is to be continuously energised, please be sure to select the power-saving circuit (continuous duty type) specification. Refer to “Made to Order” on page 135.**
**For the JSY1000 series, only the power-saving circuit specification is available.**

⚠ Protective class class Ⅲ (Mark: Ⅲ)

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Plug-in **Connector Connecting Base**

EX260 | Safety Communication Protocol (PROFIsafe)

Type 10
Side Ported

# JSY1000/3000/5000 Series

**Using the safety communication protocol**
Refer to the EX260 **Web Catalogue** for details on units that support the safety communication protocol.
When using a manifold valve within an ISO 13849-compliant safety system, the device needs to be considered from both the pneumatic circuit and the electric side.
Devices (including valves) need to be selected based on whether their functions are in line with the safety level of the equipment as a whole.
The use of valves that have been validated as being compliant with ISO 13849-2 may be required.
For details on valves that have been validated, please contact SMC.
In addition, refer to "Safety Instructions" for precautions on model selection.

**Internal Pilot**

**Refer to page 83 for details on manifolds that support Fieldbus and Industrial Ethernet.**

## How to Order Manifolds

**JJ5SY 3 – 10 S FPN – 05 D □ – C6 □**
(1) (2) (3) (4) (5) (6) (7) (8)

### Made to Order
**(Refer to page 135 for details.)**

| Specification |
|---|
| External pilot (SUP/EXH block assembly) |

### ❶ Series

| | |
|---|---|
| 1 | JSY1000 |
| 3 | JSY3000 |
| 5 | JSY5000 |

### ❷ Type

| | |
|---|---|
| 10 | Side ported |

### ❸ SI unit (Output polarity, Protocol, Number of outputs, Communication connector)

| Symbol (Output polarity) | | Protocol | Number of outputs | Communication connector |
|---|---|---|---|---|
| Positive common (NPN) | Negative common (PNP) | | | |
| 0*1 | | Without SI unit | | |
| —*2 | FPN | PROFIsafe | 32*3 | M12 |

*1 Without SI unit, the output polarity is decided by the SI unit used.
Ensure a match with the common specification of the valves to be used.
*2 Positive common (NPN) type is not available.
*3 Only the 32 outputs type is available.
* DIN rail cannot be mounted without SI unit.

### ❹ Valve stations

| Symbol | Stations | Note |
|---|---|---|
| 02 | 2 stations | Double wiring*1 |
| ⋮ | ⋮ | |
| 16 | 16 stations | |
| 02 | 2 stations | Specified layout*2 (Up to 32 solenoids available) |
| ⋮ | ⋮ | |
| 24 | 24 stations | |

*1 Double wiring: 2-position single, 3-position, and 4-position valves can be used on all manifold stations.
The use of a 2-position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.
*2 Specified layout: Indicate the wiring specifications on the manifold specification sheet. (Note that 3-position and 4-position valves cannot be used where single wiring has been specified.)
* This also includes the number of blanking plates.

### ❺ P, E port entry

| | |
|---|---|
| U | U side (2 to 10 stations) |
| D | D side (2 to 10 stations) |
| B | Both sides (2 to 24 stations) |

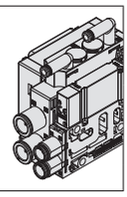
### ❻ SUP/EXH block assembly

| | |
|---|---|
| — | Internal pilot |
| S | Internal pilot, Built-in silencer |

* The 3/5(E) port is plugged for the built-in silencer type.
* When the built-in silencer type is used, keep the exhaust port from coming into direct contact with water or other liquids.
* The external pilot specification should be ordered as Made to Order. For details, refer to page 135.

### ❼ A, B port size (Metric/One-touch fitting)

| Symbol | | A, B port | JSY1000 | JSY3000 | JSY5000 |
|---|---|---|---|---|---|
| C2 | Straight | Ø 2 | ● | — | — |
| C4 | | Ø 4 | ● | — | — |
| C6 | | Ø 6 | ● | ● | — |
| C8 | | Ø 8 | — | ● | — |
| C10 | | Ø 10 | — | — | ● |
| C12 | | Ø 12 | — | — | ● |
| CM*1 | | Straight port, mixed sizes | ● | ● | ● |
| P, E port size (One-touch fittings) | | | Ø 8 | Ø 10 | Ø 12 |



*1 Indicate the sizes on the manifold specification sheet in the case of "CM."
* The JSY1000 manifold pitch for C2 and C4 is 6.5 mm, and 9 mm for C6. When CM is selected, the manifold pitch is different depending on the selected fitting.

### ❽ Mounting and Option

| Symbol | Mounting |
|---|---|
| — | Direct mounting |
| D□ | DIN rail mounting |

* Enter the number of stations inside □ when it is larger than the number of valve stations. (Refer to "DIN Rail Option" shown below.)
* Refer to page 139 for details on securing the DIN rail mounting type manifold.
* DIN rail mounting (D□) is not available for the product without the SI unit (S0).

**DIN Rail Option**

| | | |
|---|---|---|
| — | DIN rail mounting (With DIN rail) | |
| 0 | DIN rail mounting (Without DIN rail) | |
| 3 | For 3 stations | Specify a length longer than that of the standard rail. |
| ⋮ | ⋮ | |
| 24 | For 24 stations | |

* Refer to L3 of the dimensions for the DIN rail length and order separately. (Refer to page 131 for the DIN rail part number.)

**For details on the EX260 Integrated Type (For Output) Serial Transmission System, refer to the Web Catalogue and the Operation Manual. For the part numbers of the SI units to be mounted, refer to page 113. Please download the Operation Manual via the SMC website, https://www.smc.eu**

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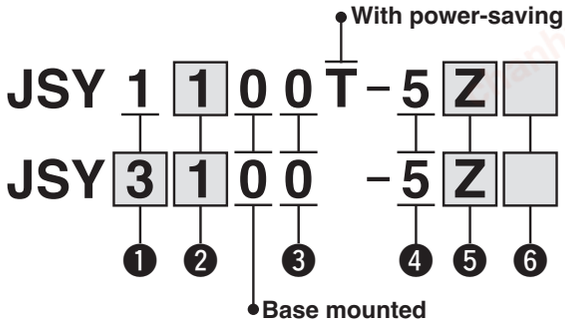
* 2-position double of rubber seal and manual override with locking function (D, E type) are excluded, because they don't comply with safety standard.

**Internal Pilot**

## How to Order Valves (With mounting screw)

**JSY1000 Series**

**JSY3000/5000 Series**




**Made to Order** (Refer to page 135 for details.)

| Specification |
|---|
| With power-saving circuit (Continuous duty type): 0.1 W (JSY3000/5000) |
| External pilot |

### ❶ Series

| | |
|---|---|
| 1 | JSY1000 |
| 3 | JSY3000 |
| 5 | JSY5000 |

### ❷ Type of actuation

| | | |
|---|---|---|
| 1 | 2-position | Single |
| 3 | 3-position | Closed centre |
| 4 | | Exhaust centre |
| 5 | | Pressure centre |
| A | 4-position dual 3-port | N.C./N.C. |
| B | | N.O./N.O. |
| C | | N.C./N.O. |

### ❸ Pilot valve exhaust method

| | |
|---|---|
| 0 | Pilot valve individual exhaust |

### ❹ Rated voltage

| | |
|---|---|
| 5 | 24 VDC |

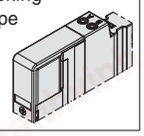
### ❺ Light/surge voltage suppressor and common specification

| Symbol | With light | Surge voltage suppressor | Common specification |
|---|---|---|---|
| U | ● | ● | Non-polar |
| NZ | | | Negative common |

* Only "NZ" type is available for the JSY1000 series.
* When the non-polar common specification type is selected, take measures to prevent surge voltage. For details, refer to page 138.

### ❻ Manual override

–: Non-locking push type



* **When ordering a valve individually, the base gasket is not included.**
Since the base gasket is attached to the manifold, please order the base gasket separately if it is needed for maintenance. Refer to page 116 for base gasket and mounting screw part numbers.

### ⚠ Caution

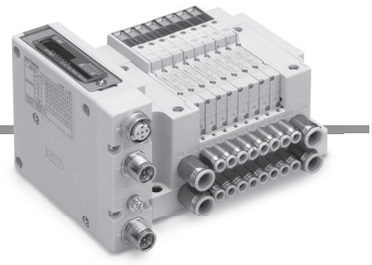
**If the JSY3000/5000 series is to be continuously energised, please be sure to select the power-saving circuit (continuous duty type) specification. Refer to "Made to Order" on page 135.**
**For the JSY1000 series, only the power-saving circuit specification is available.**

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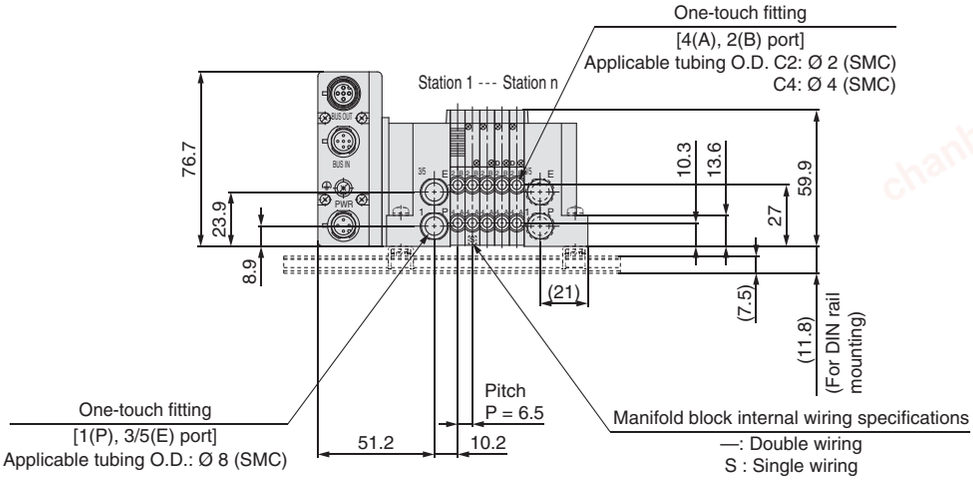
# JSY1000/3000/5000 Series

## Dimensions: JSY1000 Series

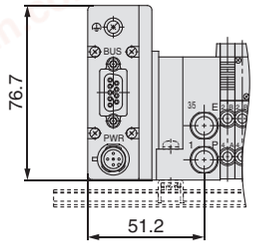
**Type 10/Side Ported** (Applicable to Ø 2 and Ø 4 fittings)
**EX260**

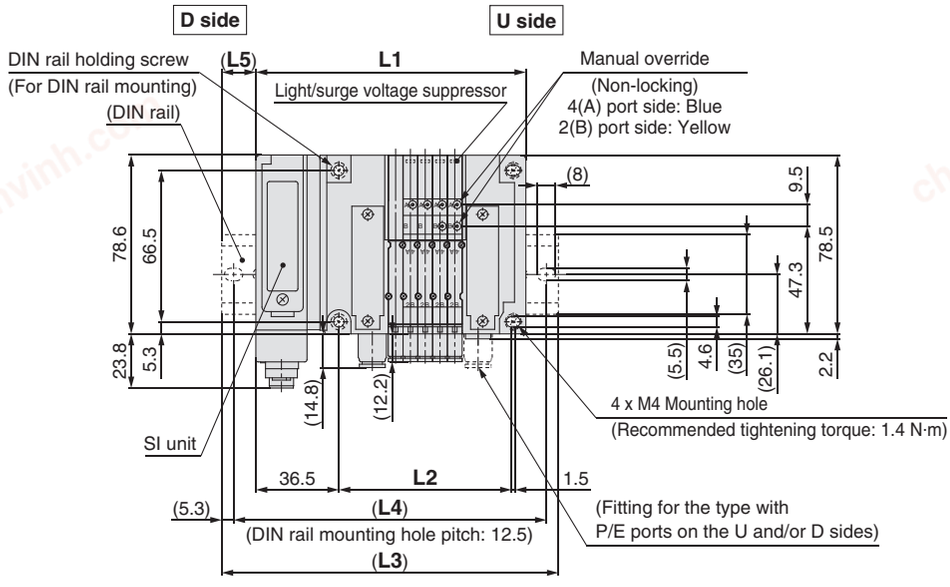


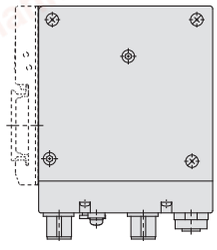
### JJ5SY1-10S□-Stations U/D/B-C2/C4(D)




**[Communication connector D-sub]**



* These figures show the "JJ5SY1-10SQA-05D-C4."
* Refer to page 97 for dimensions of external pilot (Made to Order) and silencer.
* When CM is selected for mixed A, B port size and C6 (9 mm pitch) is included, refer to page 100 for dimensions.

### L: Dimensions

n: Stations

| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L1 | 99.2 | 105.7 | 112.2 | 118.7 | 125.2 | 131.7 | 138.2 | 144.7 | 151.2 | 157.7 | 164.2 | 170.7 | 177.2 | 183.7 | 190.2 |
| L2 | 56.4 | 62.9 | 69.4 | 75.9 | 82.4 | 88.9 | 95.4 | 101.9 | 108.4 | 114.9 | 121.4 | 127.9 | 134.4 | 140.9 | 147.4 |
| L3 | 123 | 135.5 | 135.5 | 148 | 160.5 | 160.5 | 173 | 173 | 185.5 | 185.5 | 198 | 198 | 210.5 | 210.5 | 223 |
| L4 | 112.5 | 125 | 125 | 137.5 | 150 | 150 | 162.5 | 162.5 | 175 | 175 | 187.5 | 187.5 | 200 | 200 | 212.5 |
| L5 | 12 | 15 | 12 | 15 | 18 | 15 | 18 | 14 | 17 | 14 | 17 | 14 | 17 | 14 | 17 |

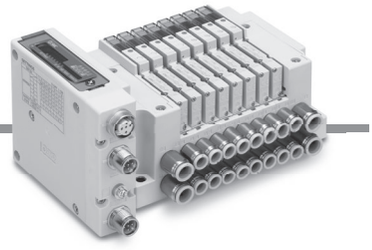
| L \ n | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|
| L1 | 196.7 | 203.2 | 209.7 | 216.2 | 222.7 | 229.2 | 235.7 | 242.2 |
| L2 | 153.9 | 160.4 | 166.9 | 173.4 | 179.9 | 186.4 | 192.9 | 199.4 |
| L3 | 223 | 235.5 | 235.5 | 248 | 248 | 260.5 | 260.5 | 273 |
| L4 | 212.5 | 225 | 225 | 237.5 | 237.5 | 250 | 250 | 262.5 |
| L5 | 13 | 16 | 13 | 16 | 13 | 16 | 13 | 16 |

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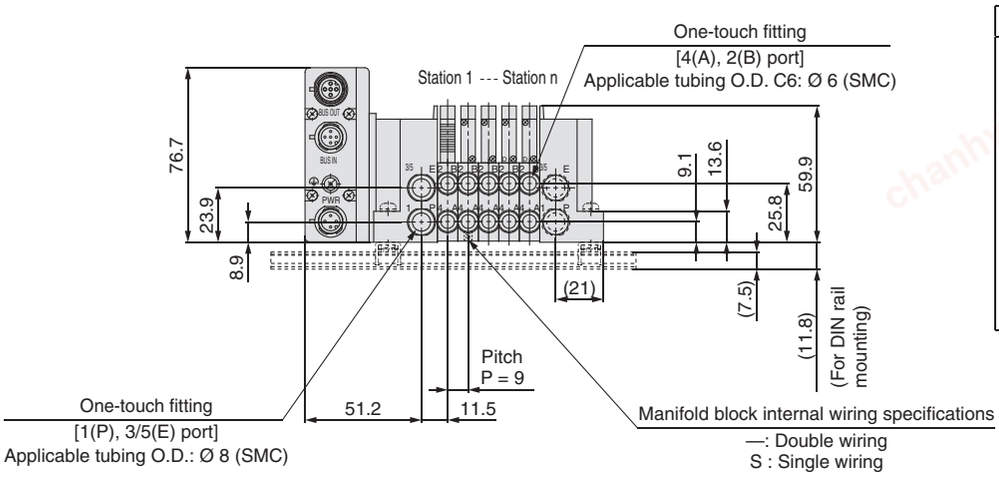


## Dimensions: JSY1000 Series

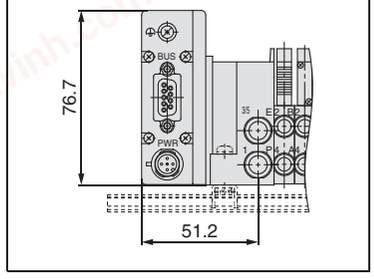
**Type 10/Side Ported (Applicable to Ø 6 fittings)**
**EX260**

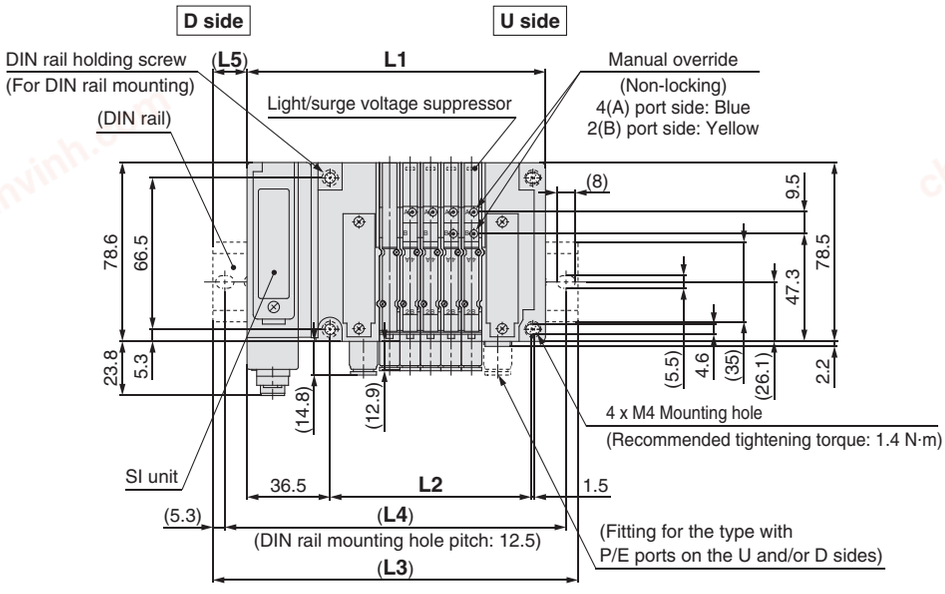


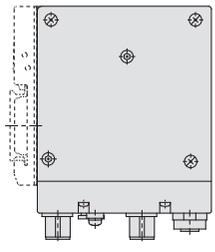
### JJ5SY1-10S□-Stations U/D/B-C6(D)




**[Communication connector D-sub]**



* These figures show the "JJ5SY1-10SQA-05D-C6."
* Refer to page 97 for dimensions of external pilot (Made to Order) and silencer.
* When CM is selected for mixed A, B port size, refer to page 100 for dimensions.

### L: Dimensions

n: Stations

| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L1 | 104.2 | 113.2 | 122.2 | 131.2 | 140.2 | 149.2 | 158.2 | 167.2 | 176.2 | 185.2 | 194.2 | 203.2 | 212.2 | 221.2 | 230.2 |
| L2 | 61.4 | 70.4 | 79.4 | 88.4 | 97.4 | 106.4 | 115.4 | 124.4 | 133.4 | 142.4 | 151.4 | 160.4 | 169.4 | 178.4 | 187.4 |
| L3 | 135.5 | 148 | 148 | 160.5 | 173 | 173 | 185.5 | 198 | 210.5 | 210.5 | 223 | 235.5 | 235.5 | 248 | 260.5 |
| L4 | 125 | 137.5 | 137.5 | 150 | 162.5 | 162.5 | 175 | 187.5 | 200 | 200 | 212.5 | 225 | 225 | 237.5 | 250 |
| L5 | 16 | 18 | 13 | 15 | 17 | 12 | 14 | 16 | 17 | 13 | 15 | 16 | 12 | 14 | 15 |

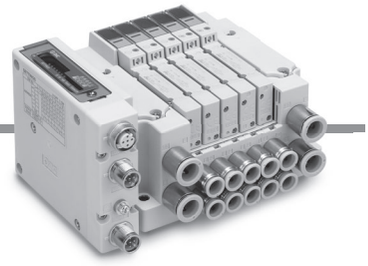
| L \ n | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|
| L1 | 239.2 | 248.2 | 257.2 | 266.2 | 275.2 | 248.2 | 293.2 | 302.2 |
| L2 | 196.4 | 205.4 | 214.4 | 223.4 | 232.4 | 241.4 | 250.4 | 259.4 |
| L3 | 273 | 273 | 285.5 | 298 | 310.5 | 310.5 | 323 | 335.5 |
| L4 | 262.5 | 262.5 | 275 | 287.5 | 300 | 300 | 312.5 | 325 |
| L5 | 17 | 13 | 14 | 16 | 18 | 13 | 15 | 17 |

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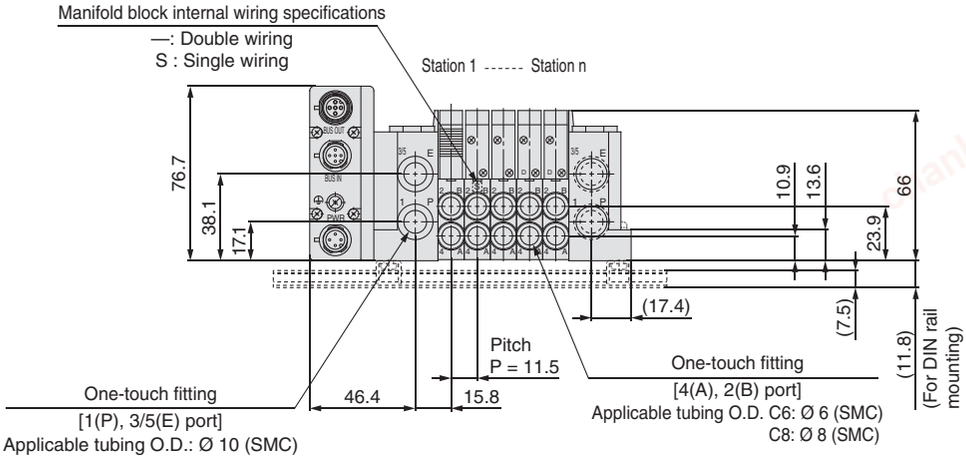
# JSY1000/3000/5000 Series

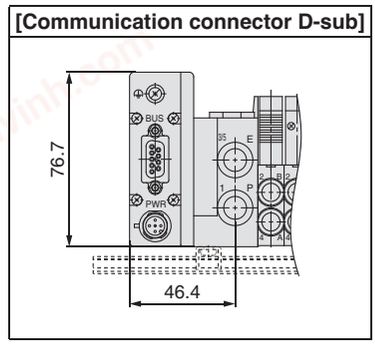
## Dimensions: JSY3000 Series

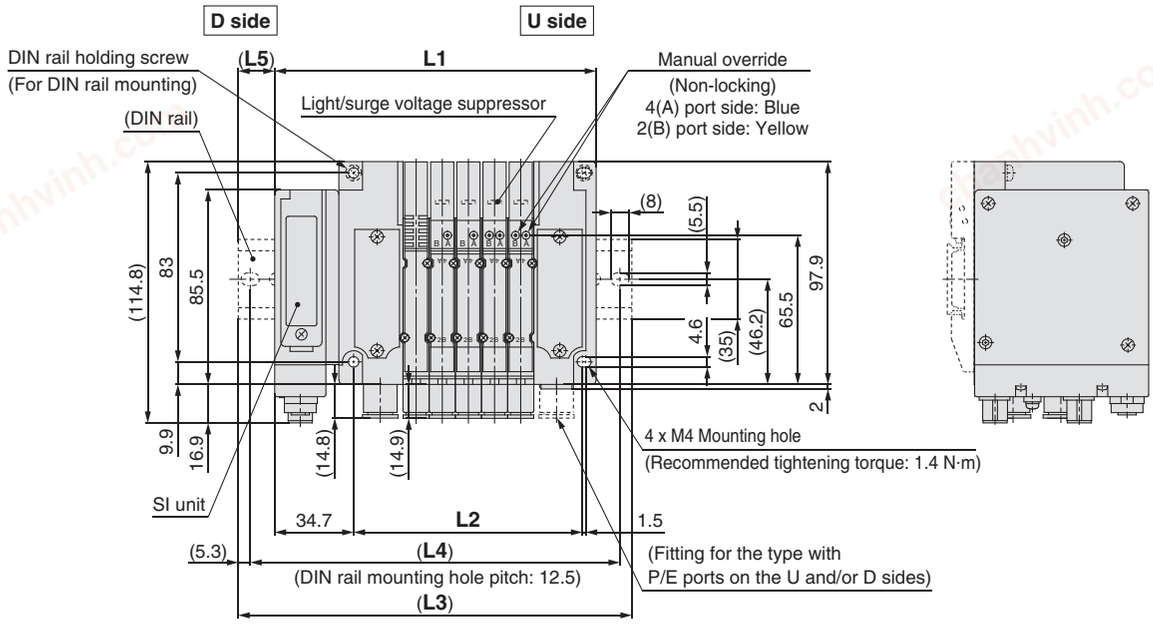
**Type 10/Side Ported**
**EX260**



### JJ5SY3-10S□-Stations U/D/B-C6/C8(D)






∗ These figures show the “JJ5SY3-10SQA-05D-C8.”
∗ Refer to page 98 for dimensions of external pilot (Made to Order) and silencer.

### L: Dimensions

n: Stations

| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L1 | 106.8 | 118.3 | 129.8 | 141.3 | 152.8 | 164.3 | 175.8 | 187.3 | 198.8 | 210.3 | 221.8 | 233.3 | 244.8 | 256.3 | 267.8 |
| L2 | 66.1 | 77.6 | 89.1 | 100.6 | 112.1 | 123.6 | 135.1 | 146.6 | 158.1 | 169.6 | 181.1 | 192.6 | 204.1 | 215.6 | 227.1 |
| L3 | 135.5 | 148 | 160.5 | 173 | 185.5 | 198 | 210.5 | 210.5 | 223 | 235.5 | 248 | 260.5 | 273 | 285.5 | 298 |
| L4 | 125 | 137.5 | 150 | 162.5 | 175 | 187.5 | 200 | 200 | 212.5 | 225 | 237.5 | 250 | 262.5 | 275 | 287.5 |
| L5 | 15 | 15 | 16 | 16 | 17 | 17 | 18 | 12 | 12 | 13 | 13 | 14 | 14 | 15 | 15 |

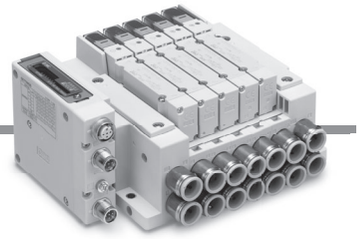
| L \ n | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|
| L1 | 279.3 | 290.8 | 302.3 | 313.8 | 325.3 | 336.8 | 348.3 | 359.8 |
| L2 | 238.6 | 250.1 | 261.1 | 273.1 | 284.6 | 296.1 | 307.6 | 319.1 |
| L3 | 310.5 | 323 | 335.5 | 348 | 360.5 | 360.5 | 373 | 385.5 |
| L4 | 300 | 312.5 | 325 | 337.5 | 350 | 350 | 362.5 | 375 |
| L5 | 16 | 16 | 17 | 17 | 18 | 12 | 13 | 13 |

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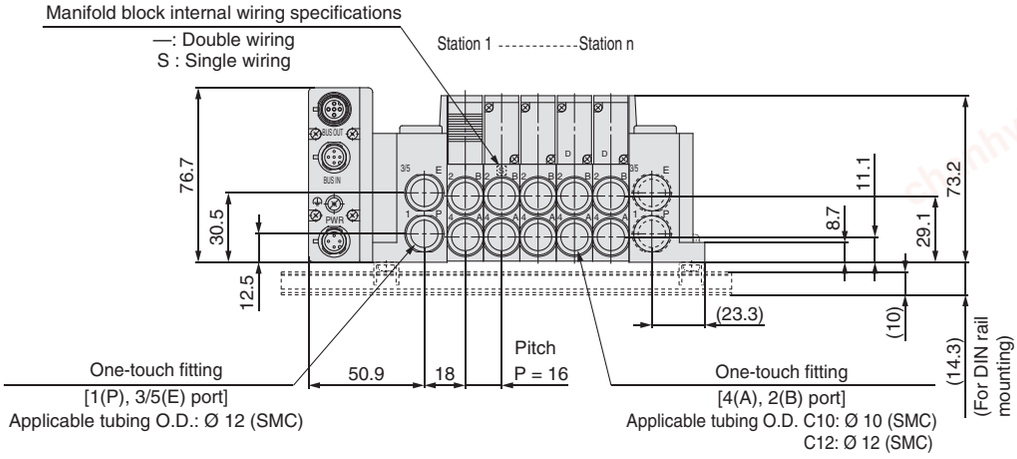


## Dimensions: JSY5000 Series

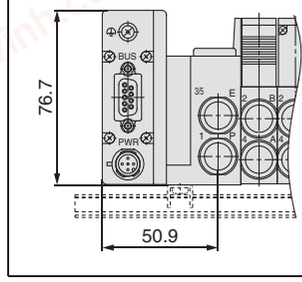
**Type 10/Side Ported**
**EX260**

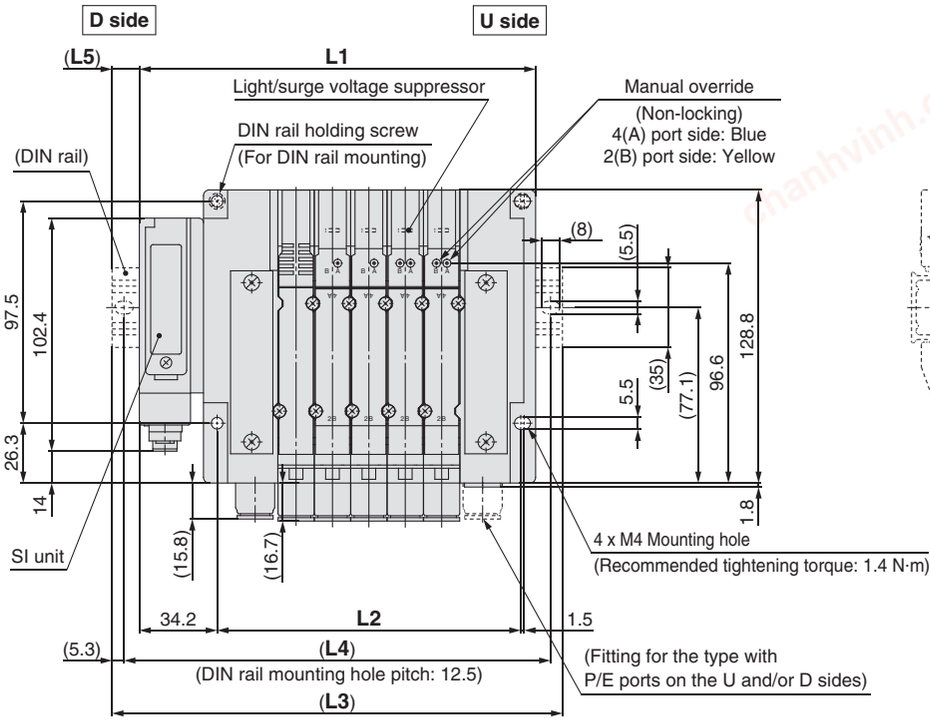


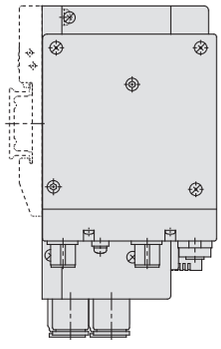
### JJ5SY5-10S□-Stations U/D/B-C10/C12(D)




**[Communication connector D-sub]**



* These figures show the "JJ5SY5-10SQA-05D-C12."
* Refer to page 99 for dimensions of external pilot (Made to Order) and silencer.

### L: Dimensions

n: Stations

| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L1 | 126.2 | 142.2 | 158.2 | 174.2 | 190.2 | 206.2 | 222.2 | 238.2 | 254.2 | 270.2 | 286.2 | 302.2 | 318.2 | 334.2 | 350.2 |
| L2 | 85.5 | 101.5 | 117.5 | 133.5 | 149.5 | 165.5 | 181.5 | 197.5 | 213.5 | 229.5 | 245.5 | 261.5 | 277.5 | 293.5 | 309.5 |
| L3 | 160.5 | 173 | 185.5 | 198 | 223 | 235.5 | 248 | 273 | 285.5 | 298 | 310.5 | 335.5 | 348 | 360.5 | 385.5 |
| L4 | 150 | 162.5 | 175 | 187.5 | 212.5 | 225 | 237.5 | 262.5 | 275 | 287.5 | 300 | 325 | 337.5 | 350 | 375 |
| L5 | 17 | 16 | 14 | 12 | 17 | 15 | 13 | 18 | 16 | 14 | 12 | 17 | 15 | 13 | 18 |

| L \ n | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|
| L1 | 366.2 | 382.2 | 398.2 | 414.2 | 430.2 | 446.2 | 462.2 | 478.2 |
| L2 | 325.5 | 341.5 | 357.5 | 373.5 | 389.5 | 405.5 | 421.5 | 437.5 |
| L3 | 398 | 410.5 | 423 | 448 | 460.5 | 473 | 485.5 | 510.5 |
| L4 | 387.5 | 400 | 412.5 | 437.5 | 450 | 462.5 | 475 | 500 |
| L5 | 16 | 14 | 13 | 17 | 15 | 14 | 12 | 16 |

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Plug-in Connector Connecting Base

EX120

Type 10
Side Ported

# JSY1000/3000/5000 Series

Internal Pilot

## How to Order Manifolds

JJ5SY [3] – 10 S3 [Q] – [05] [D] [ ] – [ ] [ ]

❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽

### ❶ Series

| | |
|---|---|
| 1 | JSY1000 |
| 3 | JSY3000 |
| 5 | JSY5000 |

### ❷ Type

| | |
|---|---|
| 10 | Side ported |

### ❸ SI unit

| | | |
|---|---|---|
| 0 | Without SI unit | |
| Q | DeviceNet® (Positive common NPN) | |
| R1 | OMRON CompoBus/S (Positive common NPN) | 16 outputs |
| R2 | | 8 outputs |
| V | CC-Link (Positive common NPN) | |
| ZB*1 | CompoNet® | Positive common NPN |
| ZBN*1 | | Negative common PNP |

*1 The communication connector (for the opposite side) is not provided. Please order it separately.
* Ensure a match with the common specification of the valve to be used.

### ❺ P, E port entry

| | |
|---|---|
| U | U side (2 to 10 stations) |
| D | D side (2 to 10 stations) |
| B | Both sides (2 to 16 stations) |

### ❻ SUP/EXH block

| | |
|---|---|
| — | Internal pilot |
| S | Internal pilot, Built-in silencer |

* The 3/5(E) port is plugged for the built-in silencer type.
* The external pilot specification should be ordered as Made to Order. For details, refer to page 135.

### Made to Order

(Refer to page 135 for details.)

| Specification |
|---|
| External pilot (SUP/EXH block assembly) |

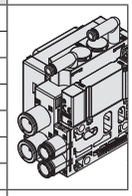
### ❹ Valve stations

| Symbol | Stations | Note |
|---|---|---|
| 02 | 2 stations | Double wiring*1 |
| ⋮ | ⋮ | |
| 08 | 8 stations | |
| 02 | 2 stations | Specified layout*2 (Up to 16 solenoids available) |
| ⋮ | ⋮ | |
| 16 | 16 stations | |

*1 Double wiring: 2-position single, double, 3-position, and 4-position valves can be used on all manifold stations.
The use of a 2-position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.
*2 Specified layout: Indicate the wiring specifications on the manifold specification sheet. (Note that 2-position double, 3-position, and 4-position valves cannot be used where single wiring has been specified.)
* This also includes the number of blanking plates.
* Since R2 type SI unit has 8 outputs, note that up to 8 solenoids can be accommodated.

### ❼ A, B port size (Metric/One-touch fitting)

| Symbol | | A, B port | JSY1000 | JSY3000 | JSY5000 |
|---|---|---|---|---|---|
| C2 | Straight | Ø 2 | ● | — | — |
| C4 | | Ø 4 | ● | — | — |
| C6 | | Ø 6 | ● | ● | — |
| C8 | | Ø 8 | — | ● | — |
| C10 | | Ø 10 | — | — | ● |
| C12 | | Ø 12 | — | — | ● |
| CM*1 | | Straight port, mixed sizes | ● | ● | ● |
| P, E port size (One-touch fittings) | | | Ø 8 | Ø 10 | Ø 12 |



*1 Indicate the sizes on the manifold specification sheet in the case of "CM."
* The JSY1000 manifold pitch for C2 and C4 is 6.5 mm, and 9 mm for C6. When CM is selected, the manifold pitch is different depending on the selected fitting.

### ❽ Mounting and Option

| Symbol | Mounting |
|---|---|
| — | Direct mounting |
| D□ | DIN rail mounting |

* Enter the number of stations inside □ when it is larger than the number of valve stations. (Refer to "DIN Rail Option" shown below.)
* Refer to page 139 for details on securing the DIN rail mounting type manifold.

**DIN Rail Option**

| | | |
|---|---|---|
| — | DIN rail mounting (With DIN rail) | |
| 0 | DIN rail mounting (Without DIN rail) | |
| 3 | For 3 stations | Specify a length longer than that of the standard rail. |
| ⋮ | ⋮ | |
| 16 | For 16 stations | |

* If the DIN rail must be mounted without an SI unit, select D0. Refer to L3 of the dimensions for the DIN rail length and order separately. (Refer to page 131 for the DIN rail part number.)

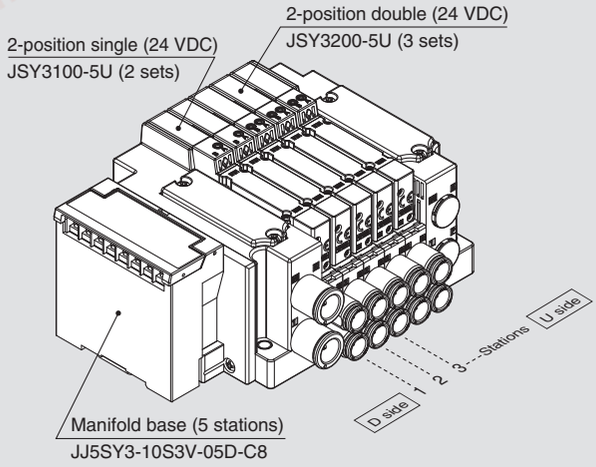
**For details on the EX120 Integrated Type (For Output) Serial Transmission System, refer to the Web Catalogue and the Operation Manual. For the part numbers of the SI units to be mounted, refer to page 114. Please download the Operation Manual via the SMC website, https://www.smc.eu**

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## How to Order Manifold Assembly

### Example (JJ5SY3-10S3V-□)




**JJ5SY3-10S3V-05D-C8 ··· 1 set (Type 10 5-station manifold base part no.)**
*** JSY3100-5U ····· 2 sets (2-position single part no.)**
*** JSY3200-5U ····· 3 sets (2-position double part no.)**
**The asterisk denotes the symbol for the assembly.**
**Prefix it to the part numbers of the valve, etc.**

- For the valve arrangement, the valve closest to the D side is considered the 1st station.
- Under the manifold part number, state the valves to be mounted in order starting with the 1st station as shown in the figure. If the arrangement becomes too complicated, specify the details on a manifold specification sheet.

**Internal Pilot**

## How to Order Valves (With mounting screw)

Refer to page 13 for valve specifications.

**JSY1000 Series**

**JSY3000/5000 Series**

With power-saving circuit

JSY 1 1 0 0 T – 5 Z □
JSY 3 1 0 0 – 5 Z □
1 2 3 4 5 6

Base mounted

**Made to Order** (Refer to page 135 for details.)

| Specification |
|---|
| With power-saving circuit (Continuous duty type): 0.1 W (JSY3000/5000) |
| External pilot |

### 1 Series

| | |
|---|---|
| 1 | JSY1000 |
| 3 | JSY3000 |
| 5 | JSY5000 |

### 2 Type of actuation

| | | |
|---|---|---|
| 1 | 2-position | Single |
| 2 | | Double |
| 3 | 3-position | Closed centre |
| 4 | | Exhaust centre |
| 5 | | Pressure centre |
| A | 4-position dual 3-port | N.C./N.C. |
| B | | N.O./N.O. |
| C | | N.C./N.O. |

### 3 Pilot valve exhaust method

| | |
|---|---|
| 0 | Pilot valve individual exhaust |

### 4 Rated voltage

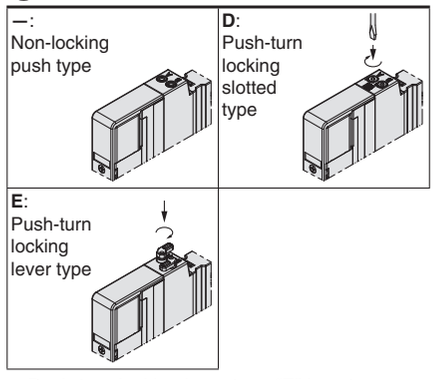
| | |
|---|---|
| 5 | 24 VDC |

### 5 Light/surge voltage suppressor and common specification

| Symbol | With light | Surge voltage suppressor | Common specification |
|---|---|---|---|
| U | | | Non-polar |
| Z | ● | ● | Positive common |
| NZ | | | Negative common |

- Select “U” or “Z” for the valve when the SI unit specification is positive common. Select “U” or “NZ” for the valve when the SI unit specification is ZBN (negative common).
- Only “Z” and “NZ” types are available for the JSY1000 series.
- When the non-polar common specification type is selected, take measures to prevent surge voltage. For details, refer to page 138.

### 6 Manual override




- Push-turn locking lever type “E” is not available for the JSY1000.

- **When ordering a valve individually, the base gasket is not included.**
  Since the base gasket is attached to the manifold, please order the base gasket separately if it is needed for maintenance. Refer to page 116 for base gasket and mounting screw part numbers.

### ⚠ Caution

**If the JSY3000/5000 series is to be continuously energised, please be sure to select the power-saving circuit (continuous duty type) specification. Refer to “Made to Order” on page 135.**
**For the JSY1000 series, only the power-saving circuit specification is available.**

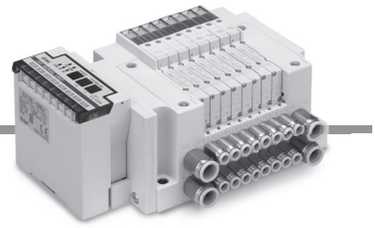
⚠ Protective class class Ⅲ (Mark: Ⅲ)

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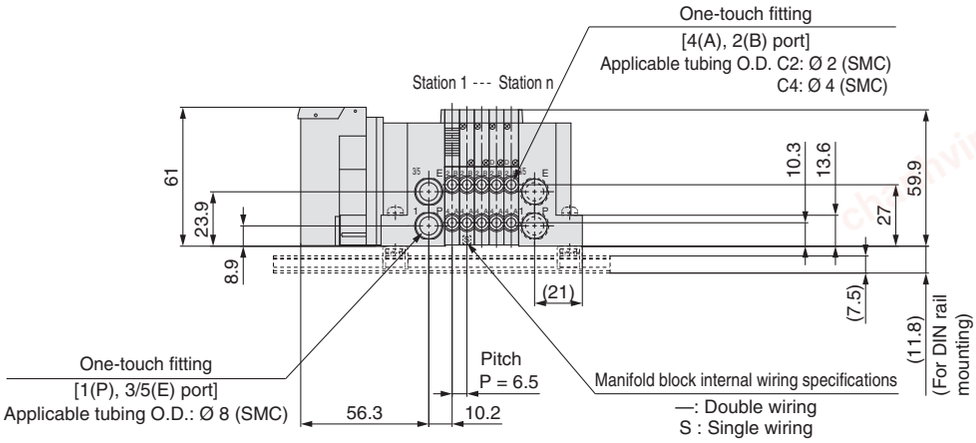
# JSY1000/3000/5000 Series

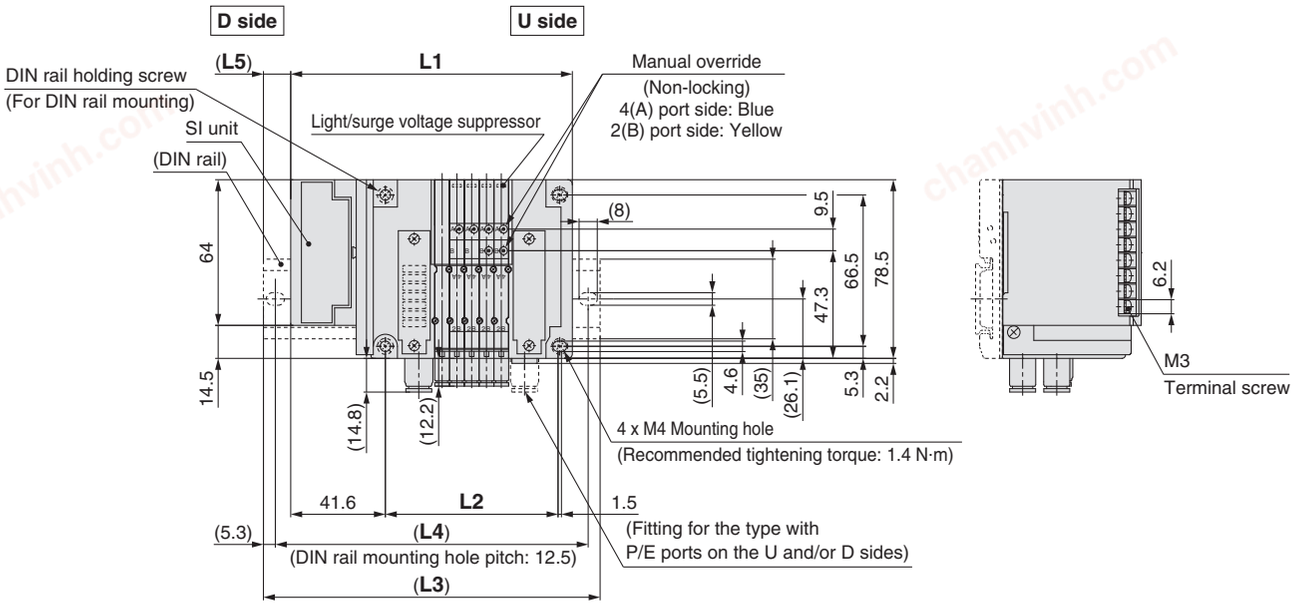
## Dimensions: JSY1000 Series

**Type 10/Side Ported** (Applicable to Ø 2 and Ø 4 fittings)
**EX120**



**JJ5SY1-10S3□ - Stations U/D/B - C2/C4 (D)**




* These figures show the "JJ5SY1-10S3V-05D-C4."
* Refer to page 97 for dimensions of external pilot (Made to Order) and silencer.
* When CM is selected for mixed A, B port size and C6 (9 mm pitch) is included, refer to page 100 for dimensions.

### L: Dimensions

n: Stations

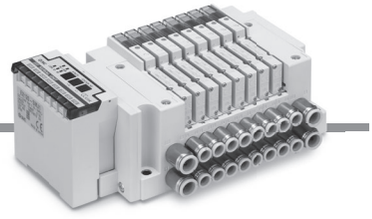
| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **L1** | 104.3 | 110.8 | 117.3 | 123.8 | 130.3 | 136.8 | 143.3 | 149.8 | 156.3 | 162.8 | 169.3 | 175.8 | 182.3 | 188.8 | 195.3 |
| **L2** | 56.4 | 62.9 | 69.4 | 75.9 | 82.4 | 88.9 | 95.4 | 101.9 | 108.4 | 114.9 | 121.4 | 127.9 | 134.4 | 140.9 | 147.4 |
| **L3** | 135.5 | 135.5 | 148 | 148 | 160.5 | 160.5 | 173 | 173 | 185.5 | 198 | 198 | 210.5 | 210.5 | 223 | 223 |
| **L4** | 125 | 125 | 137.5 | 137.5 | 150 | 150 | 162.5 | 162.5 | 175 | 187.5 | 187.5 | 200 | 200 | 212.5 | 212.5 |
| **L5** | 16 | 12 | 15 | 12 | 15 | 12 | 15 | 12 | 15 | 18 | 14 | 17 | 14 | 17 | 14 |

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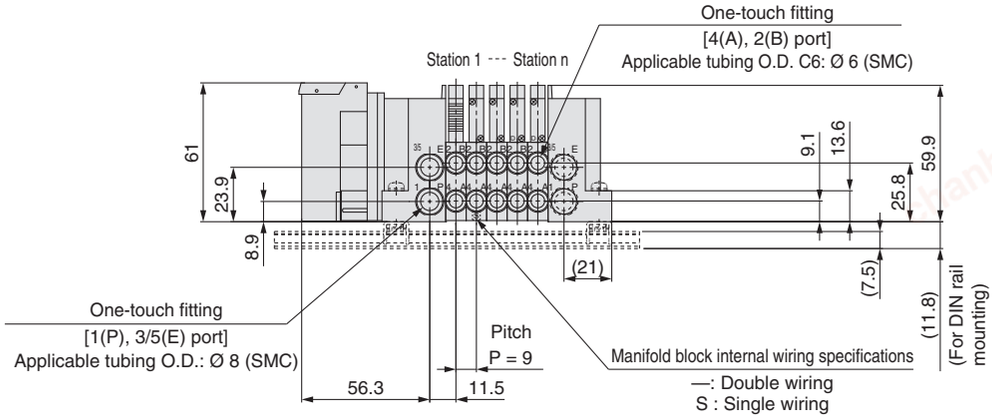


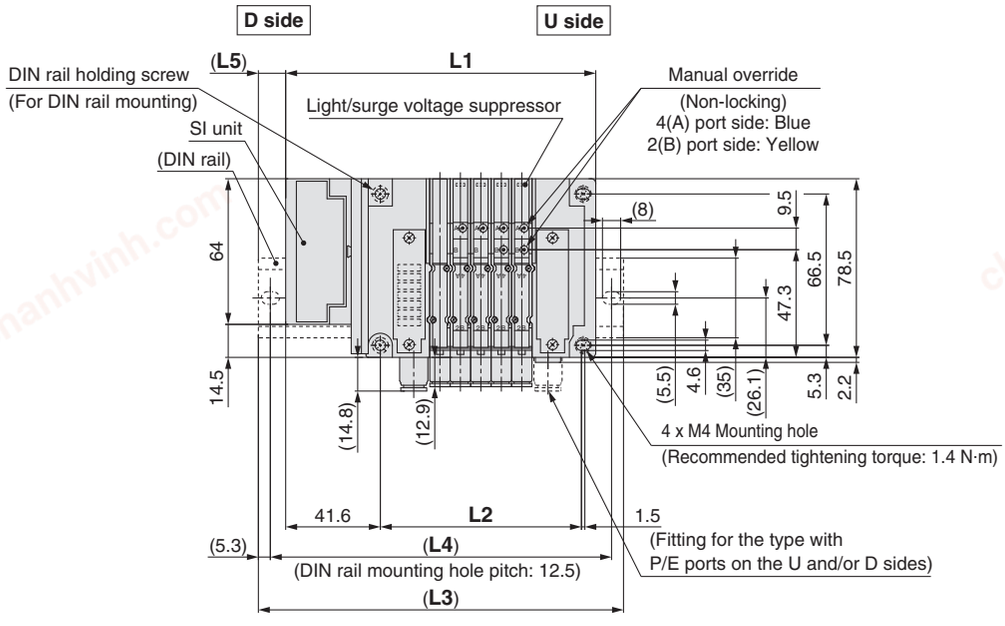
## Dimensions: JSY1000 Series

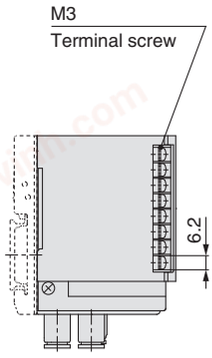
**Type 10/Side Ported (Applicable to Ø 6 fittings)**
**EX120**



### JJ5SY1-10S3□ - Stations U/D/B - C6(D)




* These figures show the “JJ5SY1-10S3V-05D-C6.”
* Refer to page 97 for dimensions of external pilot (Made to Order) and silencer.
* When CM is selected for mixed A, B port size, refer to page 100 for dimensions.

### L: Dimensions

n: Stations

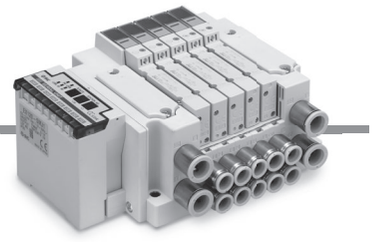
| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **L1** | 109.3 | 118.3 | 127.3 | 136.3 | 145.3 | 154.3 | 163.3 | 172.3 | 181.3 | 190.3 | 199.3 | 208.3 | 217.3 | 226.3 | 235.3 |
| **L2** | 61.4 | 70.4 | 79.4 | 88.4 | 97.4 | 106.4 | 115.4 | 124.4 | 133.4 | 142.4 | 151.4 | 160.4 | 169.4 | 178.4 | 187.4 |
| **L3** | 135.5 | 148 | 160.5 | 160.5 | 173 | 185.5 | 198 | 198 | 210.5 | 223 | 223 | 235.5 | 248 | 260.5 | 260.5 |
| **L4** | 125 | 137.5 | 150 | 150 | 162.5 | 175 | 187.5 | 187.5 | 200 | 212.5 | 212.5 | 225 | 237.5 | 250 | 250 |
| **L5** | 13 | 15 | 17 | 12 | 14 | 16 | 17 | 13 | 15 | 16 | 12 | 14 | 15 | 17 | 13 |

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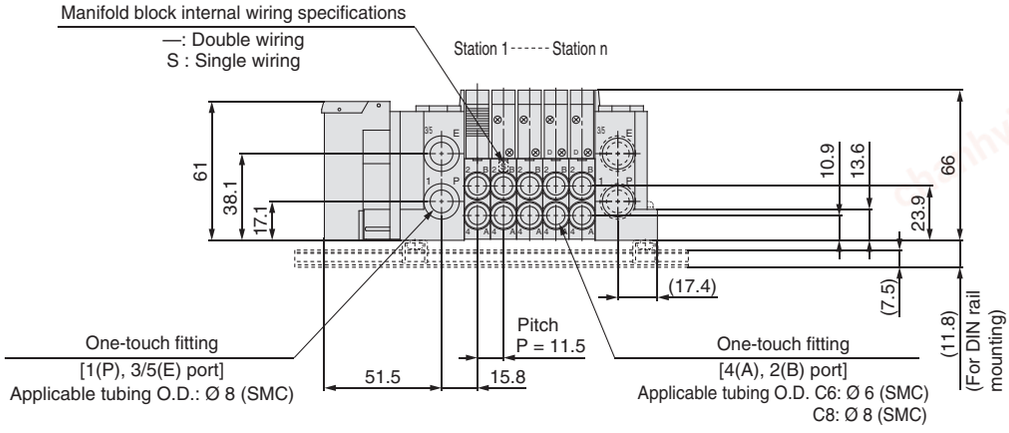
# JSY1000/3000/5000 Series

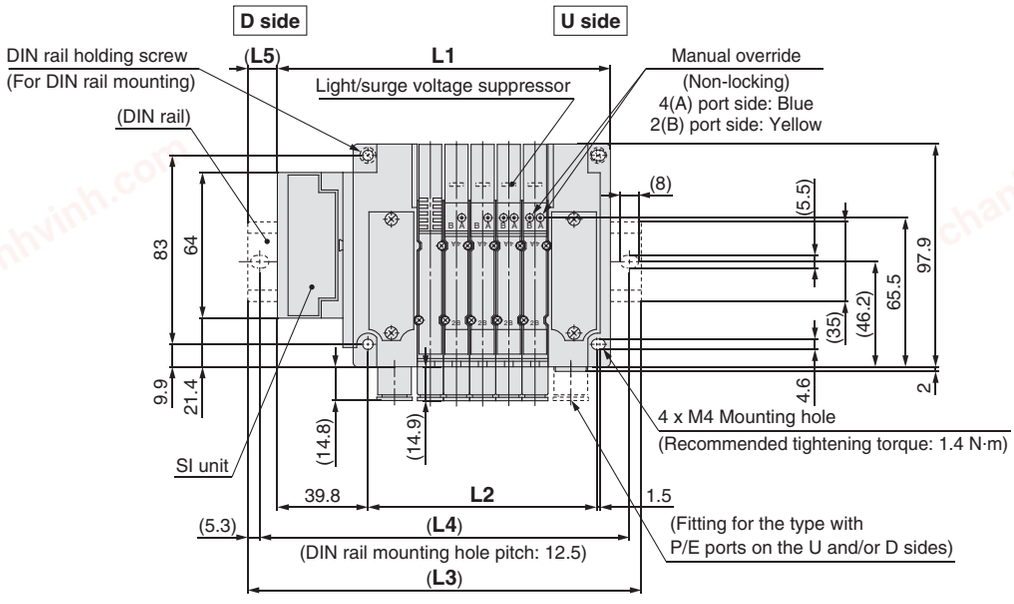
## Dimensions: JSY3000 Series

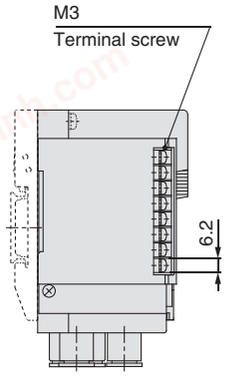
**Type 10/Side Ported**
**EX120**



**JJ5SY3-10S3□ - Stations U/D/B - C6/C8 (D)**




∗ These figures show the “JJ5SY3-10S3V-05D-C8.”
∗ Refer to page 98 for dimensions of external pilot (Made to Order) and silencer.

### L: Dimensions

n: Stations

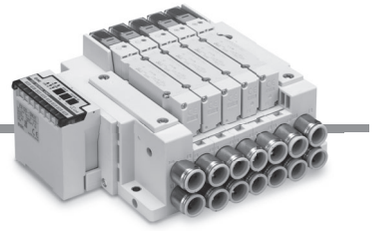
| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **L1** | 111.9 | 123.4 | 134.9 | 146.4 | 157.9 | 169.4 | 180.9 | 192.4 | 203.9 | 215.4 | 226.9 | 238.4 | 249.9 | 261.4 | 272.9 |
| **L2** | 66.1 | 77.6 | 89.1 | 100.6 | 112.1 | 123.6 | 135.1 | 146.6 | 158.1 | 169.6 | 181.1 | 192.6 | 204.1 | 215.6 | 227.1 |
| **L3** | 135.5 | 148 | 160.5 | 173 | 185.5 | 198 | 210.5 | 223 | 235.5 | 248 | 260.5 | 273 | 273 | 285.5 | 298 |
| **L4** | 125 | 137.5 | 150 | 162.5 | 175 | 187.5 | 200 | 212.5 | 225 | 237.5 | 250 | 262.5 | 262.5 | 275 | 287.5 |
| **L5** | 12 | 12 | 13 | 13 | 14 | 14 | 15 | 15 | 16 | 16 | 17 | 17 | 12 | 12 | 13 |

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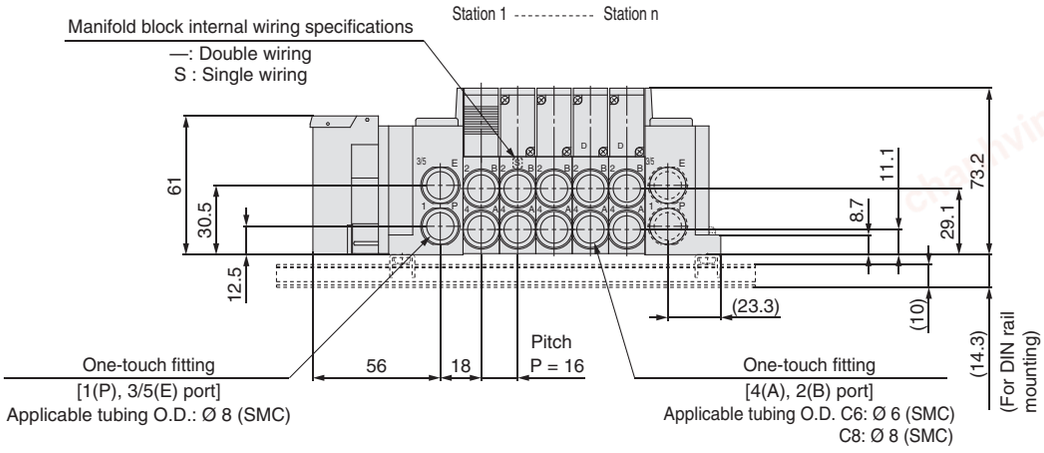


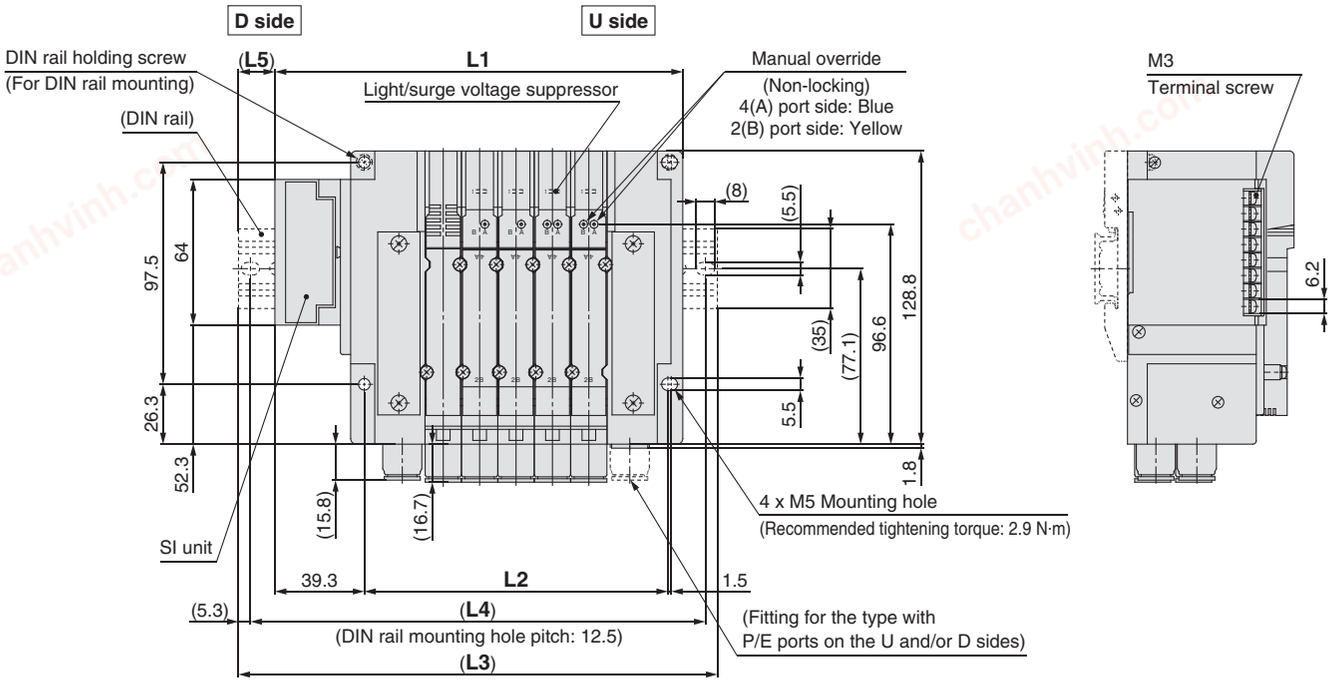
## Dimensions: JSY5000 Series

Type 10/Side Ported
EX120



### JJ5SY5-10S3□ - Stations U/D/B - C10/C12 (D)




∗ These figures show the “JJ5SY5-10S3V-05D-C12.”
∗ Refer to page 99 for dimensions of external pilot (Made to Order) and silencer.

### L: Dimensions

n: Stations

| L \ n | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L1 | 131.3 | 147.3 | 163.3 | 179.3 | 195.3 | 211.3 | 227.3 | 243.3 | 259.3 | 275.3 | 291.3 | 307.3 | 323.3 | 339.3 | 355.3 |
| L2 | 85.5 | 101.5 | 117.5 | 133.5 | 149.5 | 165.5 | 181.5 | 197.5 | 213.5 | 229.5 | 245.5 | 261.5 | 277.5 | 293.5 | 309.5 |
| L3 | 160.5 | 173 | 198 | 210.5 | 223 | 235.5 | 260.5 | 273 | 285.5 | 310.5 | 323 | 335.5 | 348 | 373 | 385.5 |
| L4 | 150 | 162.5 | 187.5 | 200 | 212.5 | 225 | 250 | 262.5 | 275 | 300 | 312.5 | 325 | 337.5 | 362.5 | 375 |
| L5 | 15 | 13 | 17 | 16 | 14 | 12 | 17 | 15 | 13 | 18 | 16 | 14 | 12 | 17 | 15 |

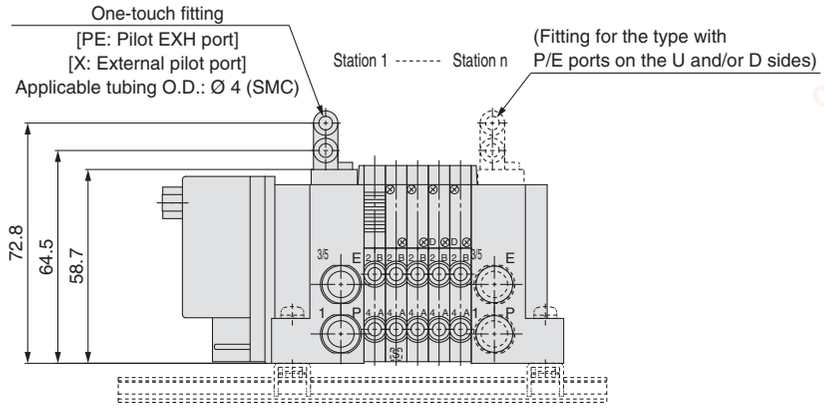
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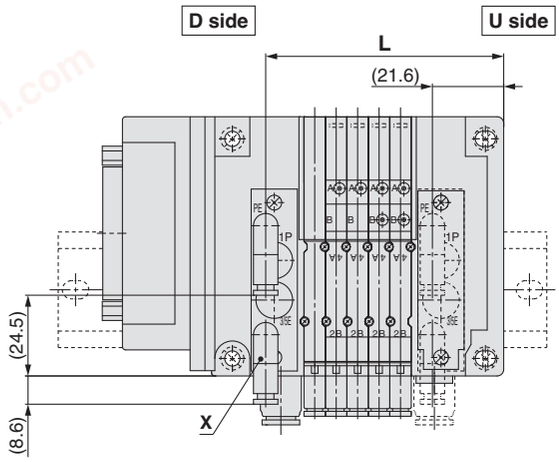
# JSY1000/3000/5000 Series
# Common Dimensions

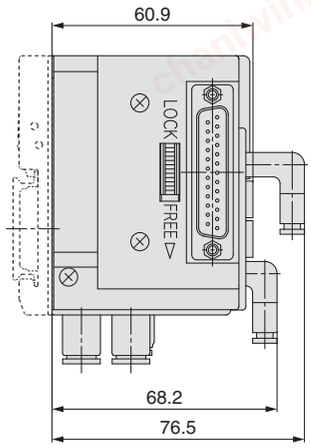
**Type 10/Side Ported**
**External Pilot, Built-in Silencer**

## Dimensions: JSY1000 Series

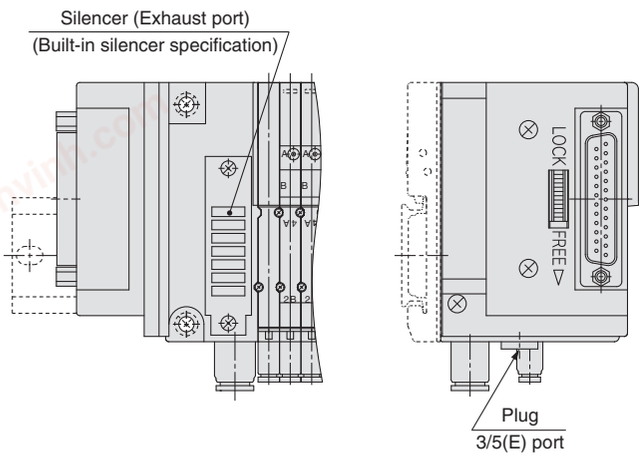
**JJ5SY1-10□ - Stations U/D/B (S, R) - C2/C4/C6 (D)**




**Built-in silencer**
**<Internal pilot>**
**P, E port entry: D**




**Calculation formula for L dimensions**

L = 6.5 x n1 + 9 x n2 + 39.6

n1: Number of 6.5 mm pitch manifold block stations
(Applicable fitting: Ø 2, Ø 4)
n2: Number of 9 mm pitch manifold block stations
(Applicable fitting: Ø 6)

* These figures show the “JJ5SY1-10F2-05DR-C4.”

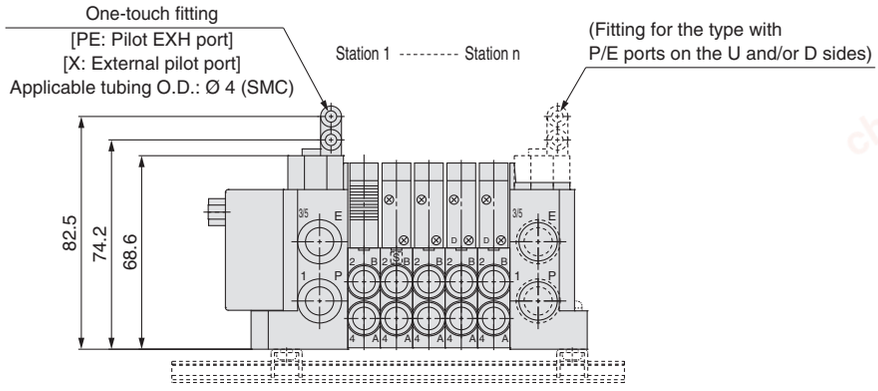
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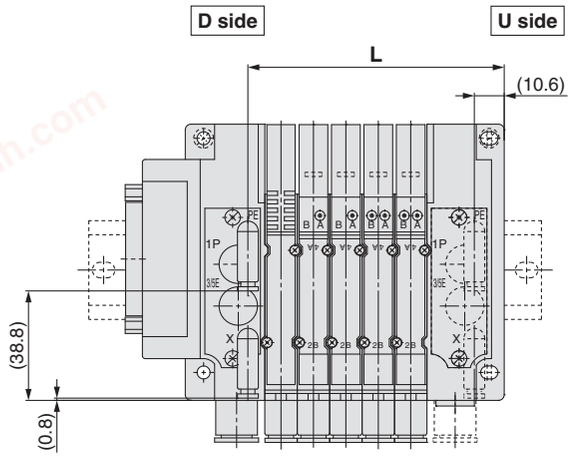


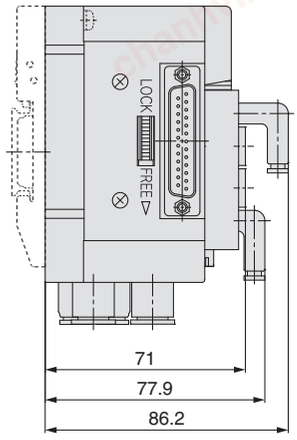
## Dimensions: JSY3000 Series

**Type 10/Side Ported**
**External Pilot, Built-in Silencer**

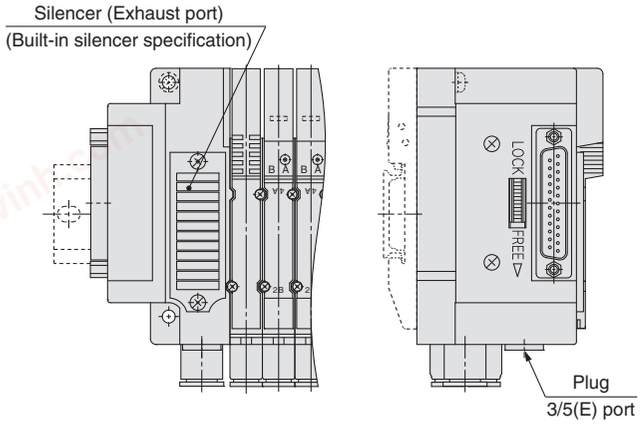
**JJ5SY3-10□ - Stations U/D/B (S, R) - C6/C8 (D)**




**Built-in silencer**
**<Internal pilot>**
**P, E port entry: D**




**Calculation formula for L dimensions**
L = 11.5 x n + 33.4
n: Manifold stations

∗ These figures show the "JJ5SY3-10F2-05DR-C8."

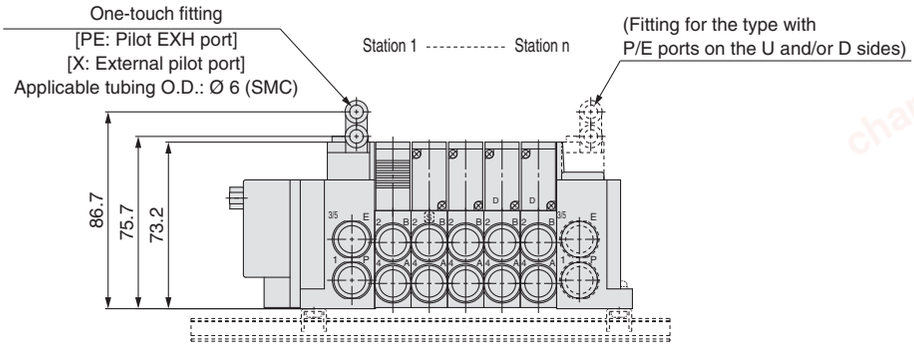
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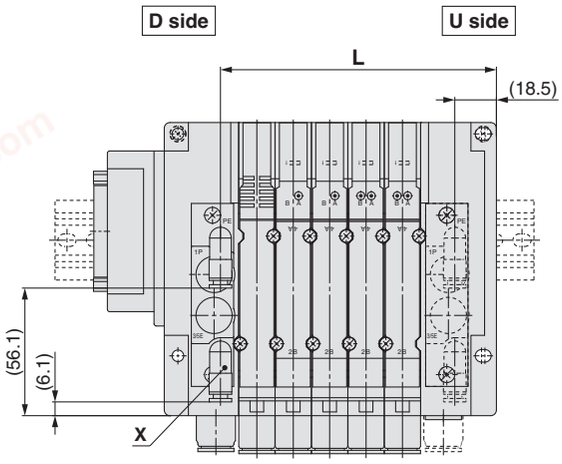


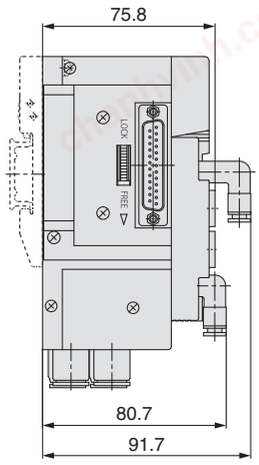
## Dimensions: JSY5000 Series

**Type 10/Side Ported**
**External Pilot, Built-in Silencer**

**JJ5SY5-10□ - Stations U/D/B (S, R) - C10/C12 (D)**



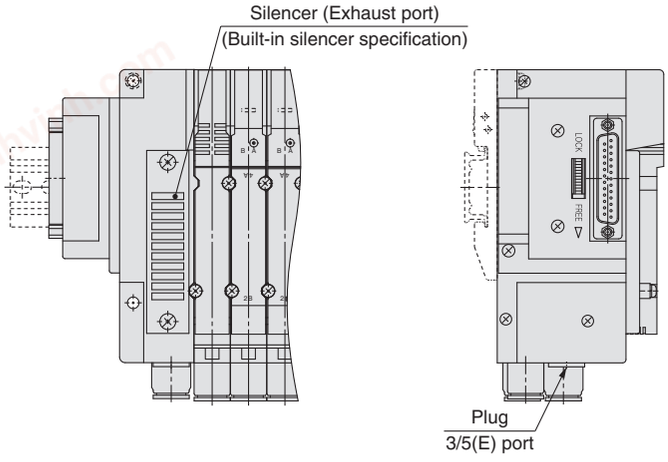




**Calculation formula for L dimensions**

L = 16 x n + 41.5
n: Manifold stations

∗ These figures show the “JJ5SY5-10F2-05DR-C12.”

**Built-in silencer**
**<Internal pilot>**
**P, E port entry: D**

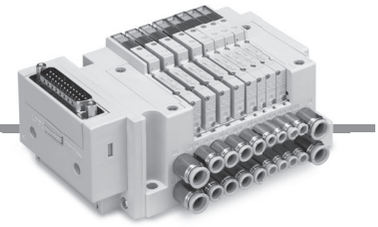


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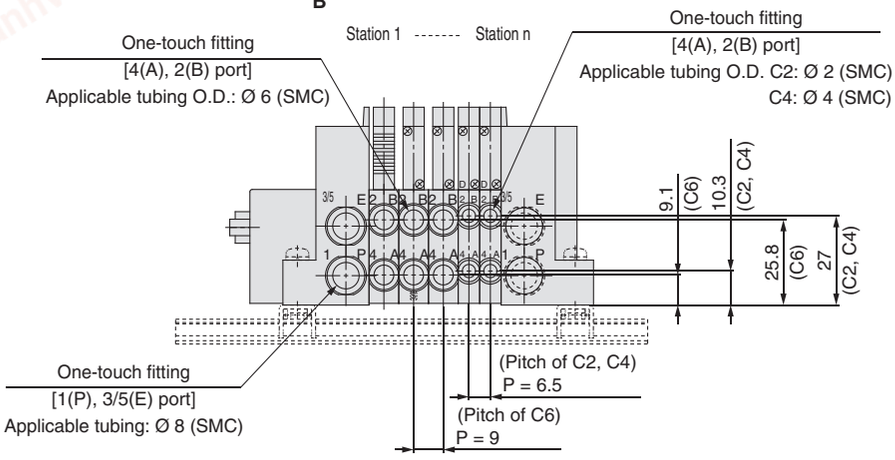


## Dimensions: JSY1000 Series

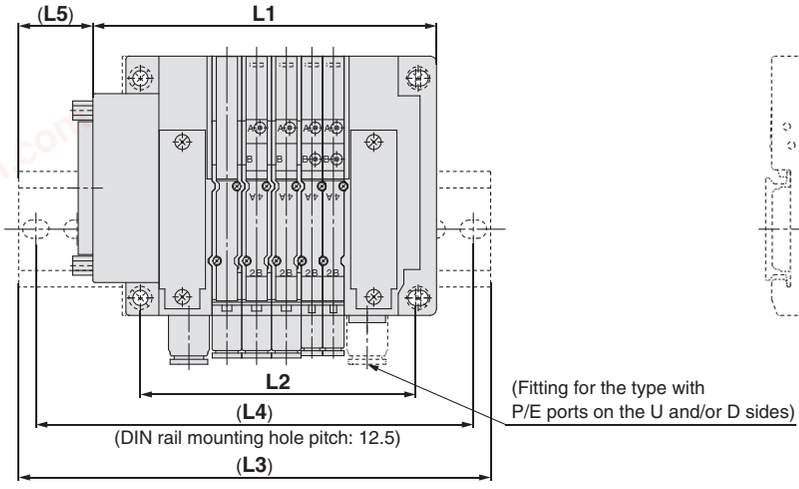
**Type 10/Side Ported**
**Mixed Size, Straight Port Type**



### JJ5SY1-10□-Stations U/D/B-CM




**D side** **U side**




∗ Refer to page 97 for dimensions of external pilot and built-in silencer.
∗ Refer to pages 65 to 68, 79, and 80 for dimensions when L6, b, and d are used for the calculation formula.
∗ Refer to pages below for dimensions that are not specified in each wiring specification.


D-sub connector (IP40/Connector entry direction adjustable) : pp. 23, 24
D-sub connector (IP20/Compact type) : pp. 29, 30
Flat ribbon cable (IP40/Connector entry direction adjustable) : pp. 32, 33
Flat ribbon cable (IP20/Compact type) : pp. 36, 37
Spring type terminal block box : pp. 45, 46
Terminal block box : pp. 49, 50
Lead wire : pp. 57, 58
EX600 : pp. 65 to 68
EX250 : pp. 79, 80
EX260 : pp. 87, 88
EX120 : pp. 93, 94


**Calculation formula for dimensions**

L1 = 6.5 x n1 + 9 x n2 + a + b x n3
L2 = 6.5 x n1 + 9 x n2 + 43.4
M = {(L1 + c) / 12.5} + 1 Decimal fractions are truncated.
L3 = 12.5 x M + 23
L4 = L3 – 10.5
L5 = (L3 – L1 + c) / 2
L6 = b x n3 + d

| Coefficient | a | b | c | d |
|---|---|---|---|---|
| D-sub connector (IP20/Compact type) | 64.1 | — | 6.1 | — |
| D-sub connector/Flat ribbon cable (IP40/Connector entry direction adjustable) | 83 | — | 6.1 | — |
| Flat ribbon cable (IP20/Compact type) | 59.1 | — | 11.2 | — |
| Spring type terminal block box | 125.5 | — | — | — |
| Terminal block box | 146.8 | — | — | — |
| Lead wire | 94.5 | — | — | — |
| Serial transmission: EX600 (M12 connector) | 139 | 47 | — | 83.8 |
| Serial transmission: EX600 (7/8 inch connector) | 155.5 | 47 | — | 83.8 |
| Serial transmission: EX250 | 139 | 21 | — | 83.8 |
| Serial transmission: EX260 | 86.2 | — | — | — |
| Serial transmission: EX120 | 91.3 | — | — | — |

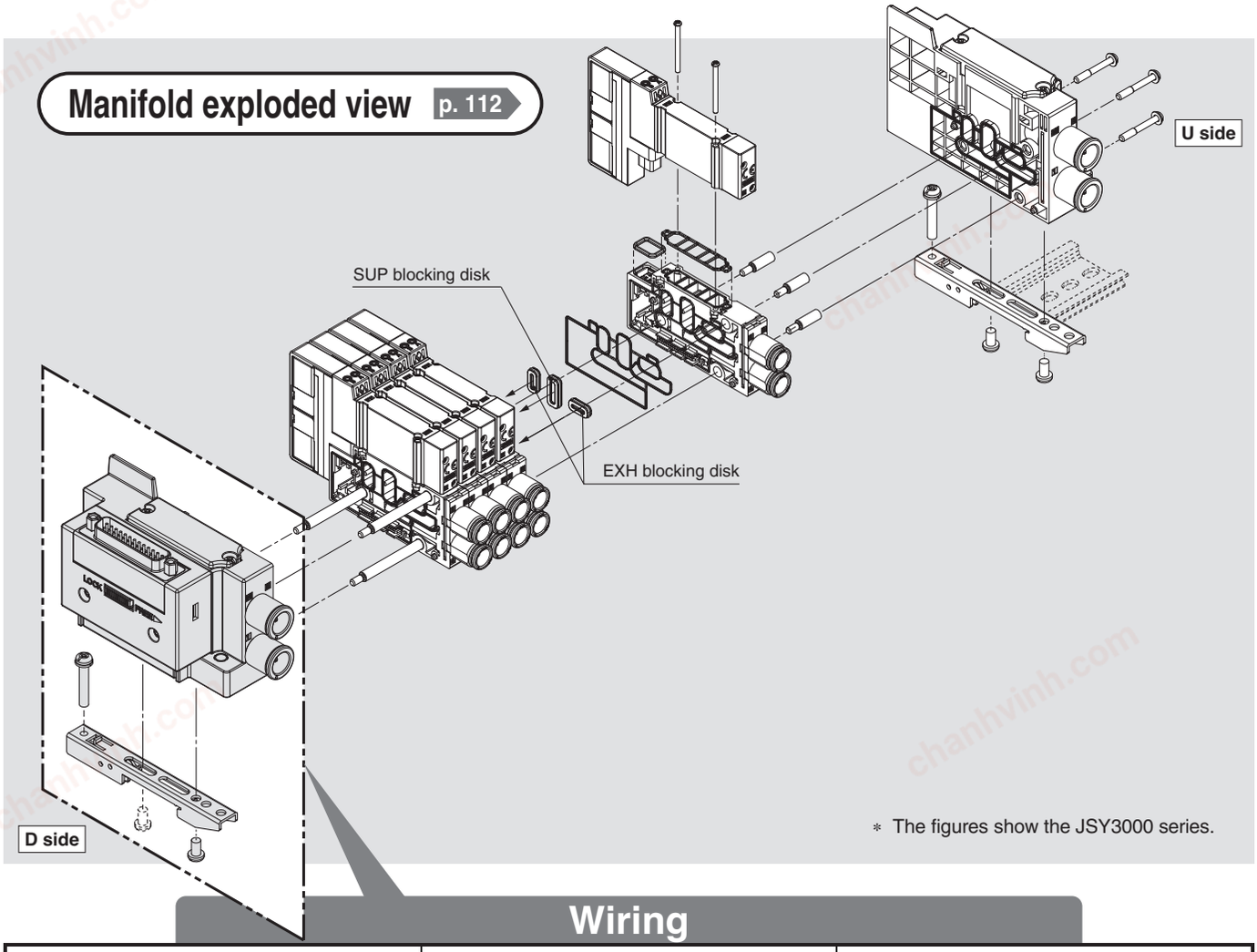
n1: Number of 6.5 mm pitch manifold block stations (Applicable fittings: Ø 2, Ø 4)
n2: Number of 9 mm pitch manifold block stations (Applicable fittings: Ø 6)
n3: Number of I/O units or input block stations

∗ FW [D-sub connector (IP67)] is not available for the JSY1000.

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# *JSY1000/3000/5000 Series* Type 10
# Connector Connecting Base Manifold Exploded View

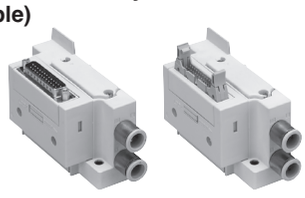
## Manifold exploded view p. 112




∗ The figures show the JSY3000 series.

## Wiring

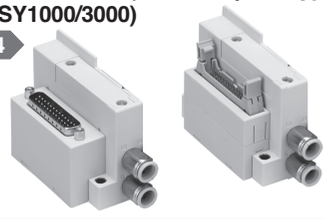
**D-sub Connector/Flat Ribbon Cable (IP40/Connector Entry Direction Adjustable)**
p. 102



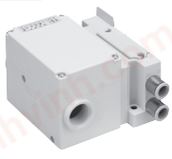
**D-sub Connector (IP67) (For JSY3000/5000)**
p. 103



**D-sub Connector/ Flat Ribbon Cable (IP20/Compact Type) (For JSY1000/3000)**
p. 104



**Terminal Block Box**
p. 105

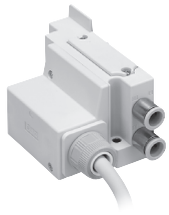


Spring type (Compact type)

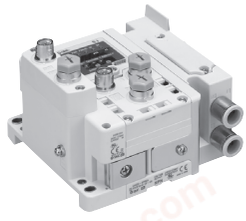
p. 106



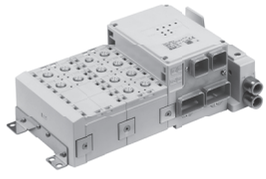
**Lead Wire**
p. 107



**EX600**
p. 108



**EX245 (For JSY3000/5000)**
p. 110



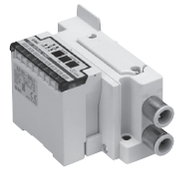
**EX250**
p. 112



**EX260**
p. 113



**EX120**
p. 114

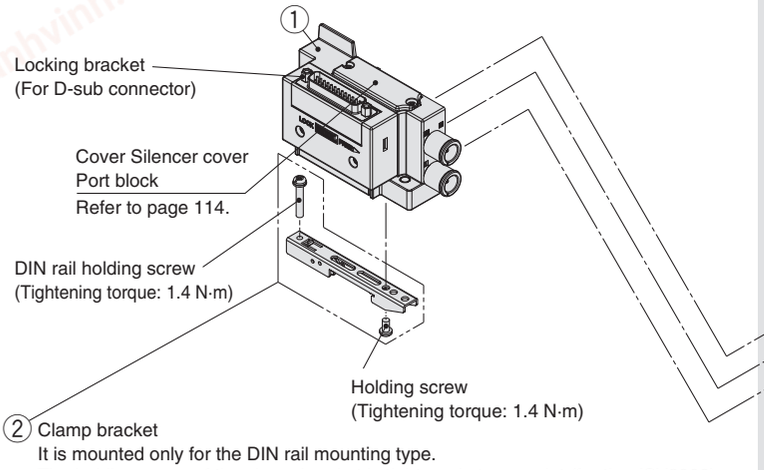


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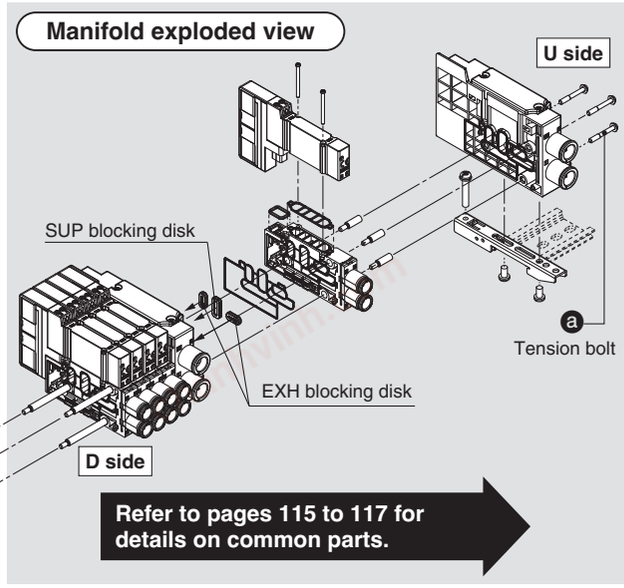


### Wiring

**D-sub Connector/Flat Ribbon Cable (IP40/Connector Entry Direction Adjustable)**




It is mounted only for the DIN rail mounting type.
The holding screw of the clamp bracket is tightened at one point (for the JSY3000).
∗ The clamp bracket fixing method for the JSY1000 is different depending on wiring. Refer to page 140.




Refer to pages 115 to 117 for details on common parts.

## Manifold Parts Nos.

### ① SUP/EXH block assembly

**JSY 3 1M − 1P − 3 A □ 1 − C10 □**

**Series**

| | |
|---|---|
| **1** | JSY1000 |
| **3** | JSY3000 |
| **5** | JSY5000 |

**Mounting**

| | |
|---|---|
| **—** | Direct mounting |
| **D0** | DIN rail mounting (Without DIN rail) |

**SUP/EXH block assembly**

| | |
|---|---|
| **3** | D-sub connector (25 pins) |
| **4** | Flat ribbon cable (26 pins) |
| **5** | Flat ribbon cable (20 pins) |
| **6** | Flat ribbon cable (10 pins) |

**P, E port size (One-touch fittings)**

| Symbol | P, E port | JSY1000 | JSY3000 | JSY5000 |
|---|---|---|---|---|
| **C8** | Ø 8 One-touch fitting | ● | — | — |
| **C10** | Ø 10 One-touch fitting | — | ● | — |
| **C12** | Ø 12 One-touch fitting | — | — | ● |
| **00**∗1 | Plug | ● | ● | ● |

∗1 Can be selected when the pilot, silencer type symbol is "—" or "S" Not available for "R" type

**Pilot, Silencer type**

| Symbol | Pilot type | | Built-in silencer |
|---|---|---|---|
| | Internal | External (Made to Order) | |
| **—** | ● | — | — |
| **S** | ● | — | ● |
| **R** | — | ● | — |

∗ The 3/5(E) port is plugged for the built-in silencer type.

**Connector entry direction**

| | |
|---|---|
| **1** | Upward |
| **2** | Lateral |

**SUP/EXH block assembly (D side) accessories and the number of accessories**

| Accessories | JSY1000 JSY3000 | JSY5000 |
|---|---|---|
| ⓐ **Tension bolt** | None∗1 | 3 pcs. |

∗1 Since the nuts are embedded in the SUP/EXH block

### ② Clamp bracket

| Series | Part no. |
|---|---|
| **JSY1000** | JSY11M-15P-1A |
| **JSY3000** | SY30M-15-1A |
| **JSY5000** | SY50M-15-1A |

∗ The part number is for 1 piece.

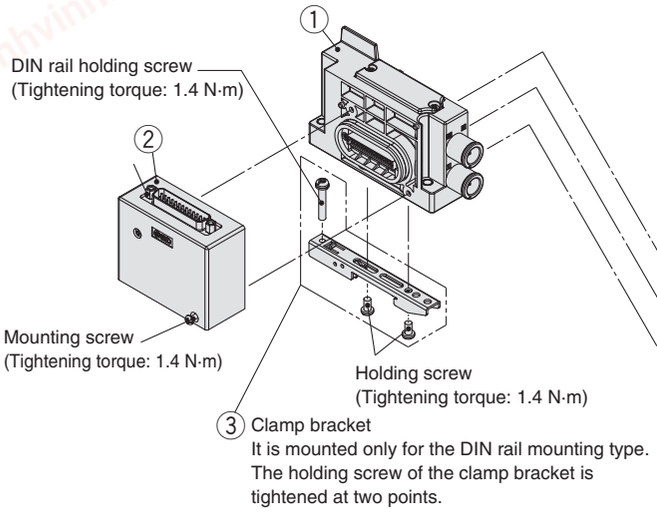
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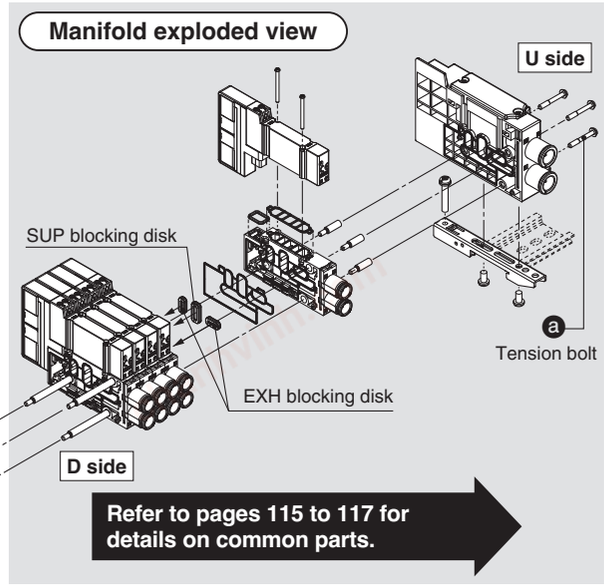


### Wiring

**D-sub Connector (IP67)**

**(For JSY3000/5000)**




Refer to pages 115 to 117 for details on common parts.

## Manifold Parts Nos.

### ① SUP/EXH block assembly

**JSY 3 1M – 1P – 1A □ – C10 □**

**Series**

| | |
|---|---|
| **3** | JSY3000 |
| **5** | JSY5000 |

**Mounting**

| | |
|---|---|
| **—** | Direct mounting |
| **D0** | DIN rail mounting (Without DIN rail) |

**Pilot, Silencer type**

| Symbol | Pilot type | | Built-in silencer |
|---|---|---|---|
| | Internal | External (Made to Order) | |
| **—** | ● | — | — |
| **S** | ● | — | ● |
| **R** | — | ● | — |

∗ The 3/5(E) port is plugged for the built-in silencer type.

**P, E port size (One-touch fittings)**

| Symbol | P, E port | JSY3000 | JSY5000 |
|---|---|---|---|
| **C10** | Ø 10 One-touch fitting | ● | — |
| **C12** | Ø 12 One-touch fitting | — | ● |
| **00**∗1 | Plug | ● | ● |

∗1 Can be selected when the pilot, silencer type symbol is "—" or "S"
Not available for "R" type

**SUP/EXH block assembly (D side) accessories and the number of accessories**

| Accessories | JSY3000 | JSY5000 |
|---|---|---|
| ⓐ **Tension bolt** | None∗1 | 3 pcs. |

∗1 Since the nuts are embedded in the SUP/EXH block

### ② D-sub connector block <for IP67>

| Part no. | Connector entry direction |
|---|---|
| **SY30M-14-9A1** | Upward |
| **SY30M-14-9A2** | Lateral |

### ③ Clamp bracket

| Series | Part no. |
|---|---|
| **JSY3000** | SY30M-15-1A |
| **JSY5000** | SY50M-15-1A |

∗ The part number is for 1 piece.

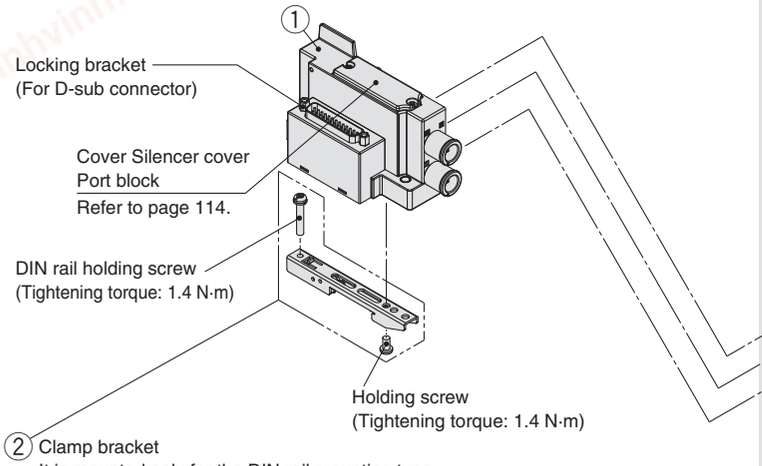
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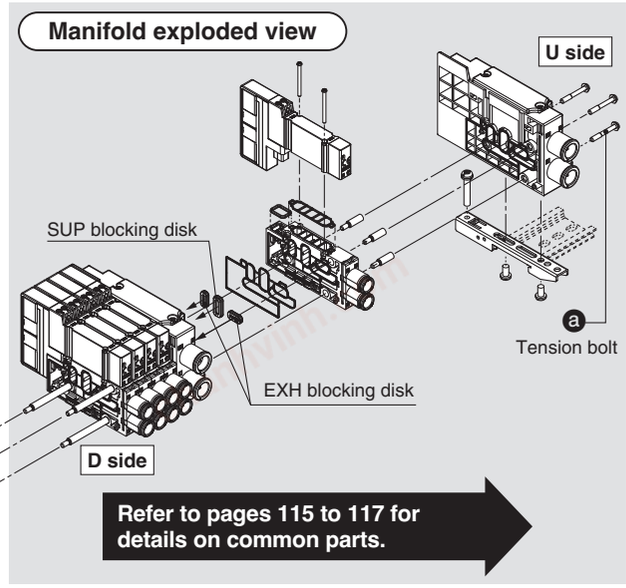
### Wiring

**D-sub Connector/Flat Ribbon Cable (IP20/Compact Type)**

**(For JSY1000/3000)**




It is mounted only for the DIN rail mounting type.
The holding screw of the clamp bracket is tightened at one point (for the JSY3000).
∗ The clamp bracket fixing method for the JSY1000 is different depending on wiring.
Refer to page 140.




## Manifold Parts Nos.

### ① SUP/EXH block assembly

**JSY 3 1M − 1P − 9 A □ 1 − C10 □**

**Series**

| | |
|---|---|
| **1** | JSY1000 |
| **3** | JSY3000 |

**Mounting**

| | |
|---|---|
| **—** | Direct mounting |
| **D0** | DIN rail mounting (Without DIN rail) |

**SUP/EXH block assembly**

| | |
|---|---|
| **9** | D-sub connector (25 pins) |
| **10** | Flat ribbon cable (26 pins) |
| **11** | Flat ribbon cable (20 pins) |
| **12** | Flat ribbon cable (10 pins) |

**P, E port size (One-touch fittings)**

| Symbol | P, E port | JSY1000 | JSY3000 |
|---|---|---|---|
| **C8** | Ø 8 One-touch fitting | ● | — |
| **C10** | Ø 10 One-touch fitting | — | ● |
| **00**∗1 | Plug | ● | ● |

∗1 Can be selected when the pilot, silencer type symbol is "—" or "S"
Not available for "R" type

**Pilot, Silencer type**

| Symbol | Pilot type | | Built-in silencer |
|---|---|---|---|
| | Internal | External (Made to Order) | |
| **—** | ● | — | — |
| **S** | ● | — | ● |
| **R** | — | ● | — |

∗ The 3/5(E) port is plugged for the built-in silencer type.

**Connector entry direction**

| | |
|---|---|
| **1** | Upward |
| **2** | Lateral |

### ② Clamp bracket

| Series | Part no. |
|---|---|
| **JSY1000** | JSY11M-15P-1A |
| **JSY3000** | SY30M-15-1A |

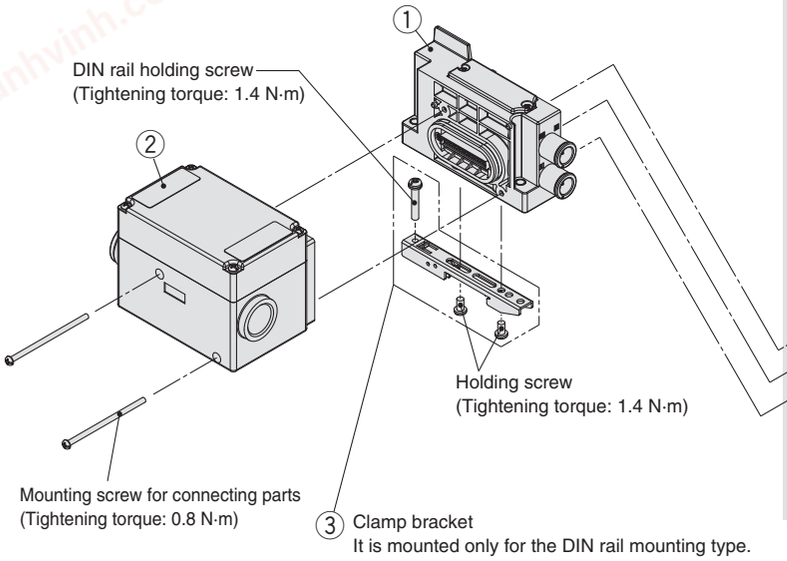
∗ The part number is for 1 piece.

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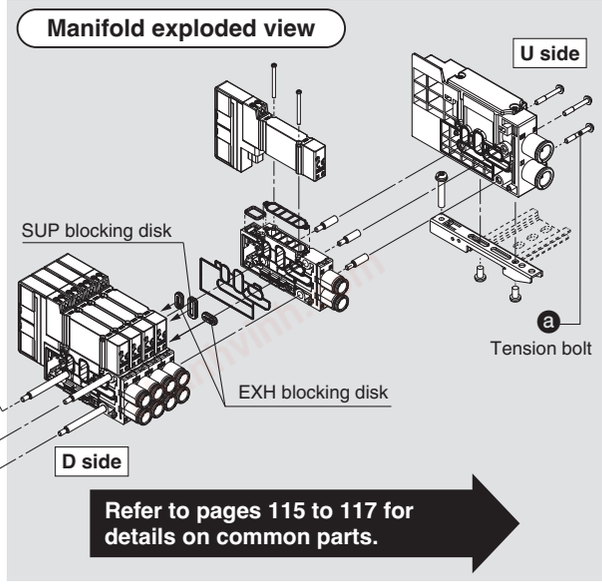
# JSY1000/3000/5000 Series

## Wiring

### Spring Type Terminal Block Box




It is mounted only for the DIN rail mounting type.
The holding screw of the clamp bracket is tightened at two points.
∗ The clamp bracket fixing method for the JSY1000 is different depending on wiring.
Refer to page 140.




## Manifold Parts Nos.

### ① SUP/EXH block assembly

**JSY 3 1M − 1P − 1A □ − C10 □**

**Series**

| | |
|---|---|
| **1** | JSY1000 |
| **3** | JSY3000 |
| **5** | JSY5000 |

**Mounting**

| | |
|---|---|
| **—** | Direct mounting |
| **D0** | DIN rail mounting (Without DIN rail) |

**Pilot, Silencer type**

| Symbol | Pilot type | | Built-in silencer |
|---|---|---|---|
| | Internal | External (Made to Order) | |
| **—** | ● | — | — |
| **S** | ● | — | ● |
| **R** | — | ● | — |

∗ The 3/5(E) port is plugged for the built-in silencer type.

**P, E port size (One-touch fittings)**

| Symbol | P, E port | JSY1000 | JSY3000 | JSY5000 |
|---|---|---|---|---|
| **C8** | Ø 8 One-touch fitting | ● | — | — |
| **C10** | Ø 10 One-touch fitting | — | ● | — |
| **C12** | Ø 12 One-touch fitting | — | — | ● |
| **00**∗1 | Plug | ● | ● | ● |

∗1 Can be selected when the pilot, silencer type symbol is "—" or "S" Not available for "R" type

**SUP/EXH block assembly (D side) accessories and the number of accessories**

| Accessories | JSY1000 JSY3000 | JSY5000 |
|---|---|---|
| ⓐ **Tension bolt** | None∗1 | 3 pcs. |

∗1 Since the nuts are embedded in the SUP/EXH block

### ② Terminal block assembly

**SY30M − 130 − 1A**

### ③ Clamp bracket

| Series | Part no. |
|---|---|
| **JSY1000** | JSY11M-15P-1A |
| **JSY3000** | SY30M-15-1A |
| **JSY5000** | SY50M-15-1A |

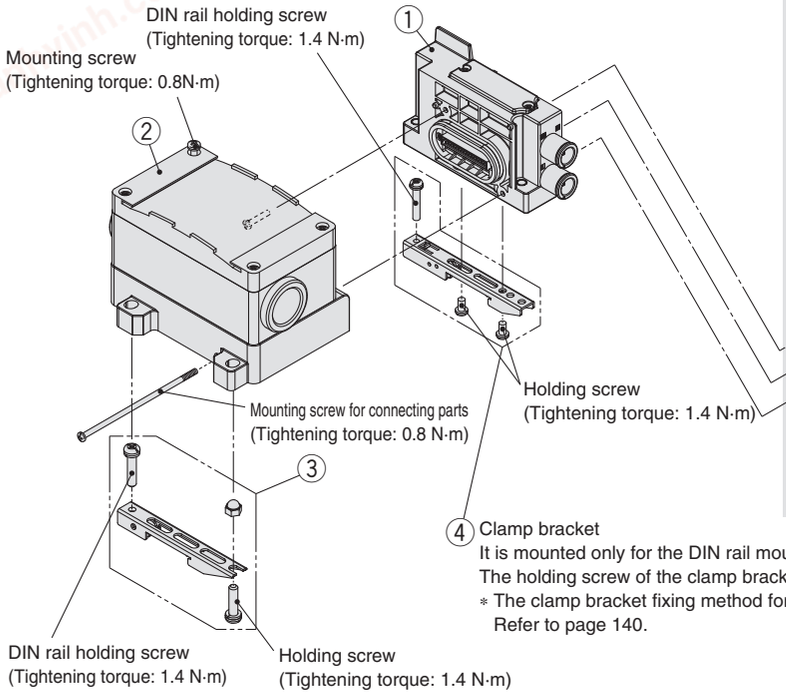
∗ The part number is for 1 piece.

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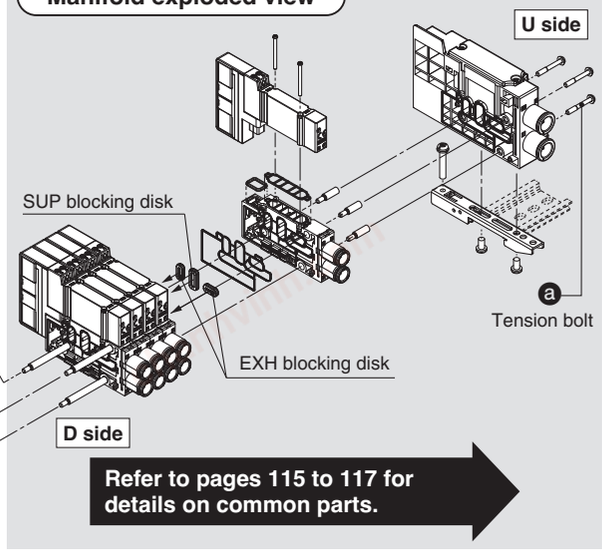


### Wiring

**Terminal Block Box**




**Manifold exploded view**




Refer to pages 115 to 117 for details on common parts.

④ Clamp bracket
It is mounted only for the DIN rail mounting type.
The holding screw of the clamp bracket is tightened at two points.
∗ The clamp bracket fixing method for the JSY1000 is different depending on wiring. Refer to page 140.

## Manifold Parts Nos.

### ① SUP/EXH block assembly

**JSY 3 1M – 1P – 1A □ – C10 □**

**Series**

| | |
|---|---|
| **1** | JSY1000 |
| **3** | JSY3000 |
| **5** | JSY5000 |

**Mounting**

| Symbol | Mounting | JSY1000 | JSY3000 | JSY5000 |
|---|---|---|---|---|
| **—** | Direct mounting | ● | ● | ● |
| **D00** | DIN rail mounting (Without DIN rail) | ● | — | — |
| **D0** | DIN rail mounting (Without DIN rail) | — | ● | ● |

**Pilot, Silencer type**

| Symbol | Pilot type | | Built-in silencer |
|---|---|---|---|
| | Internal | External (Made to Order) | |
| **—** | ● | — | — |
| **S** | ● | — | ● |
| **R** | — | ● | — |

∗ The 3/5(E) port is plugged for the built-in silencer type.

**P, E port size (One-touch fittings)**

| Symbol | P, E port | JSY1000 | JSY3000 | JSY5000 |
|---|---|---|---|---|
| **C8** | Ø 8 One-touch fitting | ● | — | — |
| **C10** | Ø 10 One-touch fitting | — | ● | — |
| **C12** | Ø 12 One-touch fitting | — | — | ● |
| **00**∗1 | Plug | ● | ● | ● |

∗1 Can be selected when the pilot, silencer type symbol is "—" or "S" Not available for "R" type

**SUP/EXH block assembly (D side) accessories and the number of accessories**

| Accessories | JSY1000 JSY3000 | JSY5000 |
|---|---|---|
| **a Tension bolt** | None∗1 | 3 pcs. |

∗1 Since the nuts are embedded in the SUP/EXH block

### ② Terminal block box housing assembly

**VVQC1000 – T0 – 1**

### ③ Clamp bracket for terminal block box

**SY30M – 15 – 4A**

### ④ Clamp bracket

| Series | Part no. |
|---|---|
| **JSY1000** | JSY11M-15P-2A |
| **JSY3000** | SY30M-15-1A |
| **JSY5000** | SY50M-15-1A |

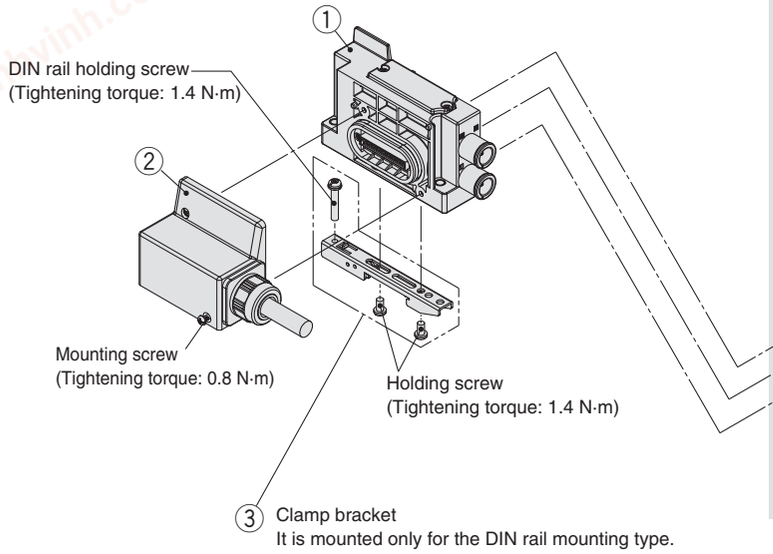
∗ The part number is for 1 piece.

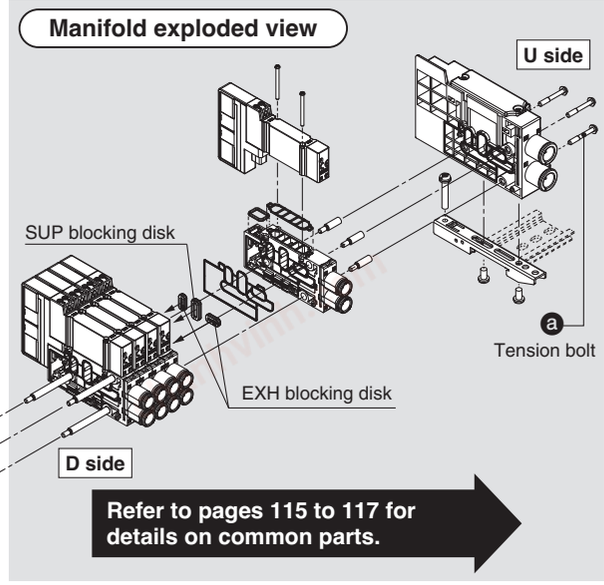
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# JSY1000/3000/5000 Series

## Wiring

### Lead Wire




## Manifold Parts Nos.

### ① SUP/EXH block assembly

**JSY 3 1M – 1P – 1A □ – C10 □**

**Series**

| | |
|---|---|
| **1** | JSY1000 |
| **3** | JSY3000 |
| **5** | JSY5000 |

**Mounting**

| | |
|---|---|
| **—** | Direct mounting |
| **D0** | DIN rail mounting (Without DIN rail) |

**Pilot, Silencer type**

| Symbol | Pilot type | | Built-in silencer |
|---|---|---|---|
| | Internal | External (Made to Order) | |
| **—** | ● | — | — |
| **S** | ● | — | ● |
| **R** | — | ● | — |

∗ The 3/5(E) port is plugged for the built-in silencer type.

**P, E port size (One-touch fittings)**

| Symbol | P, E port | JSY1000 | JSY3000 | JSY5000 |
|---|---|---|---|---|
| **C8** | Ø 8 One-touch fitting | ● | — | — |
| **C10** | Ø 10 One-touch fitting | — | ● | — |
| **C12** | Ø 12 One-touch fitting | — | — | ● |
| **00**∗1 | Plug | ● | ● | ● |

∗1 Can be selected when the pilot, silencer type symbol is "—" or "S" Not available for "R" type

**SUP/EXH block assembly (D side) accessories and the number of accessories**

| Accessories | JSY1000 JSY3000 | JSY5000 |
|---|---|---|
| ⓐ **Tension bolt** | None∗1 | 3 pcs. |

∗1 Since the nuts are embedded in the SUP/EXH block

### ② Lead wire connector block assembly

**SY30M – 14 – 4A – 1 – 1**

**Number of cores (Lead wire)**

| Symbol | Number of cores |
|---|---|
| **1** | 34 |
| **2** | 17 |
| **3** | 9 |

**Lead wire length [m]**

| Symbol | Length |
|---|---|
| **1** | 0.6 |
| **2** | 1.5 |
| **3** | 3 |

### ③ Clamp bracket

| Series | Part no. |
|---|---|
| **JSY1000** | JSY11M-15P-1A |
| **JSY3000** | SY30M-15-1A |
| **JSY5000** | SY50M-15-1A |

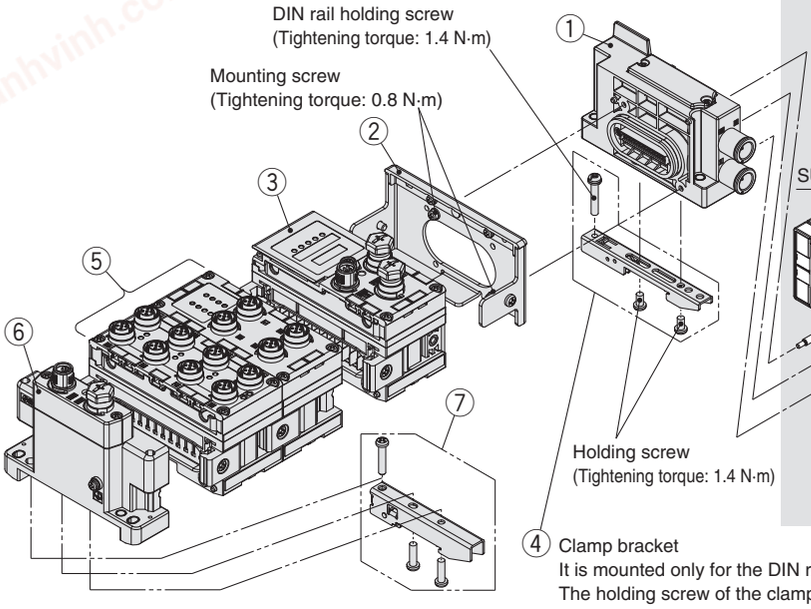
∗ The part number is for 1 piece.

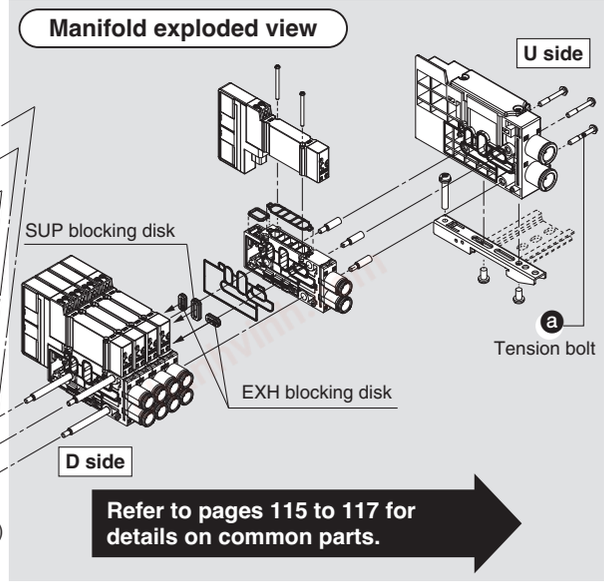
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### Wiring

**EX600**




Refer to pages 115 to 117 for details on common parts.

④ Clamp bracket
It is mounted only for the DIN rail mounting type.
The holding screw of the clamp bracket is tightened at two points.
∗ The clamp bracket fixing method for the JSY1000 is different depending on wiring. Refer to page 140.

## Manifold Parts Nos.

### ① SUP/EXH block assembly

**JSY 3 1M – 1P – 1A □ – C10 □**

**Series**

| | |
|---|---|
| 1 | JSY1000 |
| 3 | JSY3000 |
| 5 | JSY5000 |

**Mounting**

| Symbol | Mounting | JSY1000 | JSY3000 | JSY5000 |
|---|---|---|---|---|
| — | Direct mounting | ● | ● | ● |
| D00 | DIN rail mounting (Without DIN rail) | ● | — | — |
| D0 | DIN rail mounting (Without DIN rail) | — | ● | ● |

**Pilot, Silencer type**

| Symbol | Pilot type | | Built-in silencer |
|---|---|---|---|
| | Internal | External (Made to Order) | |
| — | ● | — | — |
| S | ● | — | ● |
| R | — | ● | — |

∗ The 3/5(E) port is plugged for the built-in silencer type.

**P, E port size (One-touch fittings)**

| Symbol | P, E port | JSY1000 | JSY3000 | JSY5000 |
|---|---|---|---|---|
| C8 | Ø 8 One-touch fitting | ● | — | — |
| C10 | Ø 10 One-touch fitting | — | ● | — |
| C12 | Ø 12 One-touch fitting | — | — | ● |
| 00∗1 | Plug | ● | ● | ● |

∗1 Can be selected when the pilot, silencer type symbol is "—" or "S" Not available for "R" type

**SUP/EXH block assembly (D side) accessories and the number of accessories**

| Accessories | JSY1000/3000 | JSY5000 |
|---|---|---|
| a Tension bolt | None∗1 | 3 pcs. |

∗1 Since the nuts are embedded in the SUP/EXH block

### ② Valve plate

**EX600 – ZMV2**

∗ With mounting screws (2 pcs. of M4 x 6 and 2 pcs. of M3 x 8)

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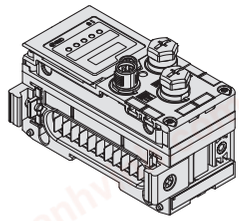
## Manifold Parts Nos.

### ③EX600 SI unit

**EX600−S** [ ]

**Communication protocol**

| Symbol | Protocol | Output polarity |
|---|---|---|
| **PR1A** | PROFIBUS DP | PNP (Negative common) |
| **PR2A** | | NPN (Positive common) |
| **DN1A** | DeviceNet® | PNP (Negative common) |
| **DN2A** | | NPN (Positive common) |
| **MJ1** | CC-Link | PNP (Negative common) |
| **MJ2** | | NPN (Positive common) |
| **EN3** | EtherNet/IP™ | PNP (Negative common) |
| **EN4** | | NPN (Positive common) |
| **EN7** | EtherNet/IP™ (IO-Link unit) | PNP (Negative common) |
| **EN8** | | NPN (Positive common) |
| **EC3** | EtherCAT (IO-Link unit) | PNP (Negative common) |
| **EC4** | | NPN (Positive common) |
| **PN1** | PROFINET | PNP (Negative common) |
| **PN2** | | NPN (Positive common) |
| **PN3** | PROFINET IO-Link unit | PNP (Negative common) |
| **PN4** | | NPN (Positive common) |



### ③EX600 SI unit (Wireless compatible)

**EX600−W** [EN] [1]

**Output type**

| Symbol | Description |
|---|---|
| **1** | PNP (Negative common) |
| **2** | NPN (Positive common) |

**Protocol**

| Symbol | SI unit type | Description |
|---|---|---|
| **EN** | Wireless base module | EtherNet/IP™ ∗1 |
| **PN** | Wireless base module | PROFINET ∗1 |
| **SV** | Wireless remote module | — ∗1 |

∗1 The wireless system is suitable for use only in a country where it is in accordance with the Radio Act and regulations of that country.

### ④Clamp bracket

| Series | Part no. |
|---|---|
| **For JSY1000** | JSY11M-15P-2A |
| **For JSY3000** | SY30M-15-1A |
| **For JSY5000** | SY50M-15-1A |

∗ The part number is for 1 piece.

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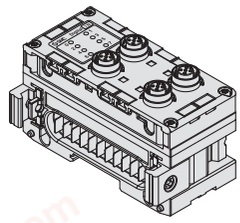
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## Manifold Parts Nos.

### ⑤ EX600 digital input unit

**EX600 − DX [P] [B]**



**Input type**

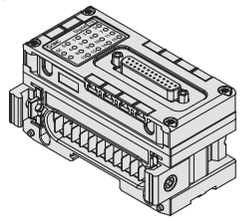
| Symbol | Description |
|---|---|
| P | PNP |
| N | NPN |

**Number of inputs, open-circuit detection, and connector**

| Symbol | Number of inputs | Open-circuit detection | Connector |
|---|---|---|---|
| B | 8 | No | M12 connector (5 pins) 4 pcs. |
| C | 8 | No | M8 connector (3 pins) 8 pcs. |
| C1 | 8 | Yes | M8 connector (3 pins) 8 pcs. |
| D | 16 | No | M12 connector (5 pins) 8 pcs. |
| E | 16 | No | D-sub connector (25 pins) |
| F | 16 | No | Spring type terminal block (32 pins) |

### ⑤ EX600 digital output unit

**EX600 − DY [P] [B]**



**Output type**

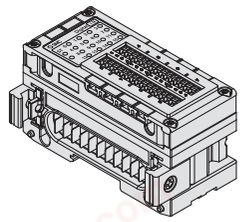
| Symbol | Description |
|---|---|
| P | PNP |
| N | NPN |

**Number of outputs and connector**

| Symbol | Number of outputs | Connector |
|---|---|---|
| B | 8 | M12 connector (5 pins) 4 pcs. |
| E | 16 | D-sub connector (25 pins) |
| F | 16 | Spring type terminal block (32 pins) |

### ⑤ EX600 digital input/output unit

**EX600 − DM [P] [E]**



**Input/Output type**

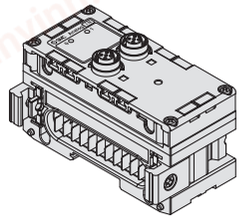
| Symbol | Description |
|---|---|
| P | PNP |
| N | NPN |

**Number of inputs/outputs and connector**

| Symbol | Number of inputs | Number of outputs | Connector |
|---|---|---|---|
| E | 8 | 8 | D-sub connector (25 pins) |
| F | 8 | 8 | Spring type terminal block (32 pins) |

### ⑤ EX600 analogue input/output unit

**EX600 − [AX] [A]**



**Analogue input/output**

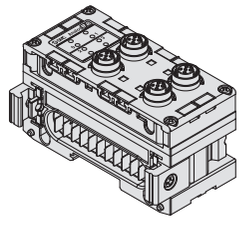
| Symbol | Description |
|---|---|
| AX | Analogue input |
| AY | Analogue output |

**Number of input channels and connector**

| Symbol | Number of input channels | Connector |
|---|---|---|
| A | 2 channels | M12 connector (5 pins) 2 pcs. |

### ⑤ EX600 analogue input/output unit

**EX600 − [AM] [B]**



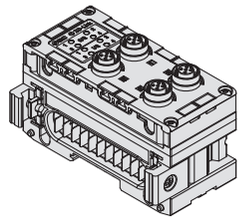
**Analogue input/output**

**Number of input/output channels and connector**

| Symbol | Number of input channels | Number of output channels | Connector |
|---|---|---|---|
| B | 2 channels | 2 channels | M12 connector (5 pins) 4 pcs. |

### ⑤ EX600 IO-Link unit

**EX600 − L [A] [B] 1**



**Port specification**

| Symbol | Description |
|---|---|
| A | Port class A |
| B | Port class B |

**Number of ports and connector**

| Symbol | Number of ports | Connector |
|---|---|---|
| B | 4 ports | M12 connector (5 pins) 4 pcs. |

**⚠ Caution**

The compatible SI unit models are as shown below.
- PROFINET compatible: EX600-SPN3/EX600-SPN4
- EtherNet/IP™ compatible: EX600-SEN7/EX600-SEN8
- EtherCAT compatible: EX600-SEC3/EX600-SEC4

### ⑥ EX600 end plate

**EX600 − ED [2] − [ ]**

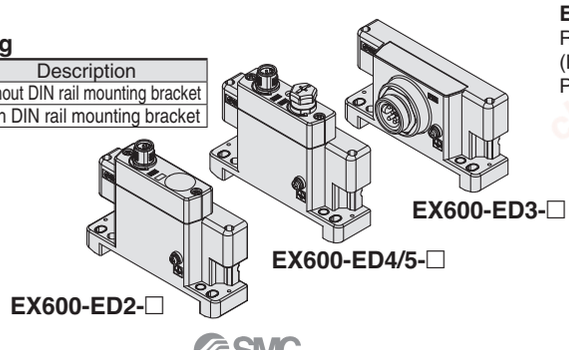
**Power connector**

| Symbol | Connector |
|---|---|
| 2 | M12 power supply connector, B-coded |
| 3 | 7/8 inch power supply connector |
| 4 | M12 power supply connector IN/OUT, A-coded, Pin arrangement 1 |
| 5 | M12 power supply connector IN/OUT, A-coded, Pin arrangement 2 |

∗ The pin layout for the “4” and “5” pin connectors is different.

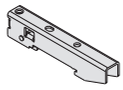
**Mounting**

| Symbol | Description |
|---|---|
| — | Without DIN rail mounting bracket |
| 3 | With DIN rail mounting bracket |




### ⑦ Clamp bracket for EX600

**EX600 − ZMA3**



**Enclosed parts**

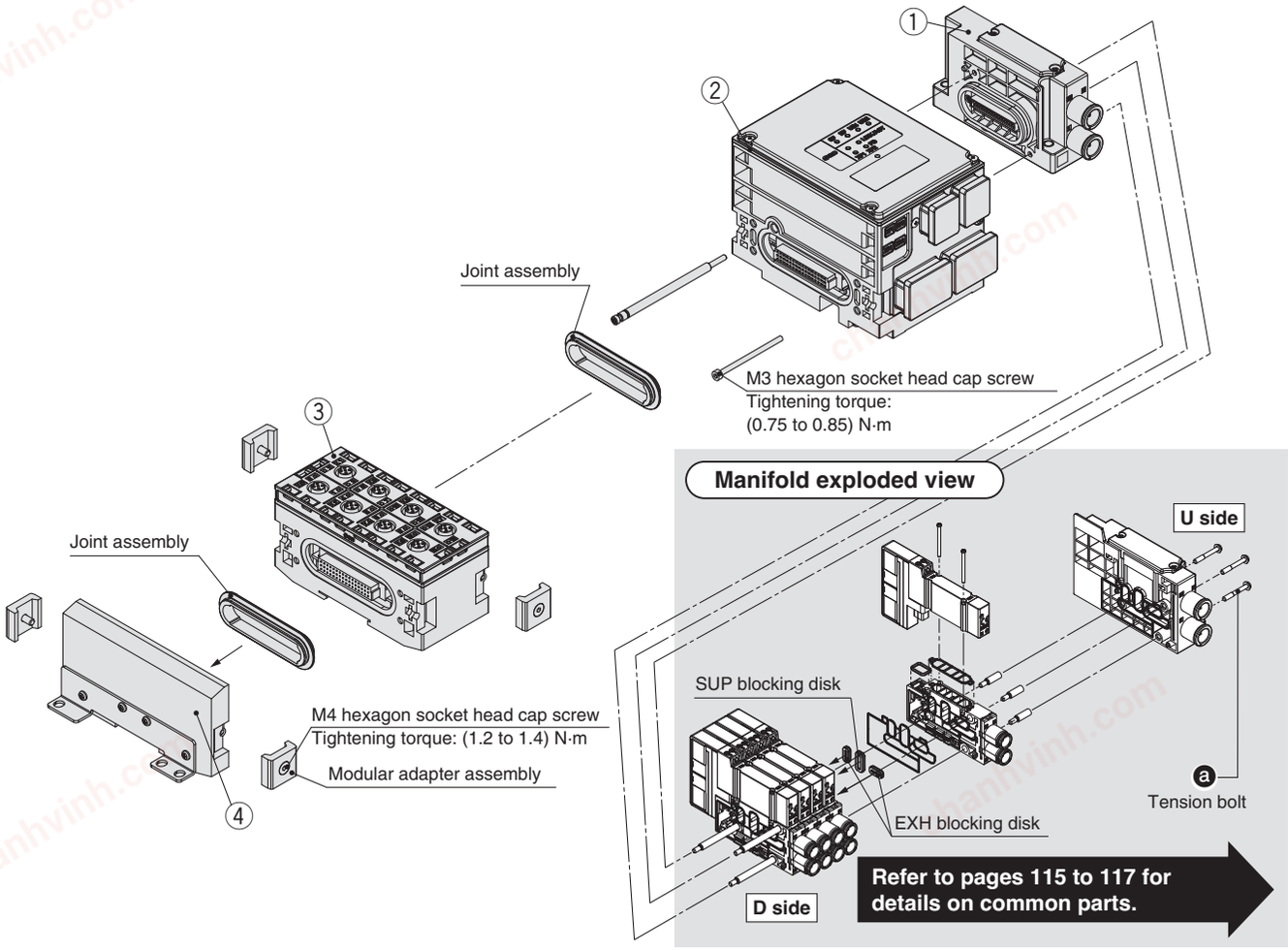
Round head screw with washer (M4 x 20) 1 pc.
P-tight screw (4 x 14) 2 pcs.

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**Wiring**

## EX245




## Manifold Parts Nos.

### ① SUP/EXH block assembly

**JSY 3 1M – 1P – 1A □ – C10**

**Series**

| | |
|---|---|
| **3** | JSY3000 |
| **5** | JSY5000 |

**Pilot, Silencer type**

| Symbol | Pilot type | | Built-in silencer |
|---|---|---|---|
| | Internal | External (Made to Order) | |
| **—** | ● | — | — |
| **S** | ● | — | ● |
| **R** | — | ● | — |

∗ The 3/5(E) port is plugged for the built-in silencer type.

**P, E port size (One-touch fittings)**

| Symbol | P, E port | JSY3000 | JSY5000 |
|---|---|---|---|
| **C10** | Ø 10 One-touch fitting | ● | — |
| **C12** | Ø 12 One-touch fitting | — | ● |
| **00**∗1 | Plug | ● | ● |

∗1 Can be selected when the pilot, silencer type symbol is "—" or "S"
Not available for "R" type

**SUP/EXH block assembly (D side) accessories and the number of accessories**

| Accessories | JSY3000 | JSY5000 |
|---|---|---|
| ⓐ **Tension bolt** | None∗1 | 3 pcs. |

∗1 Since the nuts are embedded in the SUP/EXH block

### ② EX245 SI unit

**EX245 – S PN 1A**

**SI unit**

**PROFINET**

**Connector type**

| Symbol | Communication connector | Power supply connector |
|---|---|---|
| **1A** | Push Pull connector (SCRJ): 2 pcs. | Push Pull connector (24 V): 2 pcs. |
| **2A** | Push Pull connector (RJ45): 2 pcs. | Push Pull connector (24 V): 2 pcs. |
| **3A** | M12 connector (4-pin, Socket, D-coded): 2 pcs. | 7/8 inch connector (5-pin, Plug): 1 pc.<br>7/8 inch connector (5-pin, Socket): 1 pc. |


**EX245-SPN1A**


**EX245-SPN2A**


**EX245-SPN3A**

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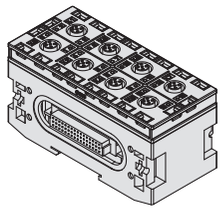
## Manifold Parts Nos.

### ③ EX245 digital input module

**EX245 – DX1**

**Digital input module specification**

| | |
|---|---|
| **DX1** | Digital input (16 inputs) |

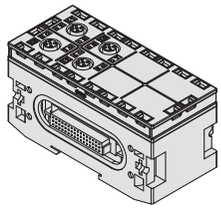


### ③ EX245 digital output module

**EX245 – DY1**

**Digital output module specification**

| | |
|---|---|
| **DY1** | Digital output (8 outputs) |

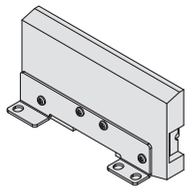


### ④ EX245 end plate

**EX245 – EA2 – 3**

**Bracket**

| | |
|---|---|
| **3** | For JSY/SY |



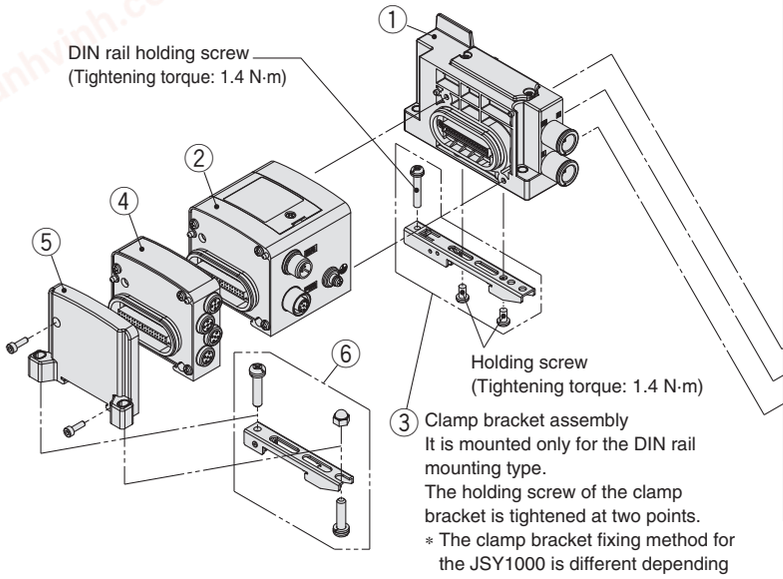
* Refer to page 73 for manifold valve part numbers.
Bracket 3 to 5 correspond to the mounting hole pitch of each manifold valve.

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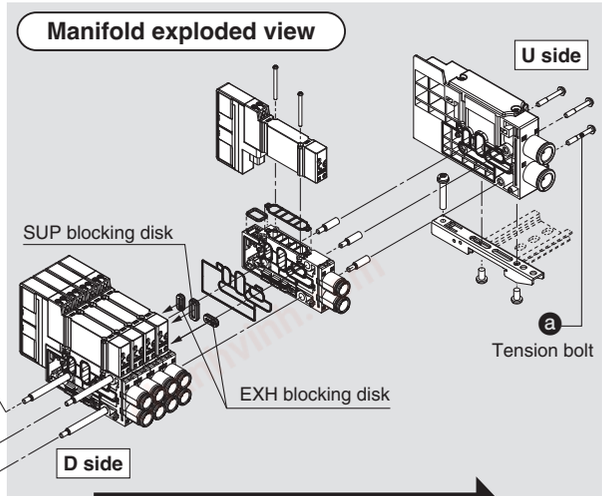


### Wiring

**EX250**




**Manifold exploded view**




**Refer to pages 115 to 117 for details on common parts.**

## Manifold Parts Nos.

### ① SUP/EXH block assembly

**JSY 3 1M – 1P – 1A □ – C10 □**

**Series**

| | |
|---|---|
| 1 | JSY1000 |
| 3 | JSY3000 |
| 5 | JSY5000 |

**Pilot, Silencer type**

| Symbol | Pilot type | | Built-in silencer |
|---|---|---|---|
| | Internal | External (Made to Order) | |
| — | ● | — | — |
| S | ● | — | ● |
| R | — | ● | — |

∗ The 3/5(E) port is plugged for the built-in silencer type.

**Mounting**

| Symbol | Mounting | JSY1000 | JSY3000 | JSY5000 |
|---|---|---|---|---|
| — | Direct mounting | ● | ● | ● |
| D00 | DIN rail mounting (Without DIN rail) | ● | — | — |
| D0 | DIN rail mounting (Without DIN rail) | — | ● | ● |

**P, E port size (One-touch fittings)**

| Symbol | P, E port | JSY1000 | JSY3000 | JSY5000 |
|---|---|---|---|---|
| C8 | Ø 8 One-touch fitting | ● | — | — |
| C10 | Ø 10 One-touch fitting | — | ● | — |
| C12 | Ø 12 One-touch fitting | — | — | ● |
| 00∗1 | Plug | ● | ● | ● |

∗1 Can be selected when the pilot, silencer type symbol is "—" or "S"
Not available for "R" type

**SUP/EXH block assembly (D side) accessories and the number of accessories**

| Accessories | JSY1000 JSY3000 | JSY5000 |
|---|---|---|
| ⓐ Tension bolt | None∗1 | 3 pcs. |

∗1 Since the nuts are embedded in the SUP/EXH block

### ② EX250 SI unit

**EX250 – S DN1**

**Communication protocol**

| | |
|---|---|
| DN1 | DeviceNet® (Negative common) |
| AS3 | AS-Interface (8 in/8 out, 2 isolated common type) (Negative common) |
| AS5 | AS-Interface (4 in/4, out 2 isolated common type) (Negative common) |
| AS7 | AS-Interface (8 in/8, out 1 common type) (Negative common) |
| AS9 | AS-Interface (4 in/4, out 1 common type) (Negative common) |
| EN1 | EtherNet/IP™ (Negative common) |

### ③ Clamp bracket

| Series | Part no. |
|---|---|
| JSY1000 | JSY11M-15P-2A |
| JSY3000 | SY30M-15-1A |
| JSY5000 | SY50M-15-1A |

∗ The part number is for 1 piece.

### ④ Input block

**EX250 – IE 1**

**Block type**

| | |
|---|---|
| 1 | M12 connector, 2 inputs |
| 2 | M12 connector, 4 inputs |
| 3 | M8 connector, 4 inputs |

### ⑤ EX250 end plate assembly

**EX250 – EA1**

∗ With mounting screws (2 pcs. of M3 x 10)

### ⑥ Clamp bracket assembly for EX250

**SY30M – 15 – 3A**

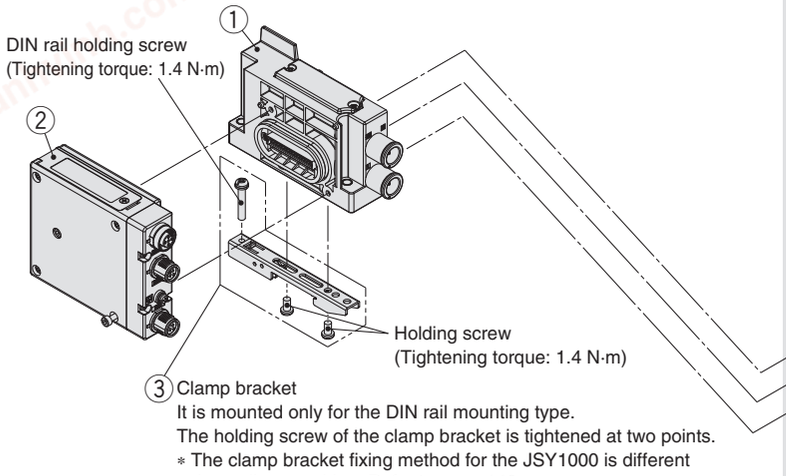
∗ The part number is for 1 assembly.

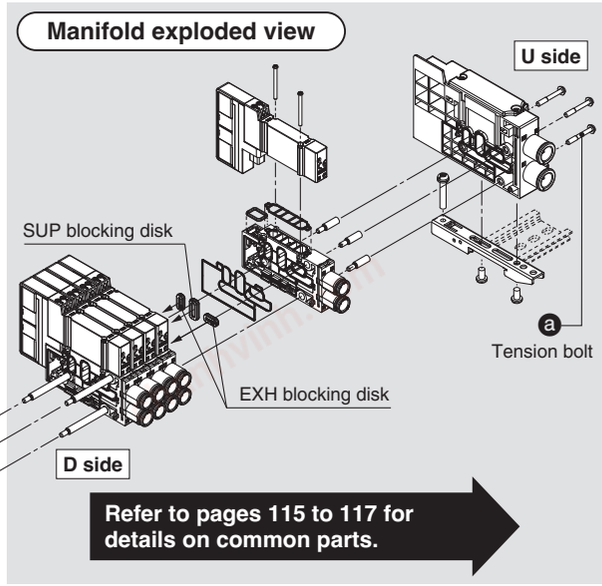
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# JSY1000/3000/5000 Series

## Wiring

### EX260




Refer to pages 115 to 117 for details on common parts.

## Manifold Parts Nos.

### ① SUP/EXH block assembly

**JSY 3 1M − 1P − 1A □ − C10 □**

**Series**

| | |
|---|---|
| 1 | JSY1000 |
| 3 | JSY3000 |
| 5 | JSY5000 |

**Pilot, Silencer type**

| Symbol | Pilot type | | Built-in silencer |
|---|---|---|---|
| | Internal | External (Made to Order) | |
| — | ● | — | — |
| S | ● | — | ● |
| R | — | ● | — |

∗ The 3/5(E) port is plugged for the built-in silencer type.

**Mounting**

| | |
|---|---|
| — | Direct mounting |
| D0 | DIN rail mounting (Without DIN rail) |

**P, E port size (One-touch fittings)**

| Symbol | P, E port | JSY1000 | JSY3000 | JSY5000 |
|---|---|---|---|---|
| C8 | Ø 8 One-touch fitting | ● | — | — |
| C10 | Ø 10 One-touch fitting | — | ● | — |
| C12 | Ø 12 One-touch fitting | — | — | ● |
| 00∗1 | Plug | ● | ● | ● |

∗1 Can be selected when the pilot, silencer type symbol is "—" or "S"
Not available for "R" type

**SUP/EXH block assembly (D side) accessories and the number of accessories**

| Accessories | JSY1000/3000 | JSY5000 |
|---|---|---|
| a Tension bolt | None∗1 | 3 pcs. |

∗1 Since the nuts are embedded in the SUP/EXH block

### ② EX260 SI unit (Fieldbus and Industrial Ethernet)

**EX260 − S PR1**

**Communication protocol**

| Symbol | Protocol | Number of outputs | SI unit output polarity | Communication connector | Manifold symbol |
|---|---|---|---|---|---|
| DN1 | DeviceNet® | 32 | Source/PNP (Negative common) | M12 | QAN |
| DN2 | | | Sink/NPN (Positive common) | | QA |
| DN3 | | 16 | Source/PNP (Negative common) | | QBN |
| DN4 | | | Sink/NPN (Positive common) | | QB |
| PR1 | PROFIBUS DP | 32 | Source/PNP (Negative common) | M12 | NAN |
| PR2 | | | Sink/NPN (Positive common) | | NA |
| PR3 | | 16 | Source/PNP (Negative common) | | NBN |
| PR4 | | | Sink/NPN (Positive common) | | NB |
| PR5 | | 32 | Source/PNP (Negative common) | D-sub∗1 | NCN |
| PR6 | | | Sink/NPN (Positive common) | | NC |
| PR7 | | 16 | Source/PNP (Negative common) | | NDN |
| PR8 | | | Sink/NPN (Positive common) | | ND |
| MJ1 | CC-Link | 32 | Source/PNP (Negative common) | M12 | VAN |
| MJ2 | | | Sink/NPN (Positive common) | | VA |
| MJ3 | | 16 | Source/PNP (Negative common) | | VBN |
| MJ4 | | | Sink/NPN (Positive common) | | VB |

| Symbol | Protocol | Number of outputs | SI unit output polarity | Communication connector | Manifold symbol |
|---|---|---|---|---|---|
| EC1 | EtherCAT | 32 | Source/PNP (Negative common) | M12 | DAN |
| EC2 | | | Sink/NPN (Positive common) | | DA |
| EC3 | | 16 | Source/PNP (Negative common) | | DBN |
| EC4 | | | Sink/NPN (Positive common) | | DB |
| PN1 | PROFINET | 32 | Source/PNP (Negative common) | M12 | FAN |
| PN2 | | | Sink/NPN (Positive common) | | FA |
| PN3 | | 16 | Source/PNP (Negative common) | | FBN |
| PN4 | | | Sink/NPN (Positive common) | | FB |
| EN1 | EtherNet/IP™ | 32 | Source/PNP (Negative common) | M12 | EAN |
| EN2 | | | Sink/NPN (Positive common) | | EA |
| EN3 | | 16 | Source/PNP (Negative common) | | EBN |
| EN4 | | | Sink/NPN (Positive common) | | EB |
| PL1 | Ethernet POWERLINK | 32 | Source/PNP (Negative common) | M12 | GAN |
| PL3 | | 16 | | | GBN |
| IL1 | IO-Link | 32 | Source/PNP (Negative common) | M12 | KAN |

∗1 Enclosure is IP40 when the communication connector is D-sub.

### EX260 SI Unit (Safety Communication)

**EX260 − F PS1**

**Communication protocol**

| Symbol | Protocol | Number of outputs | SI unit output polarity | Communication connector | Manifold symbol |
|---|---|---|---|---|---|
| PS1 | PROFIsafe | 32 | Source/PNP (Negative common) | M12 | FPN |

### ③ Clamp bracket

| Series | Part no. |
|---|---|
| JSY1000 | JSY11M-15P-1A |
| JSY3000 | SY30M-15-1A |
| JSY5000 | SY50M-15-1A |

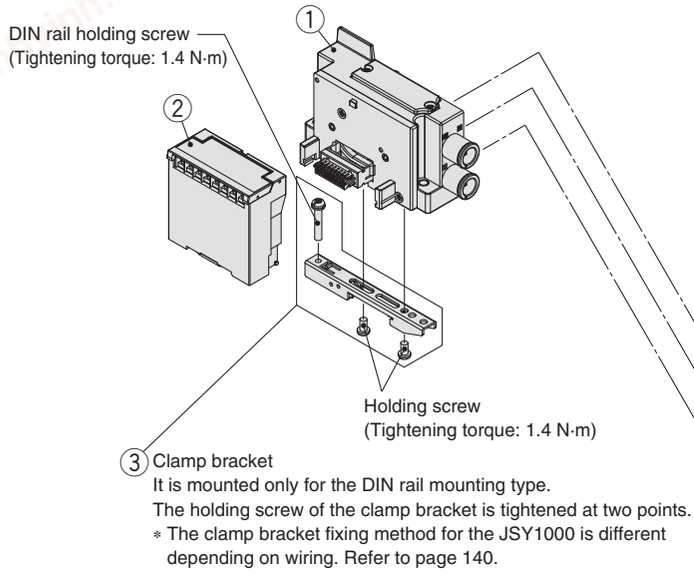
∗ The part number is for 1 piece.

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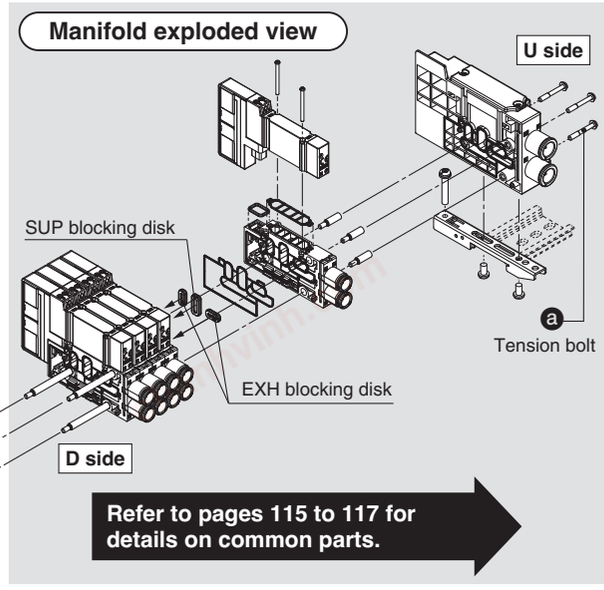


### Wiring

**EX120**




③ Clamp bracket
It is mounted only for the DIN rail mounting type.
The holding screw of the clamp bracket is tightened at two points.
∗ The clamp bracket fixing method for the JSY1000 is different depending on wiring. Refer to page 140.




Refer to pages 115 to 117 for details on common parts.

## Manifold Parts Nos.

### ① SUP/EXH block assembly

**JSY 3 1M – 1P – 14A □ – C10 □**

**Series**

| | |
|---|---|
| 1 | JSY1000 |
| 3 | JSY3000 |
| 5 | JSY5000 |

**Pilot, Silencer type**

| Symbol | Pilot type | | Built-in silencer |
|---|---|---|---|
| | Internal | External (Made to Order) | |
| — | ● | — | — |
| S | ● | — | ● |
| R | — | ● | — |

∗ The 3/5(E) port is plugged for the built-in silencer type.

**Mounting**

| | |
|---|---|
| — | Direct mounting |
| D0 | DIN rail mounting (Without DIN rail) |

**P, E port size (One-touch fittings)**

| Symbol | P, E port | JSY1000 | JSY3000 | JSY5000 |
|---|---|---|---|---|
| C8 | Ø 8 One-touch fitting | ● | — | — |
| C10 | Ø 10 One-touch fitting | — | ● | — |
| C12 | Ø 12 One-touch fitting | — | — | ● |
| 00∗1 | Plug | ● | ● | ● |

∗1 Can be selected when the pilot, silencer type symbol is "—" or "S"
Not available for "R" type

**SUP/EXH block assembly (D side) accessories and the number of accessories**

| Accessories | JSY1000/3000 | JSY5000 |
|---|---|---|
| a Tension bolt | None∗1 | 3 pcs. |

∗1 Since the nuts are embedded in the SUP/EXH block

### ② EX120 SI unit

**EX120 – S DN1**

**Communication protocol**

| | |
|---|---|
| DN1 | DeviceNet® (Positive common) |
| CS1 | OMRON Corp.: CompoBus/S (16 outputs) (Positive common) |
| CS2 | OMRON Corp.: CompoBus/S (8 outputs) (Positive common) |
| MJ1 | CC-Link (Positive common) |
| CM1 | CompoNet® NPN (Positive common) |
| CM3 | CompoNet® PNP (Negative common) |

### ③ Clamp bracket

| Series | Part no. |
|---|---|
| JSY1000 | JSY11M-15P-1A |
| JSY3000 | SY30M-15-1A |
| JSY5000 | SY50M-15-1A |

∗ The part number is for 1 piece.

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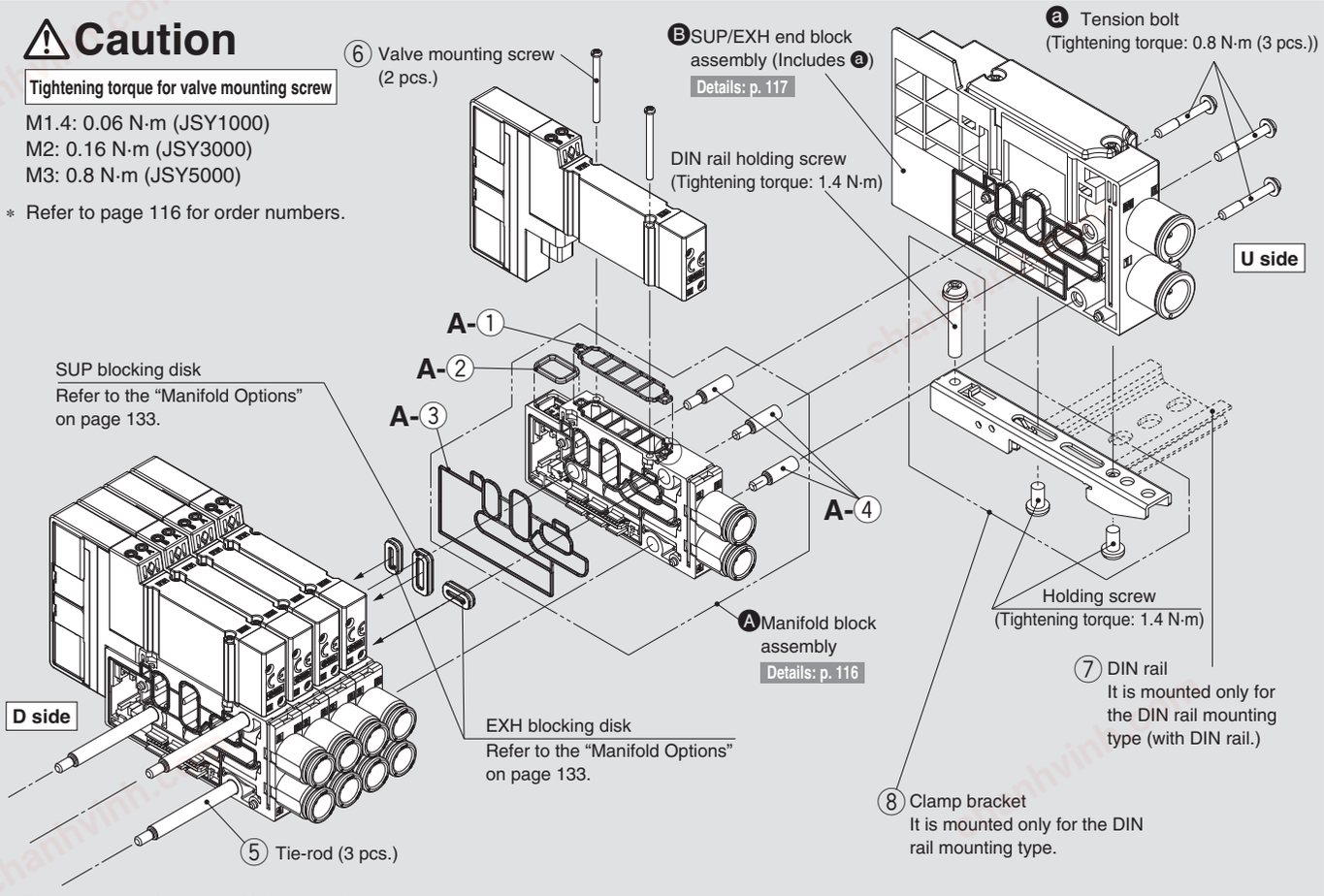
# Manifold Exploded View [Common Parts]

## ⚠Caution

**Tightening torque for valve mounting screw**

M1.4: 0.06 N·m (JSY1000)
M2: 0.16 N·m (JSY3000)
M3: 0.8 N·m (JSY5000)

* Refer to page 116 for order numbers.




* These figures show the JSY3000 series.

## Type 10: How to Increase Connector Type Manifolds

**1** **Loosen the U-side tension bolt** a**, and remove the** B **SUP/EXH end block assembly.**

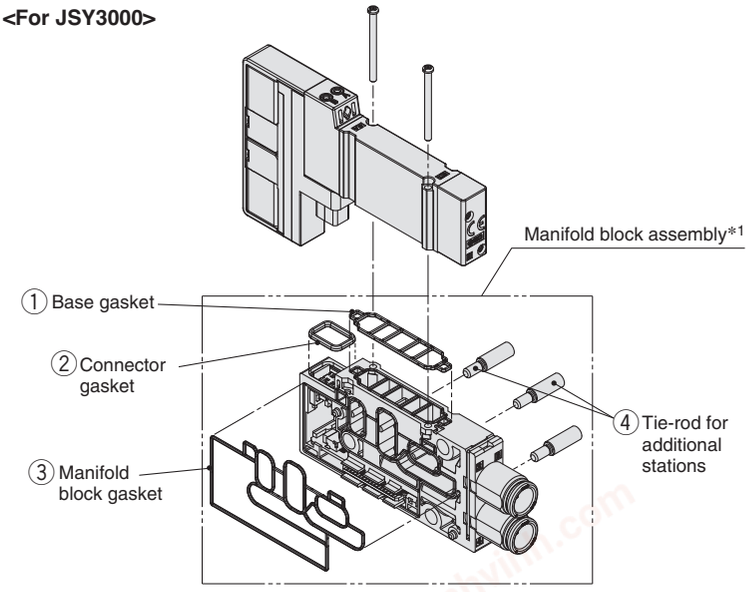
**2** **Screw in ④ tie-rods for additional stations to the ⑤ tie-rod of the manifold.**

**(Screw them in until there is no gap between the tie-rods.)**

**3** **Connect the** A **manifold block assembly and** B **SUP/EXH end block assembly to be added, and tighten the tension bolt** a**.**

**Tightening torque for tension bolt** a **(M3): 0.8 N·m**

**<For JSY3000>**




## ⚠Caution

1. Be sure to shut off the power and air supplies before disassembly.
   Furthermore, since air may remain inside the actuator, piping, and manifold, confirm that the air is completely exhausted before performing any work.
2. When disassembly and assembly are performed, air leakage may result if the tightening of the tension bolt is inadequate.

*1 **Manifold block assembly**

| No. | Description | Quantity | Note |
|---|---|---|---|
| ①②③ | **Gasket** | 1 pc. of each | For base, connector, and manifold block |
| ④ | **Tie-rod for additional stations** | 3 | |

Refer to page 116 for ordering single unit.
* ② Connector gasket is not applicable to the JSY1000.

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## For the JJ5SY1-10, JJ5SY3-10, JJ5SY5-10

| No. | Description | | JSY1000 | | JSY3000 | JSY5000 | Note |
|---|---|---|---|---|---|---|---|
| | | | 6.5 mm pitch | 9 mm pitch | | | |
| A-① | Manifold block assembly | Base gasket (for connector connecting base) | JSY11M-9P-1A | | JSY31M-9P-1A | JSY51M-9P-1A | Part numbers shown on the left are for 10 valves. (10 pcs.) |
| A-② | Manifold block assembly | Connector gasket | — | | SX3000-146-2 | | Supplied individually |
| A-③ | Manifold block assembly | Manifold block gasket | JSY11M-9P-2 | | JSY31M-9P-2 | JSY51M-9P-2 | Supplied individually |
| A-④ | Manifold block assembly | Tie-rod for additional stations*1 | JSY11M-49P-1-1-A (6.5 mm pitch) | JSY11M-49P-2-1-A (9 mm pitch) | JSY31M-49P-1-1-A (11.5 mm pitch) | SV2000-55-2A-A (16 mm pitch) | 3 pcs. supplied |
| ⑤ | Tie-rod | | JSY11M-49P-1-□-A (6.5 mm pitch) | JSY11M-49P-2-□-A (9 mm pitch) | JSY31M-49P-1-□-A (11.5 mm pitch) | SV2000-55-1-□-A (16 mm pitch) | □: Manifold stations (2 to 24 stations) 3 pcs. supplied |
| ⑥ | Valve mounting screw | | JSY11V-23-1A (M1.4 x 21.5) | | JSY31V-23-1A (M2 x 25) | JSY51V-23-1A (M3 x 29) | Part numbers shown on the left are for 10 valves. (20 pcs.) |
| ⑦ | DIN rail | | VZ1000-11-1-□ | | | VZ1000-11-4-□ | Refer to page 131. |
| ⑧ | Clamp bracket*2 (for connector connecting base) | | JSY11M-15P-1A (Refer to the table below.)*2<br>JSY11M-15P-2A (Refer to the table below.) | | SY30M-15-1A | SY50M-15-1A | Supplied individually |

*1 The manifold of the JSY1000/3000 (JJ5SY1-10/JJ5SY3-10) can be assembled by connecting the tie-rods for number of manifold stations. The manifold of the JSY5000 (JJ5SY5-10) cannot be assembled by connecting the tie-rods for additional stations for the number of manifold. Tie-rod (SV2000-55-1-□-A) is necessary.

*2 Part number of the clamp bracket for the JSY1000 is different depending on the manifold wiring. Refer to the table below. Refer to page 140 for assembly.

**Table. JSY1000 series clamp bracket**

| Wiring (JSY1000 series) | | JSY11M-15P-1A | JSY11M-15P-2A |
|---|---|---|---|
| F | D-sub connector | ● | — |
| P□ | Flat ribbon cable | ● | — |
| TC | Spring type terminal block box | ● | — |
| T | Terminal block box | — | ● |
| L | Lead wire | ● | — |
| S6 | EX600 | — | ● |
| S□ | EX250 | — | ● |
| S□□ | EX260 | ● | — |
| S3 | EX120 | ● | — |

## Manifold Parts Nos.

### Ⓐ Manifold block assembly

**JSY 3 1M – 2P – 1 D A – C8**

**Series**

| | |
|---|---|
| 1 | JSY1000 |
| 3 | JSY3000 |
| 5 | JSY5000 |

**Manifold pitch**

| | |
|---|---|
| 1 | JSY1000 (6.5 mm pitch)<br>JSY3000 (11.5 mm pitch)<br>JSY5000 (16 mm pitch) |
| 2 | JSY1000 (9 mm pitch) |

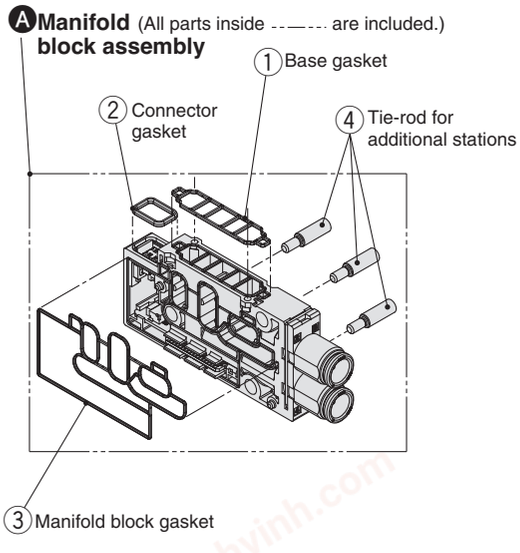
**Wiring type**

| | |
|---|---|
| S | Single wiring |
| D | Double wiring |

**A, B port size (One-touch fittings)**

| Symbol | A, B port | JSY1000 | | JSY3000 | JSY5000 |
|---|---|---|---|---|---|
| | | 6.5 mm pitch | 9 mm pitch | | |
| C2 | Ø 2 One-touch fitting | ● | — | — | — |
| C4 | Ø 4 One-touch fitting | ● | — | — | — |
| C6 | Ø 6 One-touch fitting | — | ● | ● | — |
| C8 | Ø 8 One-touch fitting | — | | ● | — |
| C10 | Ø 10 One-touch fitting | — | | — | ● |
| C12 | Ø 12 One-touch fitting | — | | — | ● |

Ⓐ **Manifold block assembly** (All parts inside ---—--- are included.)




**Manifold block assembly accessories and the number of accessories**

| Accessories | Quantity |
|---|---|
| ① **Base gasket** | 1 pc. |
| ② **Connector gasket***1 | 1 pc. |
| ③ **Manifold block gasket** | 1 pc. |
| ④ **Tie-rod for additional stations** | 3 pcs. |

*1 Not applicable to the JSY1000 series

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# JSY1000/3000/5000 Series

## Manifold Parts Nos.

### Ⓑ SUP/EXH end block assembly

**JSY 3 1M − 3P − 1A □ − C10 □**

**Series**

| | |
|---|---|
| **1** | JSY1000 |
| **3** | JSY3000 |
| **5** | JSY5000 |

**Pilot, Silencer type**

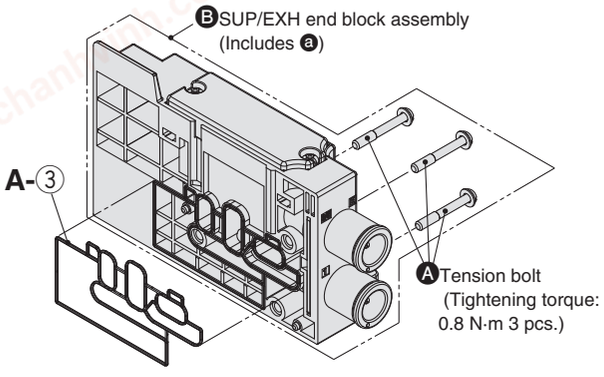
| Symbol | Pilot type | | Built-in silencer |
|---|---|---|---|
| | Internal | External (Made to Order) | |
| **—** | ● | — | — |
| **S** | ● | — | ● |
| **R** | — | ● | — |

∗ The 3/5(E) port is plugged for the built-in silencer type.

**P, E port size (One-touch fittings)**

| Symbol | P, E port | JSY1000 | JSY3000 | JSY5000 |
|---|---|---|---|---|
| **C8** | Ø 8 One-touch fitting | ● | — | — |
| **C10** | Ø 10 One-touch fitting | — | ● | — |
| **C12** | Ø 12 One-touch fitting | — | — | ● |
| **00**∗1 | Plug | ● | ● | ● |

∗1 Can be selected when the pilot, silencer type symbol is "—" or "S" Not available for "R" type




**Mounting**

| | |
|---|---|
| **—** | Direct mounting |
| **D0** | DIN rail mounting (Without DIN rail) |
| **D00**∗1 | DIN rail mounting (Without DIN rail) |

∗1 Part number only for the JSY1000
Part number is different depending on the wiring. Refer to Table 1.

**Table 1. JSY1000 series DIN rail mounting**

| Symbol | Wiring |
|---|---|
| **D0** | D-sub connector (**F** type)<br>Flat ribbon cable (**P**□ type)<br>Spring type terminal block box (**TC** type)<br>Lead wire (**L** type)<br>EX260 (**S**□□ type)<br>EX120 (**S3** type) |
| **D00** | Terminal block box (**T** type)<br>EX600 (**S6** type)<br>EX250 (**S**□ type) |

**SUP/EXH end block assembly accessories and the number of accessories**

| Accessories | Quantity |
|---|---|
| ⓐ **Tension bolt** | 3 pcs. |
| **A-**③ **Manifold block gasket** | 1 pc. |

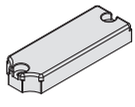
∗ Gasket is mounted.

### ⑧ Clamp bracket

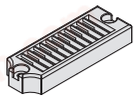
| Series | | Part no. |
|---|---|---|
| **JSY1000** | **For D0** | JSY11M-15P-1A |
| | **For D00** | JSY11M-15P-2A |
| **JSY3000** | | SY30M-15-1A |
| **JSY5000** | | SY50M-15-1A |

∗ The part number is for 1 piece.
∗ Part number of the JSY1000 is different depending on the manifold wiring.
Refer to the Table 1. JSY1000 series DIN rail mounting for selecting a clamp bracket.

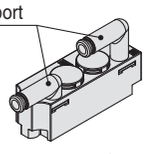
### ■ Cover, Silencer cover, Port block for SUP/EXH (end) block assembly



**Cover**
**(Internal pilot)**



**Silencer cover**
**(Internal pilot, Built-in silencer)**




**Port block**
**(External pilot: Made to Order)**

∗ Cover, silencer cover, and port block are included in the SUP/EXH (end) block assembly, but they need to be ordered for piping specification change.
∗ Mounting screws (2 pcs.) for SUP/EXH end block assembly are included.

**Tightening torque for mounting screw**
**JSY1000 (M2.5): 0.32 N·m**
**JSY3000 (M3): 0.8 N·m**
**JSY5000 (M4): 1.4 N·m**

**JSY 3 1M − 4P − 1A**

**JSY 3 1M − 5P − 1A**

**JSY 3 1M − 6P − 1AR − 00**

**Series**

| | |
|---|---|
| **1** | JSY1000 |
| **3** | JSY3000 |
| **5** | JSY5000 |

### ⚠ Caution

1. Be sure to shut off the power and air supplies before disassembly. Furthermore, since air may remain inside the actuator, piping, and manifold, confirm that the air is completely exhausted before performing any work.
2. When disassembly and assembly are performed, air leakage may result if the tightening of the cover and port block assemblies are inadequate.

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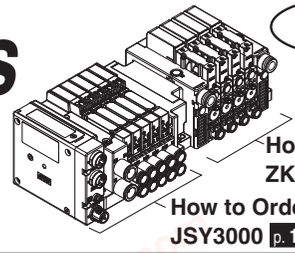
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# Plug-in Connector Connecting Base

## Vacuum Unit ZK2 Combination Manifold

Type 10
Side Ported

# JSY3000 Series



How to Order ZK2 p. 121, 122

How to Order JSY3000 p. 119, 120

**Specify the valve manifold and mounted valve part numbers as well as the ejector manifold and mounted ejector part numbers for ordering. Refer to page 120 for an order example.**

**Internal Pilot**

## How to Order Manifolds

**Valve Manifold** JJ5SY 3 – 10 SQ 1 A – 05 DS – C6 □ – M

❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽ ❾

Combination manifold

### ❶ Series

| | |
|---|---|
| 3 | JSY3000 |

### ❷ Type

| | |
|---|---|
| 10 | Side ported |

### ❸ Connector type, Wiring, Number of cores, SI unit

| Symbol | Type | | Page |
|---|---|---|---|
| F | D-sub connector (25 pins) | IP40 | 21 |
| FW | | IP67 | |
| FC | | IP20 | |
| P | Flat ribbon cable | 26 pins | |
| PG | | 20 pins | |
| PH | | 10 pins | |
| PC | Flat ribbon cable Compact type | 26 pins | |
| PGC | | 20 pins | |
| PHC | | 10 pins | |
| TC | Spring type terminal block box | | 43 |
| T | Terminal block box | | |
| L1 | Lead wire | 34 cores | 55 |
| L2 | | 17 cores | |
| L3 | | 9 cores | |
| S6□ | Serial transmission | EX600 | 63 |
| S□ | | EX245 | 73 |
| S□ | | EX250 | 77 |
| S□ | | EX260 | 83 |
| S3□ | | EX120 | 91 |

∗ Refer to the pages shown in the table above for details.

### ❹

**· Connector entry direction (F□/P□)**

| Symbol | Type |
|---|---|
| 1 | Upward |
| 2 | Downward |

**· Lead wire length (L1/L2/L3)**

| Symbol | Type |
|---|---|
| 1 | 0.6 m |
| 2 | 1.5 m |
| 3 | 3 m |

**· SI unit output polarity, End plate type (S6□)**
Refer to page 63.

**· With or without I/O modules (S□)**
Refer to page 73.

**· Input block stations (S□)**
Refer to page 77.

### ❺ I/O unit stations (S6□)

Refer to page 63.

**Number of I/O modules (S□)**
Refer to page 73.

**Input block type (S□)**
Refer to page 77.

### ❻ Valve stations

**· For 32 output points (TC/L1/S6□/S□)**

| Symbol | Stations | Note |
|---|---|---|
| 02 | 2 stations | Double wiring∗1 |
| ⋮ | ⋮ | |
| 15 | 15 stations | |
| 02 | 2 stations | Specified layout∗2 (Up to 30 solenoids available) |
| ⋮ | ⋮ | |
| 24 | 24 stations | |

**· For 24 output points (F/FW/FC/P/PC)**

| Symbol | Stations | Note |
|---|---|---|
| 02 | 2 stations | Double wiring∗1 |
| ⋮ | ⋮ | |
| 11 | 11 stations | |
| 02 | 2 stations | Specified layout∗2 (Up to 22 solenoids available) |
| ⋮ | ⋮ | |
| 22 | 22 stations | |

**· For 20 output points(T)**

| Symbol | Stations | Note |
|---|---|---|
| 02 | 2 stations | Double wiring∗1 |
| ⋮ | ⋮ | |
| 09 | 9 stations | |
| 02 | 2 stations | Specified layout∗2 (Up to18 solenoids available) |
| ⋮ | ⋮ | |
| 18 | 18 stations | |

**· For 18 output points (PG/PGC)**

| Symbol | Stations | Note |
|---|---|---|
| 02 | 2 stations | Double wiring∗1 |
| ⋮ | ⋮ | |
| 08 | 8 stations | |
| 02 | 2 stations | Specified layout∗2 (Up to 16 solenoids available) |
| ⋮ | ⋮ | |
| 16 | 16 stations | |

**· For 16 output points (L2/S□/S3□)**

| Symbol | Stations | Note |
|---|---|---|
| 02 | 2 stations | Double wiring∗1 |
| ⋮ | ⋮ | |
| 07 | 7 stations | |
| 02 | 2 stations | Specified layout∗2 (Up to 14 solenoids available) |
| ⋮ | ⋮ | |
| 14 | 14 stations | |

**· For 8 output points (PH/PHC/L3)**

| Symbol | Stations | Note |
|---|---|---|
| 02 | 2 stations | Double wiring∗1 |
| ⋮ | ⋮ | |
| 03 | 3 stations | |
| 02 | 2 stations | Specified layout∗2 (Up to 6 solenoids available) |
| ⋮ | ⋮ | |
| 06 | 6 stations | |

∗1 Double wiring: 2-position single, double, 3-position, and 4-position valves can be used on all manifold stations. The use of a 2-position single solenoid will result in an unused control signal.
∗2 Specified layout: Indicate the wiring specifications on the manifold specification sheet. (Note that 2-position double, 3-position, and 4-position valves cannot be used where single wiring has been specified.)
∗ The total number of solenoids for the valve and ejector should not exceed the number of output points. (Number of ejector solenoids: 2 per station)
∗ This also includes the number of blanking plates.
∗ For models without an SI unit (S0), note the number of output points of the SI unit that will be mounted.

### ❼ P, E port entry, SUP/EXH block assembly

| Symbol | P, E port entry | SUP/EXH block assembly | Application |
|---|---|---|---|
| U | U side (2 to 10 stations) | Internal pilot | All |
| D | D side (2 to 10 stations) | | |
| B | Both sides (2 to 24 stations) | | |
| US | U side (2 to 10 stations) | Internal pilot, Built-in silencer | D-sub connector (F□), Terminal block box (TC, T), Flat ribbon cable (P□), Lead wire (L□) EX260(S□)/EX245(S□)/EX120(S3□) |
| DS | D side (2 to 10 stations) | | |
| BS | Both sides (2 to 24 stations) | | |
| C | U side (2 to 10 stations) | Internal pilot, Built-in silencer | EX600(S6□) EX250(S□) |
| E | D side (2 to 10 stations) | | |
| F | Both sides (2 to 24 stations) | | |

∗ The 3/5(E) port is plugged for the built-in silencer type.
∗ When the built-in silencer type is used, keep the exhaust port from coming into direct contact with water or other liquids.
∗ The external pilot specification should be ordered as Made to Order. For details, refer to page 135.

### ❽ A, B port size (Metric/One-touch fitting)

| Symbol | A, B port | P, E port |
|---|---|---|
| C6 | Straight Ø 6 | Ø 10 |
| C8 | Straight Ø 8 | |
| CM∗1 | Straight port, mixed sizes | |

∗1 Indicate the sizes on the manifold specification sheet in the case of "CM."

### ❾ Mounting

| Symbol | Mounting |
|---|---|
| — | Direct mounting |
| D | DIN rail mounting (With DIN rail) |
| D0 | DIN rail mounting (Without DIN rail) |

∗ Refer to page 139 for details on securing the DIN rail mounting type manifold.

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**Specify the valve manifold and mounted valve part numbers as well as the ejector manifold and mounted ejector part numbers for ordering. Refer to the bottom of this page for an order example.**

**Internal Pilot**

## How to Order Valves (With mounting screw)

Refer to page 13 for valve specifications.

**JSY3000 Series**

**JSY 3 1 0 0 – 5 Z ☐**

❶ ❷ ❸ ❹ ❺ ❻

❸ Base mounted

**Made to Order** (Refer to page 135 for details.)

| Specification |
|---|
| With power-saving circuit (Continuous duty type): 0.1 W (JSY3000) |
| External pilot |

### ❶ Series

| | |
|---|---|
| 3 | JSY3000 |

### ❷ Type of actuation

| | | |
|---|---|---|
| 1 | 2-position | Single |
| 2 | | Double |
| 3 | 3-position | Closed centre |
| 4 | | Exhaust centre |
| 5 | | Pressure centre |
| A | 4-position dual 3-port | N.C./N.C. |
| B | | N.O./N.O. |
| C | | N.C./N.C. |

### ❸ Pilot valve exhaust method

| | |
|---|---|
| 0 | Pilot valve individual exhaust |

### ❹ Rated voltage

| | |
|---|---|
| 5 | 24 VDC |

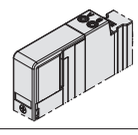
### ❺ Light/surge voltage suppressor and common specification

| Symbol | With light | Surge voltage suppressor | Common specification |
|---|---|---|---|
| U | ● | ● | Non-polar |
| Z | | | Positive common |
| NZ | | | Negative common |

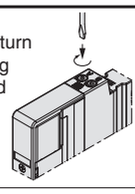
* When the non-polar common specification type is selected, take measures to prevent surge voltage. For details, refer to page 138.
* For fieldbus compatible manifolds, ensure that the output polarity of the SI unit matches the common specification of the valve. Note that the common specification of the ejector is non-polar.

### ❻ Manual override

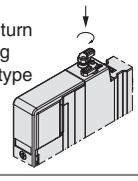
—: Non-locking push type



D: Push-turn locking slotted type



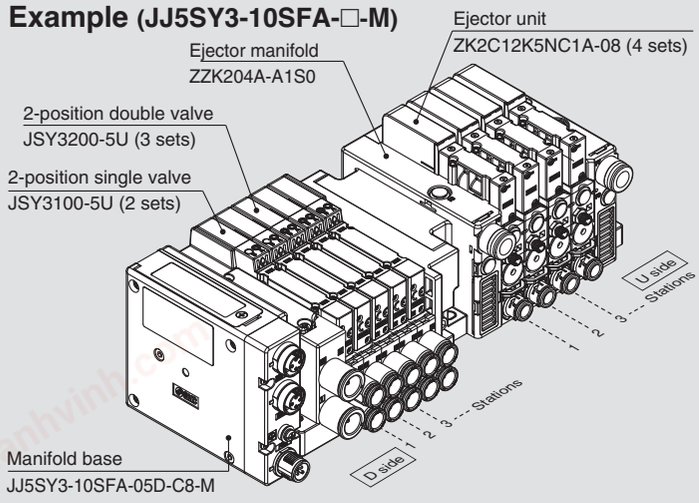
E: Push-turn locking lever type



* **When ordering a valve individually, the base gasket is not included.**
Since the base gasket is attached to the manifold, please order the base gasket separately if it is needed for maintenance. Refer to page 116 for base gasket and mounting screw part numbers.

## How to Order Manifold Assembly

### Example (JJ5SY3-10SFA-☐-M)




**Refer to pages 121 and 122 for how to order ZK2 vacuum units.**

**JJ5SY3-10SFA-05D-C8-M ··· 1 set (Type 10 5-station manifold base part no.)**
*** JSY3100-5U ····· 2 sets (2-position single valve part no.)**
*** JSY3200-5U ····· 3 sets (2-position double valve part no.)**
*** ZZK204A-A1S0 ····· 1 set (Ejector manifold part no.)**
*** ZK2C12K5NC1A-08 ····· 4 sets (Ejector unit part no.)**
**→ The asterisk denotes the symbol for the assembly. Prefix it to the part numbers of the ejector manifold, valve, etc.**

- For the valve and ejector arrangement, the valves closest to the D side are considered the 1st stations respectively.
- Under the manifold part number, state the valves, ejector manifold, and ejector units to be mounted in order starting with the 1st station as shown in the figure.
- Complex exhaust and individual port exhaust cannot be mixed in the ejector manifold.
- If the arrangement becomes too complicated, specify the details on a manifold specification sheet.

## ⚠ Caution

**If the product is to be continuously energised, please be sure to select the power-saving circuit (continuous duty type) specification. Refer to "Made to Order" on page 135.**

⚠ Protective class class Ⅲ (Mark: Ⅲ)

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# JSY3000 Series

**Specify the valve manifold and mounted valve part numbers as well as the ejector manifold and mounted ejector part numbers for ordering. Refer to page 120 for an order example.**

## How to Order Manifolds

**Ejector Manifold**

∗ ZZK2 **04** A − **A** **1** **S0** − ☐

Symbol for the assembly ● ❶ ❷ ❸ ❹ ❺

### ❶ Stations∗1

| Symbol | Stations |
|---|---|
| **01** | 1 station |
| **02** | 2 stations |
| ⋮ | ⋮ |
| **08** | 8 stations |

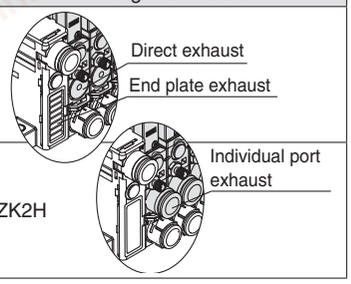
∗1 For adequate performance, the number of stations that can be operated simultaneously depends on the nozzle diameter. For details, refer to the ZK2☐A series catalogue.

### ❷ System/Port

| Symbol | System | Port |
|---|---|---|
| **A** | Ejector system | Ø 8 (Common PV) |

### ❸ Exhaust

| Symbol | Exhaust | Selectable single unit number |
|---|---|---|
| **1** | Complex exhaust∗2 | ZK2C |
| **2** | Individual exhaust | ZK2F, ZK2H |




∗2 Combination of direct exhaust and end plate exhaust from each station

### ❹ Supply valve and release valve wiring∗3

| Symbol | Wiring | Selectable wiring for manifold (Refer to "How to Order Ejectors" on page 122.) | |
|---|---|---|---|
| | | **C** | **C1** |
| **S0** | Centralised wiring | ● | ● |

∗3 Individual wiring is specified for pressure switches for vacuum and sensors.

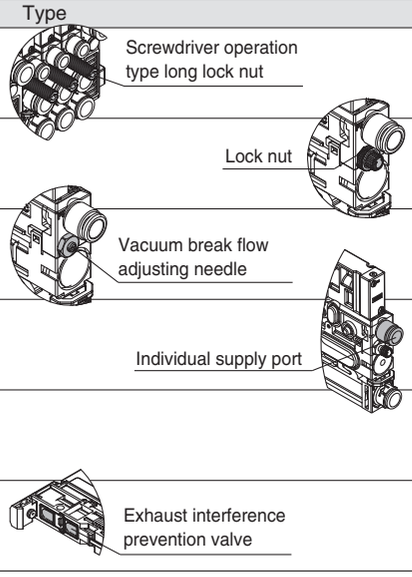
### ❺ Option∗4

| Symbol | Type | Selectable options for manifold (Refer to "How to Order Ejectors" on page 122.) | | | | | |
|---|---|---|---|---|---|---|---|
| | | **E** | **J** | **K** | **L** | **P** | **W** |
| **—** | Without option | ● | ● | ● | — | — | ● |
| **B** | With DIN rail mounting bracket∗5 | ● | ● | ● | — | — | ● |
| **D** | With common release pressure supply (PD) port | ● | ● | ● | — | ◎∗6 | ● |
| **L** | Manifold individual supply specification | ● | ● | ● | ◎∗6 | — | ● |

∗4 When more than one option is selected, list the option symbols in alphabetical order. (Example -BD)
∗5 Be sure to select the DIN rail mounting for the mounting method of the valve manifold.
∗6 When option "D" is selected, select option "P" for the single unit for manifold. When option "L" is selected, select option "L" for the single unit for manifold. (◎ must be selected.)
∗ For details, refer to "Optional Specifications/Functions/Applications" below.

## Optional Specifications/Functions/Applications

| Symbol | Type | | Function/Application |
|---|---|---|---|
| **E** | Vacuum break flow adjusting needle | Screwdriver operation type long lock nut | · Used when the port position is close to the manifold's individual supply and needle adjustment is difficult |
| **J** | | Round lock nut | · Thicker than the standard hexagon type<br>· More suitable for hand tightening<br>· The round lock nut improves operability when the manifold or exhaust port type is used. |
| **K** | | Screwdriver operation type | · The slotted type allows for fine adjustment when the manifold or exhaust port type is used. |
| **L** | Manifold individual supply specification | | · For adjusting the manifold's supply pressure and the vacuum pressure reached by each ejector individually |
| **P** | With manifold common release pressure supply (PD) port | | · When selecting option "D" (with common release pressure supply (PD) port), a pressure which is different from the common PV can be supplied to the common PD. |
| **W** | With exhaust interference prevention valve | | · When ejectors are operated individually, exhausted air may flow backward from the V ports of ejectors that are turned off. The exhaust interference prevention valve prevents this backflow. |



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**Specify the valve manifold and mounted valve part numbers as well as the ejector manifold and mounted ejector part numbers for ordering. Refer to page 120 for an order example.**

For ejector specifications, refer to the ZK2□A series in the **Web Catalogue**.

## How to Order Ejectors

**ZK2□A Series**

**ZK2 C 12 K 5 A D A – 08 – □**
❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽

### ❶ Body/Exhaust type

| Symbol | Body | Exhaust type |
|---|---|---|
| C | For Manifold | Complex exhaust*1 (Direct exhaust, End plate exhaust) |
| F | | Individual port exhaust (Individual port exhaust) |
| H | | High-noise reduction silencer exhaust (High-noise reduction silencer exhaust) |

*1 Combination of direct exhaust and end plate exhaust from each station

### ❷ Nominal nozzle size

| Symbol | Nominal nozzle size |
|---|---|
| 07 | Ø 0.7 |
| 10 | Ø 1.0 |
| 12 | Ø 1.2 |
| 15 | Ø 1.5 |

* Refer to the ZK2□A series catalogue for the standard supply pressure per nozzle diameter.

### ❸ Combination of supply valve and release valve

| Symbol | Supply valve | | Release valve |
|---|---|---|---|
| | N.C. | Self-holding | N.C. |
| K | ● | — | ● |
| J | ● | — | — |
| R | — | ●*2 | ● |

*2 Supply valve maintains vacuum by energization (20 ms or more). Stopping the vacuum turns on the release valve.

### ❹ Rated voltage (Supply valve/Release valve)

| Symbol | Voltage |
|---|---|
| 5 | 24 VDC |

### ❺ Pressure switch for vacuum/Pressure sensor

| Symbol | Type | Pressure range [kPa] | Specifications | | |
|---|---|---|---|---|---|
| | | | NPN | PNP | With unit selection function*3 |
| | | | 2 outputs | | |
| A | Pressure switch for vacuum | 0 to −101 | ● | — | ● |
| B | | | ● | — | None (SI unit only) |
| C | | | — | ● | ● |
| D | | | — | ● | None (SI unit only) |
| E | | −100 to 100 | ● | — | ● |
| F | | | ● | — | None (SI unit only) |
| H | | | — | ● | ● |
| J | | | — | ● | None (SI unit only) |
| P | Pressure sensor | 0 to −101 | Analogue output 1 to 5 V | | |
| T | | −100 to 100 | | | |
| N | Without pressure switch for vacuum/pressure sensor | | | | |

*3 The unit for the type without the unit selection function is fixed as kPa.

### ❻ Connector (Supply valve/Release valve/Pressure switch for vacuum)

| Symbol | For supply valve/ release valve | For pressure switch for vacuum: 2 m (Lead wire with connector) | Pressure sensor assembly: 3 m (With lead wire) | Note |
|---|---|---|---|---|
| | Centralised wiring specification (Plug-in) | | | |
| C | ● | ● | | Cannot be selected when ❺ is N |
| C1 | ● | None | | Cannot be selected when ❺ is P or T |

### ❼ Vacuum (V) port

| Symbol | Vacuum (V) port |
|---|---|
| 06 | Ø 6 |
| 08 | Ø 8 |

### ❽ Option*4 (For details on the Function/Application, refer to page 121.)

| Symbol | Type | | Note |
|---|---|---|---|
| — | Without option | | — |
| E | Vacuum break flow adjusting needle | Screwdriver operation type long lock nut (Screwdriver operation type long lock nut) | Cannot be selected when ❸ is J<br>Can be selected only for the combination of J and K |
| J | | Round lock nut (Lock nut) | |
| K | | Screwdriver operation type (Vacuum break flow adjusting needle) | |
| L | Manifold individual supply specification*5 | (Individual supply port) | — |
| P | With manifold common release pressure supply (PD) port | | Cannot be selected when ❸ is J |
| W | With exhaust interference prevention valve | (Exhaust interference prevention valve) | When J is selected for ❸, install the release valve or vacuum breaker in the middle of the vacuum piping. |

*4 When more than one option is selected, list the option symbols in alphabetical order. (Example -EL)

*5 When F or H is selected for ❶ and L is selected for the option, the space for adjusting the needle is reduced. Products which can be operated more easily can be specified by option E or K.

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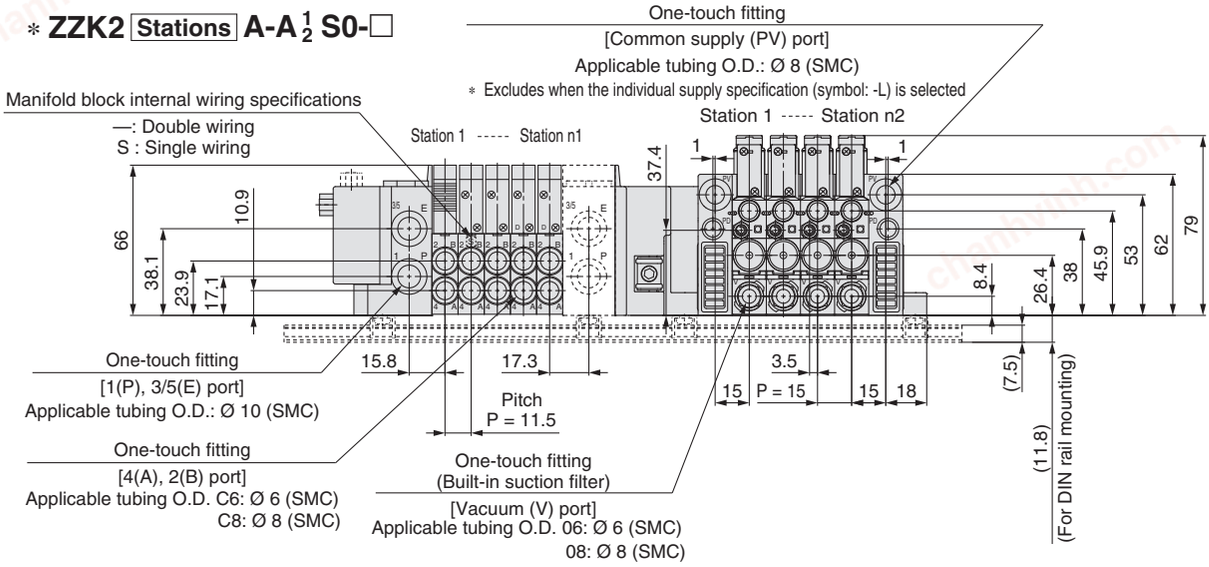
## Dimensions: JSY3000 Series

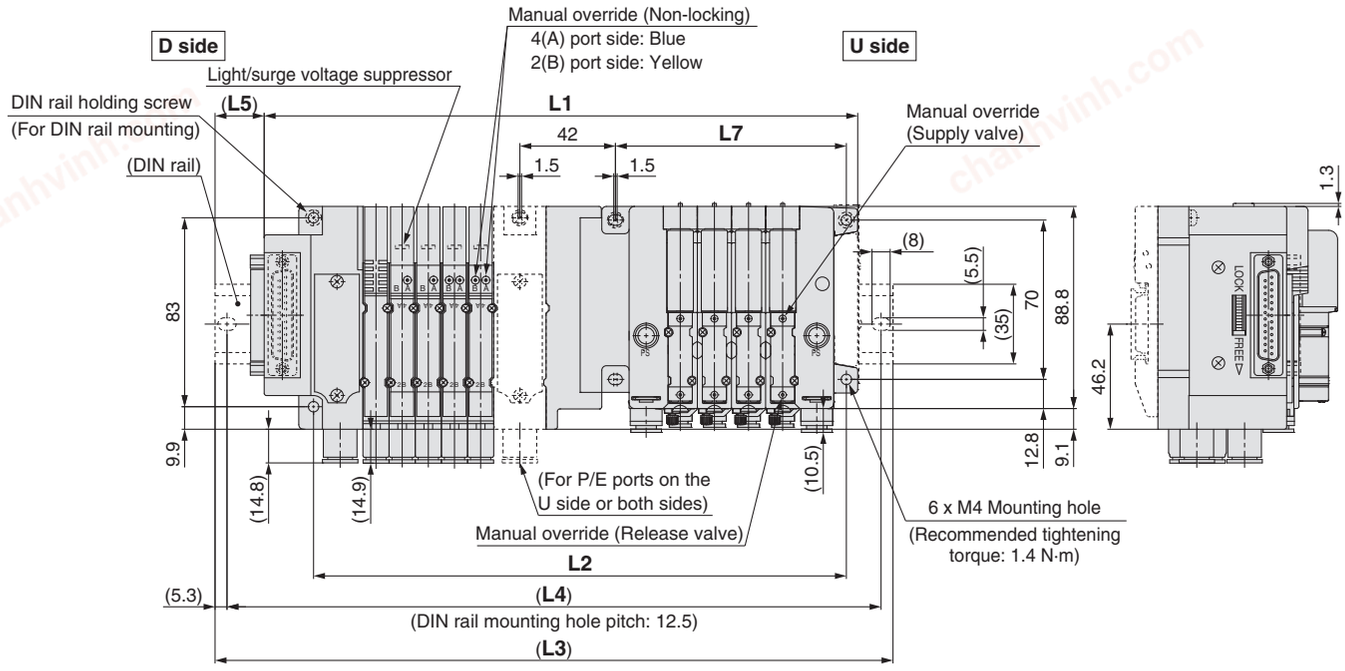
**Type 10/Side Ported**
**Vacuum Unit ZK2 Combination Manifold**

**JJ5SY3-10□- Stations U/D/B -M**

**＊ ZZK2 Stations A-A$\frac{1}{2}$ S0-□**

For details on ejectors, refer to the ZK2□A series in the **Web Catalogue**.




＊ Refer to page 125 for dimensions of external pilot and built-in silencer.
＊ Refer to pages 69, 70, and 81 for dimensions when L6 and b are used for the calculation formula.
＊ Refer to the reference pages shown in the table to the right for dimensions that are not specified in each wiring specification.

**Calculation formula for dimensions**

L1 = 11.5 x n1 + 15 x n2 + a + b x n3 + e
L2 = 11.5 x n1 + 15 x n2 + e + 93.7
M = (L1 + c)/12.5 + 1 Decimal fractions are truncated.
L3 = 12.5 x M + 23
L4 = L3 – 10.5
L5 = (L3 – L1 + c)/2
L6 = b x n3 + 82
L7 = 15 x n2 + 41.5

n1: Number of valve stations of the JSY3000
n2: Number of ejector stations of the ZK2A
n3: Number of I/O units or input block stations

| | Coefficient | | | Reference page |
|---|---|---|---|---|
| | a | b | c | |
| D-sub connector (IP40/Connector entry direction adjustable) | 120.4 | — | 6.1 | 25 |
| D-sub connector (IP67) | 135.2 | — | 4.5 | 27 |
| D-sub connector (IP20/Compact type) | 133.4 | — | 6.1 | 31 |
| Flat ribbon cable (IP40/Connector entry direction adjustable) | 120.4 | — | 6.1 | 34 |
| Flat ribbon cable (IP20/Compact type) | 114.9 | — | 11.2 | 38 |
| Spring type terminal block box | 172.7 | — | — | 47 |
| Terminal block box | 194 | — | — | 51 |
| Lead wire | 141.7 | — | — | 59 |
| Serial transmission: EX600 (M12 connector) | 186.2 | 47 | — | 69 |
| Serial transmission: EX600 (7/8 inch connector) | 202.7 | 47 | — | 70 |
| Serial transmission: EX245 | 217.8 | 54 | — | 75 |
| Serial transmission: EX250 | 186.2 | 21 | — | 81 |
| Serial transmission: EX260 | 133.4 | — | — | 89 |
| Serial transmission: EX120 | 138.5 | — | — | 95 |

| Coefficient | e |
|---|---|
| D side entry | — |
| U side/Both sides entry | 23 |

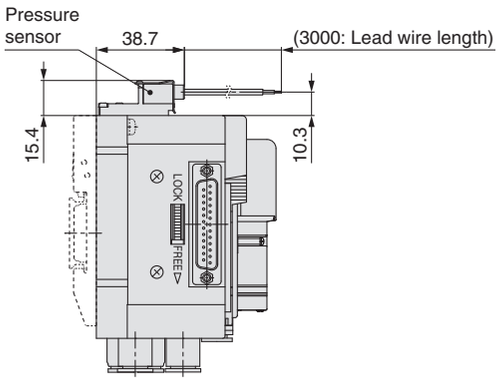
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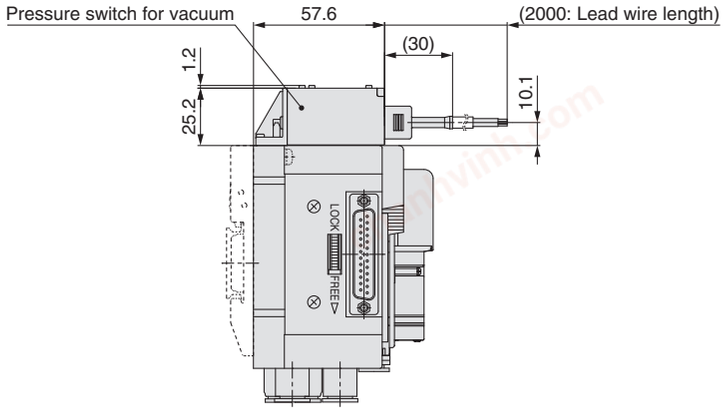
## Dimensions

For details on ejectors, refer to the ZK2□A series in the **Web Catalogue**.

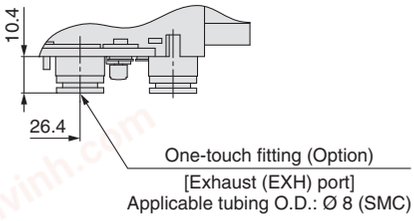
### With pressure sensor



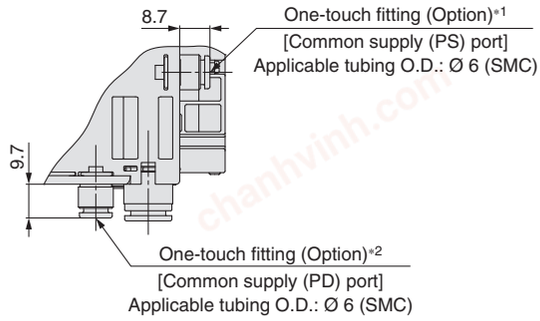

### With pressure switch



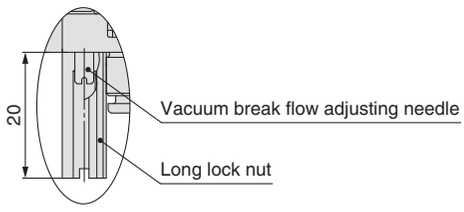

### For port exhaust



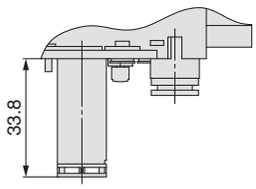

### PS and PD port dimensions




### For the screwdriver operation type long lock nut




### For high-noise reduction silencer exhaust




*1 The common pilot pressure supply (PS) port is only available when manifold option “L” (manifold individual supply specification) is selected.
*2 The common supply (PD) port is only available when manifold option “D” is selected.

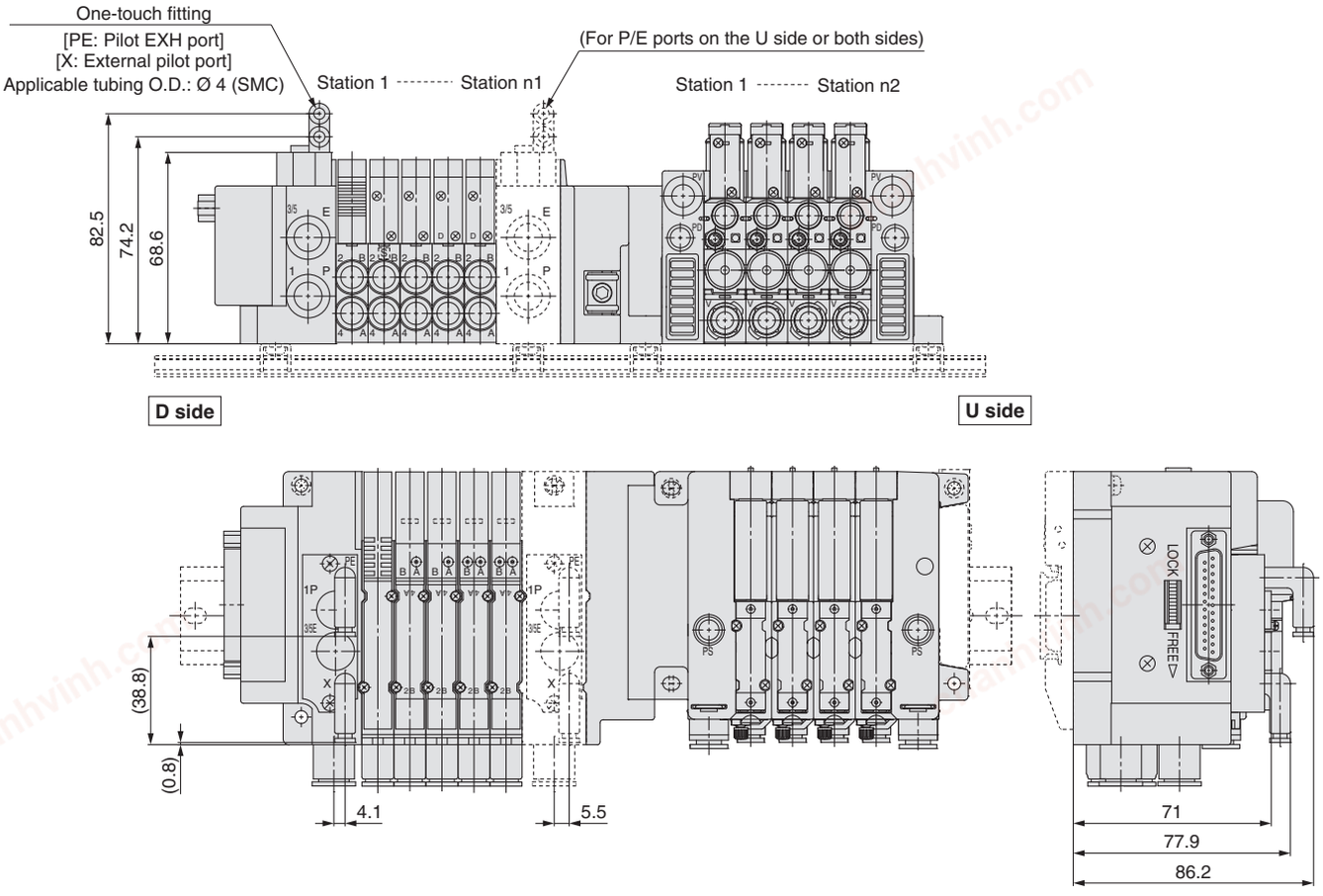
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## Dimensions: JSY3000 Series

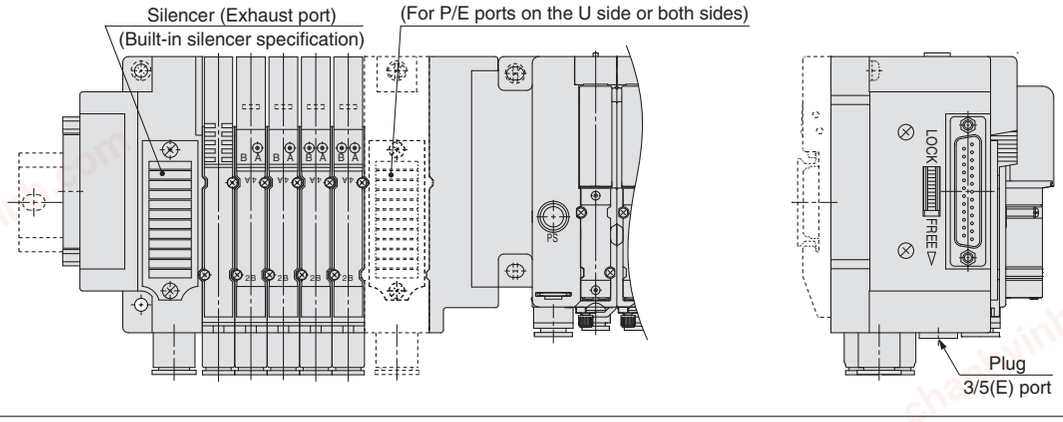
### JJ5SY3-10□- Stations U/D/B (S, R)-M

### ∗ ZZK2 Stations A-A 1/2 S0-□




∗ These figures show the [JJ5SY3-10F2-05DR-C8-M, ∗ ZZK204A-A1S0].

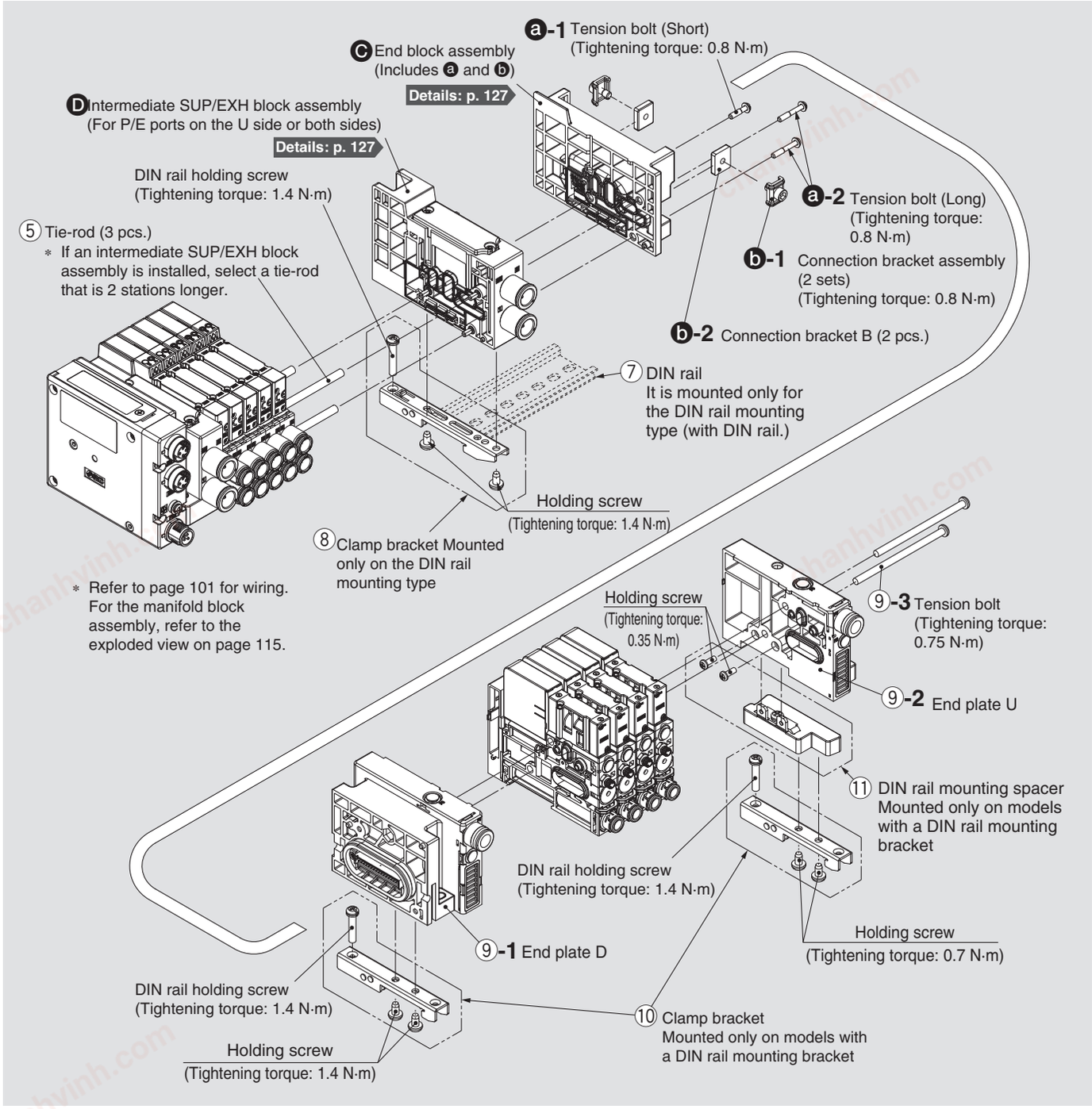
**Built-in silencer**
**<Internal pilot>**



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# *JSY3000 Series*
# ZK2 Combination Manifold Exploded View

## Manifold Exploded View




* For details on the ZK2 ejector unit and replacement parts for the manifold, refer to the ZK2□A series catalogue.

## For the JJ5SY3-10-M (ZZK2□A)

### ⑨ Manifold end plate assembly

The assembly number includes end plate D, end plate U, and a tension bolt assembly.

**ZZK2 [ ] S0 − [ ] − A**

Refer to page 121 for the manifold part number.

**A** ● **Manifold end plate assembly**

| No. | Description | ZK2 | Note |
|---|---|---|---|
| ⑩ | **Clamp bracket** | ZK2-DA5-A | 2 pcs. per set |
| ⑪ | **DIN rail mounting spacer** | ZK2-EU3-A | |

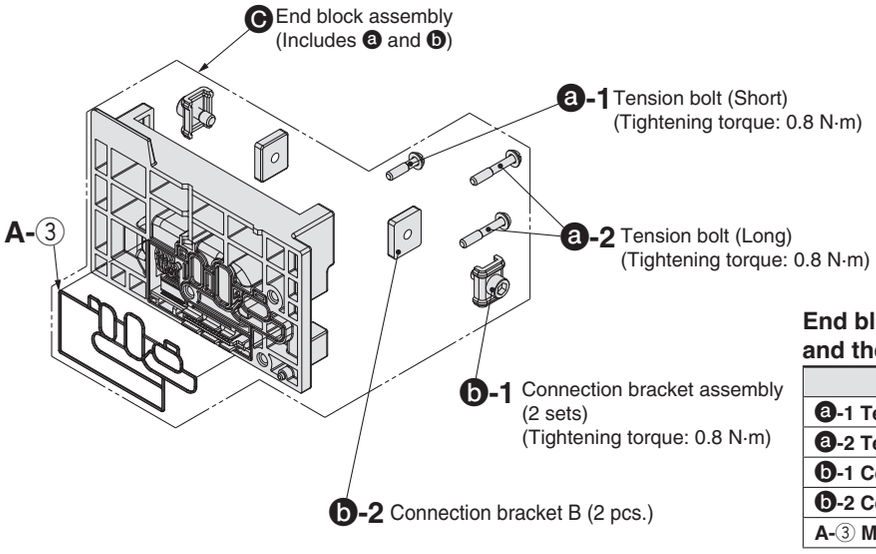
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## Manifold Parts Nos.

### ⓒEnd block assembly

**JSY31M − 3P − 2A**




**End block assembly accessories and the number of accessories**

| Accessories | Quantity |
|---|---|
| **ⓐ-1 Tension bolt (Short)** | 1 pc. |
| **ⓐ-2 Tension bolt (Long)** | 2 pcs. |
| **ⓑ-1 Connection bracket assembly** | 2 sets |
| **ⓑ-2 Connection bracket B** | 2 pcs. |
| **A-③ Manifold block gasket** | 1 pc. |

∗ Gasket is mounted.

### ⓓIntermediate SUP/EXH block assembly

**JSY31M − 125P − 1A □ − C10 □**

**Mounting**

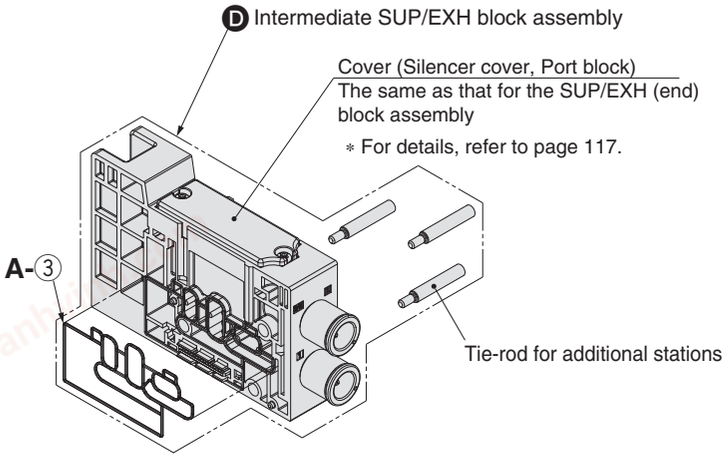
| | |
|---|---|
| **—** | Direct mounting |
| **D0** | DIN rail mounting (Without DIN rail) |

**Pilot, Silencer type**

| Symbol | Pilot type | | Built-in silencer |
|---|---|---|---|
| | Internal | External (Made to Order) | |
| **—** | ● | — | — |
| **S** | ● | — | ● |
| **R** | — | ● | — |

**P, E port size (One-touch fitting)**

| Symbol | P, E port | JSY3000 |
|---|---|---|
| **C10** | Ø 10 One-touch fitting | ● |




**Intermediate SUP/EXH block assembly accessories and the number of accessories**

| Accessories | Quantity |
|---|---|
| **Tie-rod for additional stations** | 3 pcs. |
| **A-③ Manifold block gasket** | 1 pc. |

∗ Gasket is mounted.

### ⑧Clamp bracket

| Series | Part no. |
|---|---|
| **JSY3000** | SY30M-15-1A |

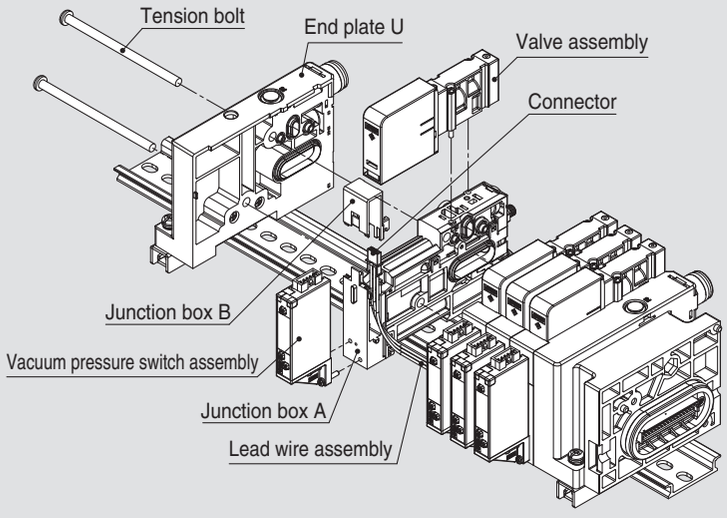
## ⚠Caution

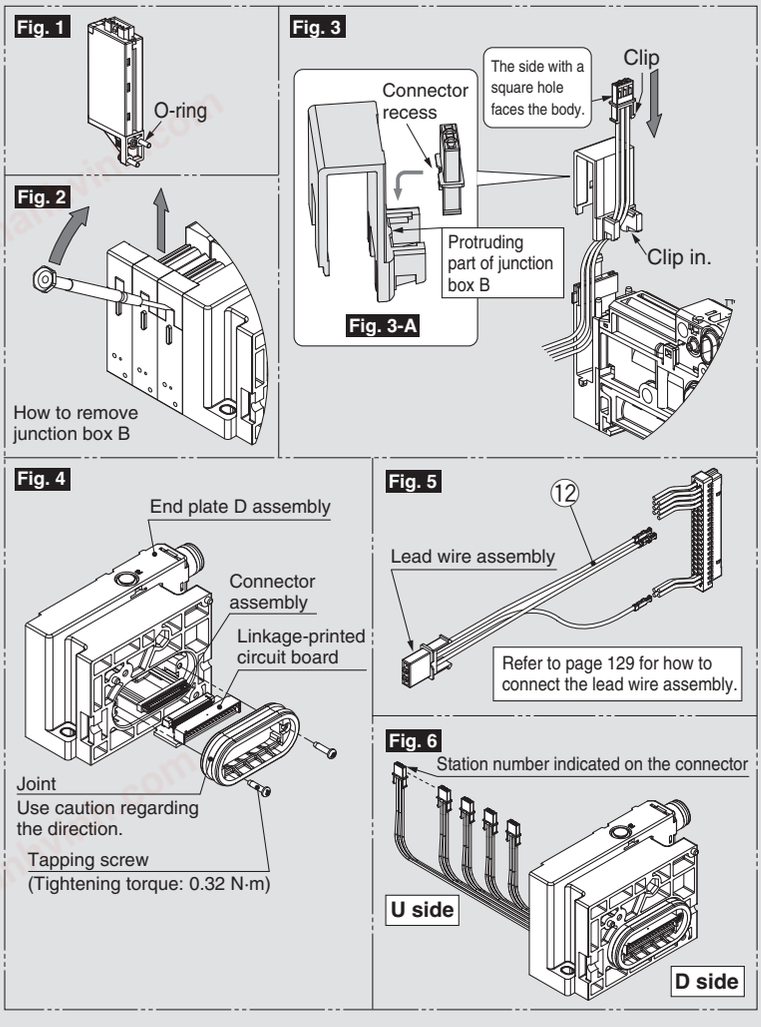
1. Be sure to shut off the power and air supplies before disassembly.
   Furthermore, since air may remain inside the actuator, piping and manifold, confirm that the air is completely exhausted before performing any work.
2. When disassembly and assembly are performed, air leakage may result if the tightening of the cover and port block assemblies are inadequate.

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# JSY3000 Series
# ZK2□A Vacuum Ejector Manifold Exploded View

## How to Increase Manifold Stations




**[To increase the number of stations from an odd number (1, 3, 5, 7) to an even number (2, 4, 6, 8)]**
(Odd numbered stations have a vacant lead wire for one station, so additional orders are not required.)

1) Remove the tension bolt.
2) Remove end plate U.
3) Remove the valve assembly from the single unit for manifold to be added.
4) Remove the switch assembly if there is one. (Be careful not to drop the O-ring. Refer to **Fig. 1**.)
5) Remove junction box B (top) using a precision screwdriver. (Refer to **Fig. 2**.)
6) Mount the extra connector to junction box B. (Refer to **Fig. 3**.) (Engage the recess of the connector and the protruding part of junction box B. Refer to **Fig. 3-A**.)
7) Mount the single unit for manifold to be added to the end surface on the U side.
8) Mount end plate U with tension bolts of the appropriate length for the number of stations required. (Tightening torque: 0.75 N·m)
9) Mount junction box B to junction box A.
10) Mount the valve assembly. (Tightening torque: 0.15 N·m)
11) For products with a switch, mount the switch assembly. (Be careful not to drop the O-ring. Tightening torque: 0.08 to 0.10 N·m)

**[To increase the number of stations from an even number to an odd number or to increase by 2 stations or more]**

1) Remove the valve assemblies from all stations. (Remove from the single units to be added also.)
2) Remove the switch assemblies if there are any. (Be careful not to drop the O-rings. Refer to **Fig. 1**.)
3) Remove junction box B (top) from all stations using a precision screwdriver. (Refer to **Fig. 2**.) (Remove each junction box B from the D side.)
4) Remove all connectors mounted to each junction box B. (Be careful not to break the connector clips.)
5) Remove the tension bolts.
6) Remove the end plate D assembly.
7) Remove the linkage-printed circuit board, and then remove the connector assembly. (Refer to **Fig. 4**.)
8) Connect the lead wire assembly. (Refer to **Fig. 5**.)
9) Remount the connector assembly and linkage-printed circuit board. (Refer to **Fig. 4**.)
10) Remove end plate U. (Be careful not to drop the gasket.)
11) Mount the single units for manifold to be added to the end surface on the U side. (Do not let the gasket get caught.)
12) Mount end plates U and D with tension bolts of the appropriate length for the number of stations required. (Tightening torque: 0.75 N·m)
13) Mount the connectors for all stations to each junction box B. (Refer to **Fig. 3**.) (Engage the recess of the connector and the protruding part of junction box B. Refer to **Fig. 3-A**.)
14) Mount each junction box B to each junction box A.
Push the wires down and mount each junction box B to each junction box A starting with the connector station numbers on the U side. (Refer to **Fig. 6**.) (Do not let the lead wire get caught.)
15) Mount the valve assemblies. (Tightening torque: 0.15 N·m)
16) For products with a switch, mount the switch assemblies. (Be careful not to drop the O-rings. Tightening torque: 0.08 to 0.10 N·m)

### ⑫ Lead wire assembly

**ZK2 – CHS 04 – A**

**Applicable stations**

| | |
|---|---|
| 03 | For 3-station manifold |
| ⋮ | ⋮ |
| 08 | For 8-station manifold |

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## How to Increase Manifold Stations: Vacuum Ejector Manifold for JSY3000

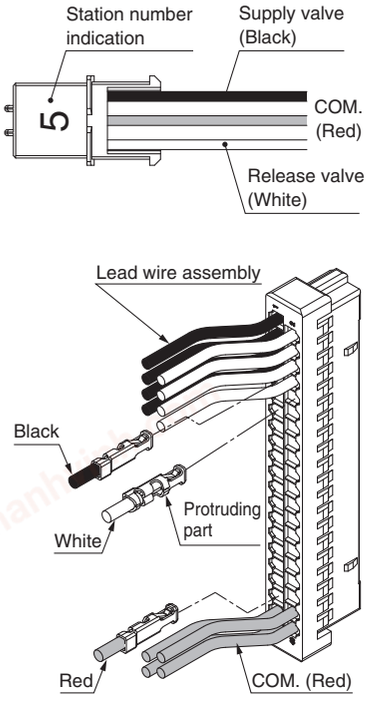
### Connect the lead wire assembly to the positions shown in the diagram below.

**⚠ Caution** 1) After inserting each pin, confirm that the pin is locked by lightly pulling the lead wire.

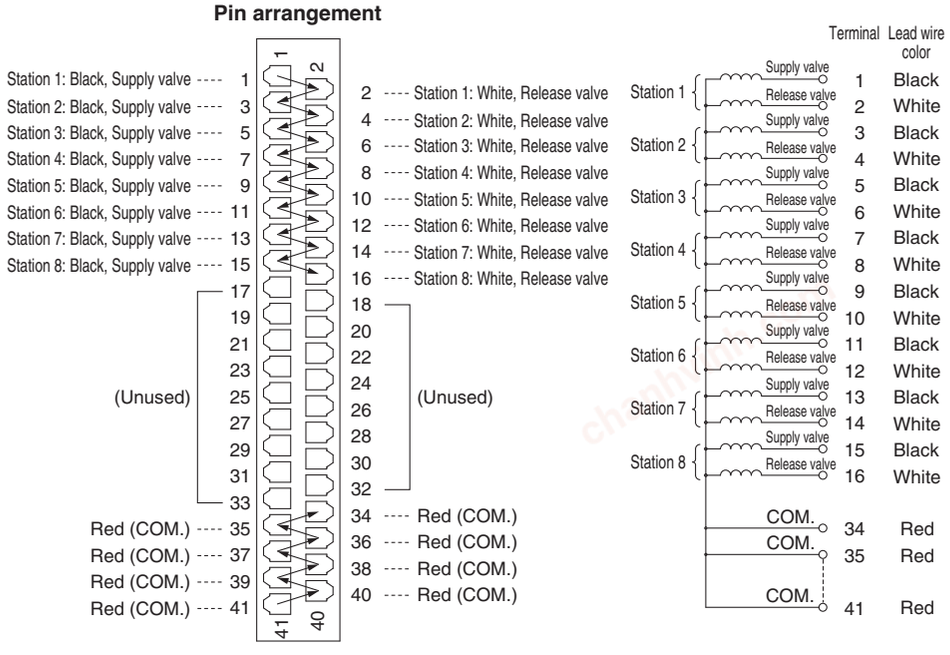
2) Do not pull the lead wire forcefully when connecting. Also, take care that lead wires do not get caught between manifolds when mounting end plates U and D.

### Wiring

Procedure) A station number is indicated on the connector of the lead wire assembly. Refer to the pin arrangement and insert the pins starting with black and then alternating between white and black from the top for the supply valves and the release valves. Also, starting from the bottom, insert the pins according to the corresponding station number for the common.



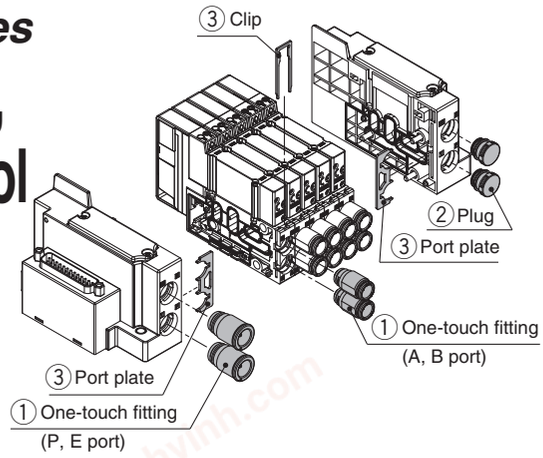

**Pin arrangement**



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# *JSY1000/3000/5000 Series* One-touch Fittings, Plug, Clip, Port Plate, Tube Releasing Tool

Refer to “How to Replace One-touch Fittings” on page 139 for the replacement method.




## ① One-touch Fittings

| Series / Port size | | JSY1000 6.5 mm pitch | JSY1000 9 mm pitch | JSY3000 | JSY5000 | Note |
|---|---|---|---|---|---|---|
| A, B port | Ø 2 | KQSY10-C2 | — | — | — | The part number is for 1 piece. (Sales unit: 10 pcs.) |
| | Ø 4 | KQSY10-C4-X1336 | — | — | — | |
| | Ø 6 | — | KQSY11-C6-X1336 | KQSY30-C6 | — | |
| | Ø 8 | — | | KQSY30-C8-X1336 | — | |
| | Ø 10 | — | | — | KQSY50-C10 | |
| | Ø 12 | — | | — | KQSY50-C12-X1336 | |
| P, E port | Ø 8 | KQSY30-C8-X1336 | | — | — | |
| | Ø 10 | — | | KQSY31-C10-X1336 | — | |
| | Ø 12 | — | | — | KQSY50-C12-X1336 | |

∗ Refer to page 139 for assembling when a fitting is replaced.

## ② Plug

| Series / Piping port | JSY1000 | JSY3000 | JSY5000 | Note |
|---|---|---|---|---|
| P, E port | JSY11M-62P-1A | JSY31M-62P-1A | JSY51M-62P-1A | The part number is for 1 piece. |

∗ A, B port plug does not exist. Use the KQ2P series.

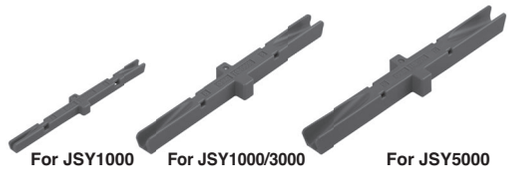
## ③ Clip, Port Plate

| Series / Piping port | JSY1000 For A, B port C2/C4 fittings | JSY1000 For A, B port C6 fittings | JSY3000 | JSY5000 | Note |
|---|---|---|---|---|---|
| A, B port (Clip) | SJ1000-CL-1 | JSY11M-19P-1A | JSY31M-19P-1A | JSY51M-19P-1A | The part number is for 10 pieces. |
| P, E port (Port plate) | JSY11M-10P-1 | | JSY31M-10P-1 | JSY51M-10P-1 | The part number is for 1 piece. |

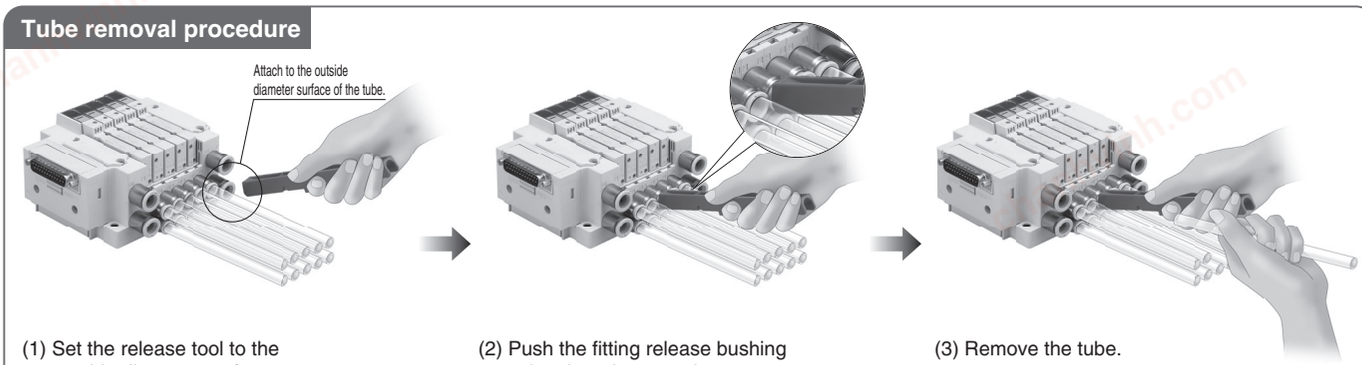
∗ Refer to page 139 for assembling when a fitting is replaced.

## ■ Tube Releasing Tool (This tool can be used to remove tubes from ports A and B.)

| Series | For JSY1000 6.5 mm pitch | For JSY1000 9 mm pitch | For JSY3000 | For JSY5000 |
|---|---|---|---|---|
| Part no. | TG-0204 | TG-0608 | TG-0608 | TG-1012 |
| Applicable tubing O.D. | Ø 2/Ø 4 | Ø 6 | Ø 6/Ø 8 | Ø 10/Ø 12 |




### Tube removal procedure




(1) Set the release tool to the outside diameter surface.

(2) Push the fitting release bushing using the release tool.

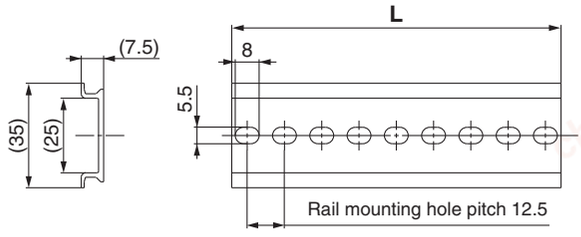
(3) Remove the tube.

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# JSY1000/3000/5000 Series
# Manifold Options

## ■ DIN rail dimensions/weight for the JSY1000/3000 Plug-in connector connecting base
## VZ1000-11-1-□

∗ After confirming the L3 dimension in the dimensions table of each series, refer to the DIN rail dimensions table below and specify the number in the box □.




| No. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L dimension | 98 | 110.5 | 123 | 135.5 | 148 | 160.5 | 173 | 185.5 | 198 | 210.5 | 223 | 235.5 | 248 | 260.5 | 273 | 285.5 | 298 | 310.5 | 323 |
| Weight [g] | 17.6 | 19.9 | 22.1 | 24.4 | 26.6 | 28.9 | 31.1 | 33.4 | 35.6 | 37.9 | 40.1 | 42.4 | 44.6 | 46.9 | 49.1 | 51.4 | 53.6 | 55.9 | 58.1 |

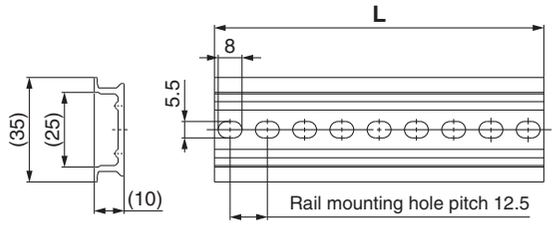
| No. | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L dimension | 335.5 | 348 | 360.5 | 373 | 385.5 | 398 | 410.5 | 423 | 435.5 | 448 | 460.5 | 473 | 485.5 | 498 | 510.5 | 523 | 535.5 | 548 | 560.5 |
| Weight [g] | 60.4 | 62.5 | 64.9 | 67.1 | 69.4 | 71.6 | 73.9 | 76.1 | 78.4 | 80.6 | 82.9 | 85.1 | 87.4 | 89.6 | 91.9 | 94.1 | 96.4 | 98.6 | 100.9 |

| No. | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L dimension | 573 | 585.5 | 598 | 610.5 | 623 | 635.5 | 648 | 660.5 | 673 | 685.5 | 698 | 710.5 | 723 | 735.5 | 748 | 760.5 | 773 | 785.5 | 798 |
| Weight [g] | 103.1 | 105.4 | 107.6 | 109.9 | 112.1 | 114.4 | 116.6 | 118.9 | 121.1 | 123.4 | 125.6 | 127.9 | 130.1 | 132.4 | 134.6 | 136.9 | 139.1 | 141.4 | 143.6 |

| No. | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L dimension | 810.5 | 823 | 835.5 | 848 | 860.5 | 873 | 885.5 | 898 | 910.5 | 923 | 935.5 | 948 | 960.5 | 973 | 985.5 |
| Weight [g] | 145.9 | 148.1 | 150.4 | 152.6 | 154.9 | 157.1 | 159.4 | 161.6 | 163.9 | 166.1 | 168.4 | 170.6 | 172.9 | 175.1 | 177.4 |

## ■ DIN rail dimensions/weight for the JSY5000 Plug-in connector connecting base
## VZ1000-11-4-□

∗ After confirming the L3 dimension in the dimensions table of each series, refer to the DIN rail dimensions table below and specify the number in the box □.




| No. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L dimension | 98 | 110.5 | 123 | 135.5 | 148 | 160.5 | 173 | 185.5 | 198 | 210.5 | 223 | 235.5 | 248 | 260.5 | 273 | 285.5 | 298 | 310.5 | 323 |
| Weight [g] | 24.8 | 28 | 31.1 | 34.3 | 37.4 | 40.6 | 43.8 | 46.9 | 50.1 | 53.3 | 56.4 | 59.6 | 62.7 | 65.9 | 69.1 | 72.2 | 75.4 | 78.6 | 81.7 |

| No. | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L dimension | 335.5 | 348 | 360.5 | 373 | 385.5 | 398 | 410.5 | 423 | 435.5 | 448 | 460.5 | 473 | 485.5 | 498 | 510.5 | 523 | 535.5 | 548 | 560.5 |
| Weight [g] | 84.9 | 88 | 91.2 | 94.4 | 97.5 | 100.7 | 103.9 | 107 | 110.2 | 113.3 | 116.5 | 119.7 | 122.8 | 126 | 129.2 | 132.3 | 135.5 | 138.6 | 141.8 |

| No. | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L dimension | 573 | 585.5 | 598 | 610.5 | 623 | 635.5 | 648 | 660.5 | 673 | 685.5 | 698 | 710.5 | 723 | 735.5 | 748 | 760.5 | 773 | 785.5 | 798 |
| Weight [g] | 145 | 148.1 | 151.3 | 154.5 | 157.6 | 160.8 | 163.9 | 167.1 | 170.3 | 173.4 | 176.6 | 179.8 | 182.9 | 186.1 | 189.2 | 192.4 | 195.6 | 198.7 | 201.9 |

| No. | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L dimension | 810.5 | 823 | 835.5 | 848 | 860.5 | 873 | 885.5 | 898 | 910.5 | 923 | 935.5 | 948 | 960.5 | 973 | 985.5 |
| Weight [g] | 205.1 | 208.2 | 211.4 | 214.5 | 217.7 | 220.9 | 224 | 227.2 | 230.4 | 233.5 | 236.7 | 239.8 | 243 | 246.2 | 249.3 |

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**⚠ Caution**

| Tightening torque for mounting screw |
|---|
| M1.4: 0.06 N·m (JSY1000) |
| M2: 0.16 N·m (JSY3000) |
| M3: 0.8 N·m (JSY5000) |

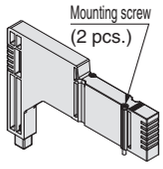
## Manifold Options

* Refer to page 134 for dimensions.

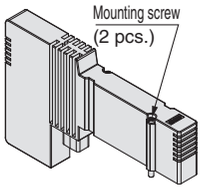
### ■ Blanking plate

[With two mounting screws]

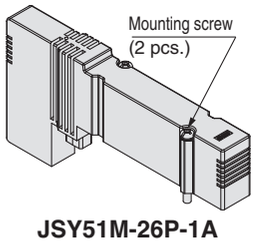
Used when valve additions are expected or for maintenance




JSY11M-26P-1A




JSY31M-26P-1A

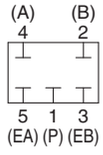



JSY51M-26P-1A

**JSY 3 1M – 26P – 1A**

**Series**

| | |
|---|---|
| 1 | JSY1000 |
| 3 | JSY3000 |
| 5 | JSY5000 |

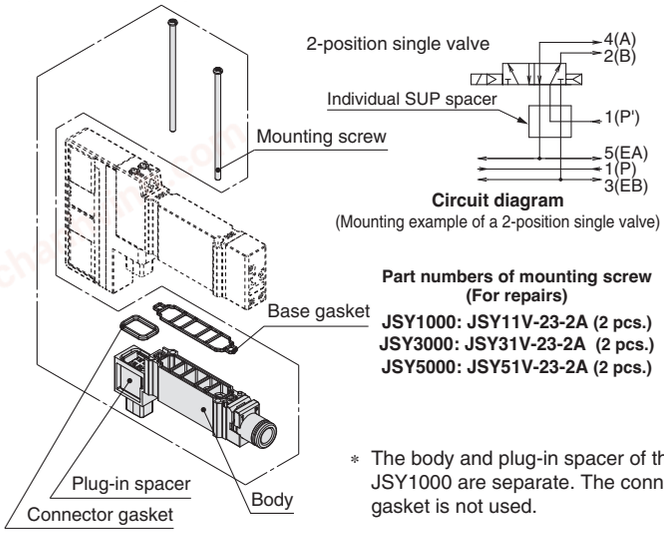



**Circuit diagram**

### ■ Individual SUP spacer

[With a connector gasket, a base gasket, and two mounting screws]

When the same manifold is to be used for different pressures, an individual SUP spacer assembly can be used to act as a supply port for different pressures.




**Circuit diagram**
(Mounting example of a 2-position single valve)

**Part numbers of mounting screw (For repairs)**

**JSY1000: JSY11V-23-2A (2 pcs.)**
**JSY3000: JSY31V-23-2A (2 pcs.)**
**JSY5000: JSY51V-23-2A (2 pcs.)**

* The body and plug-in spacer of the JSY1000 are separate. The connector gasket is not used.

**JSY 3 1M – 38 P – 1A – C6**

**Spacer type**

| | |
|---|---|
| 38 | Individual SUP spacer |
| 39 | Individual EXH spacer |

**Series**

| | |
|---|---|
| 1 | JSY1000 |
| 3 | JSY3000 |
| 5 | JSY5000 |

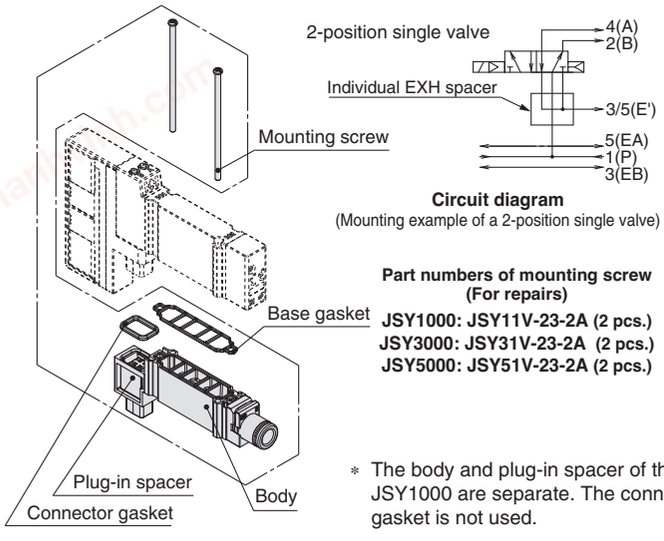
**Port size (One-touch fittings)**

| Symbol | P, E port | JSY1000 | JSY3000 | JSY5000 |
|---|---|---|---|---|
| C4 | Ø 4 One-touch fitting | ● | — | — |
| C6 | Ø 6 One-touch fitting | — | ● | — |
| C8 | Ø 8 One-touch fitting | — | — | ● |
| C10 | Ø 10 One-touch fitting | — | — | ● |
| C12 | Ø 12 One-touch fitting | — | — | ● |

### ■ Individual EXH spacer

[With a connector gasket, a base gasket, and two mounting screws]

When valve exhaust affects other stations due to the circuit configuration, this spacer can be used for individual valve exhaust.




**Circuit diagram**
(Mounting example of a 2-position single valve)

**Part numbers of mounting screw (For repairs)**

**JSY1000: JSY11V-23-2A (2 pcs.)**
**JSY3000: JSY31V-23-2A (2 pcs.)**
**JSY5000: JSY51V-23-2A (2 pcs.)**

* The body and plug-in spacer of the JSY1000 are separate. The connector gasket is not used.

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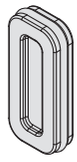


## Manifold Options

### ■ SUP/EXH blocking disk

**[SUP blocking disk]**
Inserting an SUP blocking disk in the pressure supply passage of a manifold valve can allow for the use of 2 different pressures (high and low) in 1 manifold.

**[EXH blocking disk]**
Inserting an EXH blocking disk in the exhaust passage of a manifold valve can separate the exhaust from the valve so it does not affect the other valves. It can also be used in positive pressure and vacuum pressure mixed manifolds. (2 pieces are required to block both the EA and EB sides of the EXH.)

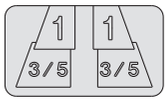


| Series | SUP blocking disk | EXH blocking disk |
|---|---|---|
| **JSY1000** | JSY11M-40P-1A | JSY11M-40P-1A |
| **JSY3000** | JSY31M-40P-1A | JSY31M-40P-2A |
| **JSY5000** | JSY51M-40P-1A | JSY51M-40P-1A |

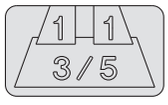
### ■ Labels for blocking disks

These labels can be used to indicate and confirm where on the manifold the SUP/EXH blocking disk assemblies were inserted. (3 labels of each)

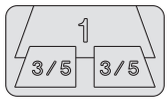
**SUP/EXH blocking disk label**




**SUP blocking disk label**

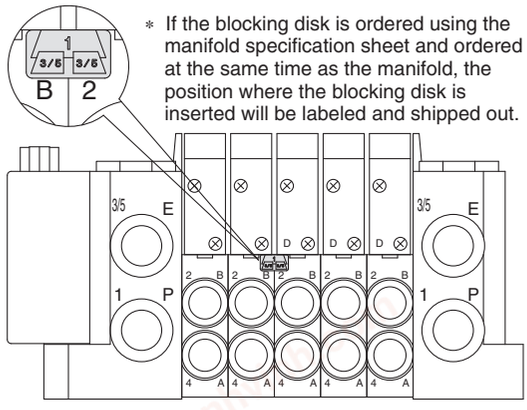



**EXH blocking disk label**




| Series | Part no. |
|---|---|
| **JSY1000** | SJ3000-155-1A |
| **JSY3000** | |
| **JSY5000** | |

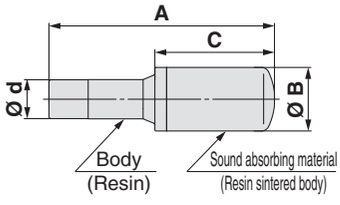
∗ If the blocking disk is ordered using the manifold specification sheet and ordered at the same time as the manifold, the position where the blocking disk is inserted will be labeled and shipped out.




### ■ Silencer (One-touch fitting connection type)

This silencer can be mounted to the 3/5 (E: EXH) port of the manifold in one step.

∗ Shipped together with the product




| Series (Ø **d**) | Model | Effective area | **A** | **B** | **C** |
|---|---|---|---|---|---|
| For JSY1000 (Ø 8) | **AN15-C08** | 20 mm² | 45 | 13 | 20 |
| For JSY3000 (Ø 10) | **AN20-C10** | 30 mm² | 57.5 | 16.5 | 30.5 |
| For JSY5000 (Ø 12) | **AN30-C12** | 41 mm² | 71.5 | 20 | 43.5 |

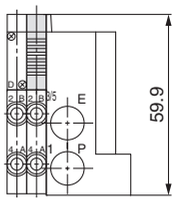
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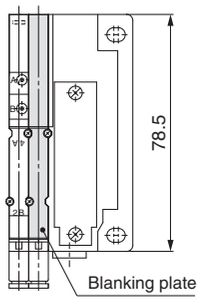


## Dimensions: Manifold Options

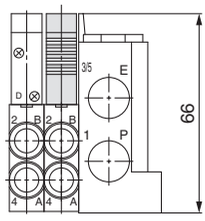
### ■ Blanking plate

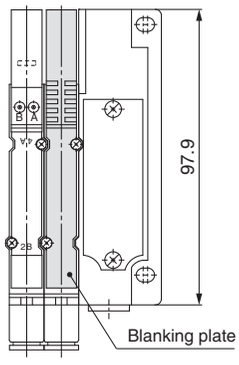
#### JSY1000 series



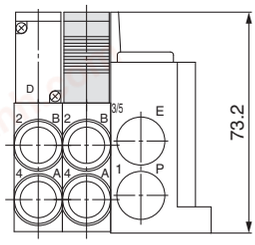



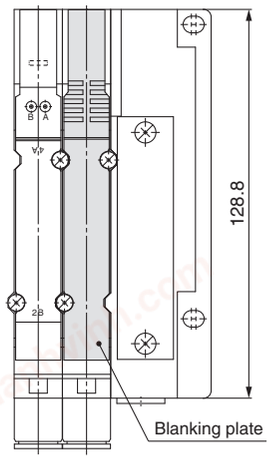

#### JSY3000 series



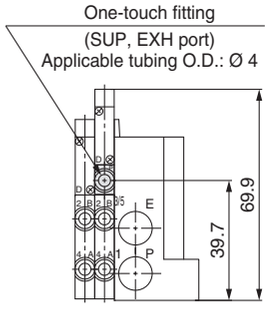

#### JSY5000 series

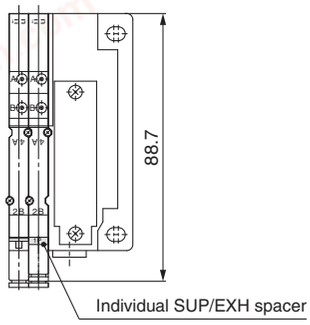


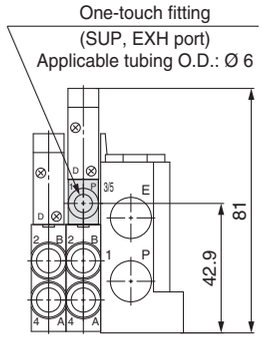

### ■ Individual SUP/EXH spacer

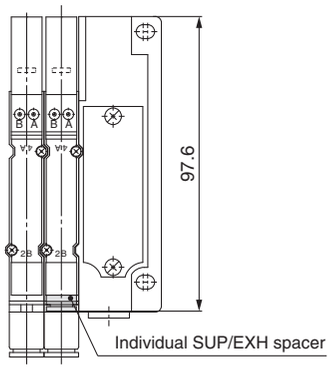
#### JSY1000 series



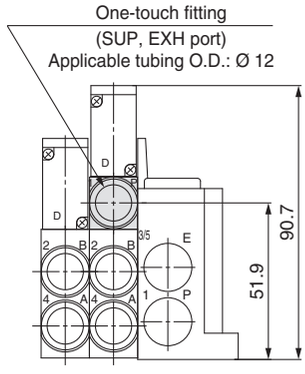



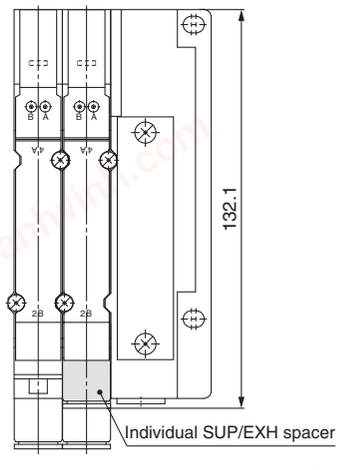

#### JSY3000 series




#### JSY5000 series



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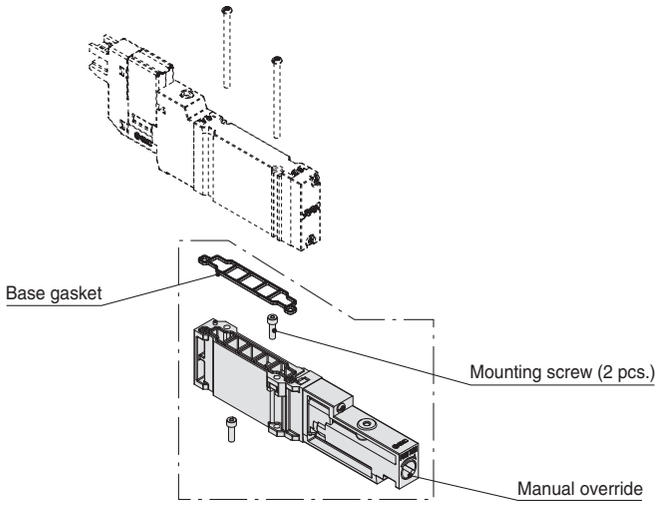
## Manifold Options

**⚠ Caution**

| Tightening torque for mounting screw |
|---|
| M1.4: 0.06 N·m (JSY1000) |

### ■SUP stop valve spacer with residual pressure release valve

[With a base gasket and two mounting screws]
It is used to shut off the supply air to valves individually.




| Part numbers of mounting screw (For repairs) |
|---|
| **JSY1000: Z2-SR1-A** (10 pcs.) |

**[How to mount SUP stop valve spacer with residual pressure release valve]**
Mount the base gasket (manifold part) to the SUP stop valve manifold base side. Insert the SUP stop valve mounting screw into the spacer screw hole, and mount it to the manifold base.
Tighten the SUP stop valve mounting screw to the specified tightening torque. After mounting the SUP stop valve spacer with a residual pressure release valve, mount the valve and tighten the valve mounting screws to the specified tightening torque.

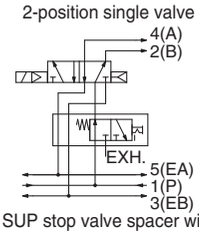
- Be aware that the square nut may come off. If the square nut comes off, attach it to the spacer as shown in the drawing.
- Tightening with a hexagon wrench is possible with the square nut attached.
- This product is only for internal pilot specifications, as the external pilot air cannot be shut off.
- If the product is equipped with a 3-position closed center, residual pressure cannot be released, so use in combination with a 3-port valve, which can be connected to the 4(A), 2(B) piping port.
- Note that other spacer combinations are not possible.

- Only compatible when the JSY1000 series 4(A), 2(B) ports are port size M5 or KC6

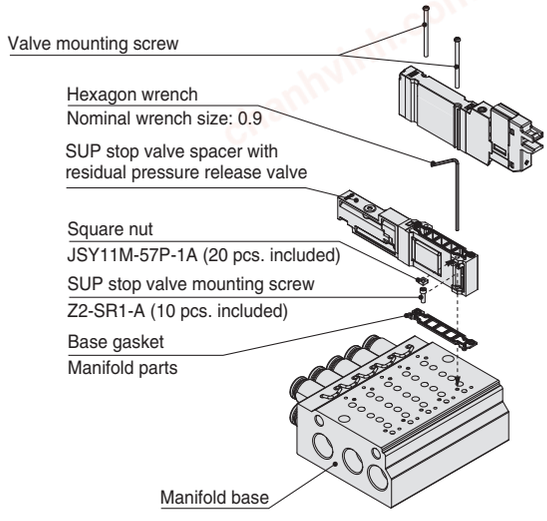
### JSY11M-50-1A

| Manual override | Push-turn locking slotted type |
|---|---|

- If you want to lock the manual override, push it down until it stops, and then turn it 90° clockwise. Be careful to avoid turning it without pushing it all the way down as this may result in spacer damage, air leakage, or another form of malfunction.
  To release the manual override, turn it counterclockwise. When turning the manual override, do not apply more torque than necessary. (0.1 N·m)




SUP stop valve spacer with residual pressure release valve
**Circuit diagram**
(Mounting example of a 2-position single valve)




| Model | Port size | | Flow rate characteristics | | | |
|---|---|---|---|---|---|---|
| | 1, 5, 3 (P, EA, EB) | 4, 2 (A, B) | 1→4/2(P→A/B) | | 4/2 →5/3(A/B→E) | |
| | | | C [dm³/(s·bar)] | b | C [dm³/(s·bar)] | b |
| **JSY11M-50-1A** | 1/8 | KC6 | 0.52 | 0.26 | 0.61 | 0.23 |

- Calculation of effective area S and sonic conductance C: S = 5.0 x C
- The value is for manifold base with 5 stations and individually operated 2-position type.
- When the manifold is the metal base side ported type (type 40)

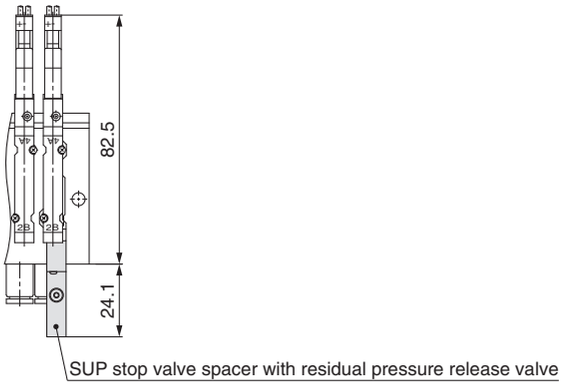
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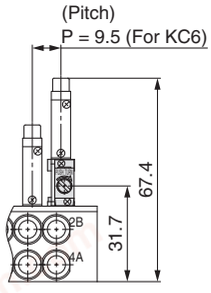


## Dimensions: Manifold Options

### ■ SUP stop valve spacer with residual pressure release valve

* Only compatible when the JSY1000 series 4(A), 2(B) ports are port size M5 or KC6

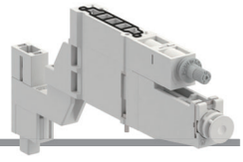



**<Type 40>**

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# JSY1000 Series



## Manifold Option How to Order Spacer Type Ejector (With mounting screw)

**Spacer Type Ejector** **JSY11M-EP-3A-07S C6-N**

❶ ❷ ❸ ❹ ❺ ❻

### ❶ Optional specifications

| | |
|---|---|
| E | Spacer type ejector |

### ❷ Body type

| Symbol | Body type |
|---|---|
| 1 | Supply valve (N.C.) |
| 2 | Supply valve (N.O.) |
| 3 | Supply valve (N.C.)/Release valve (N.C.) |

### ❸ Nominal nozzle size

| | |
|---|---|
| 07 | Ø 0.7 |
| 10 | Ø 1.0 |

### ❹ Achievable vacuum pressure

| | |
|---|---|
| S | –90 kPa |

### ❺ Exhaust type

| Symbol | Exhaust type | Element |
|---|---|---|
| — | Silencer | Without |
| C6 | Ø 6 One-touch fitting | — |

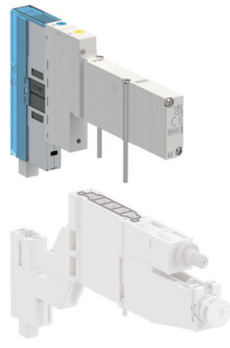
### ❻ Vacuum break flow adjusting unit

| | |
|---|---|
| — | Without |
| N | With (Only with body model "3" Release valve) |

**Spacer Type Ejector is connection to both A port and B port. (See p. 134-6 circuit diagram). One of them can be connected to vacuum pad and the other to pressure switch without a branch piping to manifold. When only one of them is turned piping, be sure to turn plug the unused port.**

* Refer to “Ejector Specifications” on page 134-4 for the max. number of ejector stations that can operate simultaneously.

**The following solenoid is recommended for mounting of spacer type ejector.**



### Ejector Supply Valve/Release Valve

**JSY1000 Series** **JSY1300T-5Z**

❶ ❷ ❸ ❹ ❺ ❻

Base mounted ● With power-saving circuit

### ❶ Series

| | |
|---|---|
| 1 | JSY1000 |

### ❷ Type of actuation

| Symbol | Type of actuation | | Applicable spacer type ejector body type symbol |
|---|---|---|---|
| 1 | 2-position | Single | 1, 2 |
| 2 | | Double | |
| 3 | 3-position | Closed center | 3 |

### ❸ Pilot valve exhaust method

| | |
|---|---|
| 0 | Pilot valve individual exhaust |

### ❹ Rated voltage

| | |
|---|---|
| 5 | 24 VDC |

### ❺ Light/surge voltage suppressor and common specification

| Symbol | With light | Surge voltage suppressor | Common specification |
|---|---|---|---|
| Z | ● | ● | Positive common |
| NZ | | | Negative common |

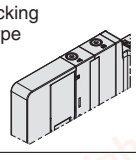
* When SI unit is used
Select a valve from Z when the SI Unit output polarity is — (positive common).
Select a valve from NZ when the SI Unit output polarity is N (negative common).

### Made to Order

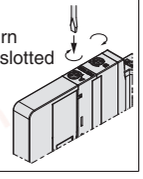
| Specifications |
|---|
| External pilot |

### ❻ Manual override

—: Non-locking push type



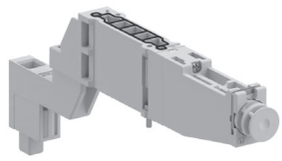
D: Push-turn locking slotted type



* **When ordering a valve individually, the base gasket is not included.**
Since the base gasket is attached to the ejector, please order the base gasket separately if it is needed for maintenance. Refer to page 116 for base gasket and mounting screw part numbers.

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# *JSY1000 Series*
# Spacer Type Ejector



## Ejector Specifications*1, *2

| Model | Standard supply pressure [MPa] | Nominal nozzle size [mm] | Supply pressure range [MPa] | Achievable vacuum pressure [kPa] | Max. suction flow [L/min (ANR)] | Air consumption [L/min (ANR)] | Noise level*3, *4 [dB (A)] |
|---|---|---|---|---|---|---|---|
| | | | | Type S | Type S | | |
| **JSY11M-EP-□A-07S□** | 0.45 | 0.7 | 0.1 to 0.6 | –90 | 11.5 | 27 | 68 |
| **JSY11M-EP-□A-10S□** | | 1.0 | | | 21 | 52 | 80 |

*1 The values indicating characteristics are representative values and may vary depending on the atmospheric pressure (weather, altitude, etc.).
*2 Value at supply pressure.
*3 Actual values under SMC's measurement conditions (Not guaranteed values)
*4 This is a value obtained with a single ejector performing vacuum suction in the silencer air discharge system.

## Max. Number of Manifold Stations that Can Operate Simultaneously [units]

| Model | Max. number of manifold stations that can operate simultaneously [units]*1, *2, *3 | |
|---|---|---|
| | U or D side Air supply to one side | U and D side Air supply to both sides |
| **JSY11M-EP-□A-07S□** | 8 | 12 |
| **JSY11M-EP-□A-10S□** | 2 | 4 |

*1 Value at supply pressure.
*2 Actual values under SMC's measurement conditions (Not guaranteed values)
*3 This is the maximum number of stations that can simultaneously operate when vacuum is simultaneously generated by the ejectors only (excluding the solenoid valve for actuator).
When a solenoid valve for actuator and a spacer type ejector are mounted on the same manifold, simultaneously operating them may affect each other and degrade their performances.
As a countermeasure against this problem, by using a single SUP spacer (mountable only on the solenoid valve for actuator) and a SUP blocking disk, separate air supply to those components (refer to pages 132 and 133).

## Weight

| Spacer type Ejector model | Exhaust type | Vacuum break flow adjusting unit | Weight [g] |
|---|---|---|---|
| **JSY11M-EP-□A-□S** | Silencer exhaust | Without | 16 |
| **JSY11M-EP-□A-□SC6** | Ø 6 One-touch fitting | | 20 |
| **JSY11M-EP-□A-□S-N** | Silencer exhaust | With | 23 |
| **JSY11M-EP-□A-□SC6-N** | Ø 6 One-touch fitting | | 27 |

## Solenoid Valve (Supply Valve/Release Valve) Flow Rate Characteristics

| Valve model | Port size | | Valve flow rate characteristics | | |
|---|---|---|---|---|---|
| | 1, 3/5 (P, E) | 4, 2 (A, B) | Passage | C [dm³/(s·bar)] | b |
| **JSY1100 JSY1200** | C8 | C6 | 1 →4/2 (P →A/B) | 0.96 | 0.30 |
| | | | 4/2 →3/5 (A/B →E) | 0.91 | 0.48 |
| **JSY1300** | | | 1 →4/2 (P →A/B) | 0.64 | 0.37 |
| | | | 4/2 →3/5 (A/B →E) | 0.66 | 0.46 |

* Calculation of effective area S and sonic conductance C: S = 5.0 x C
* Values measured in accordance with ISO 6358:1989, JIS B 8390:2000
* Characteristics in solenoid valve JSY1000 series single unit.

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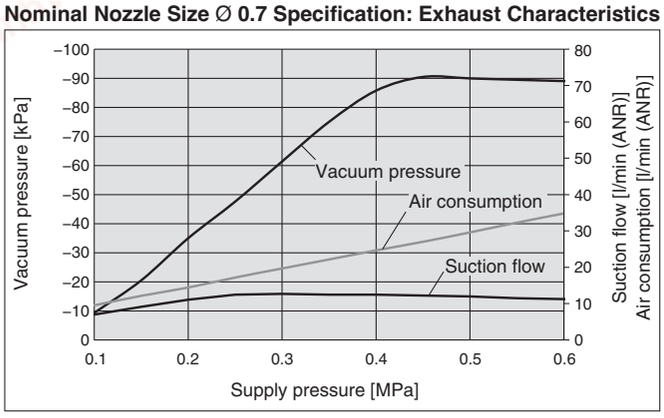


## Exhaust Characteristics/Flow Rate Characteristics

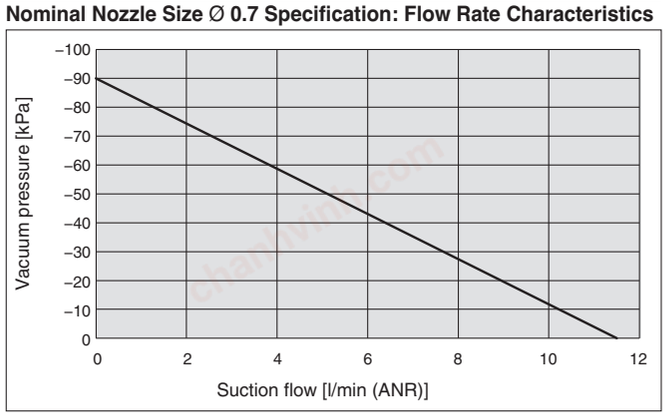
(Exhaust characteristics: Supply pressure 0.45 MPa)

### JSY11M-EP-□A-07S□-□

**Nominal Nozzle Size Ø 0.7 Specification: Exhaust Characteristics**

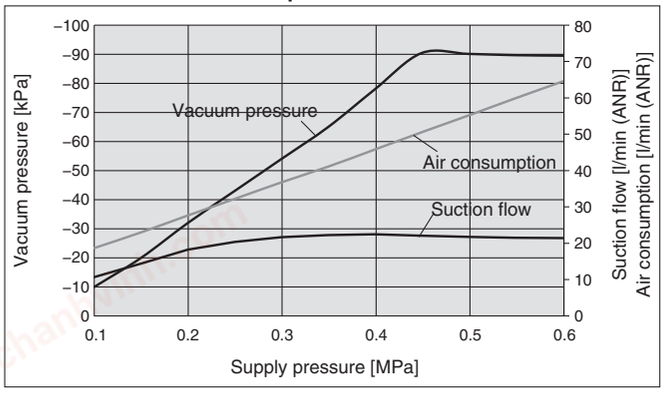



**Nominal Nozzle Size Ø 0.7 Specification: Flow Rate Characteristics**

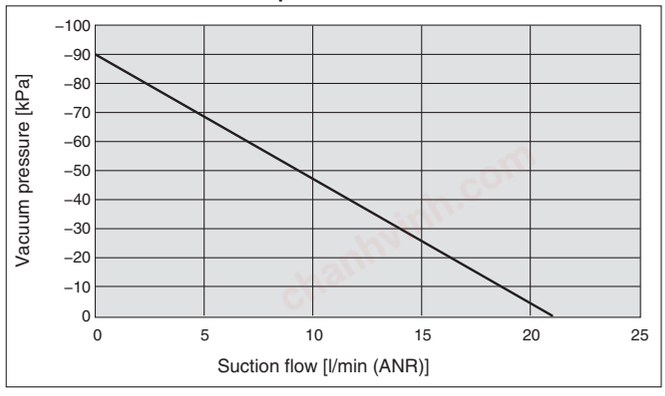



### JSY11M-EP-□A-10S□-□

**Nominal Nozzle Size Ø 1.0 Specification: Exhaust Characteristics**



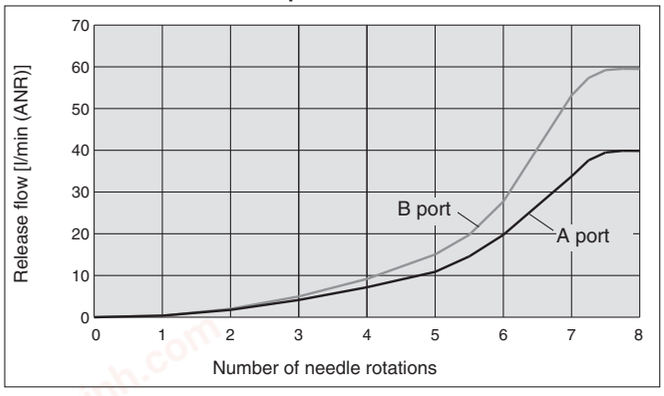

**Nominal Nozzle Size Ø 1.0 Specification: Flow Rate Characteristics**



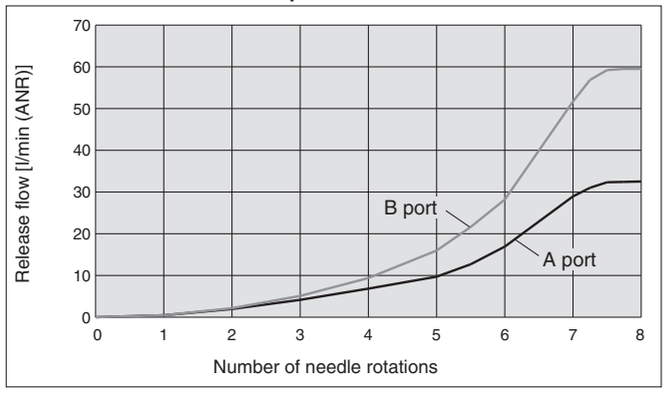

## Release Flow Rate Characteristics

The graph when vacuum release flow adusting needle is from fully closed to open in supply pressure 0.45 MPa.

**Nominal Nozzle Size Ø 0.7 Specification**




**Nominal Nozzle Size Ø 1.0 Specification**

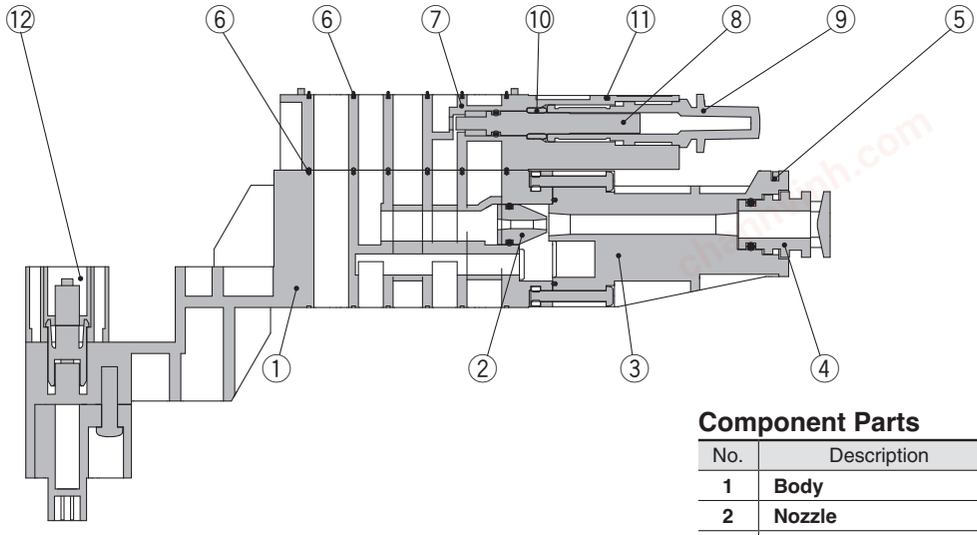



It is the vacuum release flow rate from one of the two vacuum port (A, B port). The other is turned plug.

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## Construction

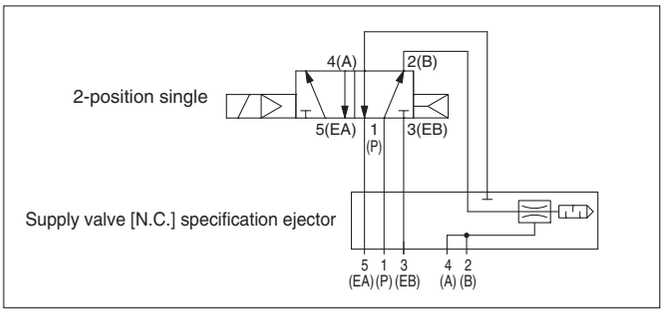



### Component Parts

| No. | Description | Material |
|---|---|---|
| 1 | **Body** | Resin |
| 2 | **Nozzle** | Resin |
| 3 | **Diffuser** | Resin |
| 4 | **Silencer** | Resin |
| 5 | **Clip** | Stainless steel |
| 6 | **Base gasket** | HNBR |
| 7 | **Needle block** | Resin |
| 8 | **Needle** | Resin |
| 9 | **Knob** | Resin |
| 10 | **Needle guide** | Brass |
| 11 | **Lock pin** | Stainless steel |
| 12 | **Plug-in spacer** | Resin |
| — | **O-ring** | NBR |

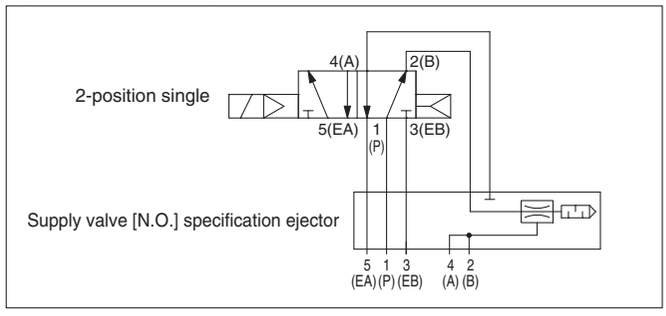
## Circuit Diagrams

**JSY11M-EP-1A-□S□**



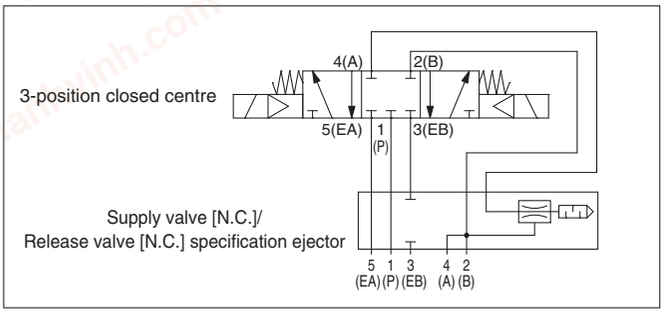

∗ The valves in the above circuit diagram are examples.

**JSY11M-EP-2A-□S□**

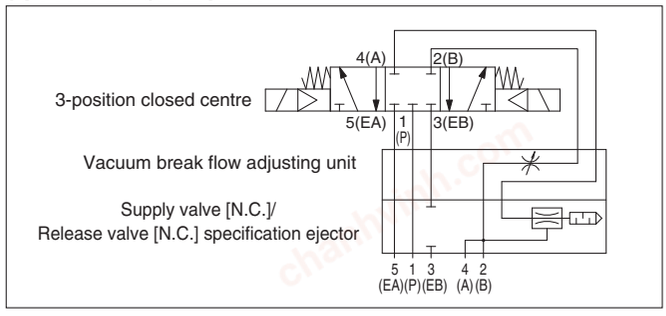



∗ The valves in the above circuit diagram are examples.

**JSY11M-EP-3A-□S□**




**JSY11M-EP-3A-□S□-N**



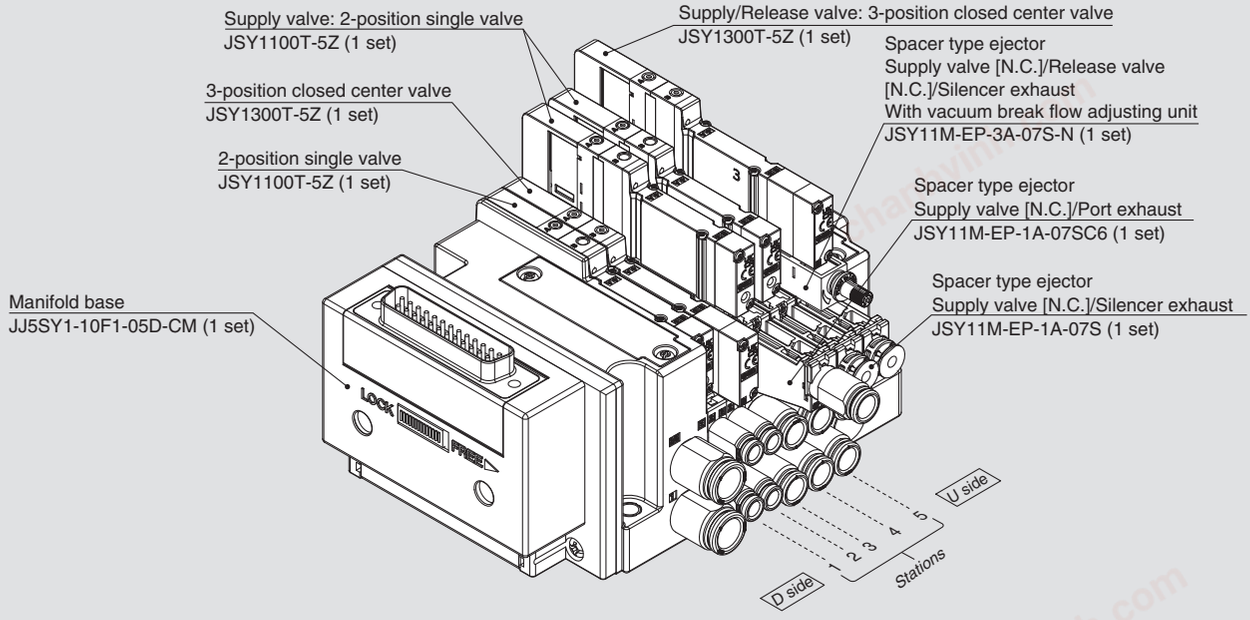
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## How to Order Manifold Assembly (When mixed manifold block range 6.5 mm/9 mm is used)

### Example (JJ5SY1-10F1-□-CM)

∗ Manifold model JJ5SY1-10□-□-C2/C4 cannot be equipped with spacer type ejector.




**JJ5SY1-10F1-05D-CM····· 1 set (Type10 5stations manifold base product number/manifold block width mixed specifications)**

∗ **JSY1100T-5Z····· 1 set (2-position single valve)**
∗ **JSY1300T-5Z ····· 1 set (3-position closed center)**
∗ **JSY1100T-5Z····· 1 set (Supply valve: 2-position single valve)**
∗ **JSY11M-EP-1A-07SC6 ····· 1 set (Spacer type ejector: Supply valve [N.C.]/Port exhaust)**
∗ **JSY1100T-5Z····· 1 set (Supply valve: 2-position single valve)**
∗ **JSY11M-EP-1A-07S····· 1 set (Spacer type ejector: Supply valve [N.C.]/Silencer exhaust)**
∗ **JSY1300T-5Z ····· 1 set (Supply/Release valve: 3-position closed center valve)**
∗ **JSY11M-EP-3A-07S-N····· 1 set (Spacer type ejector: Supply valve [N.C.]/Release valve [N.C.]/Silencer exhaust: With vacuum break flow adjusting unit)**

∗ **Manifold specification sheet is required.**

→ **The asterisk denotes the symbol for the assembly.**
∗ **Prefix the product number of the mounted valve or spacer type ejector with "∗."**

· For the valve arrangement, the valves closest to the D side are considered the 1st stations respectively.
· Below the manifold part number, write down the valves and spacer type ejectors to be mounted in order from the first station as shown in the figure.
· Write down spacer type ejectors next to the valves they are to be combined with.
· Spacer type ejector can only be mounted on 9 mm wide manifold block.
· If the layout is complicated or you want to specify a desired layout, please specify it by means of the manifold specification sheet.

### Example of Manifold Specification Sheet Entry

| | | | D side | 1 | 2 | 3 | 4 | 5 | 6 | 24 | U side |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Valve model | Type of actuation | (J) JSY1000 series | | 1 | 3 | | | | | | |
| | | (K) Ejector Supply/Release valve | | | | 1 | 1 | 3 | | | |
| | (L) Internal pilot | | | | | | | | | | |
| Manifold option | Spacer type ejector model | (N) Body type | | | | 1 | 1 | 3 | | | |
| | | (O) Nominal nozzle size | | | | 07 | 07 | 07 | | | |
| | | (P) Exhaust type | | | | C6 | | | | | |
| | | (Q) Vacuum break flow adjusting unit | | | | | | N | | | |
| | Blanking plate JSY11M-26P-1A | | | | | | | | | | |
| | Individual SUP spacer JSY11M-38P-1A-C4 | | | | | | | | | | |
| | – Omission – | | | – Omission – | | | | | | | |
| | (G) A, B port size | A, B port | | C4 | C4 | C6 | C6 | C6 | | | |
| | Plug | A port | | | | | | | | | |
| | | B port | | | | | | C | | | |

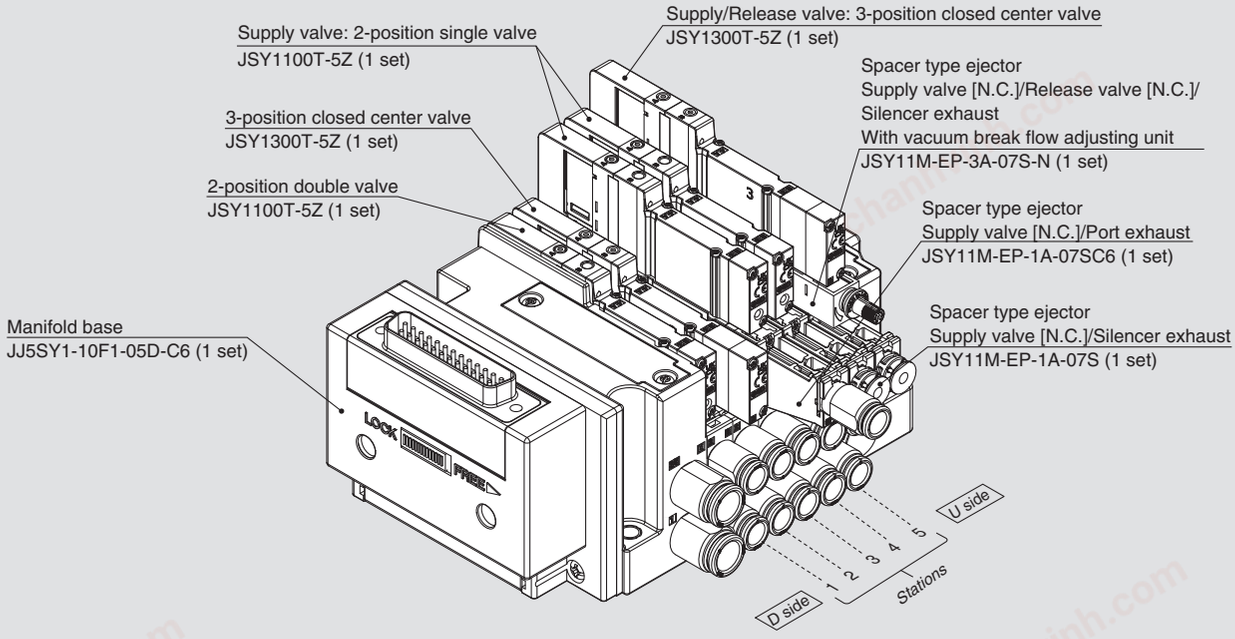
Order procedure of the above order example indicates that vacuum port of spacer type ejector is either A or B port.
When only one vacuum port is desired, manifold specification sheet must be used to specify plug.
It shows the manifold specification sheet in which plug is specified on B port of the fifth station.

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## How to Order Manifold Assembly (For manifold block Width 9 mm only)

### Example (JJ5SY1-10F1-□-C6)




**JJ5SY1-10F1-05D-C6 ····· 1 set (Type10 5stations manifold base product number/manifold block wide 9 mm limited specifications)**
**＊ JSY1100T-5Z····· 1 set (2-position single valve)**
**＊ JSY1300T-5Z ····· 1 set (3-position closed center valve)**
**＊ JSY1100T-5Z····· 1 set (Supply valve: 2-position single valve)**
**＊ JSY11M-EP-1A-07SC6 ····· 1 set (Spacer type ejector: Supply valve [N.C.]/Port exhaust)**
**＊ JSY1100T-5Z····· 1 set (Supply valve: 2-position single valve)**
**＊ JSY11M-EP-1A-07S····· 1 set (Spacer type ejector: Supply valve [N.C.]/Silencer exhaust)**
**＊ JSY1300T-5Z ····· 1 set (Supply/Release valve: 3-position closed center valve)**
**＊ JSY11M-EP-3A-07S-N····· 1 set (Spacer type ejector: Supply valve [N.C.]/Release valve [N.C.]/Silencer exhaust: With vacuum break flow adjusting unit)**

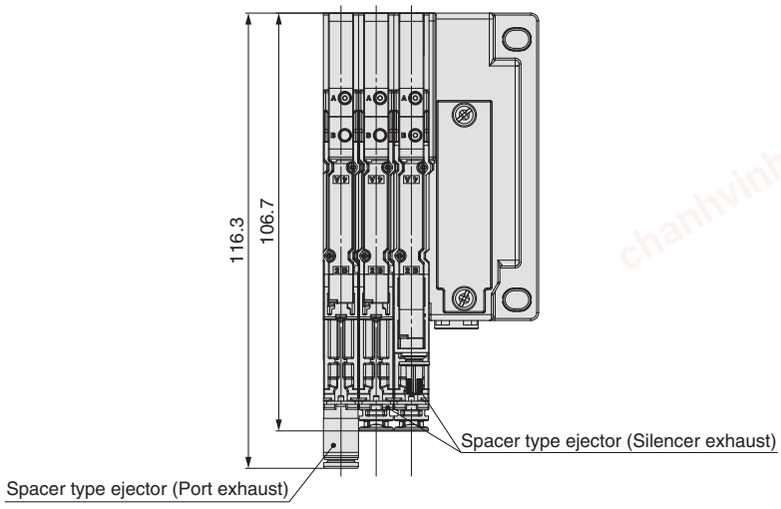
**→The asterisk denotes the symbol for the assembly.**
**＊ Prefix the product number of the mounted valve or spacer type ejector with "＊."**

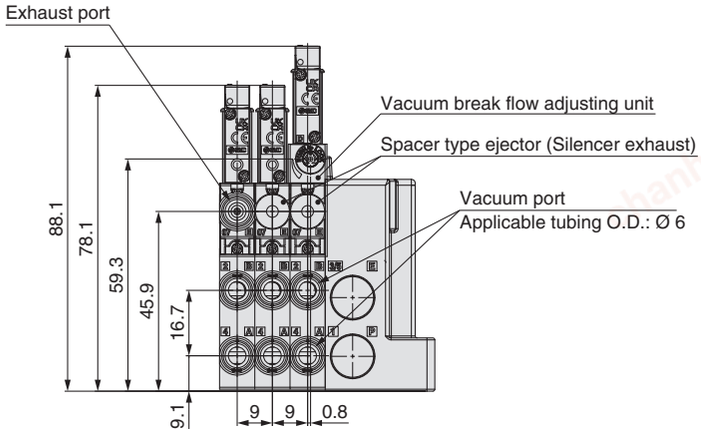
· For the valve arrangement, the valves closest to the D side are considered the 1st stations respectively.
· Below the manifold part number, write down the valves and spacer type ejectors to be mounted in order from the first station as shown in the figure.
· Write down spacer type ejectors next to the valves they are to be combined with.
· Spacer type ejector can only be mounted on 9 mm wide manifold block.
· If the layout is complicated or you want to specify a desired layout, please specify it by means of the manifold specification sheet.

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## Dimensions: Spacer Type Ejector

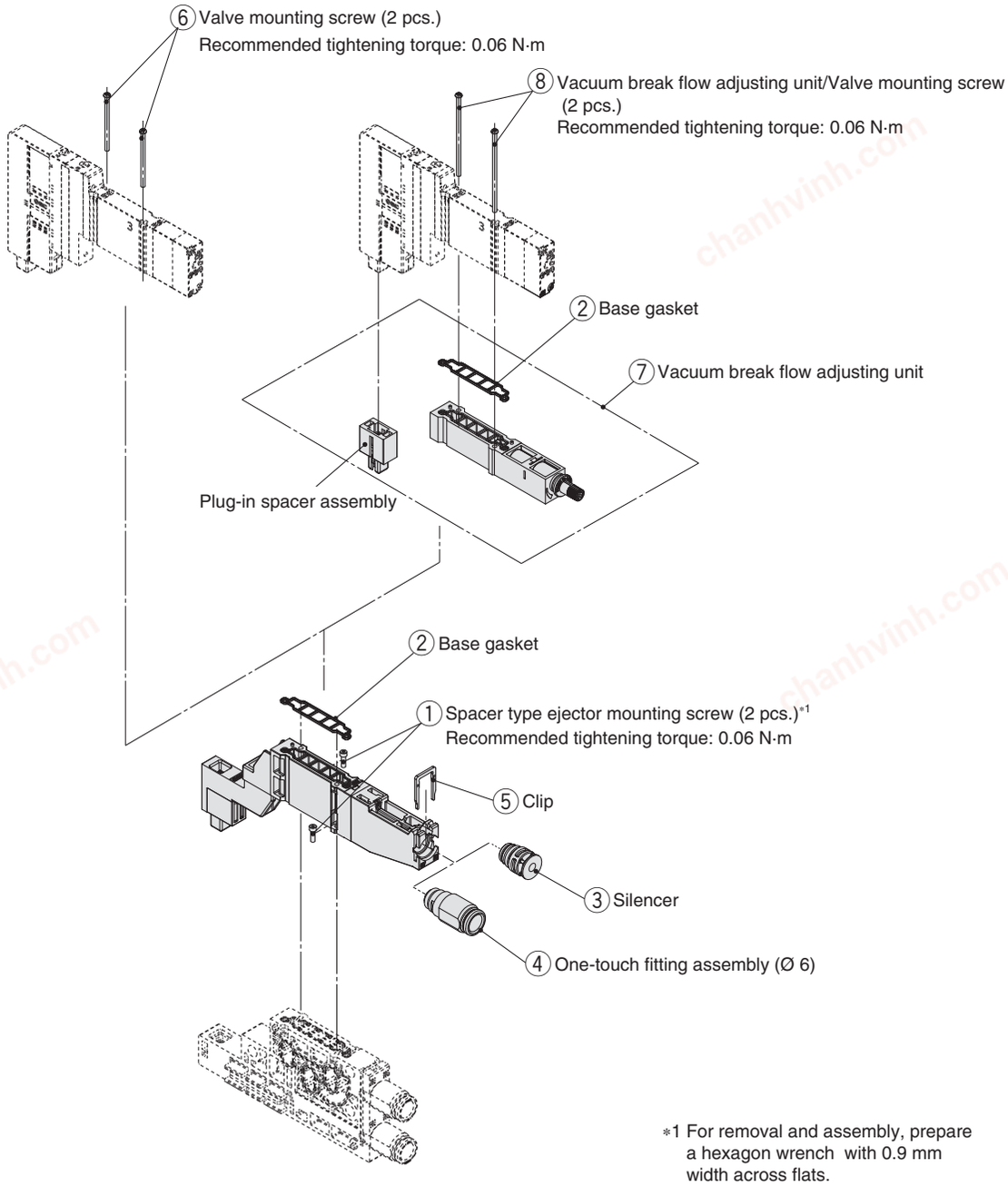


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## Order parts for Spacer Type Ejector




*1 For removal and assembly, prepare a hexagon wrench with 0.9 mm width across flats.

| No. | Description | Part no. | Note |
|---|---|---|---|
| ① | Spacer type ejector mounting screw (M1.4 x 4.5) | Z2-SR1-A | 10 pcs. (for 5 ejectors) Hexagon socket head cap screw (Hexagon width across flats: 0.9 mm) |
| ② | Base gasket | JSY11M-9P-1A | 10 pcs. |
| ③ | Silencer | Z2-SC1-A | The part number is for 1 piece. |
| ④ | One-touch fitting assembly (Ø 6) | KQSY11-C6-X1336 | The part number is for 1 piece. (Sales unit: 10 pcs.) |
| ⑤ | Clip | Z2-CL1-A | The part number is for 1 piece. |
| ⑥ | Valve mounting screw (M1.4 x 21.5) | JSY11V-23-1A | 20 pcs. (for 10 valves) |
| ⑦ | Vacuum break flow adjusting unit | Z2-NU1-A | Plug-in spacer assembly, ⑧ mounting screw (2 pcs.) included |
| ⑧ | Valve/Unit mounting screw (M1.4 x 31.5) | JSY11V-23-2A | 2 pcs. (1 unit). |

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# *JSY1000 Series*
# Spacer Type Ejector/Specific Product Precautions 1

**Be sure to read this before handling the products. For safety instructions and 3/4/5-port solenoid valve precautions, refer to the "Handling Precautions for SMC Products" and the "Operation Manual" on the SMC website: https://www.smc.eu**

## Spacer Type Ejector

### Design / Selection

## ⚠Warning

**1. Vacuum adsorption**

At the time of vacuum adsorption, be sure to supply a constant supply of vacuum. Failure to do so may result in foreign matter sticking to the adsorption pad or air leakage, causing the workpiece to drop.

**2. Ventilation**

Provide ventilation when using a spacer type ejector in a confined area, such as in a closed control panel. For example, install a ventilation opening, etc., in order to prevent pressure from increasing inside of the confined area and to release the heat generated by the valve.

**3. Mounting the suction filter**

This product is not mounted with a suction filter. The vacuum ejector suctions surrounding dust and water droplets during suctioning of the workpiece. Therefore, it is necessary to avoid the entry of the dust and water droplets into the product. We recommend that you separately install a suction filter in the vacuum side piping. If water droplets or others could be suctioned, please consider installation of a drain separator for vacuum or the like.

**4. Vacuum holding**

Since valves are subject to air leakage, they cannot be used for applications such as holding vacuum in a pressure vessel. SMC can issue no guarantees regarding the maintenance of workpiece adsorption when using check valves. Take separate safety measures to prevent workpieces from dropping in the case of an electrical power outage, etc.

### Exhaust / Exhaust Noise

## ⚠Caution

**1. Exhaust**

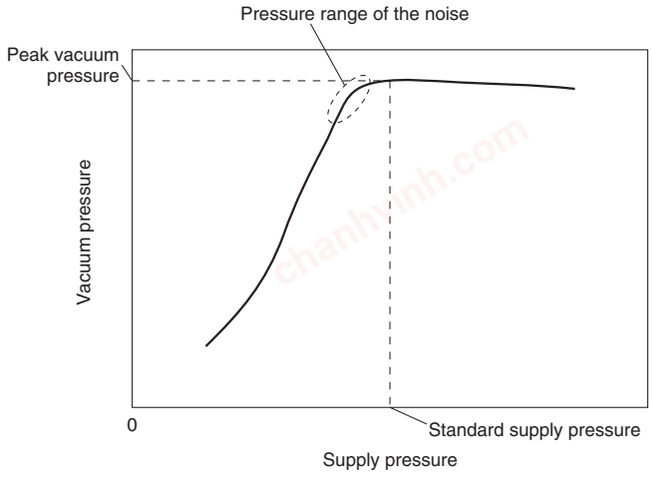
The exhaust resistance should be as small as possible to obtain the full spacer type ejector performance. There should be no shield around the exhaust slit for silencer exhaust type.

### Exhaust / Exhaust Noise

## ⚠Caution

**2. Exhaust noise**

When spacer type ejector generates vacuum, noise can be heard from the exhaust port when the standard supply pressure is close to the pressure that generates peak vacuum pressure making vacuum pressure unstable. If the vacuum pressure range is adequate for adsorption, there should not be a problem. If the noise causes a problem or affects the setting of the SI Unit, change the supply pressure slightly to avoid the pressure range of the noise.




**3. Exhaust air**

If solid substances are sucked in through the vacuum (A, B) port, they will be discharged from the exhaust port at a high speed if the exhaust (EXH) port is opened. Therefore, do not look into the exhaust port or direct the exhaust port toward a person when the spacer type ejector is operating.

### How to Mount the Product

## ⚠Caution

**1. Do not drop, hit, or apply excessive impact to the product when handling it.**
**Even if the body looks undamaged, the internal components may be damaged, leading to a malfunction.**

**2. Load to the body**

The product body is made of resin; therefore, do not apply load to the port after mounting. Prevent any kind of operation which generates moment as this may cause reduced performance or damage to the body.

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# *JSY1000 Series*
# Spacer Type Ejector/Specific Product Precautions 2

**Be sure to read this before handling the products. For safety instructions and 3/4/5-port solenoid valve precautions, refer to the "Handling Precautions for SMC Products" and the "Operation Manual" on the SMC website: https://www.smc.eu**

## Spacer Type Ejector

### Piping

**⚠Caution**

**When piping to the product, be careful not to confuse the vacuum port (A, B port) with the exhaust port of the spacer type ejector. Otherwise this can result in damage or reduced performance. Apply compressed air after confirming that the piping is connected correctly.**

**If each exhaust piping for the port exhaust ejectors are connected and made into centralized piping, the exhausted air will flow back into the exhaust path which is not operating, and will then be exhausted from the vacuum port. Exhaust individually.**

### Air Consumption

**⚠Caution**

**When the spacer type ejector is generating vacuum, air is consumed. Therefore, if the air supply capacity is insufficient, the supply pressure may drop. As a guide for sufficient air supply capacity, we recommend that you secure a supply capacity three times or more the air consumption of the ejector.**

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# JSY1000/3000/5000 Series
# Made to Order

Please contact SMC for detailed dimensions, specifications, and delivery times.

Made to Order

## 1 External pilot

### How to Order Manifolds

Refer to the How to Order manifolds for each type.

**For D-sub Connector/Flat Ribbon Cable/Lead Wire** p. 21, 55, 119

JJ5SY 1/3/5 – 10 □□ – □□ R – □□ – □

**For Terminal Block Box** p. 43, 119

JJ5SY 1/3/5 – 10 T/TC – □□ R – □□ – □

**For EX260/EX245/EX120** p. 83, 73, 91, 119

JJ5SY 1/3/5 – 10 S/S3 □ – □□ R – □□ – □

**SUP/EXH block assembly**

| | |
|---|---|
| R | External pilot |

* The combination of external pilot type “R” and silencer type “S” is not available.
* Only the JSY3000/5000 can be selected for the EX245.

**For EX600/EX250** p. 63, 77, 119

JJ5SY 1/3/5 – 10 S6/S □□□ – □ G – □□ – □

**P, E port entry, SUP/EXH block assembly**

| P, E port entry | External pilot |
|---|---|
| U side (2 to 10 stations) | G |
| D side (2 to 10 stations) | H |
| Both sides (2 to 24 stations) | J |

### How to Order Valves

JSY 1 □ 00 R T – 5 □ □

JSY 3/5 □ 00 R □ – 5 □ □

**Coil type (See below.)**

**Pilot type**

| | |
|---|---|
| R | External pilot |

* External pilot specification is not applicable for 4-position dual 3-port valves.
* When pilot type “R” is selected, select the external pilot type “R” for the manifold SUP/EXH block assembly, and select either of “G/H/J” for the EX600/EX250 manifold.

## 2 Coil type: With power-saving circuit (Continuous duty type)

Be sure to select the power-saving circuit type when the JSY3000/5000 series is continuously energised for long periods of time.
Be careful of the energising time when the power-saving circuit is selected. Refer to page 137 for details.

**0.1 W: JSY3000/5000**

### How to Order Valves

JSY 3/5 □ 00 □ T – 5 Z □

**Pilot type (See above.)**

**Coil type**

| | |
|---|---|
| T | With power-saving circuit (Continuous duty type) |

* Only “Z” and “NZ” types are available for with the power-saving circuit.

**Light/surge voltage suppressor and common specification**

| Symbol | With light | Surge voltage suppressor | Common specification |
|---|---|---|---|
| Z | ● | ● | Positive common |
| NZ | | | Negative common |

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# *JSY1000/3000/5000 Series*
# Specific Product Precautions 1

**Be sure to read this before handling the products. For safety instructions and 3/4/5-port solenoid valve precautions, refer to the "Handling Precautions for SMC Products" and the "Operation Manual" on the SMC website: https://www.smc.eu**

## Environment

### ⚠Warning

1. Do not use valves in atmospheres of corrosive gases, chemicals, sea water, water, water vapour, or where there is direct contact with any of these.
2. Products compliant with IP67 enclosures (based on IEC 60529) are protected against dust and water, however, these products cannot be used in water. If using in an environment that is exposed to water and dust splashes, take measures such as using a protective cover.
3. When using built-in silencer type manifold with an IP67 enclosure, keep the exhaust port of the silencer from coming into direct contact with water or other liquids.

## Valve Mounting

### ⚠Caution

Mount it so that there is no slippage or deformation in gaskets, and tighten with the tightening torque as shown on the right.

| Series | Thread size | Tightening torque |
|---|---|---|
| **JSY1000** | M1.4 | 0.06 N·m |
| **JSY3000** | M2 | 0.16 N·m |
| **JSY5000** | M3 | 0.8 N·m |

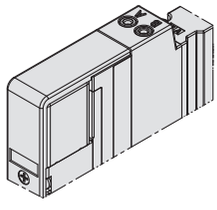
## Manual Override

### ⚠Warning

Regardless of an electric signal for the valve, the manual override is used for switching the main valve. Connected actuator is started by manual operation. Use the manual override after confirming that there is no danger.

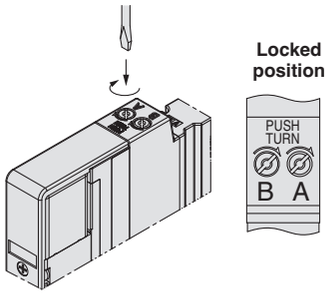
**■ Non-locking push type**

Push down on the manual override button until it stops.



**■ Push-turn locking slotted type [D type]**

Push down on the manual override with a small flat head screwdriver until it stops, and then turn it 90° clockwise. The manual override is then locked. To release it, turn it counter-clockwise.
If it is not turned, it can be operated the same way as the non-locking push type.

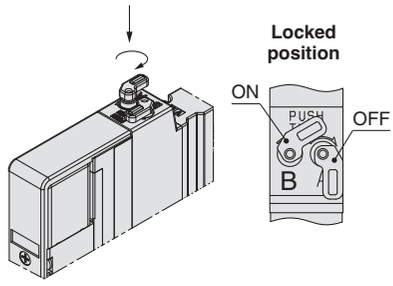



## Manual Override

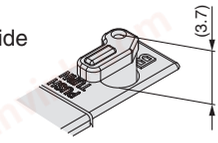
### ⚠Warning

**■ Push-turn locking lever type [E type]**
**(Only for the JSY3000/5000)**

Push down on the manual override by finger until it stops, and then turn it 60° clockwise. The manual override is then locked. To release it, turn it counterclockwise. If it is not turned, it can be operated the same way as the non-locking push type.




Carefully check the manual override projection amount.
Max. (at OFF): 3.7 mm




### ⚠Caution

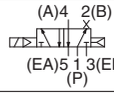
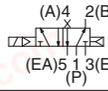
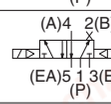
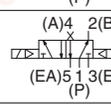
Do not apply excessive torque when turning the manual override. [0.1 N·m]
When locking the manual override, be sure to push it down before turning. Turning without first pushing it down can cause damage to the manual override and other trouble such as air leakage, etc.

## Used as a 3-Port Valve

### ⚠Caution

**■ In case of using a 5-port valve as a 3-port valve**

The JSY1000/3000/5000 series can be used as normally closed (N.C.) or normally open (N.O.) 3-port port valves by closing one of the cylinder ports 4(A) or 2(B) with a plug. However, they should be used with the exhaust ports kept open. Use them when a double solenoid type 3-port valve is required.

| Plug position | | B port | A port |
|---|---|---|---|
| Type of actuation | | N.C. | N.O. |
| Number of solenoids | Single |  |  |
| | Double |  |  |

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# JSY1000/3000/5000 Series
# Specific Product Precautions 2

**Be sure to read this before handling the products. For safety instructions and 3/4/5-port solenoid valve precautions, refer to the "Handling Precautions for SMC Products" and the "Operation Manual" on the SMC website: https://www.smc.eu**

## Light/Surge Voltage Suppressor

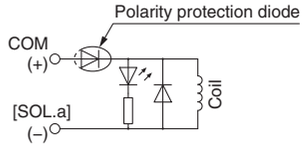
## ⚠Caution

### ■ Polar type

**Positive common**

**Single solenoid**

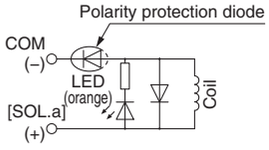
Light/surge voltage suppressor (☐NZ)




**Negative common**

**Single solenoid**

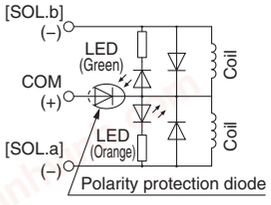
Light/surge voltage suppressor (☐NZ)




**Positive common**

**Double solenoid, 3-position, 4-position**

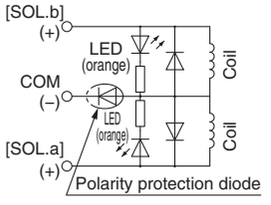
Light/surge voltage suppressor (☐NZ)




**Negative common**

**Double solenoid, 3-position, 4-position**

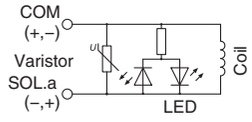
Light/surge voltage suppressor (☐NZ)



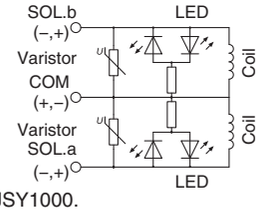

### ■ Non-polar type

**With light/surge voltage suppressor (☐U)**

**Single solenoid**




**Double solenoid**

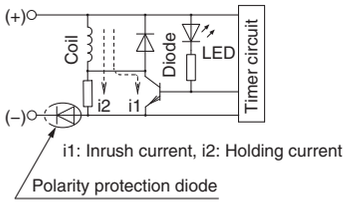



∗ Non-polar type is not available for the JSY1000.

### ■ With power-saving circuit
### (JSY3000/5000 series products are made to order.)

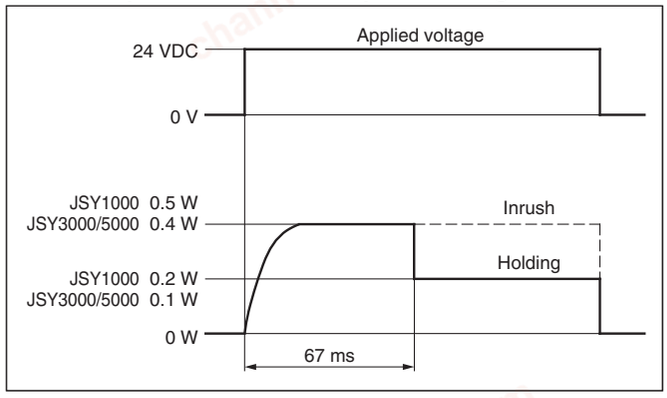
Power consumption is decreased to approx. 1/2.5 to 1/4 of the amount consumed at startup by reducing the wattage required to hold the valve in an energised state. (Effective energising time is over 67 ms at 24 VDC.)

Electric circuit diagram
(With power saving circuit)
In the case of single solenoid




The circuit shown to the left reduces the power consumption for holding in order to save energy. Refer to the electrical power waveform as shown below.

**<Electrical power waveform with power-saving circuit>**




· Since the voltage will drop by approx. 0.5 V due to the transistor, pay attention to the allowable voltage fluctuation. (For details, refer to the solenoid specifications of each type of valve.)

### Residual voltage of the surge voltage suppressor

∗ If a varistor or diode surge voltage suppressor is used, there is some residual voltage to the protection element and rated voltage. Therefore, refer to the table below and pay attention to the surge voltage protection on the controller side. Also, since the response time does change, refer to the valve specifications on page 14.

### Residual Voltage

| Surge voltage suppressor | 24 VDC |
|---|---|
| Z | Approx. 1 V |
| U | Approx. 47 V |

## Continuous Duty

## ⚠Caution

If a valve is energised continuously for long periods of time, the rise in temperature due to heat-up of the coil assembly may cause a decline in solenoid valve performance, reduce service life, or have adverse effects on peripheral equipment. If the valve is energised continuously for long periods of time, be sure to use a valve with power-saving circuit. In particular, if three or more adjacent stations on the manifold are energised simultaneously for extended periods of time or if the valves on A side and B side are energised simultaneously for long periods of time, take special care as the temperature rise will be greater.

## Energization of a 2-Position Double Solenoid Valve

## ⚠Caution

To avoid operation failure, do not energise the A side and B side of 2-position double solenoid valve at the same time.

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# *JSY1000/3000/5000 Series*
# Specific Product Precautions 3

**Be sure to read this before handling the products. For safety instructions and 3/4/5-port solenoid valve precautions, refer to the "Handling Precautions for SMC Products" and the "Operation Manual" on the SMC website: https://www.smc.eu**

## Countermeasure for Surge Voltage Intrusion

### ⚠Caution

**■ Surge voltage intrusion**

With non-polar type valves, at times of sudden interruption of the loading power supply, such as emergency shutdown, surge voltage intrusion may be generated from loading equipment with a large capacity (power consumption), and the valve in a de-energised state may switch over (see Figure 1). When installing a breaker circuit for the loading power supply, consider using a valve with polarity (with polarity protection diode), or install a surge absorption diode between the loading equipment COM line and the output equipment COM line (see Figure 2).

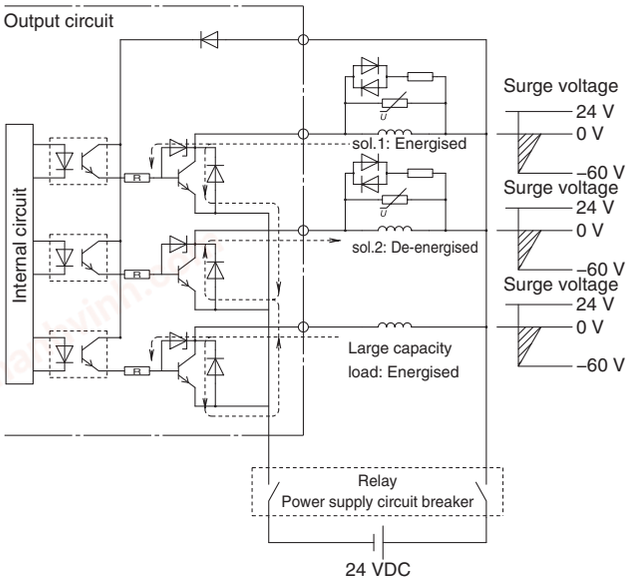



**Figure 1. Surge intrusion circuit example (NPN outlet example) (24 VDC)**

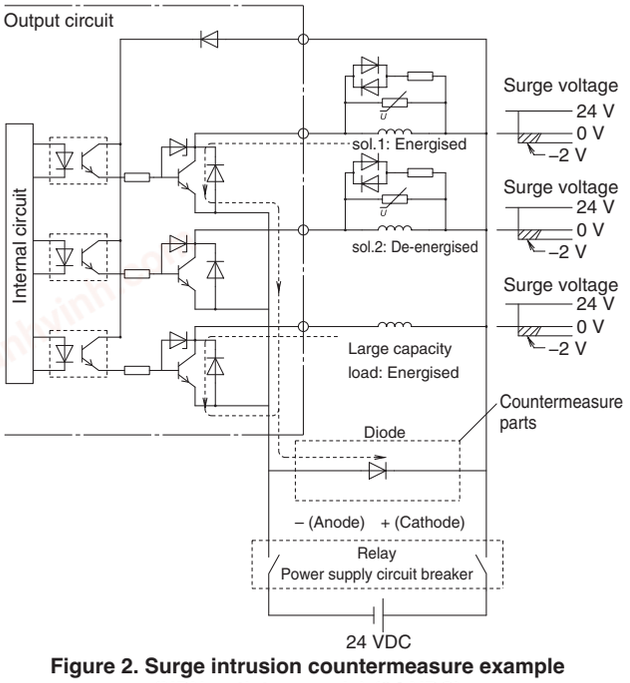
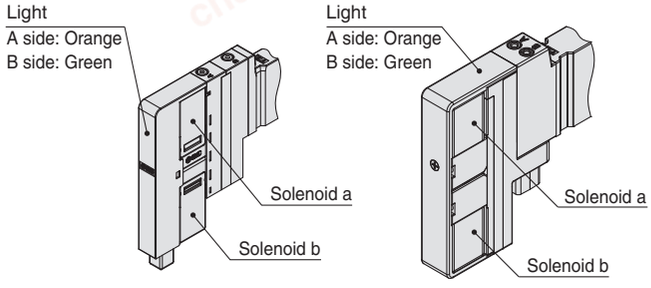



**Figure 2. Surge intrusion countermeasure example (NPN outlet example) (24 VDC)**

## Light Indication

### ⚠Caution

When equipped with indicator light and surge voltage suppressor, the light window turns orange when solenoid a is energised, and it turns green when solenoid b is energised.



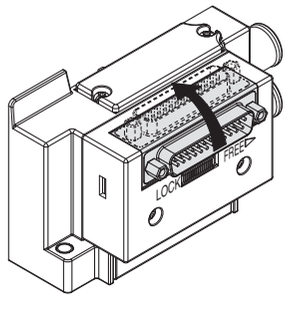

## Changing Connector Entry Direction

### ⚠Caution

Connector direction for electrical entry of D-sub connector and flat ribbon cable <IP40> can be changed. If the directional change is required, slide the lever on the side of the connector block to the FREE position, and then change the direction as shown in the figure. Also, before connecting the connector, be sure to return the lever to the LOCK position. (If the lever is difficult to slide, move the connector a little bit to make it easier to slide the lever.)

If an excessive force is applied on the connector in the LOCK position, the connector block may be damaged. Also, using in such a way that the connector floats in the FREE position, it may cause the lead wire, etc., to break.

* Direction cannot be changed for D-sub connector <IP67> or compact type.



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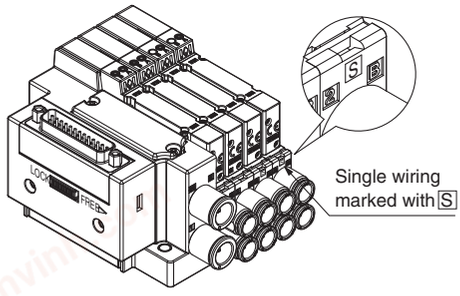
# *JSY1000/3000/5000 Series*
# Specific Product Precautions 4

**Be sure to read this before handling the products. For safety instructions and 3/4/5-port solenoid valve precautions, refer to the "Handling Precautions for SMC Products" and the "Operation Manual" on the SMC website: https://www.smc.eu**

## Manifold Indication Symbol

### ⚠Caution

The letter "S" is indicated on manifold blocks for the JSY series as shown below. This indication refers to the type of substrate (single wiring) inside the manifold blocks. When there is no symbol, double wiring is used.
When the manifold specification sheet does not include a wiring specification, all stations will be double wiring specification. In this case, single and double solenoid valves can be mounted in any position, but when a single valve is used, there will be an unused control signal. To avoid this, indicate positions of manifold blocks for single wiring specification and double wiring specification on a manifold specification sheet. (Note that double, 3- or 4-position valves cannot be used for manifolds blocks with single wiring specification S.)




## Substrate inside Manifolds

### ⚠Caution

The substrate inside of manifolds cannot be taken apart. Attempting to do so may damage parts.

## Securing the DIN Rail Mounting Type Manifold

### ⚠Caution

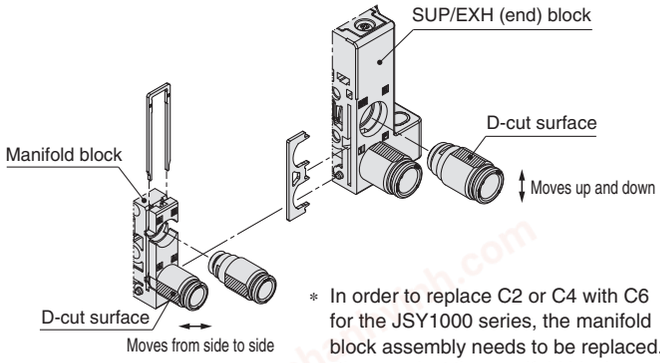
1. When the manifold is secured with bolts on a mounting surface, etc., it can be operated just by securing both ends of the DIN rail if the bottom surface of the DIN rail is entirely in contact with the mounting surface when mounted horizontally. However, if it is used with other mounting or with side or reverse mounting, secure the DIN rail with bolts at regular intervals. As a guide, insert bolts in 2 locations for 2-5 stations, 3 locations for 6-10 stations, 4 locations for 11-15 stations, 5 locations for 16-20 stations, and 6 locations for 21-24 stations.
2. When using the manifold with DIN rail in an environment where any vibration or impact is applied to it, the DIN rail itself may be broken. In particular, if the installation surface vibrates when mounting the manifold on the wall or if a load is directly applied to the manifold, the DIN rail may be broken, causing the manifold to drop. When any vibration, impact, or load is applied to the manifold, be sure to use the direct mounting manifold.

## How to Replace One-touch Fittings

### ⚠Caution

By replacing One-touch fittings of manifold base, it is possible to change the connection diameter of the 4(A), 2(B), 1(P), 3/5(E) ports. When replacing the One-touch fittings, remove the clip or the plate before pulling the One-touch fittings off. Mount the One-touch fittings by following the removal procedure in reverse.
Use caution as it may cause air leakage if the clip and the plate are not inserted securely enough when they are switched. Refer to page 130 for part numbers of One-touch fittings.

### ■ Connector connecting base




* In order to replace C2 or C4 with C6 for the JSY1000 series, the manifold block assembly needs to be replaced. Please select the manifold block assembly on page 116.
* Refer to page 130 for One-touch fitting, clip, and port plate part numbers.

**<Assembly method>**

**· SUP/EXH (end) block**

Fitting direction is specified when the fittings below are used. Assemble the fitting so that the D-cut surfaces of the fitting face up and down.

Fitting part no.: KQSY30-C8-X1336 (JSY1000)
KQSY50-C12-X1336 (JSY5000)

**· Manifold block**

Assemble the fitting so that the D-cut surfaces of the fitting face sideways.

Fitting part no.: KQSY10-C4-X1336 (JSY1000)
KQSY11-C6-X1336 (JSY1000)
KQSY30-C8-X1336 (JSY3000)
KQSY50-C12-X1336 (JSY5000)

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# *JSY1000/3000/5000 Series*
# Specific Product Precautions 5

**Be sure to read this before handling the products. For safety instructions and 3/4/5-port solenoid valve precautions, refer to the "Handling Precautions for SMC Products" and the "Operation Manual" on the SMC website: https://www.smc.eu**

## Other Tube Brands

### ⚠Caution

**1. When using other than SMC brand tube, confirm that the following specifications are satisfied with respect to the tube outside diameter tolerance.**

| | |
|---|---|
| 1) Nylon tube | within ±0.1 mm |
| 2) Soft nylon tube | within ±0.1 mm |
| 3) Polyurethane tube | within +0.15 mm<br>within –0.2 mm |

Do not use tube which do not meet these outside diameter tolerances. It may not be possible to connect them, or they may cause other trouble, such as air leakage or the tube pulling out after connection.

## One-touch Fittings

### ⚠Caution

**■ Tube attachment/detachment for One-touch fittings**

**1) Tube attachment**

1. Take a tube having no flaws on its periphery and cut it off at a right angle. When cutting the tube, use tube cutters TK-1, 2, or 3. Do not use pliers, nippers, scissors, etc. If cutting is done with tools other than tube cutters, the tube may be cut diagonally or become flattened, etc., making a secure installation impossible, and causing problems such as the tube pulling out after installation or air leakage. Allow some extra length in the tube.
2. Grasp the tube and push it in slowly, inserting it securely all the way into the fitting.
3. After inserting the tube, pull on it lightly to confirm that it will not come out. If it is not installed securely all the way into the fitting, this can cause problems such as air leakage or the tube pulling out.

**2) Tube detachment**

Use the release tool when the removal of tube is difficult due to the tube size. Refer to page 130 for releasing tools.

1. Push in the release button sufficiently, pushing its collar equally around the circumference.
2. Pull out the tube while holding down the release button so that it does not come out. If the release button is not pressed down sufficiently, there will be increased bite on the tube and it will become more difficult to pull it out.
3. When the removed tube is to be used again, cut off the portion which has been chewed before reusing it. If the chewed portion of the tube is used as is, this can cause trouble such as air leakage or difficulty in removing the tube.

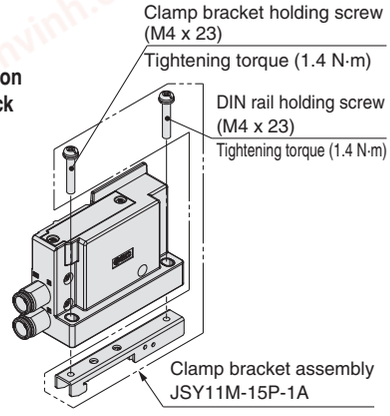
## Fixing Method of JSY1000 Series Clamp Bracket

### ⚠Caution

The clamp bracket fixing method for the JSY1000 series is different depending on wiring.

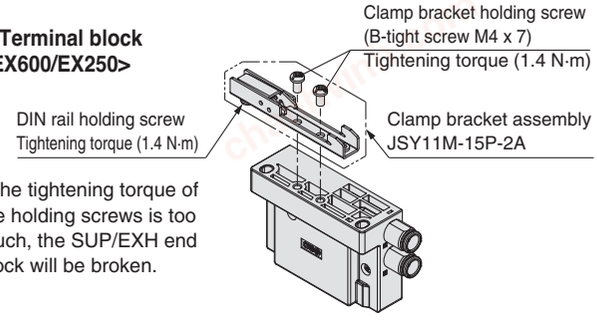
**■ Wiring**

**<For D-sub connector/Flat ribbon cable/Spring type terminal block box/Lead wire/EX260/EX120>**




* When the DIN rail is not accommodated in the clamp bracket, loosen the DIN rail holding screw once and insert the DIN rail.

**<For Terminal block box/EX600/EX250>**




* If the tightening torque of the holding screws is too much, the SUP/EXH end block will be broken.

## Installation

### ⚠Caution

Even though the inlet pressure is within the operating pressure range, when the piping diameter is restricted due to size reduction of supply port (P), the flow will be insufficient. In this case, the valve does not switch completely and the cylinder may malfunction.

■ Trademark
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CompoNet® is a registered trademark of ODVA, Inc.
EtherCAT® is registered trademark and patented technology, licensed by Beckhoff Automation GmbH, Germany.

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| **JJ5SY1-10FC** | JSY1000 | Type 10/Side Ported | Plug-in Connector Connecting Base: D-sub Connector, Compact Type <IP20> | **p. 21** |
| **JJ5SY1-10L1** | JSY1000 | Type 10/Side Ported | Plug-in Connector Connecting Base: Lead Wire, 34 cores | **p. 55** |
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| **JJ5SY1-10P** | JSY1000 | Type 10/Side Ported | Plug-in Connector Connecting Base: Flat Ribbon Cable, Connector Entry Direction Adjustable (26 pins) <IP40> | **p. 21** |
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| **JJ5SY1-10PG** | JSY1000 | Type 10/Side Ported | Plug-in Connector Connecting Base: Flat Ribbon Cable, Connector Entry Direction Adjustable (20 pins) <IP40> | **p. 21** |
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## ⚠ Safety Instructions

These safety instructions are intended to prevent hazardous situations and/or equipment damage. These instructions indicate the level of potential hazard with the labels of **"Caution," "Warning"** or **"Danger."** They are all important notes for safety and must be followed in addition to International Standards (ISO/IEC) [1], and other safety regulations.

| | |
|---|---|
| ⚠ **Caution:** | **Caution** indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury. |
| ⚠ **Warning:** | **Warning** indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury. |
| ⚠ **Danger:** | **Danger** indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury. |

1) ISO 4414: Pneumatic fluid power – General rules relating to systems.
ISO 4413: Hydraulic fluid power – General rules relating to systems.
IEC 60204-1: Safety of machinery – Electrical equipment of machines. (Part 1: General requirements)
ISO 10218-1: Manipulating industrial robots - Safety.
etc.

## ⚠ Warning

**1. The compatibility of the product is the responsibility of the person who designs the equipment or decides its specifications.**
Since the product specified here is used under various operating conditions, its compatibility with specific equipment must be decided by the person who designs the equipment or decides its specifications based on necessary analysis and test results. The expected performance and safety assurance of the equipment will be the responsibility of the person who has determined its compatibility with the product. This person should also continuously review all specifications of the product referring to its latest catalogueue information, with a view to giving due consideration to any possibility of equipment failure when configuring the equipment.

**2. Only personnel with appropriate training should operate machinery and equipment.**
The product specified here may become unsafe if handled incorrectly. The assembly, operation and maintenance of machines or equipment including our products must be performed by an operator who is appropriately trained and experienced.

**3. Do not service or attempt to remove product and machinery/ equipment until safety is confirmed.**
1. The inspection and maintenance of machinery/equipment should only be performed after measures to prevent falling or runaway of the driven objects have been confirmed.
2. When the product is to be removed, confirm that the safety measures as mentioned above are implemented and the power from any appropriate source is cut, and read and understand the specific product precautions of all relevant products carefully.
3. Before machinery/equipment is restarted, take measures to prevent unexpected operation and malfunction.

**4. Contact SMC beforehand and take special consideration of safety measures if the product is to be used in any of the following conditions.**
1. Conditions and environments outside of the given specifications, or use outdoors or in a place exposed to direct sunlight.
2. Installation on equipment in conjunction with atomic energy, railways, air navigation, space, shipping, vehicles, military, medical treatment, combustion and recreation, or equipment in contact with food and beverages, emergency stop circuits, clutch and brake circuits in press applications, safety equipment or other applications unsuitable for the standard specifications described in the product catalogueue.
3. An application which could have negative effects on people, property, or animals requiring special safety analysis.
4. Use in an interlock circuit, which requires the provision of double interlock for possible failure by using a mechanical protective function, and periodical checks to confirm proper operation.

## ⚠ Caution

**1. The product is provided for use in manufacturing industries.**
The product herein described is basically provided for peaceful use in manufacturing industries.
If considering using the product in other industries, consult SMC beforehand and exchange specifications or a contract if necessary.
If anything is unclear, contact your nearest sales branch.

# Limited warranty and Disclaimer/Compliance Requirements

The product used is subject to the following "Limited warranty and Disclaimer" and "Compliance Requirements".Read and accept them before using the product.

## Limited warranty and Disclaimer

1. The warranty period of the product is 1 year in service or 1.5 years after the product is delivered, whichever is first. [2] Also, the product may have specified durability, running distance or replacement parts. Please consult your nearest sales branch.
2. For any failure or damage reported within the warranty period which is clearly our responsibility, a replacement product or necessary parts will be provided. This limited warranty applies only to our product independently, and not to any other damage incurred due to the failure of the product.
3. Prior to using SMC products, please read and understand the warranty terms and disclaimers noted in the specified catalogueue for the particular products.

2) Vacuum pads are excluded from this 1 year warranty.
A vacuum pad is a consumable part, so it is warranted for a year after it is delivered. Also, even within the warranty period, the wear of a product due to the use of the vacuum pad or failure due to the deterioration of rubber material are not covered by the limited warranty.

## Compliance Requirements

1. The use of SMC products with production equipment for the manufacture of weapons of mass destruction (WMD) or any other weapon is strictly prohibited.
2. The exports of SMC products or technology from one country to another are governed by the relevant security laws and regulations of the countries involved in the transaction. Prior to the shipment of a SMC product to another country, assure that all local rules governing that export are known and followed.

## ⚠ Caution

**SMC products are not intended for use as instruments for legal metrology.**
Measurement instruments that SMC manufactures or sells have not been qualified by type approval tests relevant to the metrology (measurement) laws of each country.
Therefore, SMC products cannot be used for business or certification ordained by the metrology (measurement) laws of each country.

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## Revision History

| | | |
|---|---|---|
| **Edition B** | - The EX245 integrated type (for input/output) serial transmission system has been added.<br>- The EX260 safety communication (PROFIsafe) compliant manifold has been added.<br>- The vacuum unit ZK2 combination manifold has been added.<br>- Number of pages has been increased from 124 to 144. | ZZ |

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