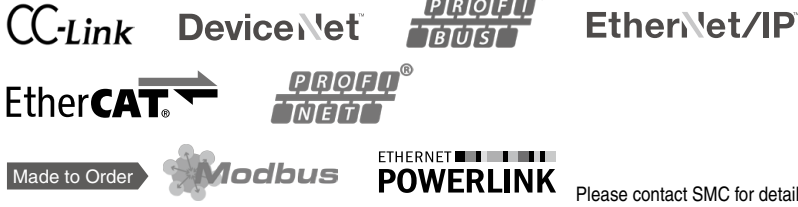


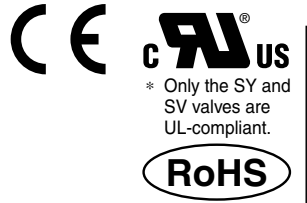
Fieldbus System (For Input/Output)

EX600 Series


Compatible Protocols



Please contact SMC for details on compatible products.



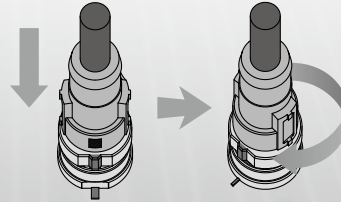
* Only the SY and SV valves are UL-compliant.



Dual-port SI unit (EtherNet/IP™) product

- Can be used for linear type or DLR type topology
- Supports QuickConnect™ function
- Status checks and settings can be performed on a web browser.

Wiring time can be reduced with SPEEDCON (Phoenix Contact). Just insert and make a 1/2 rotation!

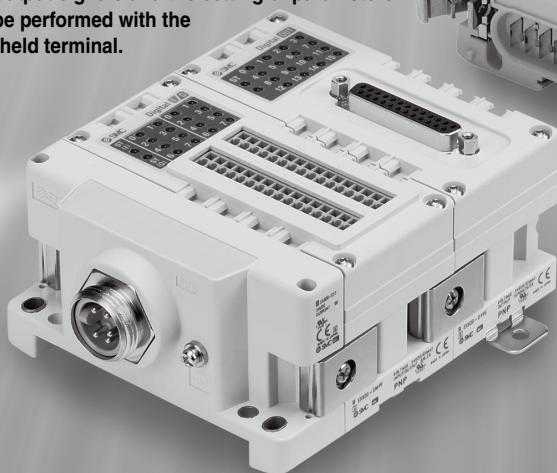


IP67
* Some products are IP40.



Self Diagnosis Function

It is possible to ascertain the maintenance period and identify the parts that require maintenance by using the input/output open-circuit detection function and the input/output signal ON/OFF counter function. Also, the monitoring of input and output signals and the setting of parameters can be performed with the handheld terminal.



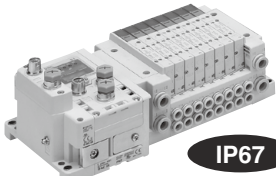
Max. 9 units*1
can be connected in any order.

The input unit to connect input devices such as auto switches, pressure switches, and flow switches, and the output unit to connect output devices such as solenoid valves, relays, and indicator lights can be connected in any order.

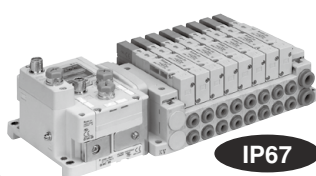
*1 Excludes SI units

Manifold Solenoid Valves

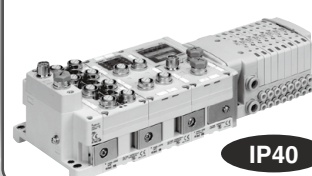
SY3000/5000/7000 Series



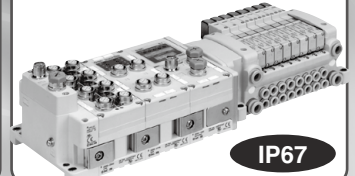
SV1000/2000/3000 Series



S0700 Series

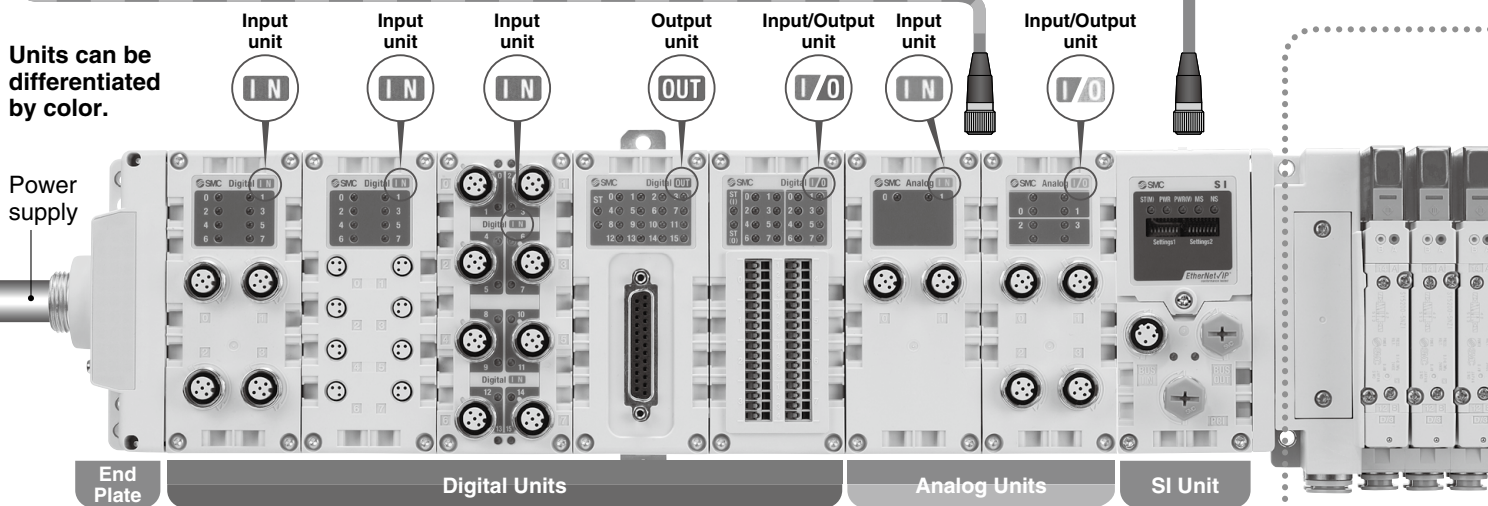
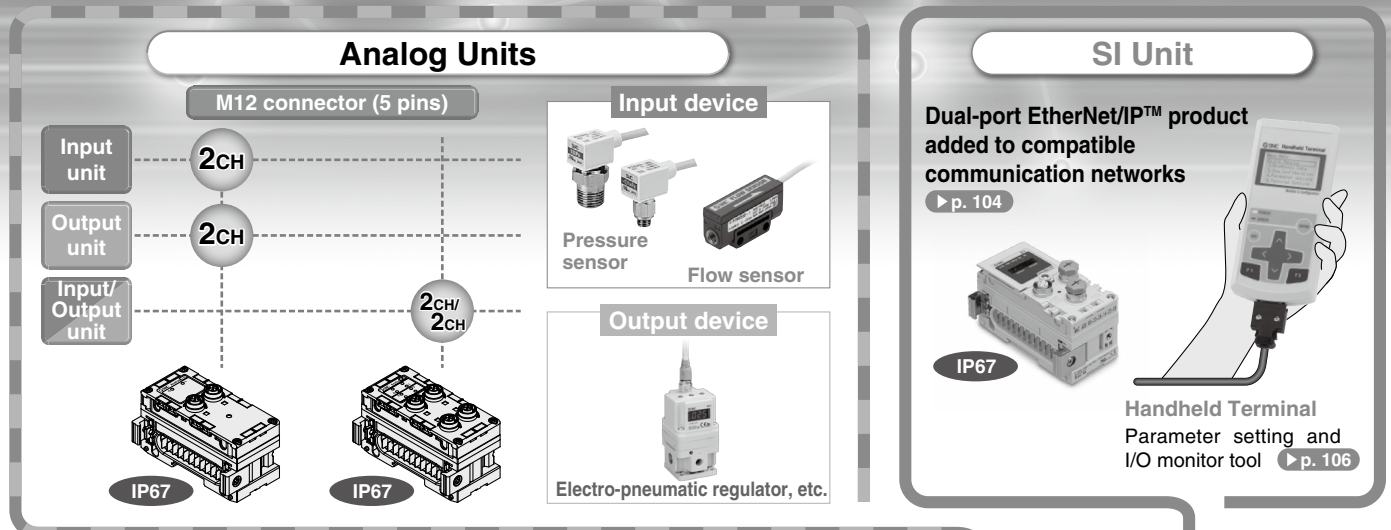


VQC1000/2000/4000/5000 Series

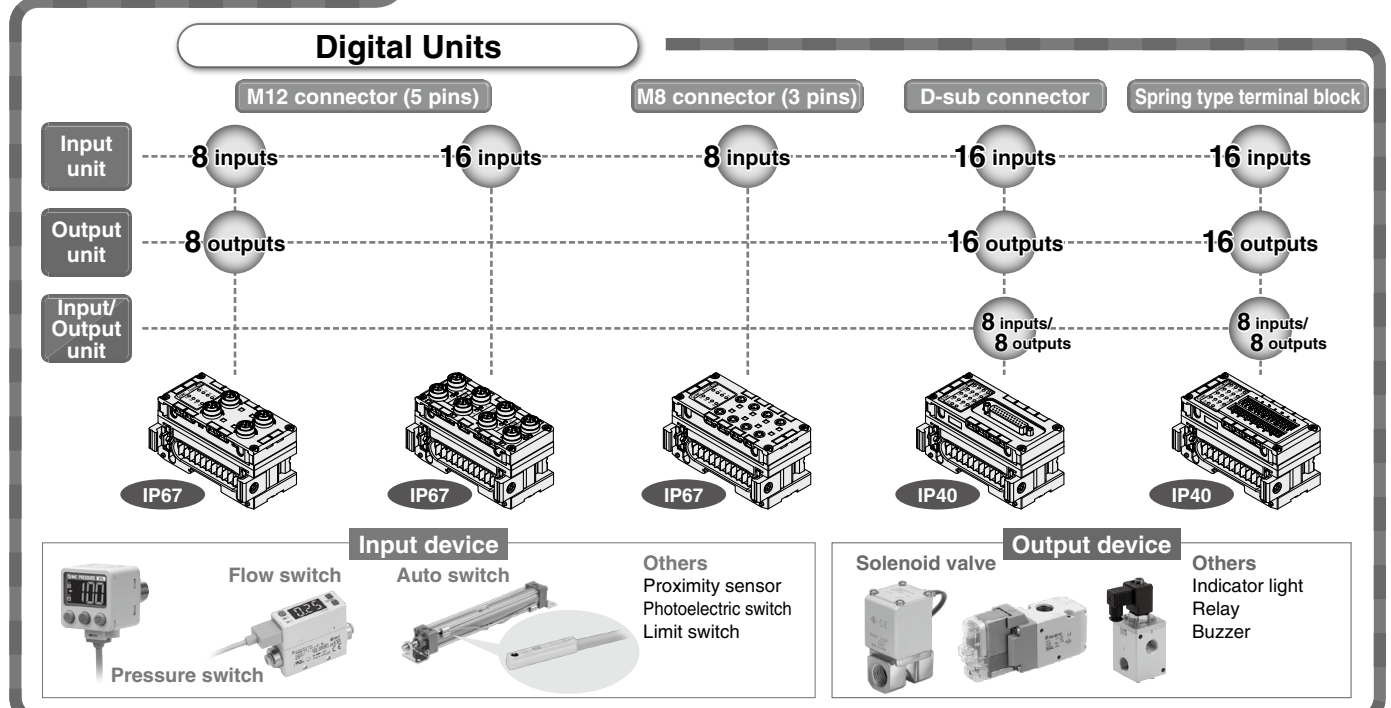


| | |
|--------|---------------|
| Type 1 | EX260 |
| Type 1 | EX123/124/126 |
| Type 2 | EX500 |
| Type 2 | EX600 |
| Type 3 | EX245 |
| Type 3 | EX250 |
| Type 1 | EX120/121/122 |
| Type 1 | EX140 |
| Type 2 | EX180 |
| Type 2 | EX510 |
| M8/M12 | |
| ATEX | |

EX600 Series Configurations



For detailed specifications of connectable devices, refer to the catalog of each device to select the right device for your application. If anything is unclear, please contact SMC.





SY Series (IP67)

SV Series (IP67)

S0700 Series (IP40)

VQC Series (IP67)

SI Unit

Unit to connect various Fieldbuses with the EX600 system

▶ p. 104

Digital Unit

Unit to input or output digital (switch) signals

▶ p. 105

Analog Unit

Unit to input or output analog (voltage/current) signals

▶ p. 105, 106

End Plate

Unit to supply power to the EX600 system

▶ p. 106

Handheld Terminal

Parameter setting and I/O monitor tool

▶ p. 106

Accessories

Options including a power supply cable, etc., for the EX600 series

▶ p. 121

Made to Order ▶ p. 128

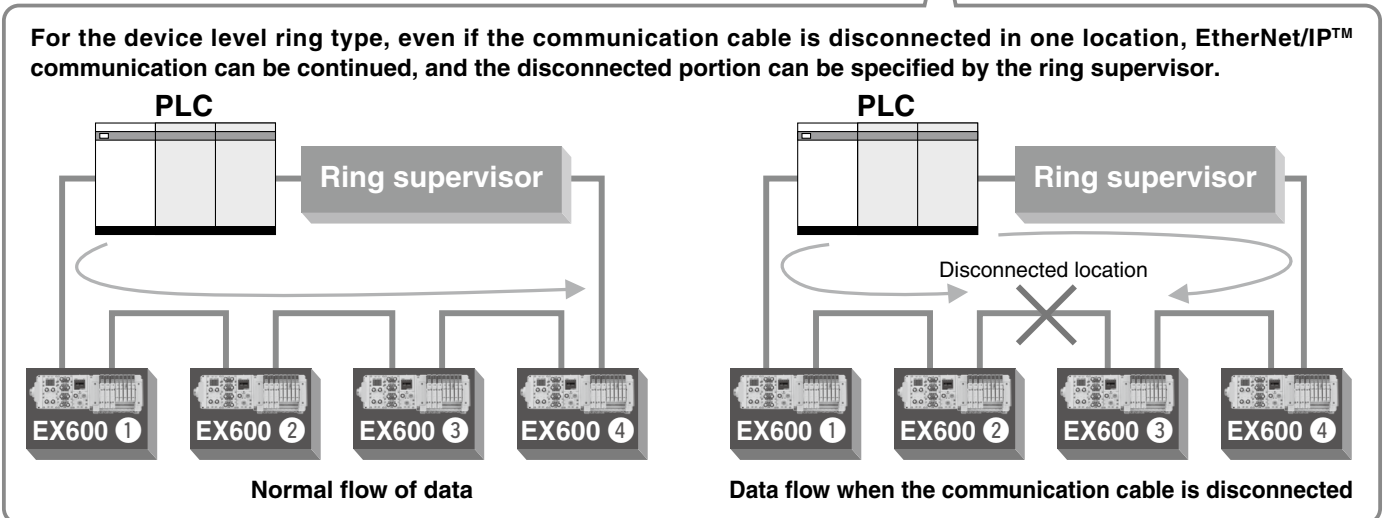
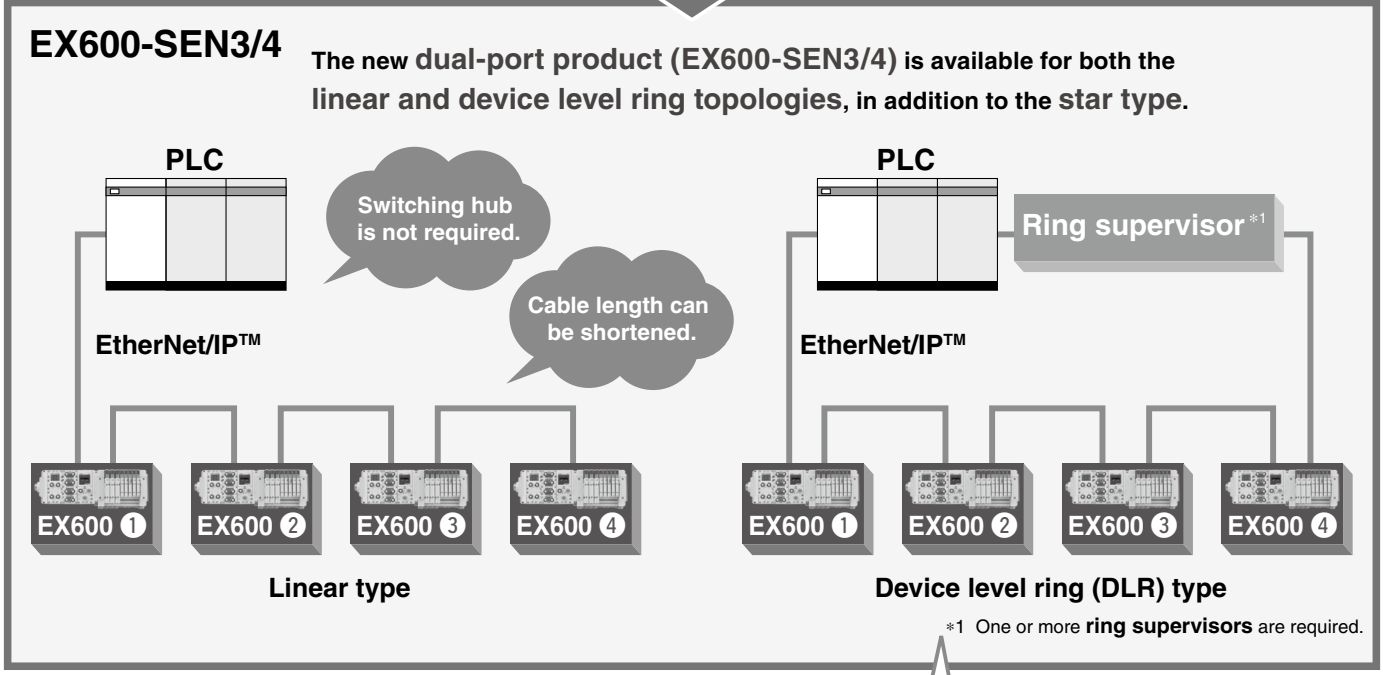
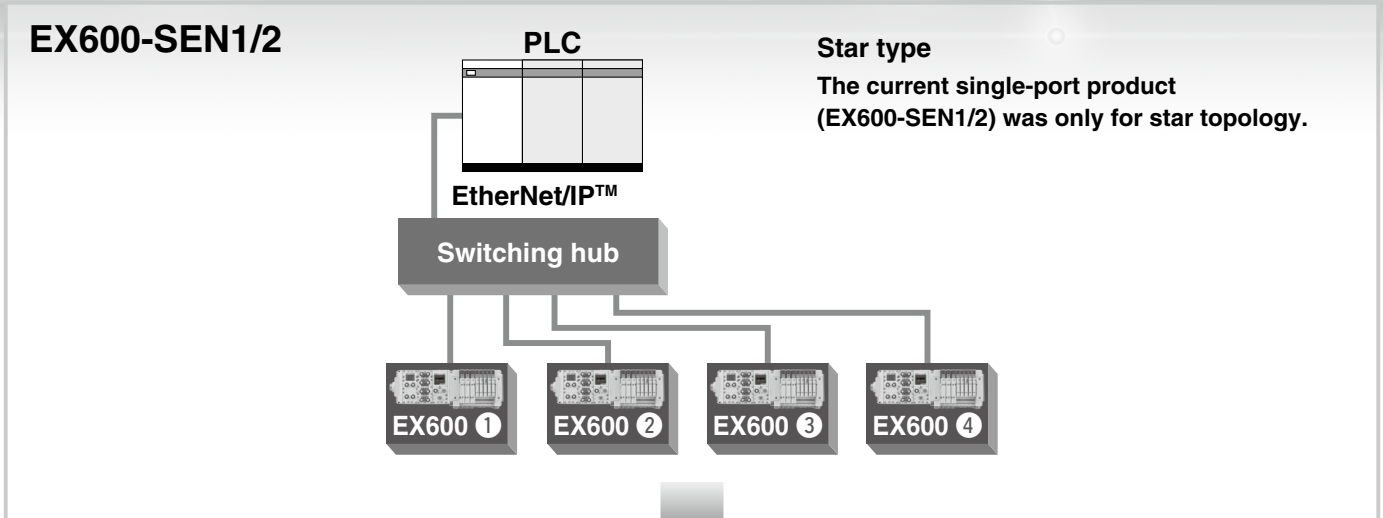
- MRP (PROFINET) compatible, Ethernet POWERLINK compatible
- Communication cable

| | |
|--------|---------------|
| Type 1 | EX260 |
| Type 2 | EX123/124/126 |
| Type 2 | EX500 |
| Type 3 | EX600 |
| Type 3 | EX245 |
| Type 3 | EX250 |
| Type 1 | EX120/121/122 |
| Type 1 | EX140 |
| Type 1 | EX180 |
| Type 2 | EX510 |
| Type 2 | M8/M12 |
| Type 2 | ATEX |

Latest EtherNet/IP™ Technology

The following functions are available for the dual-port EtherNet/IP™ product (EX600-SEN3/4).

● Added: Compatible Topologies (Connection Configuration)



QuickConnect™ Function Available

From power ON to communication connection

10 sec. →

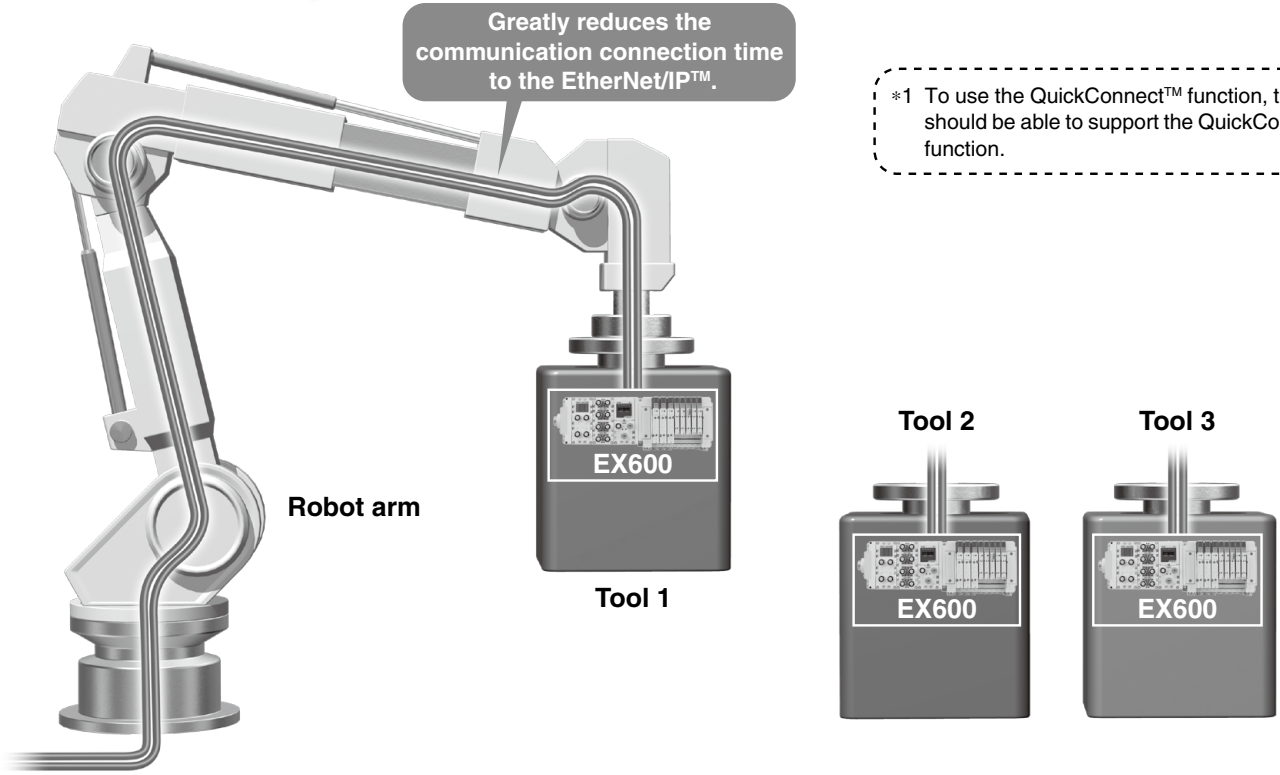
Approx.
0.5 sec.

For tool changers, it takes about 10 seconds for communication to be connected in common EtherNet/IP™ products after the power of the device installed on the tool is turned ON.

Since the QuickConnect™ function*1 is available for the EX600-SEN3/4, communication can be connected in about 0.5 seconds.

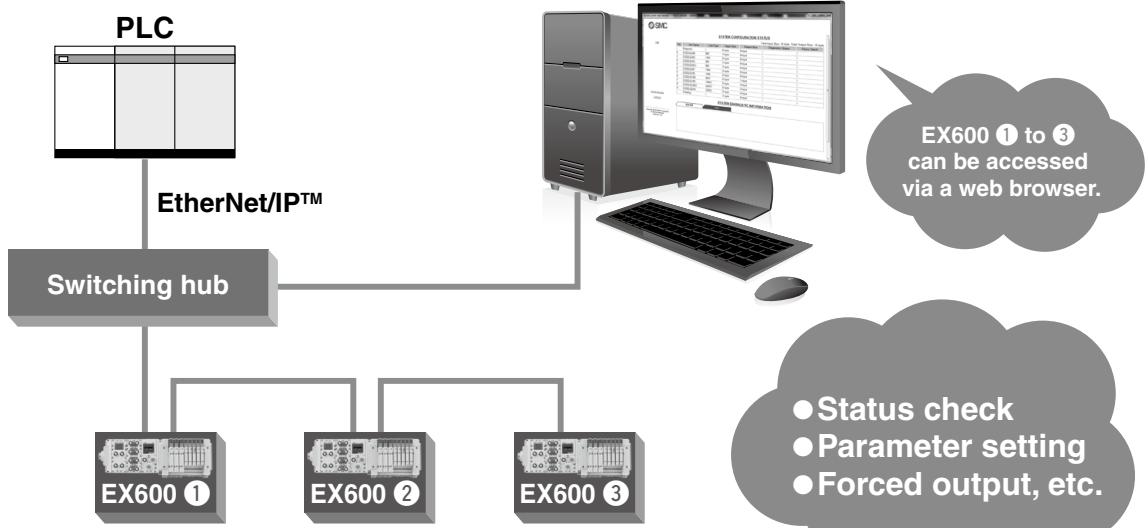
Greatly reduces the communication connection time to the EtherNet/IP™.

*1 To use the QuickConnect™ function, the PLC should be able to support the QuickConnect™ function.



Built-in Web Server Function

The EX600-SEN3/4 has a built-in web server function, which enables status checks, parameter settings, and forced output of the EX600 using general-purpose web browsers, such as Internet Explorer. Start-up of the system and maintenance can be performed efficiently.



Connection example



| | |
|--------|---------------|
| Type 1 | EX260 |
| Type 1 | EX123/124/126 |
| Type 2 | EX500 |
| Type 3 | EX600 |
| Type 3 | EX245 |
| Type 3 | EX250 |
| Type 1 | EX120/121/122 |
| Type 1 | EX140 |
| Type 1 | EX180 |
| Type 2 | EX510 |
| | M8/M12 |
| | ATEX |

Fieldbus System EX600

D-sub Connector

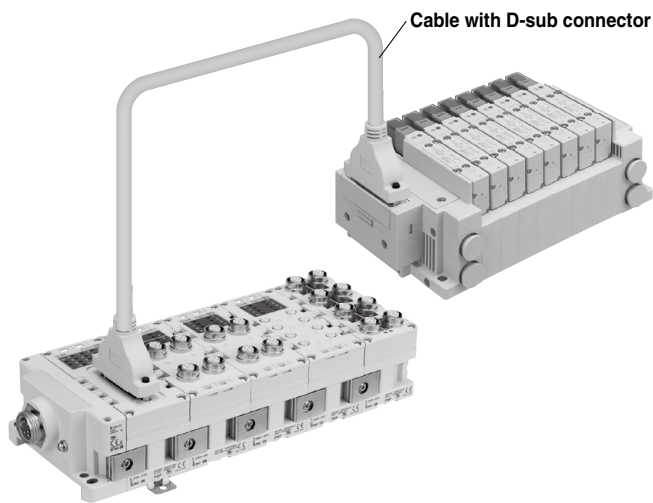
IP40

These units are capable of connection using a D-sub connector. There are three types of units: for digital input, output, and input/output. The digital output unit can be connected with an SMC manifold solenoid valve F kit (D-sub connector).

Manifold solenoid valves can be connected using a cable with a D-sub connector.

- SY series • S0700 series • SJ series • SQ series
- SV series • VQC series • VQ series

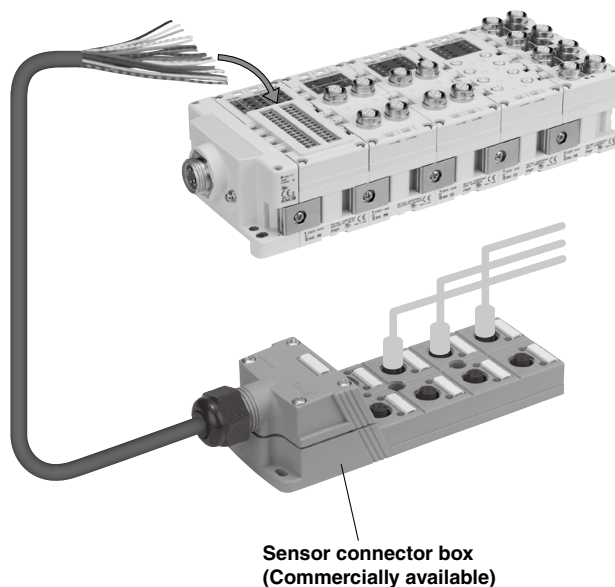
* Please limit the number of valve connections to 16 stations for single and 8 stations for double. Refer to the catalog of each product for pin assignment details.



Spring Type Terminal Block

IP40

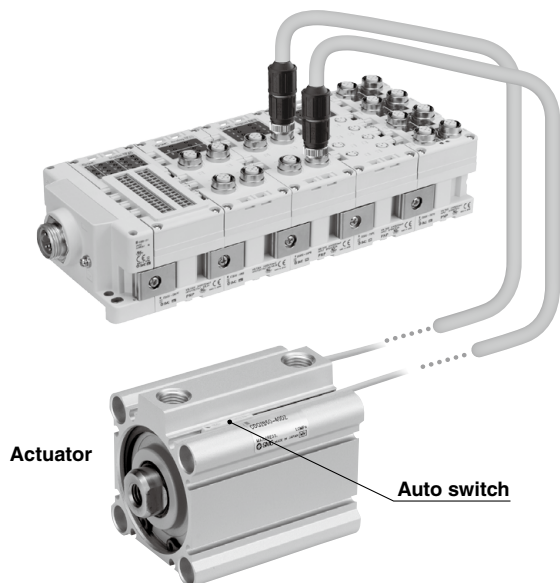
These terminal block units are compatible with individual wiring configurations. There are three types of units: for digital input, output, and input/output. Wiring connection to a sensor connector box, etc., can be carried out easily using only a flat head screwdriver.



Digital Input Unit

IP67

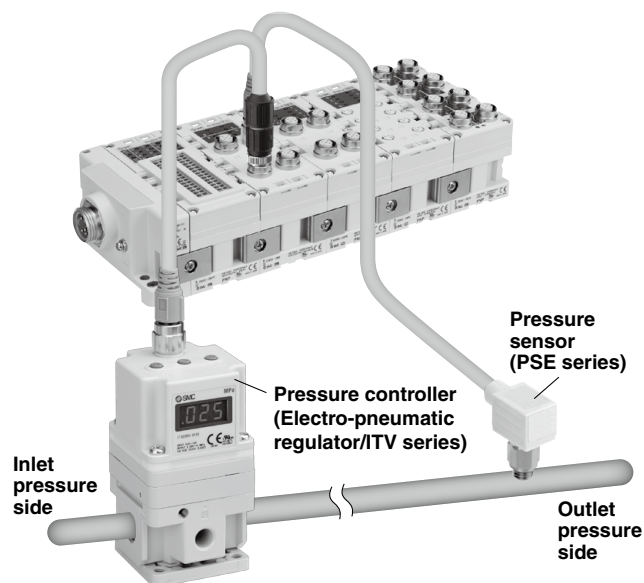
This unit is for inputting a digital signal (ON/OFF signal). The signal of a 2-wire/3-wire auto switch attached to the actuator can be acquired to feedback a signal to the PLC. The control signal of an entire system can be managed by a Fieldbus system.



Analog Input/Output Unit

IP67

These units are for inputting or outputting an analog signal (voltage/current). A single unit performs both input and output, allowing feedback control where analog signals are received from a pressure sensor and sent to a pressure controller. Installation space is minimized as well.



Self Diagnosis Function

In combination with the handheld terminal, the following two functions are available.

Short/Open-Circuit Detection Function

It is possible to detect short or open circuits of input devices such as electronic 2-wire switches and 3-wire switches and output devices such as solenoid valves. The location of the error can be identified by the indicator light and the network.



Green ON Normal



Red ON Short circuit

Red flashing Open circuit

Counter Function

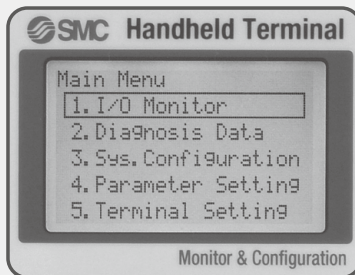
It is possible to ascertain the maintenance period and identify the parts that require maintenance by an input and output signal ON/OFF counter function. When the counter function is enabled and a certain number of contact operations is reached, the display of the counter will flash in red.

* The counter function is not provided with analog units.

Handheld Terminal

Forced Input and Output Function

The input and output signals are controlled forcedly without a PLC. The startup time after facility introduction can be shortened.



Password Setting Function

Simple Operation

Cursor button: Mode and setting change, etc.

Function key: Value and command entry, etc.



Can be used for the adjustment of internal parameters and the monitoring of input and output signal status

Parameters: Analog data format
Analog measurement range
Input filter selection
Counter function
Open-circuit detection function, etc.

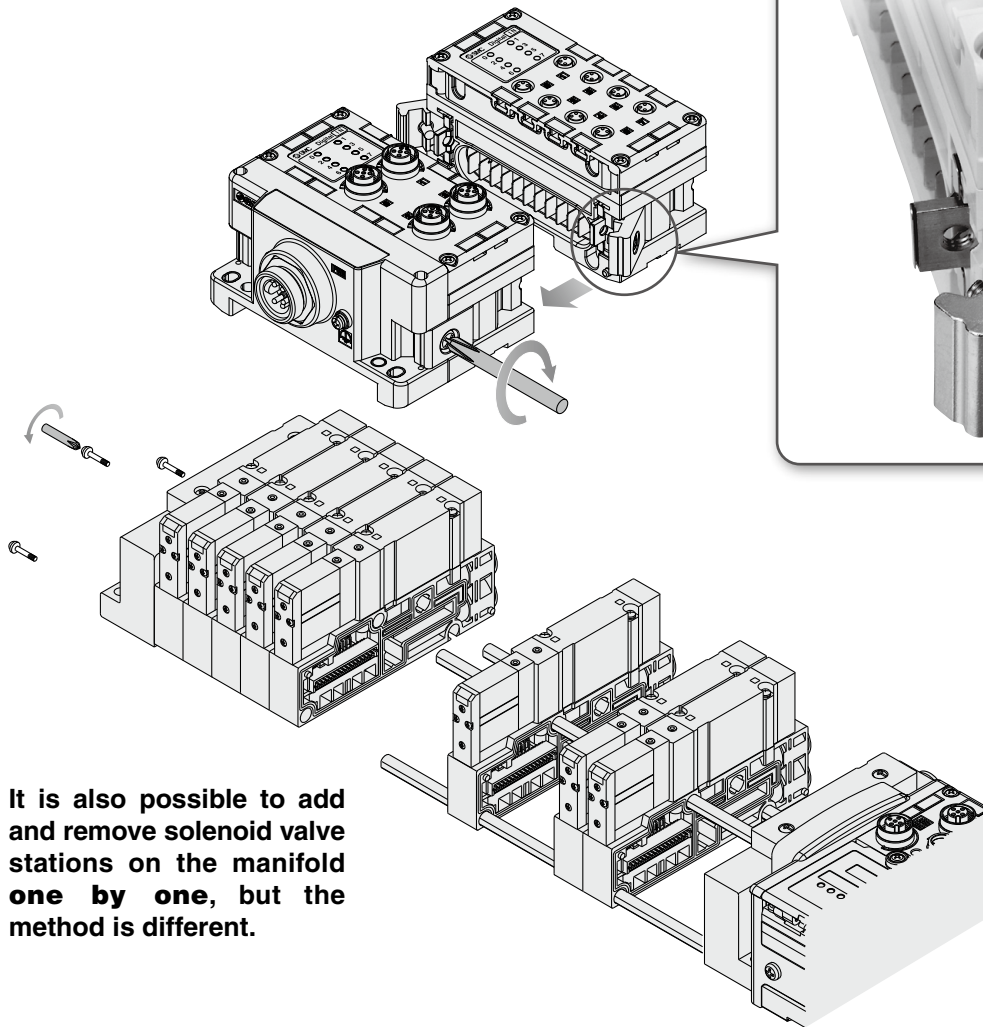
A parameter is a set value to change the function and operation of the product through a PLC or handheld terminal. The desired operation for the customer's application is realized by the set values. There are some parameters that can only be set using the handheld terminal of this series.

| | |
|--------|---------------|
| Type 1 | EX260 |
| Type 2 | EX123/124/126 |
| Type 2 | EX500 |
| Type 3 | EX600 |
| Type 3 | EX245 |
| Type 3 | EX250 |
| Type 1 | EX140 |
| Type 1 | EX120/121/122 |
| Type 2 | EX510 |
| Type 2 | EX180 |
| Type 2 | M8/M12 |
| Type 2 | ATEX |

Fieldbus System EX600

● Individual units can be connected and removed one by one.

A unique clamping method is adopted to prevent screws from falling out. Units can be separated easily by loosening the joint bracket.



It is also possible to add and remove solenoid valve stations on the manifold **one by one**, but the method is different.



5-Port Solenoid Valves SY3000/5000/7000

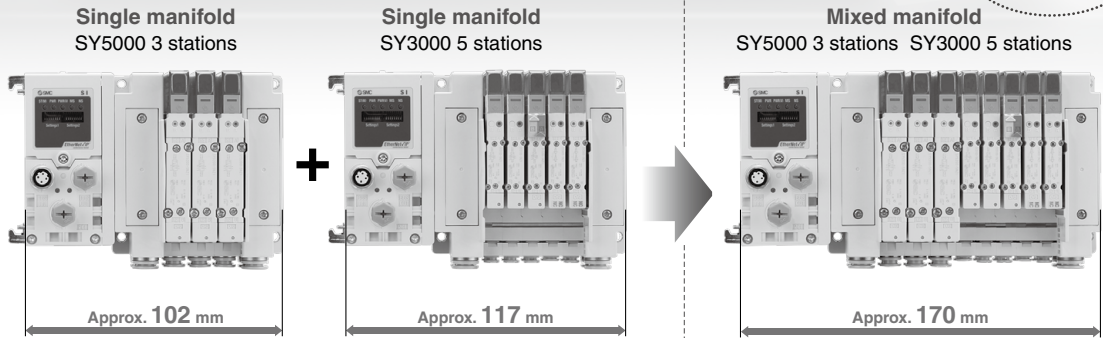
● Different sizes (SY3000/5000 or SY5000/7000) can be mixed!

The installation area, amount of wiring, and number of SI units can all be reduced.

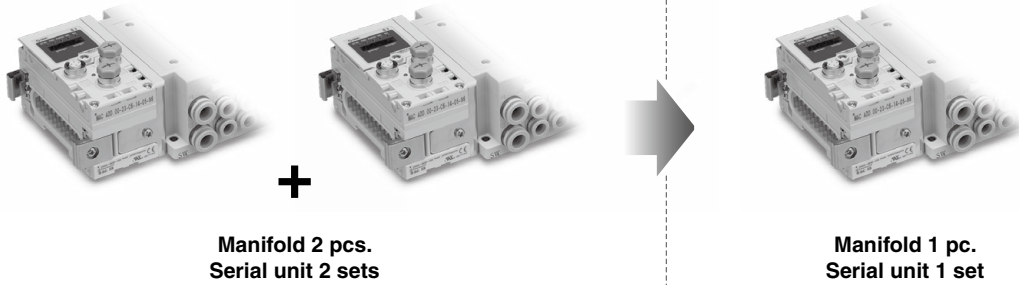
Overall length of manifold
Approx. 22% reduction

Example of SY3000 and SY5000

Installation space

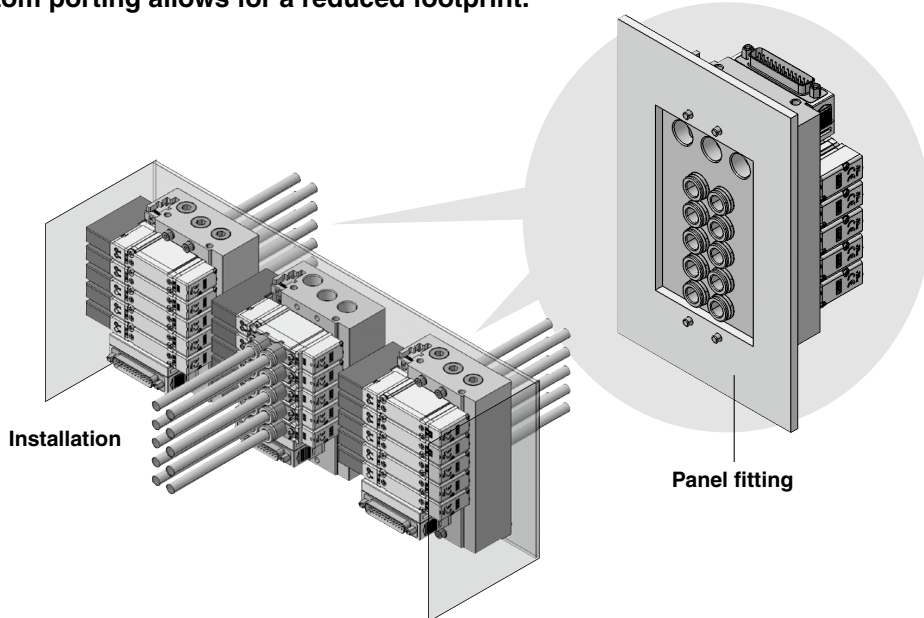


Number of SI units/
Unit cost



● Bottom-ported type is available!

Top or bottom porting allows for a reduced footprint.

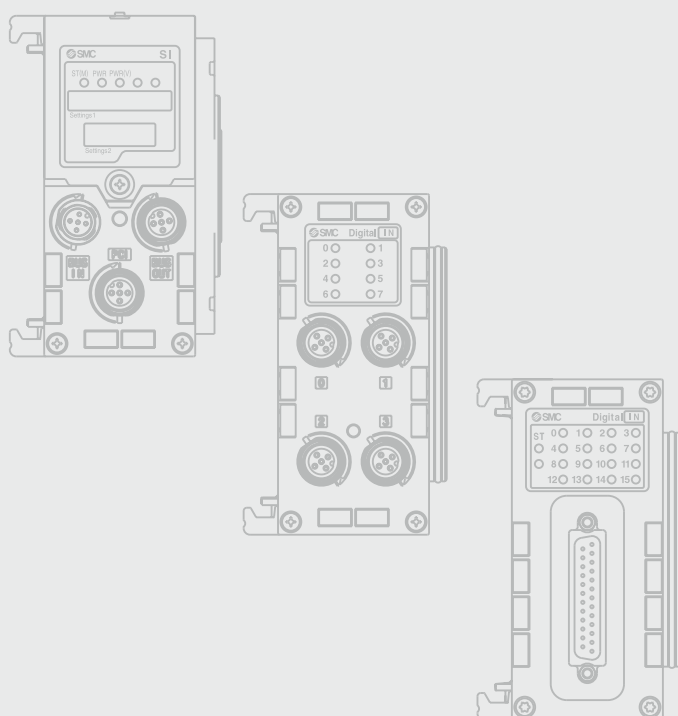
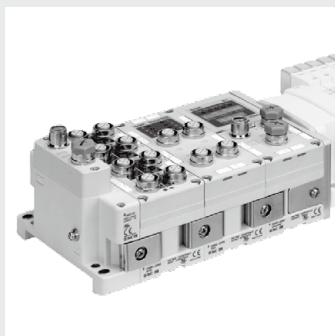


| | |
|--------|---------------|
| Type 1 | EX260 |
| Type 2 | EX123/124/126 |
| Type 3 | EX500 |
| | EX600 |
| | EX245 |
| | EX250 |
| Type 1 | EX120/121/122 |
| | EX140 |
| | EX180 |
| Type 2 | EX510 |
| | M8/M12 |
| | ATEX |

CONTENTS

Type 3 Integrated input-output type

Fieldbus System (For Input/Output) EX600 Series



| | |
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| Parts Structure | p. 104 |
| How to Order | |

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| SI Unit | p. 104 |
| Digital Input Unit | p. 105 |
| Digital Output Unit | p. 105 |
| Digital Input/Output Unit | p. 105 |
| Analog Input Unit | p. 105 |
| Analog Output Unit | p. 106 |
| Analog Input/Output Unit | p. 106 |
| End Plate | p. 106 |
| Handheld Terminal | p. 106 |

Specifications

| | |
|---------------------------------|--------|
| All Units Common | p. 107 |
| SI Unit | p. 107 |
| Digital Input Unit | p. 109 |
| Digital Output Unit | p. 110 |
| Digital Input/Output Unit | p. 110 |
| Analog Input Unit | p. 111 |
| Analog Output Unit | p. 111 |
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| Handheld Terminal | p. 112 |

| | |
|-------------------------|--------|
| Dimensions | p. 113 |
|-------------------------|--------|

| | |
|--------------------------------|--------|
| Parts Description | p. 115 |
|--------------------------------|--------|

| | |
|----------------------------|--------|
| LED Indicator | p. 117 |
|----------------------------|--------|

Accessories

| | |
|---|--------|
| ① End Plate Bracket | p. 121 |
| ② Valve Plate | p. 121 |
| ③ Reinforcing Brace | p. 122 |
| ④ Seal Cap (10 pcs.) | p. 122 |
| ⑤ Marker (1 sheet, 88 pcs.) | p. 122 |
| ⑥ Power Supply Cable (7/8 inch connector) | p. 122 |
| ⑦ Power Supply Field-wireable Connector (7/8 inch) | p. 123 |
| ⑧ Power Supply Cable (M12 connector) | p. 123 |
| ⑨ Communication Cable | p. 124 |
| ⑩ Field-wireable Communication Connector | p. 126 |
| ⑪ I/O Cable with Connector /I/O Connector | p. 127 |

Made to Order

| | |
|---------------------------------------|--------|
| ① MRP (PROFINET) compatible | p. 128 |
| ② Ethernet POWERLINK compatible | p. 128 |
| Communication Cable | p. 128 |

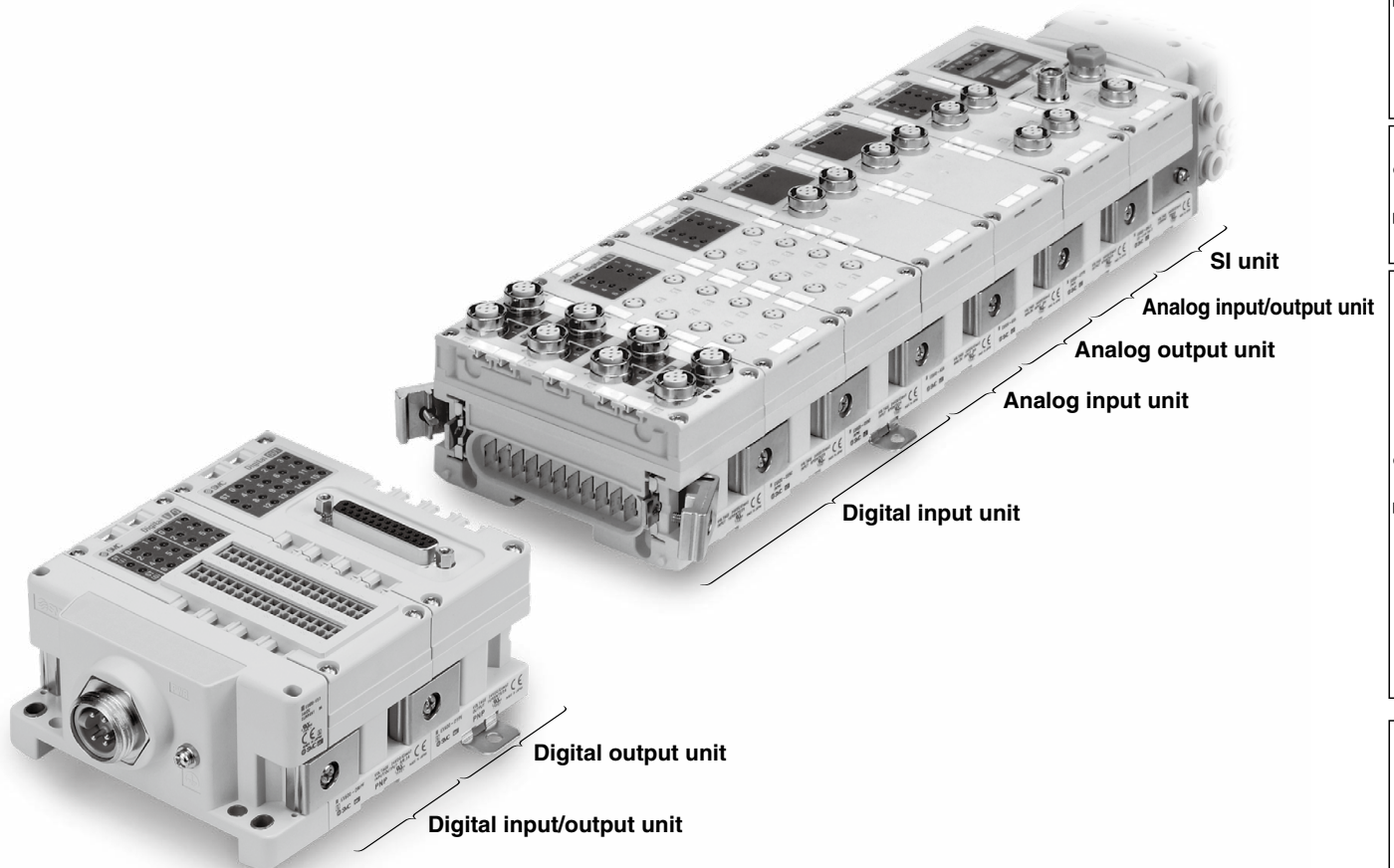
| | |
|------------------------------------|--------|
| Specific Product Precautions | p. 132 |
|------------------------------------|--------|

Fieldbus System For Input/Output

EX600 Series



Parts Structure

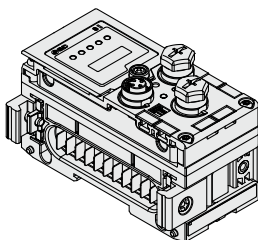


| | |
|--------|---------------|
| Type 1 | EX260 |
| Type 2 | EX123/124/126 |
| Type 2 | EX500 |
| Type 2 | EX600 |
| Type 3 | EX245 |
| Type 3 | EX250 |
| Type 1 | EX120/121/122 |
| Type 1 | EX140 |
| Type 1 | EX180 |
| Type 2 | EX510 |
| Type 2 | M8/M12 |
| Type 2 | ATEX |

How to Order

SI Unit

EX600-S PR1A-



Specifications

| Symbol | Protocol | Output type | Note |
|--------|--------------|-----------------------|---------|
| 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) | — |
| EN1 | EtherNet/IP™ | PNP (Negative common) | — |
| EN2 | | NPN (Positive common) | — |
| EN3 | | PNP (Negative common) | 2 ports |
| EN4 | | NPN (Positive common) | 2 ports |
| EC1 | EtherCAT | PNP (Negative common) | — |
| EC2 | | NPN (Positive common) | — |
| PN1 | PROFINET | PNP (Negative common) | — |
| PN2 | | NPN (Positive common) | — |

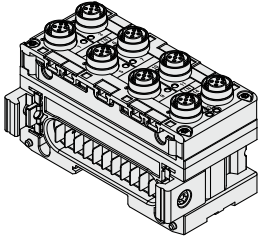
• Made to Order
(Refer to page 128.)

| |
|--------------------|
| MRP (PROFINET) |
| Ethernet POWERLINK |

EX600 Series

How to Order

Digital Input Unit



EX600-DX P D

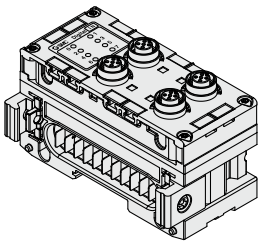
Input type

| Symbol | Description |
|--------|-------------|
| P | PNP |
| N | NPN |

Number of Inputs, Open-circuit detection, and Connector

| Symbol | Number of inputs | Open-circuit detection | Connector |
|--------|------------------|------------------------|--------------------------------------|
| B | 8 inputs | No | M12 connector (5 pins) 4 pcs. |
| C | 8 inputs | No | M8 connector (3 pins) 8 pcs. |
| C1 | 8 inputs | Yes | M8 connector (3 pins) 8 pcs. |
| D | 16 inputs | No | M12 connector (5 pins) 8 pcs. |
| E | 16 inputs | No | D-sub connector (25 pins) |
| F | 16 inputs | No | Spring type terminal block (32 pins) |

Digital Output Unit



EX600-DY P B

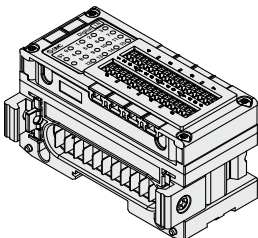
Output type

| Symbol | Description |
|--------|-------------|
| P | PNP |
| N | NPN |

Number of Outputs and Connector

| Symbol | Number of outputs | Connector |
|--------|-------------------|--------------------------------------|
| B | 8 outputs | M12 connector (5 pins) 4 pcs. |
| E | 16 outputs | D-sub connector (25 pins) |
| F | 16 outputs | Spring type terminal block (32 pins) |

Digital Input/Output Unit



EX600-DM P F

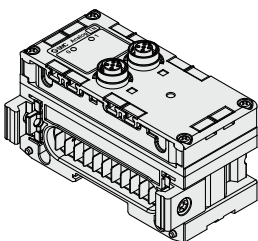
Input/Output type

| Symbol | Description |
|--------|-------------|
| P | PNP |
| N | NPN |

Number of Inputs/Outputs and Connector

| Symbol | Number of inputs | Number of outputs | Connector |
|--------|------------------|-------------------|--------------------------------------|
| E | 8 inputs | 8 outputs | D-sub connector (25 pins) |
| F | 8 inputs | 8 outputs | Spring type terminal block (32 pins) |

Analog Input Unit



EX600-AX A

Analog input

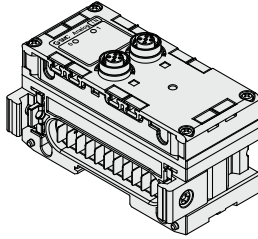
Number of Input channels and Connector

| Symbol | Number of input channels | Connector |
|--------|--------------------------|-------------------------------|
| A | 2 channels | M12 connector (5 pins) 2 pcs. |

How to Order

Analog Output Unit

EX600-AY A



Analog output

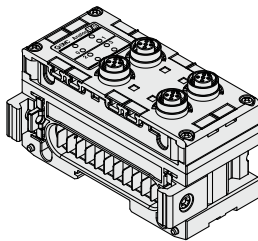
Number of Output channels and Connector

| Symbol | Number of output channels | Connector |
|--------|---------------------------|-------------------------------|
| A | 2 channels | M12 connector (5 pins) 2 pcs. |

Type 1
EX260
EX123/124/126

Analog Input/Output Unit

EX600-AM B



Analog input/output

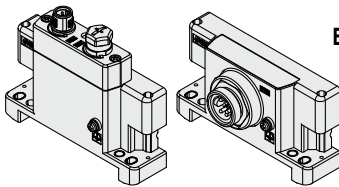
Number of Input/Output channels and Connector

| Symbol | Number of input channels | Number of output channels | Connector |
|--------|--------------------------|---------------------------|-------------------------------|
| B | 2 channels | 2 channels | M12 connector (5 pins) 4 pcs. |

Type 2
EX500
EX600

End Plate (D side)

EX600-ED 2-2



For M12

For 7/8 inch

End plate

End plate mounting position: D side

Power supply connector

| Symbol | Power supply connector | Specifications |
|--------|--------------------------|----------------|
| 2 | M12 (5 pins) B-coded | IN |
| 3 | 7/8 inch (5 pins) | IN |
| 4 | M12 (4/5 pins) A-coded*1 | IN/OUT |
| 5 | M12 (4/5 pins) A-coded*1 | IN/OUT |

*1 The pin layout for "4" and "5" pin connector is different.

Refer to the dimensions on page 113.

Mounting method

| Symbol | Description | Note |
|--------|-----------------------------------|---------------------------|
| Nil | Without DIN rail mounting bracket | — |
| 2 | With DIN rail mounting bracket | For SV, S0700, VQC series |
| 3 | With DIN rail mounting bracket | For SY series |

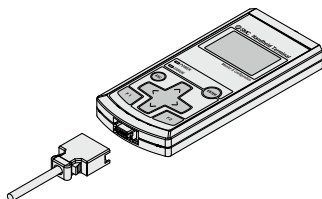
* When the end plate (U side) is used, the symbol for the mounting method must be the same as the D side.

EX600-ED4/5 are not yet UL-compatible.

Type 3
EX245
EX250

Handheld Terminal

EX600-HT1A-3



Version

Cable length

| Symbol | Description |
|--------|-------------|
| Nil | No cable |
| 1 | 1 m |
| 3 | 3 m |

Handheld terminals are not yet UL-compatible.

Type 1
EX120/121/122
EX140

EX180

Type 2
EX510

M8/M12

ATEX

EX600 Series

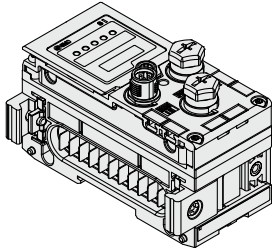
Specifications

All Units Common Specifications

| | | |
|--------------------------|------------------------------------|--|
| Environmental resistance | Operating temperature range | Operating: -10 to 50°C, Stored: -20 to 60°C |
| | Operating humidity range | 35 to 85% RH (No condensation) |
| | Withstand voltage*1 | 500 VAC for 1 minute between external terminals and FE |
| | Insulation resistance*1 | 500 VDC, 10 MΩ or more between external terminals and FE |

*1 Except handheld terminals

SI Unit (EX600-SPR□A)

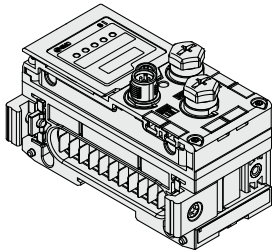


EX600-SPR□A

| Model | | EX600-SPR1A | EX600-SPR2A |
|--|---|--|----------------------------|
| Communication | Protocol | PROFIBUS DP (DP-V0) | |
| | Device type | PROFIBUS DP Slave | |
| | Communication speed | 9.6/19.2/45.45/93.75/187.5/500 kbps 1.5/3/6/12 Mbps | |
| | Configuration file | GSD file*2 | |
| | Occupation area (Number of inputs/outputs) | Max. (512 inputs/512 outputs) | |
| | Terminating resistor | Internally implemented | |
| Internal current consumption (Power supply for Control/Input) | | 80 mA or less | |
| Output | Output type | Source/PNP (Negative common) | Sink/NPN (Positive common) |
| | Number of outputs | 32 outputs (8/16/24/32 outputs selectable) | |
| | Load | Solenoid valve with surge voltage suppressor 24 VDC, 1.5 W or less (SMC) | |
| | Power supply | 24 VDC, 2 A | |
| | Fail safe | HOLD/CLEAR/Forced power ON | |
| | Protection | Short-circuit protection | |
| Enclosure | | IP67 (Manifold assembly) | |
| Standards | | CE marking, UL (CSA), RoHS compliant | |
| Weight | | 300 g | |

*2 The setting file can be downloaded from the SMC website, <http://www.smcworld.com>

SI Unit (EX600-SDN□A)

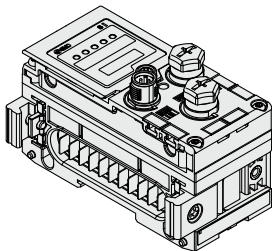


EX600-SDN□A

| Model | | EX600-SDN1A | EX600-SDN2A |
|--|---|--|----------------------------|
| Communication | Protocol | DeviceNet™: Volume 1 (Edition 2.1), Volume 3 (Edition 1.1) | |
| | Device type | Group 2 Only Server | |
| | Communication speed | 125/250/500 kbps | |
| | Configuration file | EDS file*3 | |
| | Occupation area (Number of inputs/outputs) | Max. (512 inputs/512 outputs) | |
| | Applicable messages | Duplicate MAC ID Check Message, Group 2 Only Unconnected Explicit Message Explicit Message (Group 2), Poll I/O Message (Predefined M/S Connection set) | |
| Applicable function | | QuickConnect™ | |
| DeviceNet™ power supply | | 11 to 25 VDC (Current consumption 50 mA or less) | |
| Internal current consumption (Power supply for Control/Input) | | 55 mA or less | |
| Output | Output type | Source/PNP (Negative common) | Sink/NPN (Positive common) |
| | Number of outputs | 32 outputs (8/16/24/32 outputs selectable) | |
| | Load | Solenoid valve with surge voltage suppressor 24 VDC, 1.5 W or less (SMC) | |
| | Power supply | 24 VDC, 2 A | |
| | Fail safe | HOLD/CLEAR/Forced power ON | |
| | Protection | Short-circuit protection | |
| Enclosure | | IP67 (Manifold assembly) | |
| Standards | | CE marking, UL (CSA), RoHS compliant | |
| Weight | | 300 g | |

*3 The setting file can be downloaded from the SMC website, <http://www.smcworld.com>

SI Unit (EX600-SMJ□)

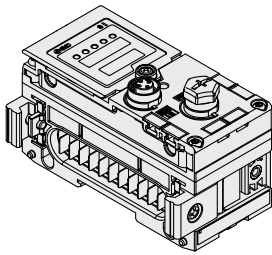


EX600-SMJ□

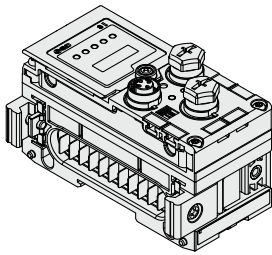
| Model | | EX600-SMJ1 | EX600-SMJ2 |
|------------------|--|--|----------------------------|
| Communication | Protocol | CC-Link (Ver. 1.10, Ver. 2.00) | |
| | Station type | Remote Device Station | |
| | Communication speed | 156/625 kbps 2.5/5/10 Mbps | |
| | Configuration file | CSP+ file*4 | |
| | Occupation area (Number of inputs/outputs) | Max. (512 inputs/512 outputs) 1/2/3/4 stations occupied | |
| | Internal current consumption (Power supply for Control/Input) | | 75 mA or less |
| Output | Output type | Source/PNP (Negative common) | Sink/NPN (Positive common) |
| | Number of outputs | 32 outputs (8/16/24/32 outputs selectable) | |
| | Load | Solenoid valve with surge voltage suppressor 24 VDC, 1.5 W or less (SMC) | |
| | Power supply | 24 VDC, 2 A | |
| | Fail safe | HOLD/CLEAR/Forced power ON | |
| | Protection | Short-circuit protection | |
| Enclosure | | IP67 (Manifold assembly) | |
| Standards | | CE marking, UL (CSA), RoHS compliant | |
| Weight | | 300 g | |

*4 The setting file can be downloaded from the SMC website, <http://www.smcworld.com>

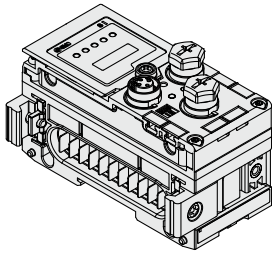
Specifications



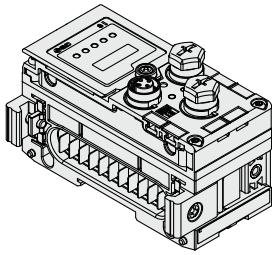
EX600-SEN1/2



EX600-SEN3/4



EX600-SEC□



EX600-SPN□

SI Unit (EX600-SEN□)

| Model | | EX600-SEN1 | EX600-SEN2 | EX600-SEN3 | EX600-SEN4 |
|------------------------------|--|---|---|---|----------------------------|
| Communication | Number of communication ports | 1 port | | 2 ports | |
| | Protocol | EtherNet/IP™ (Conformance version: Composite 6) | | EtherNet/IP™ (Conformance version: Composite 11) | |
| | Communication speed | 10/100 Mbps | | | |
| | Communication method | Full duplex/Half duplex | | | |
| | Configuration file | EDS file*1 | | | |
| | Occupation area (Number of inputs/outputs) | Max. (512 inputs/512 outputs) | | | |
| | IP address setting range | SI Unit switch settings: 192.168.0 or 1.1 to 254 Through DHCP server: Optional address | | | |
| Device information | Vendor ID: 7 (SMC Corporation) | Vendor ID: 7 (SMC Corporation) | | Vendor ID: 7 (SMC Corporation) | |
| | Device type: 12 (Communication Adapter) Product code: 126 | Device type: 12 (Communication Adapter) Product code: 203 | | Device type: 12 (Communication Adapter) Product code: 203 | |
| Applicable function | — | | QuickConnect™ DLR Web server function | | |
| Internal current consumption | 120 mA or less | | | | |
| Output | Output type | Source/PNP (Negative common) | Sink/NPN (Positive common) | Source/PNP (Negative common) | Sink/NPN (Positive common) |
| | Number of outputs | 32 outputs (8/16/24/32 outputs selectable) | | 32 outputs | |
| | Load | Solenoid valve with surge voltage suppressor 24 VDC, 1.5 W or less (SMC) | | Solenoid valve with surge voltage suppressor 24 VDC, 1.0 W or less (SMC) | |
| | Power supply | 24 VDC, 2 A | | | |
| | Fail safe | HOLD/CLEAR/Forced power ON | | | |
| | Protection | Short-circuit protection | | | |
| | Enclosure | IP67 (Manifold assembly) | | | |
| Standards | CE marking, UL (CSA), RoHS compliant | | | | |
| Weight | 300 g | | | | |

*1 The setting file can be downloaded from the SMC website, <http://www.smcworld.com>

SI Unit (EX600-SEC□)

| Model | | EX600-SEC1 | EX600-SEC2 |
|--|---|--|----------------------------|
| Communication | Protocol | EtherCAT (Conformance Test Record V.1.2) | |
| | Communication speed | 100 Mbps | |
| | Configuration file | XML file*2 | |
| | Occupation area (Number of inputs/outputs) | Max. (512 inputs/512 outputs) | |
| Internal current consumption (Power supply for Control/Input) | 100 mA or less | | |
| Output | Output type | Source/PNP (Negative common) | Sink/NPN (Positive common) |
| | Number of outputs | 32 outputs (8/16/24/32 outputs selectable) | |
| | Load | Solenoid valve with surge voltage suppressor 24 VDC, 1.5 W or less (SMC) | |
| | Power supply | 24 VDC, 2 A | |
| | Fail safe | HOLD/CLEAR/Forced power ON | |
| Protection | Short-circuit protection | | |
| Enclosure | IP67 (Manifold assembly) | | |
| Standards | CE marking, UL (CSA), RoHS compliant | | |
| Weight | 300 g | | |

*2 The setting file can be downloaded from the SMC website, <http://www.smcworld.com>

SI Unit (EX600-SPN□)

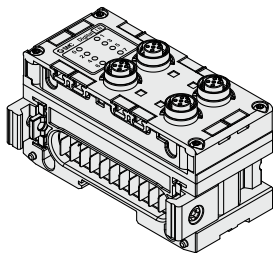
| Model | | EX600-SPN1 | EX600-SPN2 |
|--|---|--|----------------------------|
| Communication | Protocol | PROFINET IO (PROFINET RT) | |
| | Communication speed | 100 Mbps | |
| | Configuration file | GSDML file*3 | |
| | Occupation area (Number of inputs/outputs) | Max. (512 inputs/512 outputs) | |
| | Applicable function | Fast Start Up | |
| Internal current consumption (Power supply for Control/Input) | 120 mA or less | | |
| Output | Output type | Source/PNP (Negative common) | Sink/NPN (Positive common) |
| | Number of outputs | 32 outputs | |
| | Load | Solenoid valve with surge voltage suppressor 24 VDC, 1.0 W or less (SMC) | |
| | Power supply | 24 VDC, 2 A | |
| | Fail safe | HOLD/CLEAR/Forced power ON | |
| Protection | Short-circuit protection | | |
| Enclosure | IP67 (Manifold assembly) | | |
| Standards | CE marking, UL (CSA), RoHS compliant | | |
| Weight | 300 g | | |

*3 The setting file can be downloaded from the SMC website, <http://www.smcworld.com>

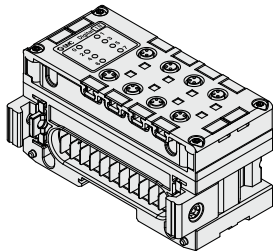
| | |
|--------|---------------|
| Type 1 | EX260 |
| Type 1 | EX123/124/126 |
| Type 2 | EX500 |
| Type 2 | EX600 |
| Type 3 | EX245 |
| Type 3 | EX250 |
| Type 1 | EX120/121/122 |
| Type 1 | EX140 |
| Type 1 | EX180 |
| Type 2 | EX510 |
| Type 2 | M8/M12 |
| Type 2 | ATEX |

EX600 Series

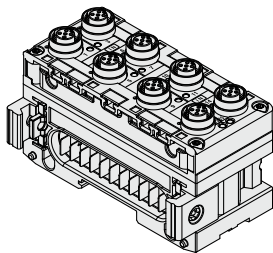
Specifications



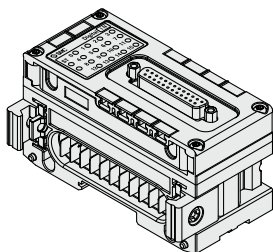
EX600-DX□B



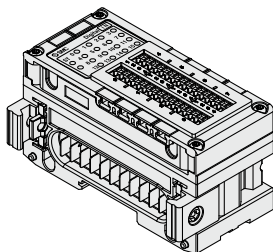
EX600-DX□C



EX600-DX□D



EX600-DX□E



EX600-DX□F

Digital Input Unit

| Model | | EX600-DXPB | EX600-DXNB | EX600-DXPC□ | EX600-DXNC□ | EX600-DXPD | EX600-DXND |
|---------------------|--------------------------------------|---|---------------|------------------------------|----------------|--------------------------------|------------|
| Input | Input type | PNP | NPN | PNP | NPN | PNP | NPN |
| | Input connector | M12 (5-pin) socket*1 | | M8 (3-pin) socket*3 | | M12 (5-pin) socket*1 | |
| | Number of inputs | 8 inputs (2 inputs/Connector) | | 8 inputs (1 input/Connector) | | 16 inputs (2 inputs/Connector) | |
| | Supplied voltage | 24 VDC | | | | | |
| | Max. supplied current | 0.5 A/Connector 2 A/Unit | | 0.25 A/Connector 2 A/Unit | | 0.5 A/Connector 2 A/Unit | |
| | Protection | Short-circuit protection | | | | | |
| | Input current (at 24 VDC) | 9 mA or less | | | | | |
| | ON voltage | 17 V or more (At NPN input, between the pin for input terminal and supplied voltage of +24 V) (At PNP input, between the pin for input terminal and supplied voltage of 0 V) | | | | | |
| | OFF voltage | 5 V or less (At NPN input, between the pin for input terminal and supplied voltage of +24 V) (At PNP input, between the pin for input terminal and supplied voltage of 0 V) | | | | | |
| | Open circuit detection current | 2 wires | — | | 0.5 mA/Input*2 | | — |
| 3 wires | | — | | 0.5 mA/Connector*2 | | — | |
| Current consumption | 50 mA or less | | 55 mA or less | | 70 mA or less | | |
| Enclosure | IP67 (Manifold assembly) | | | | | | |
| Standards | CE marking, UL (CSA), RoHS compliant | | | | | | |
| Weight | 300 g | | 275 g | | 340 g | | |

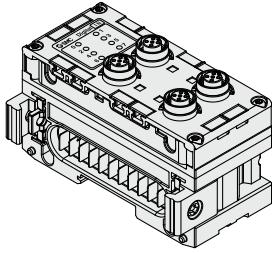
*1 M12 (4-pin) connector can be connected.

*2 Function only applies to the EX600-DX□C1.

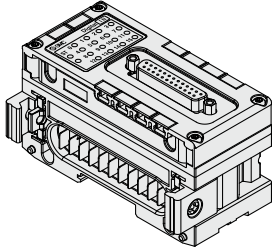
*3 When connecting the M8 plug connector, the tightening torque must be 0.2 N·m \pm 10%. If tightened with an excessive tightening torque, this may cause the connector thread of the unit to break.

| Model | | EX600-DXPE | EX600-DXNE | EX600-DXPF | EX600-DXNF |
|---------------------|--------------------------------------|---|---------------|---|------------|
| Input | Input type | PNP | NPN | PNP | NPN |
| | Input connector | D-sub socket (25 pins) Lock screw: No.4-40 UNC | | Spring type terminal block (32 pins) | |
| | Number of inputs | 16 inputs | | 16 inputs (2 inputs x 8 blocks) | |
| | Supplied voltage | 24 VDC | | | |
| | Max. supplied current | 2 A/Unit | | 0.5 A/Block 2 A/Unit | |
| | Protection | Short-circuit protection | | | |
| | Input current (at 24 VDC) | 5 mA or less | | | |
| | ON voltage | 17 V or more (At NPN input, between the pin for input terminal and supplied voltage of +24 V) (At PNP input, between the pin for input terminal and supplied voltage of 0 V) | | | |
| | OFF voltage | 5 V or less (At NPN input, between the pin for input terminal and supplied voltage of +24 V) (At PNP input, between the pin for input terminal and supplied voltage of 0 V) | | | |
| | Applicable wire | — | | 0.08 to 1.5 mm ² (AWG16 to 28) | |
| Current consumption | 50 mA or less | | 55 mA or less | | |
| Enclosure | IP40 (Manifold assembly) | | | | |
| Standards | CE marking, UL (CSA), RoHS compliant | | | | |
| Weight | 300 g | | | | |

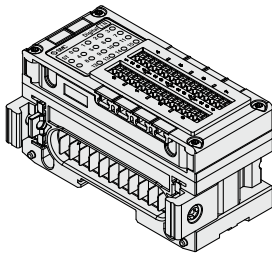
Specifications



EX600-DY□B



EX600-DY□E
EX600-DM□E



EX600-DY□F
EX600-DM□F

Digital Output Unit

| Model | EX600-DYPB | EX600-DYNB | EX600-DYPE | EX600-DYNE | EX600-DYPF | EX600-DYNF |
|----------------------------|--------------------------------------|------------|---|------------|--|------------|
| Output type | PNP | NPN | PNP | NPN | PNP | NPN |
| Output connector | M12 (5-pin) socket*1 | | D-sub socket (25 pins) Lock screw: No.4-40 UNC | | Spring type terminal block (32 pins) | |
| Number of outputs | 8 outputs (2 outputs/Connector) | | 16 outputs | | 16 outputs (2 outputs x 8 blocks) | |
| Supplied voltage | 24 VDC | | | | | |
| Max. load current | 0.5 A/Output 2 A/Unit | | | | | |
| Protection | Short-circuit protection | | | | | |
| Applicable wire | — | | — | | 0.08 to 1.5 mm ² (AWG16 to 28) | |
| Current consumption | 50 mA or less | | | | | |
| Enclosure | IP67 (Manifold assembly) | | IP40 (Manifold assembly) | | | |
| Standards | CE marking, UL (CSA), RoHS compliant | | | | | |
| Weight | 300 g | | | | | |

*1 M12 (4-pin) connector can be connected.

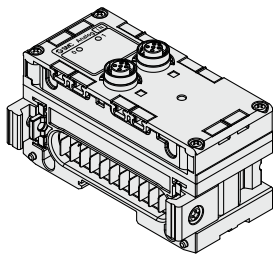
Digital Input/Output Unit

| Model | EX600-DMPE | EX600-DMNE | EX600-DMPF | EX600-DMNF |
|----------------------------------|---|------------|---|------------|
| Input/Output type | PNP | NPN | PNP | NPN |
| Connector | D-sub socket (25 pins) Lock screw: No.4-40 UNC | | Spring type terminal block (32 pins) | |
| Number of inputs | 8 inputs | | 8 inputs (2 inputs x 4 blocks) | |
| Supplied voltage | 24 VDC | | | |
| Max. supplied current | 2 A/Unit | | 0.5 A/Block 2 A/Unit | |
| Protection | Short-circuit protection | | | |
| Input current (at 24 VDC) | 5 mA or less | | | |
| ON voltage | 17 V or more (At NPN input, between the pin for input terminal and supplied voltage of +24 V) (At PNP input, between the pin for input terminal and supplied voltage of 0 V) | | | |
| OFF voltage | 5 V or less (At NPN input, between the pin for input terminal and supplied voltage of +24 V) (At PNP input, between the pin for input terminal and supplied voltage of 0 V) | | | |
| Number of outputs | 8 outputs | | 8 outputs (2 outputs x 4 blocks) | |
| Supplied voltage | 24 VDC | | | |
| Max. load current | 0.5 A/Output 2 A/Unit | | | |
| Protection | Short-circuit protection | | | |
| Applicable wire | — | | 0.08 to 1.5 mm ² (AWG16 to 28) | |
| Current consumption | 50 mA or less | | 60 mA or less | |
| Enclosure | IP40 (Manifold assembly) | | | |
| Standards | CE marking, UL (CSA), RoHS compliant | | | |
| Weight | 300 g | | | |

| | |
|--------|---------------|
| Type 1 | EX260 |
| Type 2 | EX500 |
| Type 3 | EX600 |
| Type 1 | EX245 |
| Type 1 | EX250 |
| Type 1 | EX120/121/122 |
| Type 1 | EX140 |
| Type 1 | EX180 |
| Type 2 | EX510 |
| | M8/M12 |
| | ATEX |

EX600 Series

Specifications



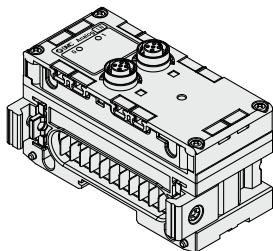
EX600-AXA

Analog Input Unit

| Model | | EX600-AXA | | |
|-----------|--------------------------------------|----------------------------------|-------------------------------|------------------------|
| Input | Input type | Voltage input | Current input | |
| | Input connector | M12 (5-pin) socket*1 | | |
| | Input channel | 2 channels (1 channel/Connector) | | |
| | Supplied voltage | 24 VDC | | |
| | Max. supplied current | 0.5 A/Connector | | |
| | Protection | Short-circuit protection | | |
| | Input signal range | 12 bit resolution | 0 to 10 V, 1 to 5 V, 0 to 5 V | 0 to 20 mA, 4 to 20 mA |
| | | 16 bit resolution | -10 to 10 V, -5 to 5 V | -20 to 20 mA |
| | Max. rated input signal | ±15 V | ±22 mA*2 | |
| | Input impedance | 100 kΩ | 50 Ω | |
| | Linearity (25°C) | ±0.05% F.S. | | |
| | Repeatability (25°C) | ±0.15% F.S. | | |
| | Absolute accuracy (25°C) | ±0.5% F.S. | ±0.6% F.S. | |
| | Current consumption | 70 mA or less | | |
| Enclosure | IP67 (Manifold assembly) | | | |
| Standards | CE marking, UL (CSA), RoHS compliant | | | |
| Weight | 290 g | | | |

*1 M12 (4-pin) connector can be connected.

*2 When input signal exceeds 22 mA, the protection function activates and the input signal is interrupted.



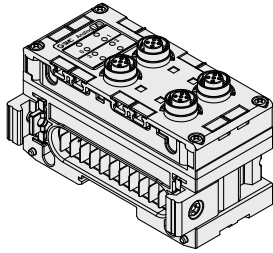
EX600-AYA

Analog Output Unit

| Model | | EX600-AYA | | |
|-----------|--------------------------------------|----------------------------------|-------------------------------|------------------------|
| Output | Output type | Voltage output | Current output | |
| | Output connector | M12 (5-pin) socket*3 | | |
| | Output channel | 2 channels (1 channel/Connector) | | |
| | Supplied voltage | 24 VDC | | |
| | Max. load current | 0.5 A/Connector | | |
| | Protection | Short-circuit protection | | |
| | Output signal range | 12 bit resolution | 0 to 10 V, 1 to 5 V, 0 to 5 V | 0 to 20 mA, 4 to 20 mA |
| | | 16 bit resolution | -10 to 10 V, -5 to 5 V | -20 to 20 mA |
| | Load impedance | 1 kΩ or more | 600 Ω or less | |
| | Linearity (25°C) | ±0.05% F.S. | | |
| | Repeatability (25°C) | ±0.15% F.S. | | |
| | Absolute accuracy (25°C) | ±0.5% F.S. | ±0.6% F.S. | |
| | Current consumption | 70 mA or less | | |
| | Enclosure | IP67 (Manifold assembly) | | |
| Standards | CE marking, UL (CSA), RoHS compliant | | | |
| Weight | 290 g | | | |

*3 M12 (4-pin) connector can be connected.

Specifications



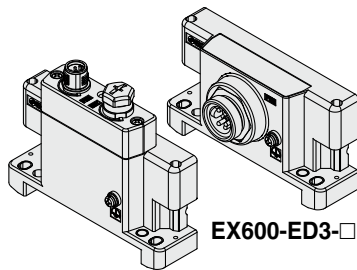
EX600-AMB

Analog Input/Output Unit

| Model | | EX600-AMB | | |
|--------------------------|--------------------------------------|--|------------------------|--|
| Input | Input type | Voltage input | Current input | |
| | Input connector | M12 (5-pin) socket*1 | | |
| | Input channel | 2 channels (1 channel/Connector) | | |
| | Supplied voltage | 24 VDC | | |
| | Max. supplied current | 0.5 A/Connector | | |
| | Protection | Short-circuit protection | | |
| | Input signal range | 12 bit resolution 0 to 10 V, 1 to 5 V, 0 to 5 V | 0 to 20 mA, 4 to 20 mA | |
| | Max. rated input signal | 15 V | 22 mA*2 | |
| | Input impedance | 100 kΩ | 250 Ω | |
| | Linearity (25°C) | ±0.05% F.S. | | |
| Repeatability (25°C) | ±0.15% F.S. | | | |
| Absolute accuracy (25°C) | ±0.5% F.S. | ±0.6% F.S. | | |
| Output | Output type | Voltage output | Current output | |
| | Output connector | M12 (5-pin) socket*1 | | |
| | Output channel | 2 channels (1 channel/Connector) | | |
| | Supplied voltage | 24 VDC | | |
| | Max. load current | 0.5 A/Connector | | |
| | Protection | Short-circuit protection | | |
| | Output signal range | 12 bit resolution 0 to 10 V, 1 to 5 V, 0 to 5 V | 0 to 20 mA, 4 to 20 mA | |
| | Load impedance | 1 kΩ or more | 600 Ω or less | |
| | Linearity (25°C) | ±0.05% F.S. | | |
| | Repeatability (25°C) | ±0.15% F.S. | | |
| Absolute accuracy (25°C) | ±0.5% F.S. | ±0.6% F.S. | | |
| Current consumption | 100 mA or less | | | |
| Enclosure | IP67 (Manifold assembly) | | | |
| Standards | CE marking, UL (CSA), RoHS compliant | | | |
| Weight | 300 g | | | |

*1 M12 (4-pin) connector can be connected.

*2 When input signal exceeds 22 mA, the protection function activates and the input signal is interrupted.



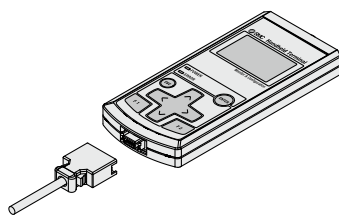
EX600-ED2/4/5-□

EX600-ED3-□

End Plate

| Model | | EX600-ED2-□ | EX600-ED3-□ | EX600-ED4/5-□ | |
|----------------------|--|-----------------------------------|-----------------------|----------------------|--|
| Power specifications | Power supply connector | PWR IN M12 (5-pin) plug | 7/8 inch (5-pin) plug | M12 (4-pin) plug | |
| | | PWR OUT — | — | M12 (5-pin) plug | |
| | Rated voltage | Power supply for control/input | 24 VDC ±10% | | |
| | | Power supply for output | 24 VDC +10/-5% | | |
| Rated current | Power supply for control/input | Max. 2 A | Max. 8 A | Max. 4 A | |
| | Power supply for output | | | | |
| Enclosure | IP67 (Manifold assembly) | | | | |
| Standards | CE marking, UL (CSA), RoHS compliant*1 | | | | |
| Weight | 170 g | 175 g | 170 g | | |

*1 The EX600-ED4/5-□ is not compliant with UL (CSA) standards.



EX600-HT1A-□

Handheld Terminal

| Model | EX600-HT1A-□ |
|---------------------|---|
| Power supply | Power supplied from SI unit connector (24 VDC) |
| Current consumption | 50 mA or less |
| Display | LCD with backlight |
| Connection cable | Handheld terminal cable (1 m ... EX600-AC010-1, 3 m ... EX600-AC030-1) |
| Enclosure | IP20 |
| Standards | CE marking, RoHS compliant |
| Weight | 160 g |

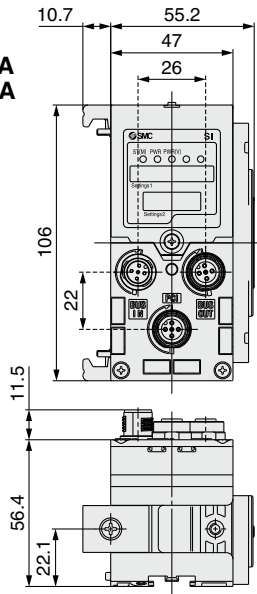
Type 1
EX260
EX123/124/126
EX500
EX600
EX245
EX250
EX120/121/122
EX140
EX180
EX510
M8/M12
ATEX

EX600 Series

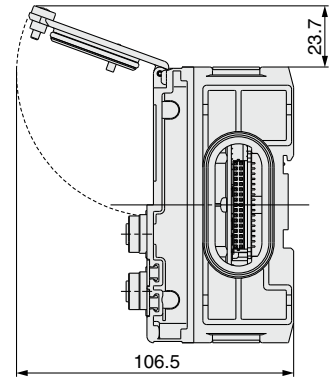
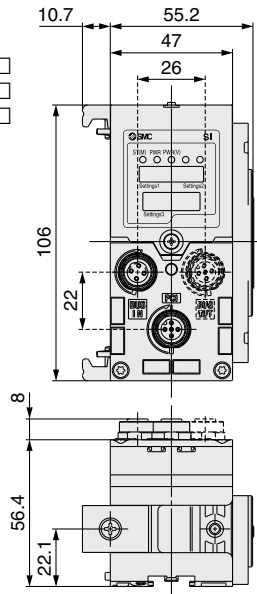
Dimensions

SI Unit

EX600-SPR□A
EX600-SDN□A
EX600-SMJ□

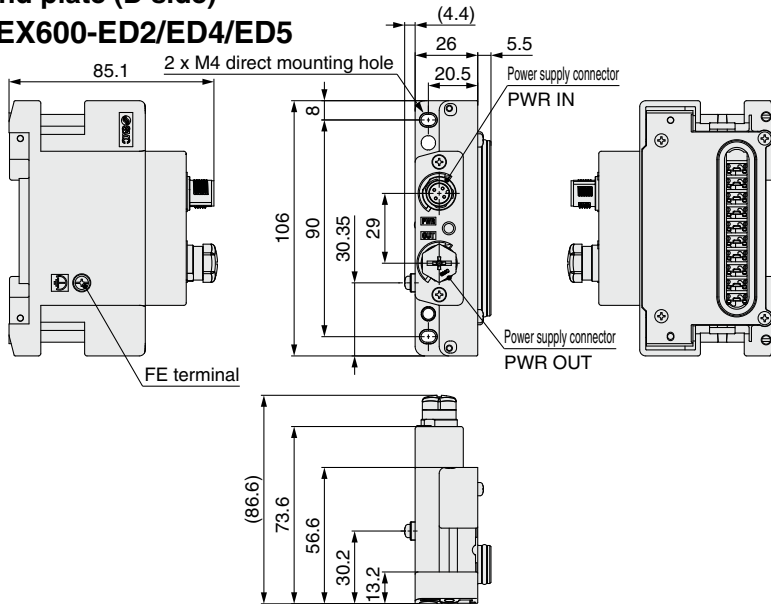


EX600-SEN□
EX600-SEC□
EX600-SPN□

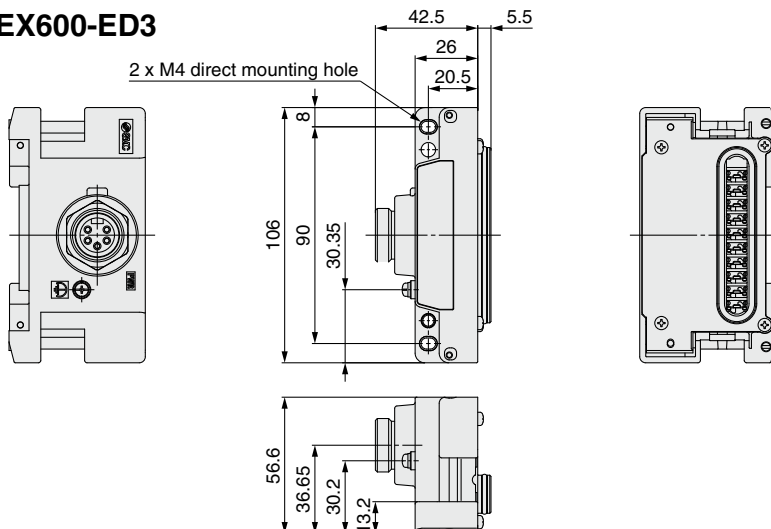


End plate (D side)

EX600-ED2/ED4/ED5



EX600-ED3



EX600-ED2

Power supply connector PWR IN: M12 5-pin plug, B-coded

| Configuration | Pin no. | Description |
|---------------|---------|--------------------------|
| | 1 | 24 V (for output) |
| | 2 | 0 V (for output) |
| | 3 | 24 V (for control/input) |
| | 4 | 0 V (for control/input) |
| | 5 | FE |

Power supply connector PWR IN: M12 4-pin plug, A-coded

| Configuration | EX600-ED4 (Pin arrangement 1) | | EX600-ED5 (Pin arrangement 2) | |
|---------------|-------------------------------|--------------------------|-------------------------------|--------------------------|
| | Pin no. | Description | Pin no. | Description |
| | 1 | 24 V (for control/input) | 1 | 24 V (for output) |
| | 2 | 24 V (for output) | 2 | 0 V (for output) |
| | 3 | 0 V (for control/input) | 3 | 24 V (for control/input) |
| | 4 | 0 V (for output) | 4 | 0 V (for control/input) |

Power supply connector PWR OUT: M12 5-pin socket, A-coded

| Configuration | EX600-ED4 (Pin arrangement 1) | | EX600-ED5 (Pin arrangement 2) | |
|---------------|-------------------------------|--------------------------|-------------------------------|--------------------------|
| | Pin no. | Description | Pin no. | Description |
| | 1 | 24 V (for control/input) | 1 | 24 V (for output) |
| | 2 | 24 V (for output) | 2 | 0 V (for output) |
| | 3 | 0 V (for control/input) | 3 | 24 V (for control/input) |
| | 4 | 0 V (for output) | 4 | 0 V (for control/input) |
| | 5 | Unused | 5 | Unused |

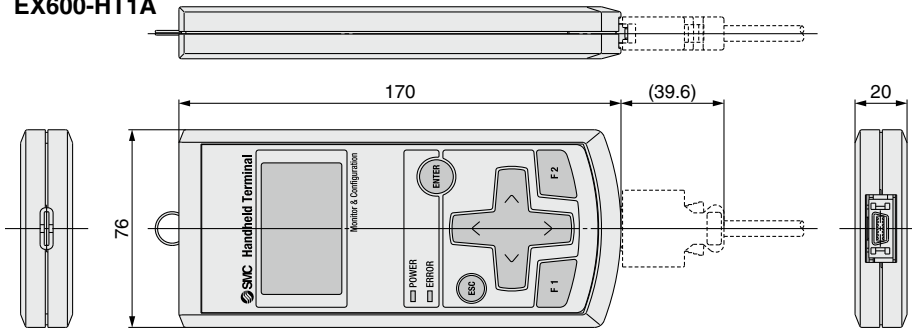
Power supply connector PWR: 7/8 inch 5-pin plug

| Configuration | Pin no. | Description |
|---------------|---------|--------------------------|
| | 1 | 0 V (for output) |
| | 2 | 0 V (for control/input) |
| | 3 | FE |
| | 4 | 24 V (for control/input) |
| | 5 | 24 V (for output) |

Dimensions

Handheld Terminal

EX600-HT1A

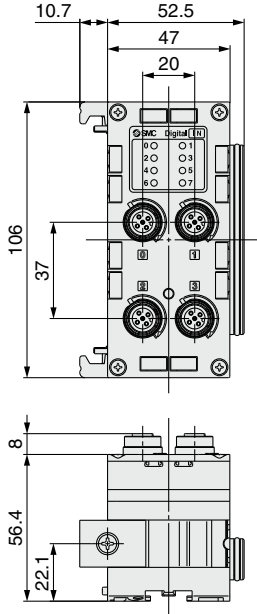


| Type 2 | Type 3 | Type 1 | Type 1 | Type 2 | Type 1 |
|--------|--------|--------|--------|--------|---------------|
| | EX250 | EX245 | EX600 | EX500 | EX123/124/126 |
| | | | | | EX260 |
| | | | | | EX120/121/122 |
| | | | | | EX140 |
| | | | | | EX180 |
| | | | | | EX510 |
| | | | | | M8/M12 |
| | | | | | ATEX |

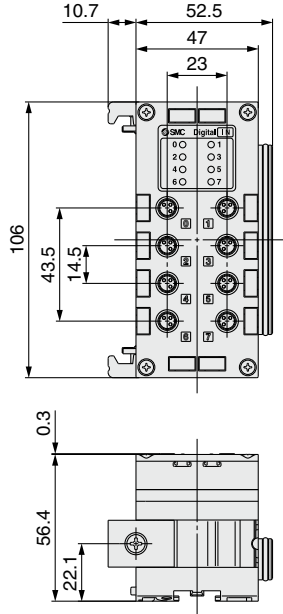
Dimensions

Digital Unit

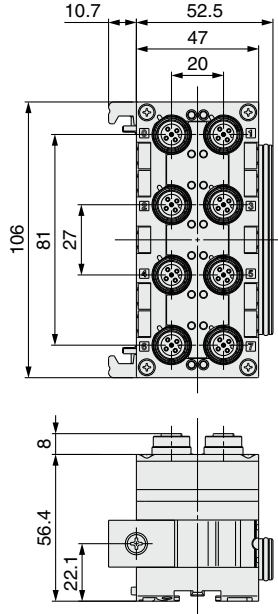
EX600-DX□B
EX600-DY□B



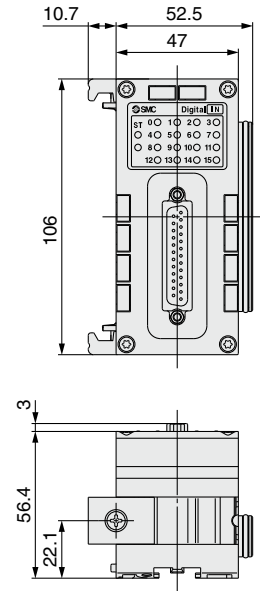
EX600-DX□C□



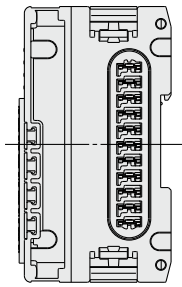
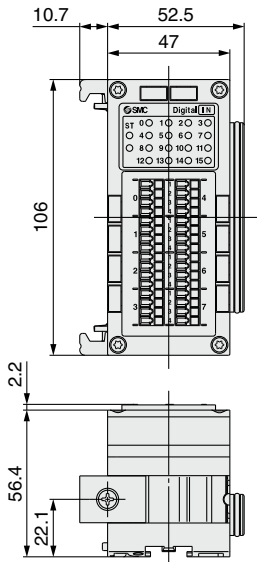
EX600-DX□D



EX600-DX□E
EX600-DY□E
EX600-DM□E

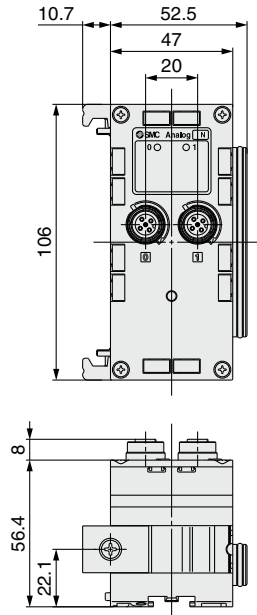


EX600-DX□F
EX600-DY□F
EX600-DM□F

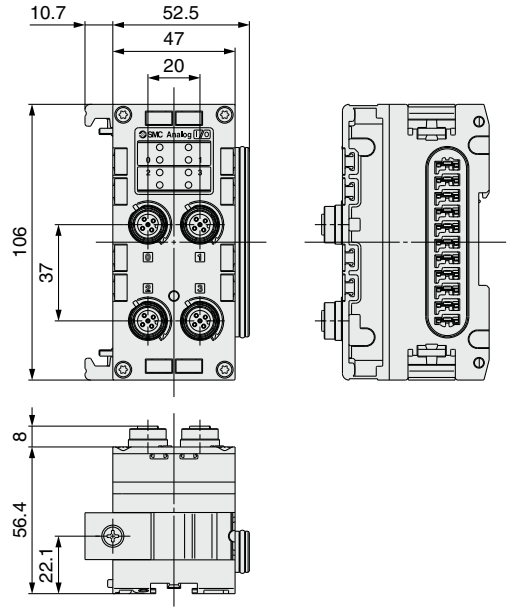


Analog Unit

EX600-AXA
EX600-AYA



EX600-AMB

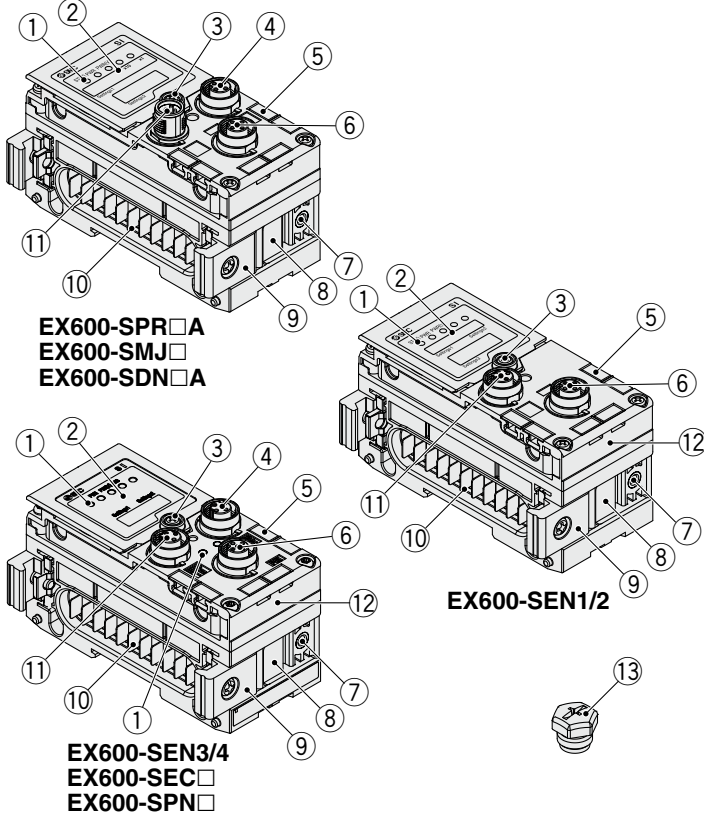


| | |
|--------|---------------|
| Type 1 | EX260 |
| Type 2 | EX123/124/126 |
| Type 3 | EX500 |
| | EX600 |
| | EX245 |
| | EX250 |
| Type 1 | EX120/121/122 |
| | EX140 |
| Type 2 | EX180 |
| | EX510 |
| | M8/M12 |
| | ATEX |

EX600 Series

Parts Description

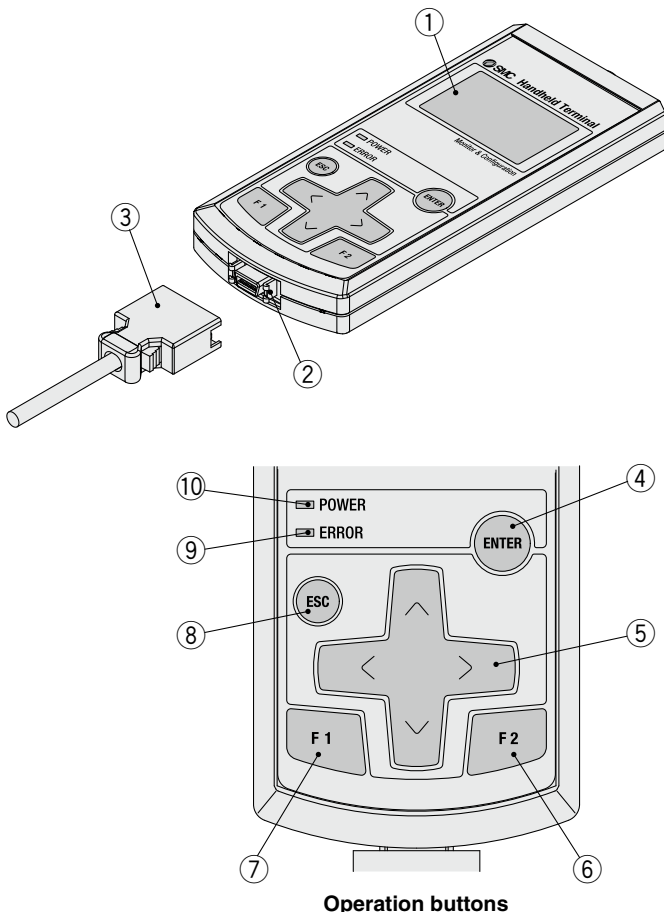
SI Unit



| No. | Name | Use |
|-----|------------------------------------|---|
| 1 | Status indication LED | Displays unit status |
| 2 | Indication cover | Open for setting the switch. |
| 3 | Indication cover set screw | Loosen for opening the indication cover. |
| 4 | Connector (BUS OUT) | Connects to the fieldbus output cable (SPEEDCON) |
| 5 | Marker groove | Can be used to mount a marker |
| 6 | Connector (PCI) | Connects to the handheld terminal cable (SPEEDCON) |
| 7 | Valve plate mounting holes | Fixes a valve plate in place |
| 8 | Valve plate mounting groove | Inserts a valve plate |
| 9 | Joint bracket | Links units to one another |
| 10 | Connector for unit (Plug) | Transmits signals to the neighboring unit and supplies power |
| 11 | Connector (BUS IN) | Connects to the cable for fieldbus input (SPEEDCON) |
| 12 | MAC address name plate*1 | Displays a unique 12-digit MAC address for each SI unit |
| 13 | Seal cap | Mounted on the connectors (BUS OUT and PCI) at the time of shipment |

*1 MAC address name plate is not provided on the EX600-SEC□.

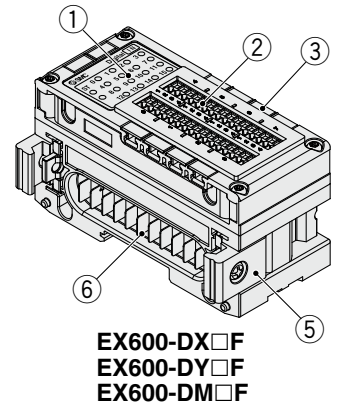
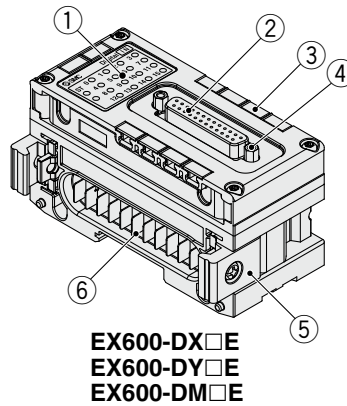
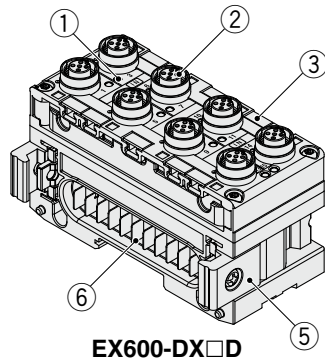
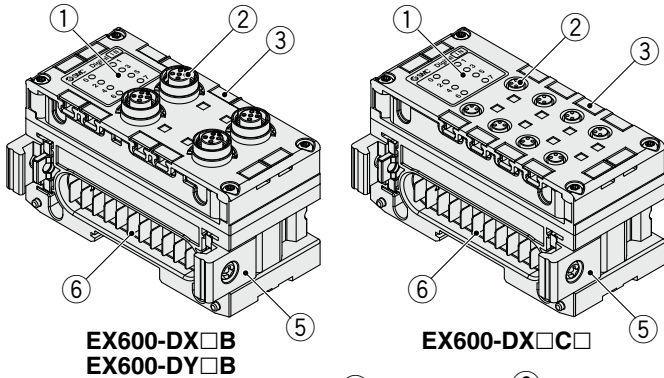
Handheld Terminal



| No. | Name | Use |
|-----|-----------------------------------|---|
| 1 | LCD | Displays operation and unit information |
| 2 | Connector | Connects to the handheld terminal cable |
| 3 | Handheld terminal cable | Connects the SI unit to the handheld terminal |
| 4 | Enter button (ENTER) | From the selection screen, goes to the screen for the item selected On the settings screen, registers the settings that have been made so far |
| 5 | Cursor button (↑ ↓ ← →) | Moves the cursor on the LCD up, down, left or right Moves the cursor on the selection screen up, down, left or right to make selections On the settings screen, increases or decreases the value of settings or turns settings on and off |
| 6 | F2 button (F2) | Functions in accordance with on-screen display or instructions |
| 7 | F1 button (F1) | Functions in accordance with on-screen display or instructions |
| 8 | Escape button (ESC) | On the selection screen, goes back to the previous screen On the settings screen, cancels the settings that have been made so far and goes back to the previous screen |
| 9 | ERROR LED | Lights up red when the EX600 diagnosis errors occur |
| 10 | POWER LED | Connects to the EX600 SI unit, and lights up green when control/input power supply is on |

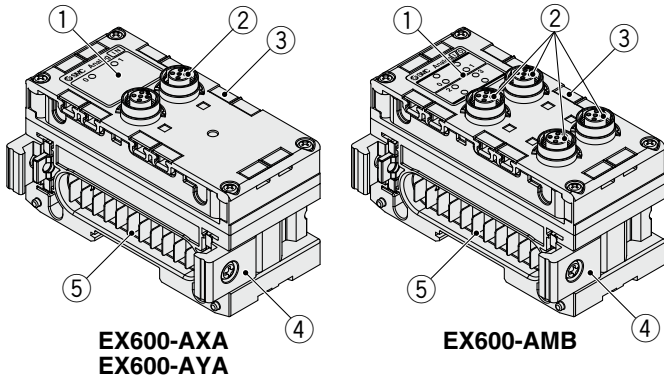
Parts Description

Digital Unit



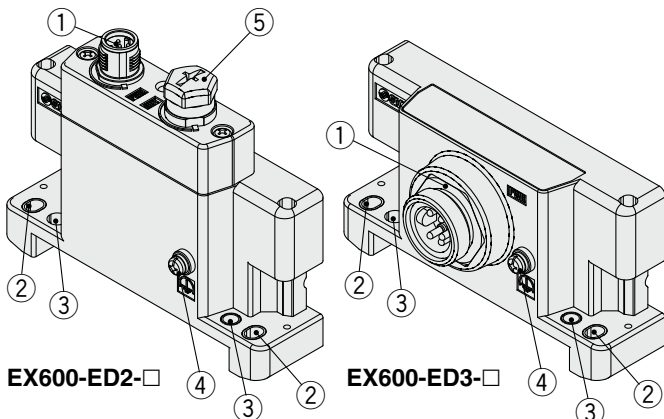
| No. | Name | Use |
|-----|----------------------------------|---|
| 1 | Status indication LED | Displays unit status |
| 2 | Connector | Connects with input or output devices (Only the EX600-D□□B and EX600-DX□D are SPEEDCON compatible.) |
| 3 | Marker groove | Can be used to mount a marker |
| 4 | Lock screw | Secures the D-sub connector in place (No.4-40 UNC) |
| 5 | Joint bracket | Links units to one another |
| 6 | Connector for unit (Plug) | Transmits signals to the neighboring unit and supplies power |

Analog Unit



| No. | Name | Use |
|-----|----------------------------------|--|
| 1 | Status indication LED | Displays unit status |
| 2 | Connector | Connects with input or output devices (SPEEDCON) |
| 3 | Marker groove | Can be used to mount a marker |
| 4 | Joint bracket | Links units to one another |
| 5 | Connector for unit (Plug) | Transmits signals to the neighboring unit and supplies power |

End Plate



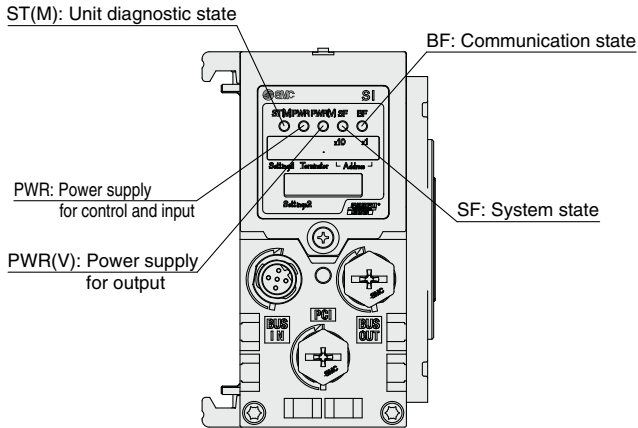
| No. | Name | Use |
|-----|--|--|
| 1 | Power connector | Supplies power to the unit and/or input/output device (Only the EX600-ED2-□ is SPEEDCON compatible.) |
| 2 | Fixing hole for direct mounting | Connects directly to equipment |
| 3 | Fixing hole for DIN rail | Converts to manifold or for DIN rail mounting |
| 4 | FE terminal | Used for grounding Ground this terminal securely to improve noise immunity. |
| 5 | Connector (Unused) | This connector has not yet been used. Do not remove the seal cap. |

| | |
|--------|---------------|
| Type 1 | EX260 |
| Type 1 | EX123/124/126 |
| Type 2 | EX500 |
| Type 3 | EX600 |
| Type 3 | EX245 |
| Type 3 | EX250 |
| Type 1 | EX120/121/122 |
| Type 1 | EX140 |
| Type 1 | EX180 |
| Type 2 | EX510 |
| Type 2 | M8/M12 |
| Type 2 | ATEX |

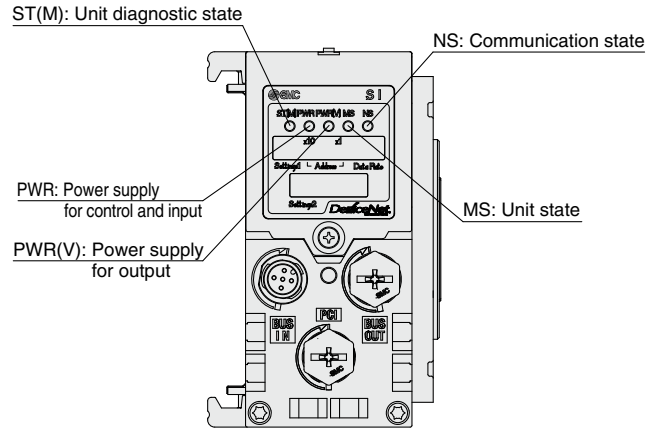
EX600 Series

LED Indicator

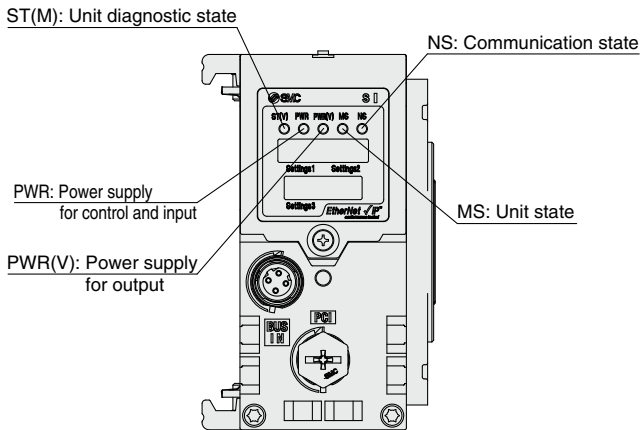
EX600-SPR□A



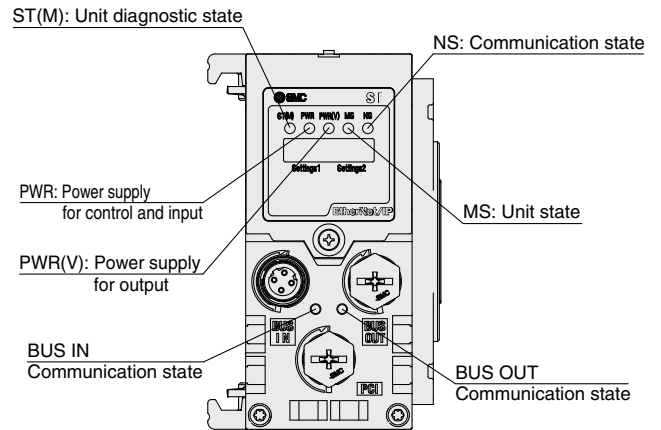
EX600-SDN□A



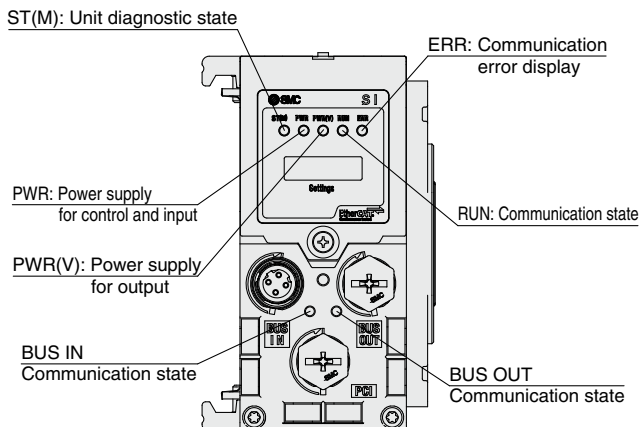
EX600-SEN1/SEN2



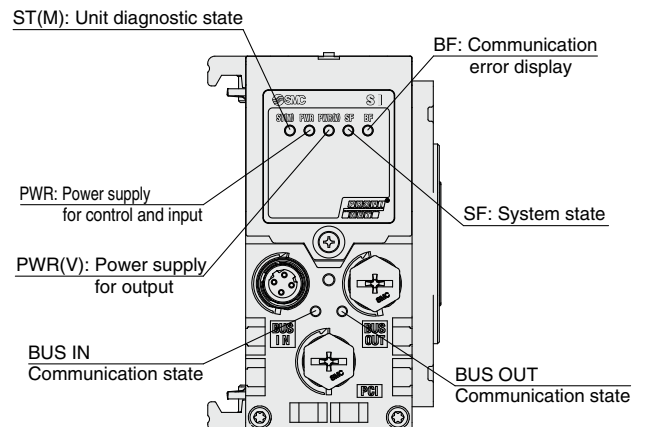
EX600-SEN3/SEN4



EX600-SEC□

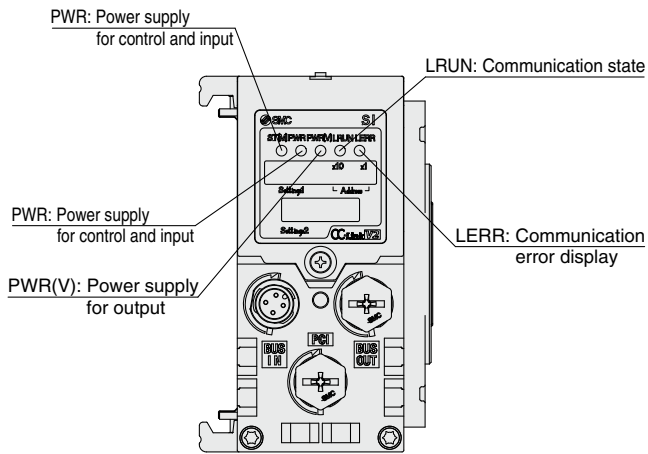


EX600-SPN□

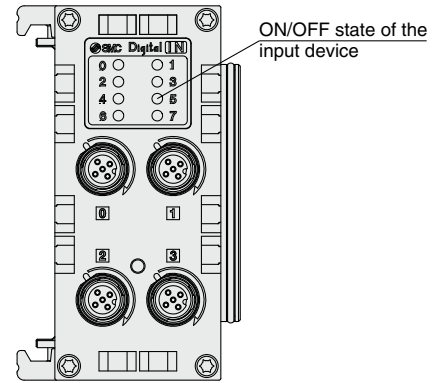


LED Indicator

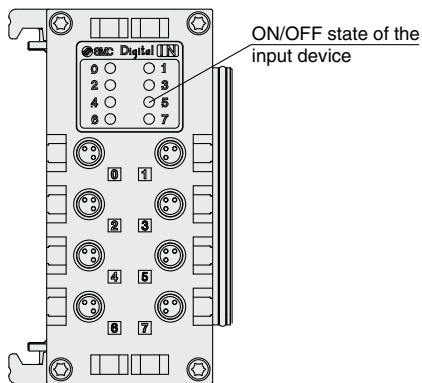
EX600-SMJ□



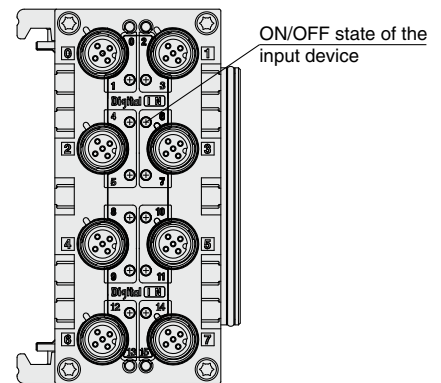
EX600-DX□B



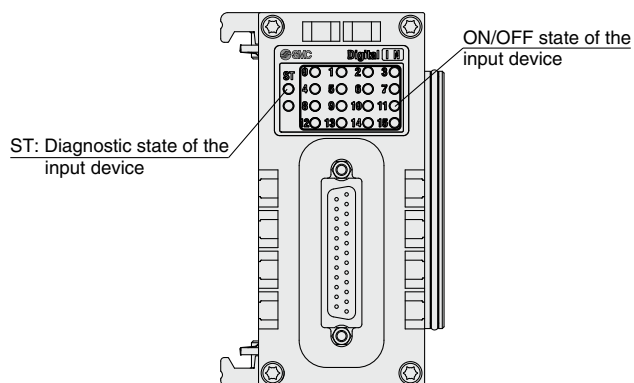
EX600-DX□C



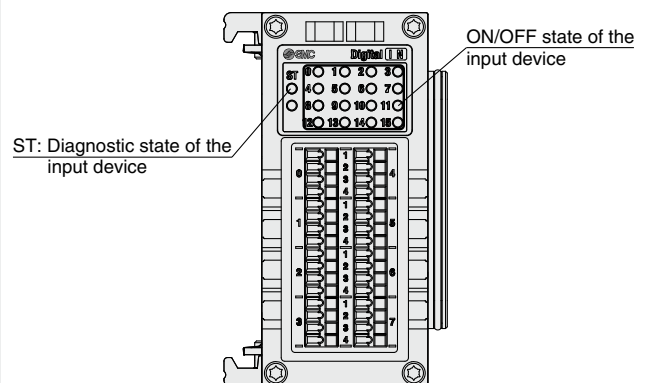
EX600-DX□D



EX600-DX□E



EX600-DX□F

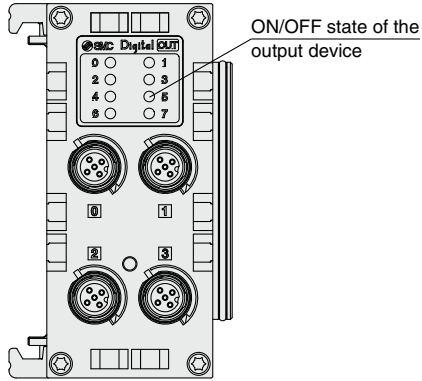


| | |
|--------|---------------|
| Type 1 | EX260 |
| Type 2 | EX500 |
| Type 3 | EX245 |
| Type 1 | EX140 |
| Type 2 | EX510 |
| | EX180 |
| | M8/M12 |
| | ATEX |
| | EX600 |
| | EX123/124/126 |
| | EX120/121/122 |

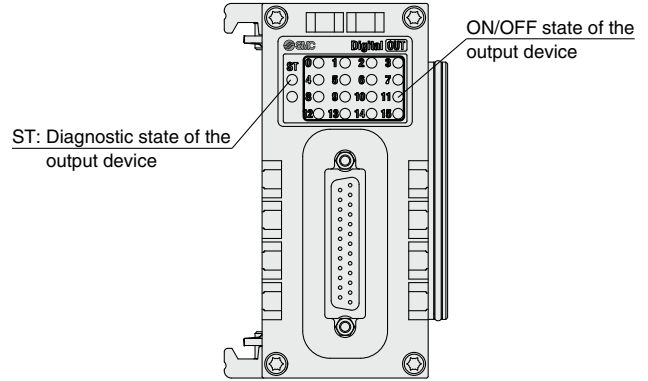
EX600 Series

LED Indicator

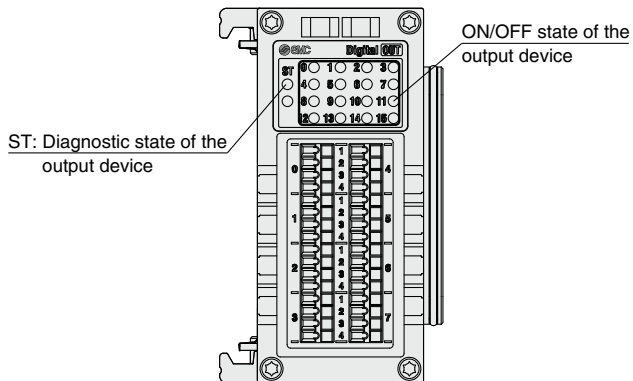
EX600-DY□B



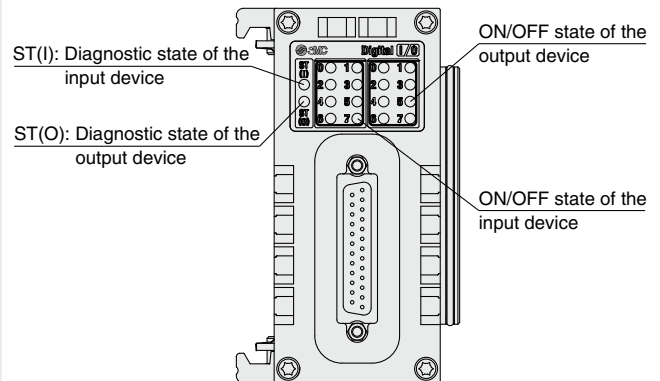
EX600-DY□E



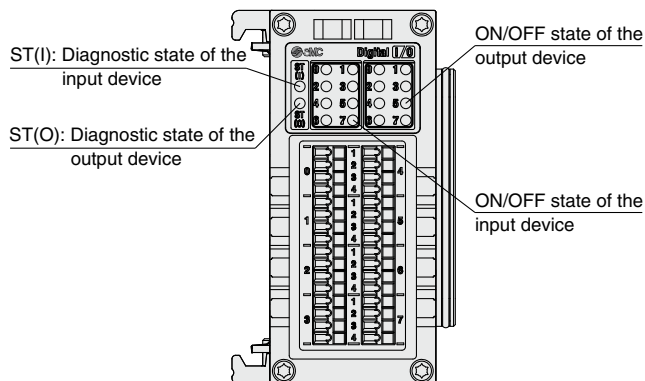
EX600-DY□F



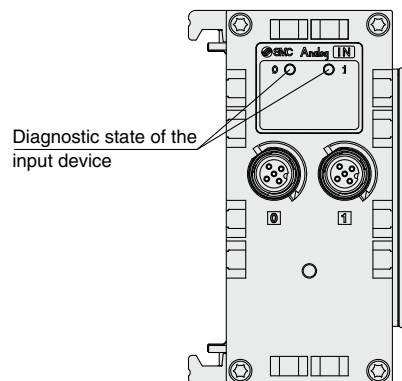
EX600-DM□E



EX600-DM□F

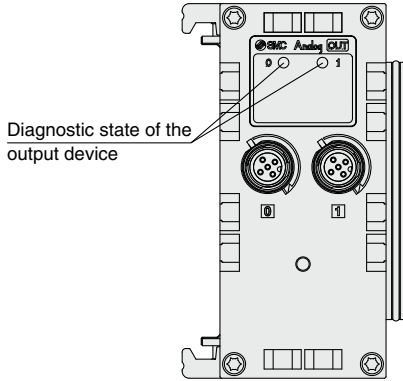


EX600-AXA

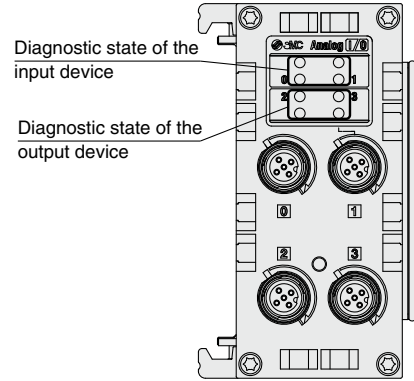


LED Indicator

EX600-AYA

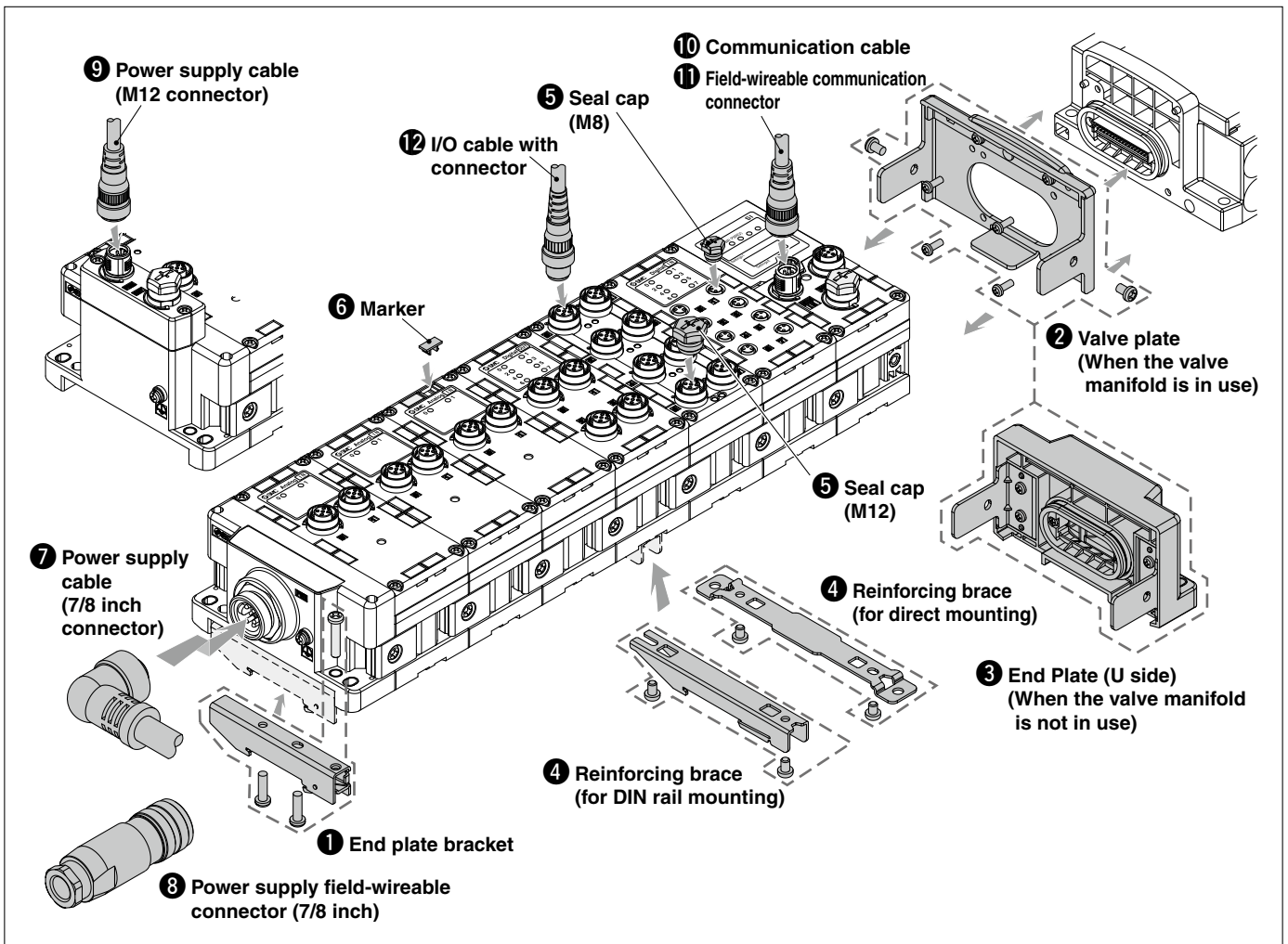


EX600-AMB



| | | |
|--|--------|---------------|
| | Type 1 | EX260 |
| | Type 2 | EX123/124/126 |
| | Type 2 | EX500 |
| | Type 3 | EX600 |
| | Type 3 | EX245 |
| | Type 3 | EX250 |
| | Type 1 | EX120/121/122 |
| | Type 1 | EX140 |
| | Type 1 | EX180 |
| | Type 2 | EX510 |
| | | M8/M12 |
| | | ATEX |

EX600 Series Accessories



1 End Plate Bracket

This bracket is used for the end plate of DIN rail mounting.



EX600-ZMA2

Enclosed parts

Round head screw (M4 x 20) 1 pc.
P-tight screw (4 x 14) 2 pcs.

EX600-ZMA3

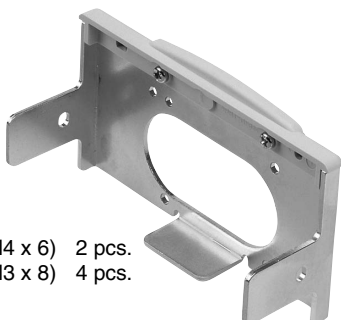
(Specialized for SY series)

Enclosed parts

Round head screw with washer (M4 x 20) 1 pc.
P-tight screw (4 x 14) 2 pcs.

2 Valve Plate

EX600-ZMV1



Enclosed parts

Round head screw (M4 x 6) 2 pcs.
Round head screw (M3 x 8) 4 pcs.

EX600-ZMV2

(Specialized for SY series)



Enclosed parts

Round head screw (M4 x 6) 2 pcs.
Round head screw (M3 x 8) 2 pcs.

③ End Plate (U side)

The end plate is for use when the manifold valve is not connected.

EX600-**E U 1 - 2**

● **Mounting method**

| Symbol | Description |
|--------|-----------------------------------|
| Nil | Without DIN rail mounting bracket |
| 2 | With DIN rail mounting bracket |
| 3 | With DIN rail mounting bracket |

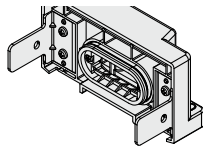
* Select in accordance with the symbol for the end plate (D side) mounting method.

● **Specifications**

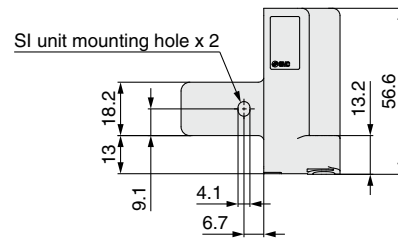
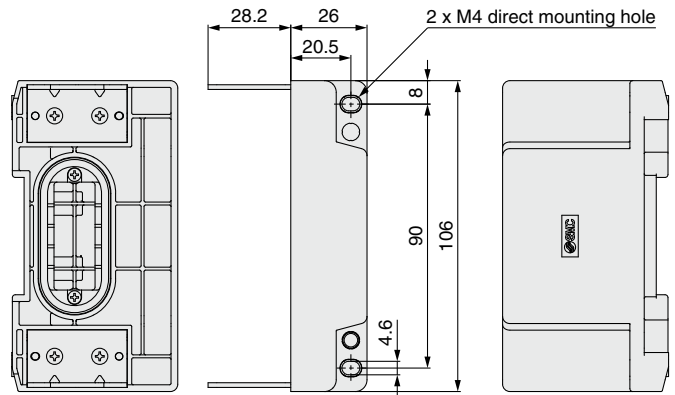
| Symbol | Specifications |
|--------|------------------|
| 1 | Waterproof cover |

● **End plate mounting position: U side**

● **End plate**



EX600-EU1



Enclosed parts

Round head screw (M4 x 5) 2 pcs.

④ Reinforcing Brace

This bracket is used on the bottom of the unit at the intermediate position for connecting 6 units or more.

* Be sure to attach this bracket to prevent connection failure between the units caused by deflection.

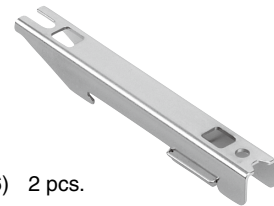
For direct mounting
EX600-ZMB1



Enclosed parts

Round head screw (M4 x 5) 2 pcs.

For DIN rail mounting
EX600-ZMB2



Enclosed parts

Round head screw (M4 x 6) 2 pcs.

⑤ Seal Cap (10 pcs.)

Be sure to mount a seal cap on any unused I/O connectors. Otherwise, the specified enclosure cannot be maintained.

EX9-AWES
For M8



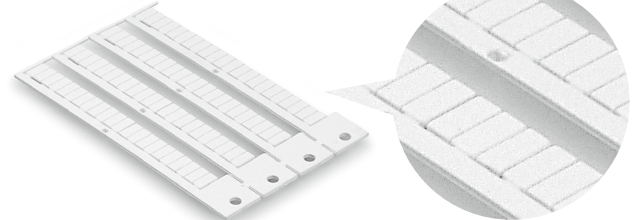
EX9-AWTS
For M12



⑥ Marker (1 sheet, 88 pcs.)

The signal name of I/O device and each unit address can be entered and mounted on each unit.

EX600-ZT1



| | |
|--------|---------------|
| Type 1 | EX260 |
| Type 1 | EX123/124/126 |
| Type 2 | EX500 |
| Type 2 | EX600 |
| Type 3 | EX245 |
| Type 3 | EX250 |
| Type 1 | EX120/121/122 |
| Type 1 | EX140 |
| Type 1 | EX180 |
| Type 2 | EX510 |
| Type 2 | M8/M12 |
| Type 2 | ATEX |

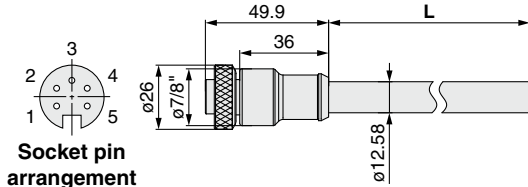
EX600 Series

⑦ Power Supply Cable (7/8 inch connector)

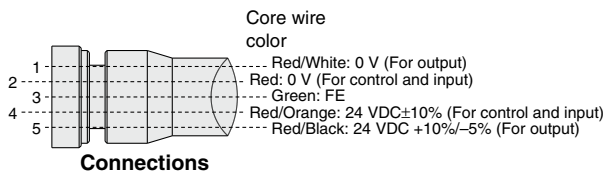
- PCA-1558810 Straight 2 m
- PCA-1558823 Straight 6 m
- PCA-1558836 Right angle 2 m
- PCA-1558849 Right angle 6 m



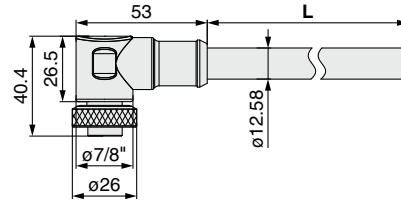
Straight connector type



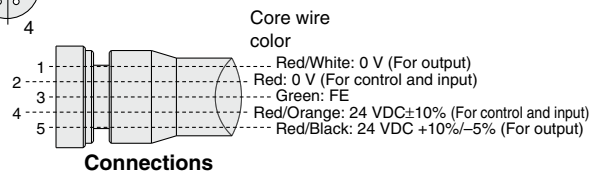
Socket pin arrangement



Angle connector type



Socket pin arrangement



| Item | Specifications |
|---------------------------------|----------------------------|
| Cable O.D. | 12.58 mm |
| Conductor nominal cross section | 1.5 mm ² /AWG16 |
| Wire O.D. (Including insulator) | 2.35 mm |
| Min. bending radius (Fixed) | 110 mm |

⑧ Power Supply Field-wireable Connector (7/8 inch)

- PCA-1578081 Socket [compatible with AWG22-16]



Applicable Cable

| Item | Specifications |
|--|--|
| Cable O.D. | 12.0 to 14.0 mm |
| Wire gauge (Stranded wire cross section) | 0.34 to 1.5 mm ² AWG22 to 16 |

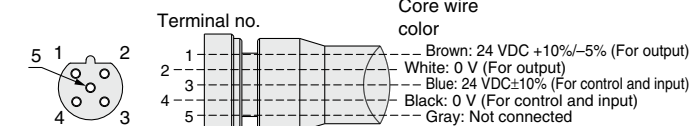
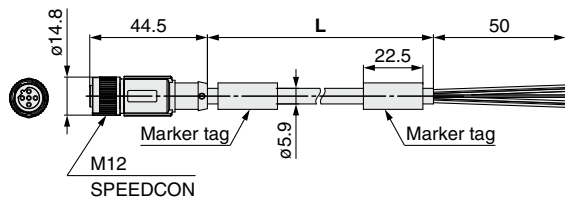
⑨ Power Supply Cable (M12 connector, For EX600-ED2) * The shape of the M12 connector is B-coded (Reverse key).

- PCA-1564927 Straight 2 m
- PCA-1564930 Straight 6 m
- PCA-1564943 Right angle 2 m
- PCA-1564969 Right angle 6 m



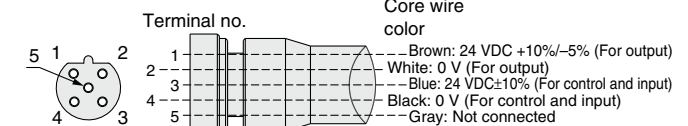
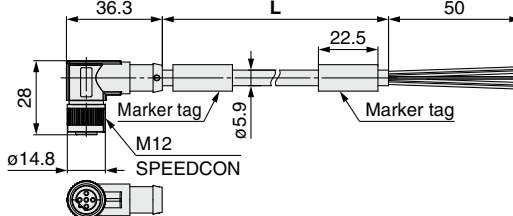
SPEEDCON

Straight connector type



Socket connector pin arrangement B-coded (Reverse key)

Angle connector type



Socket connector pin arrangement B-coded (Reverse key)

| Item | Specifications |
|---------------------------------|-----------------------------|
| Cable O.D. | 5.9 mm |
| Conductor nominal cross section | 0.34 mm ² /AWG22 |
| Wire O.D. (Including insulator) | 1.27 mm |
| Min. bending radius (Fixed) | 59 mm |

⑩ Power Supply Cable (M12 connector, For EX600-ED4/5) * The shape of the M12 connector is A-coded (Reverse key).

EX500-AP **050** - **S**

Cable length (L)

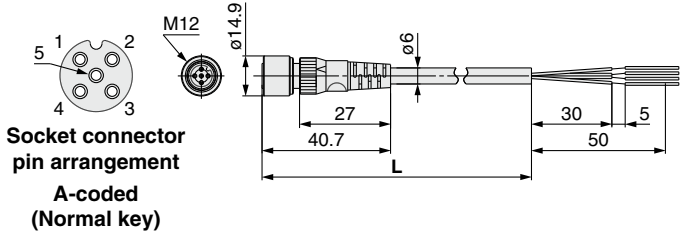
| | |
|-----|---------|
| 010 | 1000 mm |
| 050 | 5000 mm |

Connector specification

| | |
|---|----------|
| S | Straight |
| A | Angle |

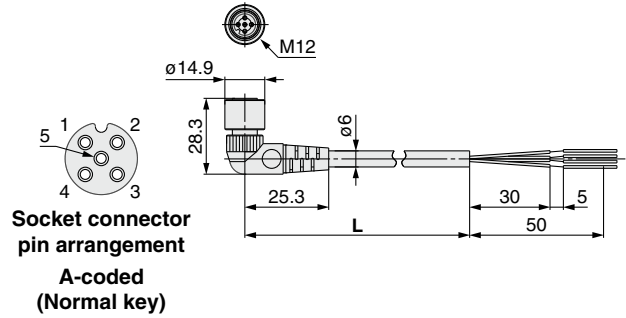


Straight connector type

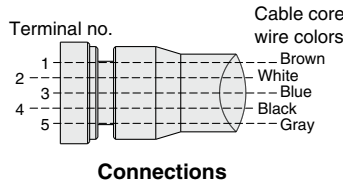


| Item | Specifications |
|-------------------------------------|----------------------------|
| Cable O.D. | ø6 mm |
| Nominal cross section | 0.3 mm ² /AWG22 |
| Wire diameter (Including insulator) | 1.5 mm |
| Min. bending radius | 40 mm (Fixed) |

Angle connector type



| Item | Specifications |
|-------------------------------------|----------------------------|
| Cable O.D. | ø6 mm |
| Nominal cross section | 0.3 mm ² /AWG22 |
| Wire diameter (Including insulator) | 1.5 mm |
| Min. bending radius | 40 mm (Fixed) |



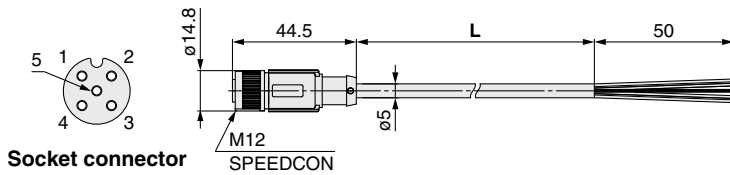
Connections

SPEEDCON

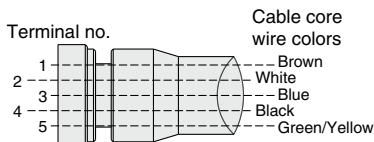
PCA- **1401804**

Cable length (L)

| | |
|---------|---------|
| 1401804 | 1500 mm |
| 1401805 | 3000 mm |
| 1401806 | 5000 mm |



| Item | Specifications |
|-------------------------------------|----------------------------|
| Cable O.D. | ø5 mm |
| Nominal cross section | 0.3 mm ² /AWG22 |
| Wire diameter (Including insulator) | 1.27 mm |
| Min. bending radius | 21.7 mm (Fixed) |

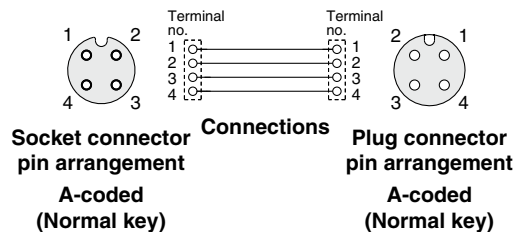
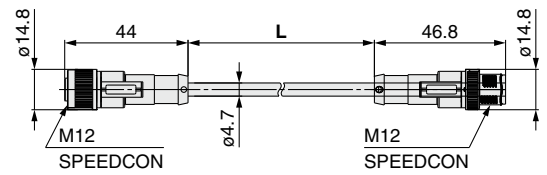


Connections

PCA- **1557769**

Cable length (L)

| | |
|---------|---------|
| 1557769 | 3000 mm |
|---------|---------|



Socket connector pin arrangement A-coded (Normal key)

Plug connector pin arrangement A-coded (Normal key)

Type 1
EX260

Type 1
EX123/124/126

Type 2
EX500

Type 2
EX600

Type 3
EX245

Type 3
EX250

Type 3
EX250

Type 1
EX120/121/122

Type 1
EX140

Type 1
EX180

Type 2
EX510

Type 2
M8/M12

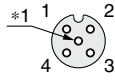
Type 2
ATEX

EX600 Series

① Communication Cable

For CC-Link

PCA-1567720 (Socket)

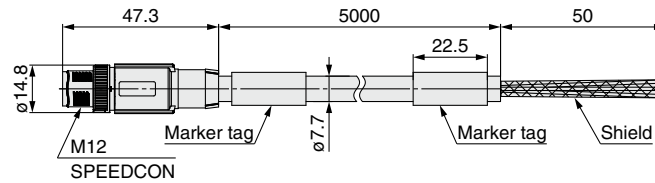
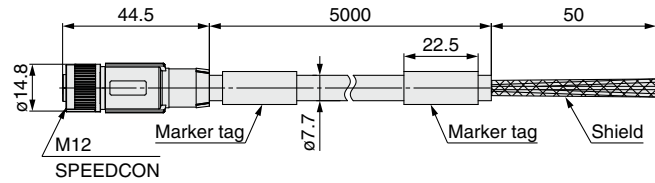


Socket connector pin arrangement
A-coded (Normal key)
*1 Number of holes: 5,
Total number of pins: 4

PCA-1567717 (Plug)

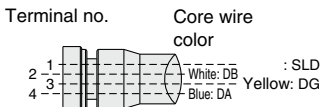


Plug connector pin arrangement
A-coded (Normal key)



Made to Order

| | | |
|--------------|----------|--------|
| Cable length | 10000 mm | p. 130 |
|--------------|----------|--------|



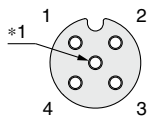
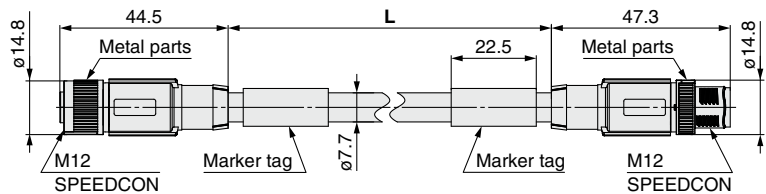
Connections

| Item | | Specifications |
|---------------------------------|-----------|-----------------------------|
| Cable O.D. | | ø7.7 mm |
| Conductor nominal cross section | Data pair | 0.5 mm ² /AWG20 |
| | Drain | 0.34 mm ² /AWG22 |
| Wire O.D. (Including insulator) | | 2.55 mm |
| Min. bending radius (Fixed) | | 77 mm |

EX9-AC 005 MJ-SSPS (With connector on both sides (Socket/Plug))

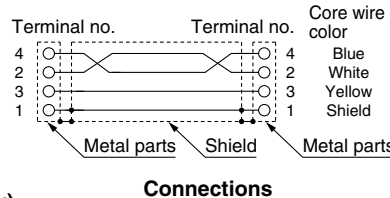
• Cable length

| | |
|-----|----------|
| 005 | 500 mm |
| 010 | 1000 mm |
| 020 | 2000 mm |
| 030 | 3000 mm |
| 050 | 5000 mm |
| 100 | 10000 mm |

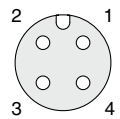


Socket connector pin arrangement
A-coded (Normal key)

*1 Number of holes: 5,
Total number of pins: 4



Connections



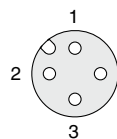
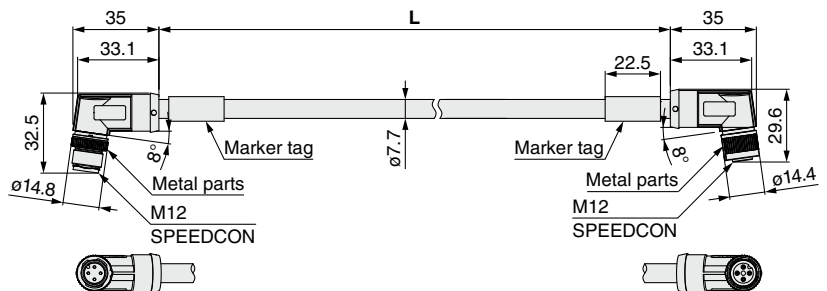
Plug connector pin arrangement
A-coded (Normal key)

| Item | | Specifications |
|---------------------------------|-----------|-----------------------------|
| Cable O.D. | | ø7.7 mm |
| Conductor nominal cross section | Data pair | 0.5 mm ² /AWG20 |
| | Drain | 0.34 mm ² /AWG22 |
| Wire O.D. (Including insulator) | | 2.55 mm |
| Min. bending radius (Fixed) | | 77 mm |

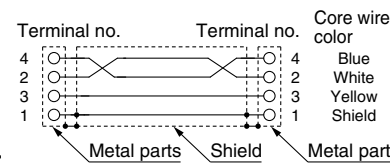
EX9-AC 005 MJ-SAPA (With angle connector on both sides (Socket/Plug))

• Cable length

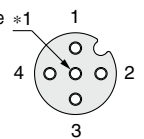
| | |
|-----|----------|
| 005 | 500 mm |
| 010 | 1000 mm |
| 020 | 2000 mm |
| 030 | 3000 mm |
| 050 | 5000 mm |
| 100 | 10000 mm |



Plug connector pin arrangement
A-coded (Normal key)



Connections



Socket connector pin arrangement
A-coded (Normal key)

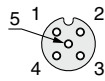
*1 Number of holes: 5,
Total number of pins: 4

| Item | | Specifications |
|---------------------------------|-----------|-----------------------------|
| Cable O.D. | | ø7.7 mm |
| Conductor nominal cross section | Data pair | 0.5 mm ² /AWG20 |
| | Drain | 0.34 mm ² /AWG22 |
| Wire O.D. (Including insulator) | | 2.55 mm |
| Min. bending radius (Fixed) | | 77 mm |

① Communication Cable

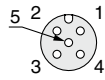
For DeviceNet™

PCA-1557633
(Socket)

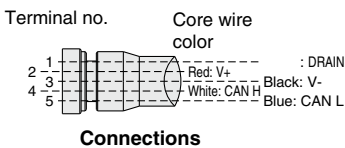
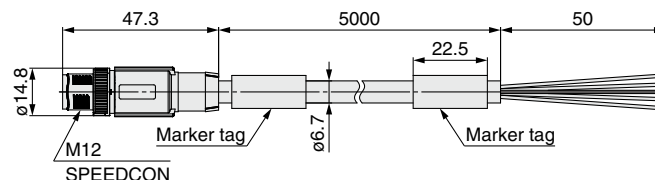
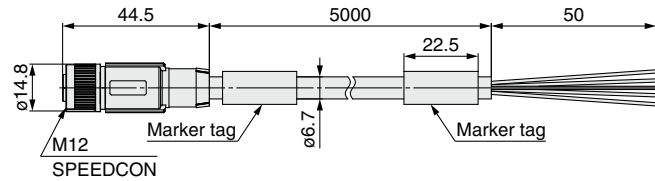


Socket connector pin arrangement A-coded (Normal key)

PCA-1557646
(Plug)



Socket connector pin arrangement A-coded (Normal key)



| Item | | Specifications |
|--|------------|-----------------------------|
| Cable O.D. | | ø6.7 mm |
| Conductor nominal cross section | Power pair | 0.34 mm ² /AWG22 |
| | Data pair | 0.25 mm ² /AWG24 |
| Wire O.D. (Including insulator) | Power pair | 1.4 mm |
| | Data pair | 2.05 mm |
| Min. bending radius (Fixed) | | 67 mm |



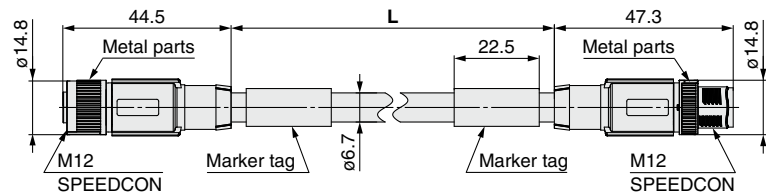
Made to Order

| | | |
|--------------|----------|--------|
| Cable length | 10000 mm | p. 130 |
|--------------|----------|--------|

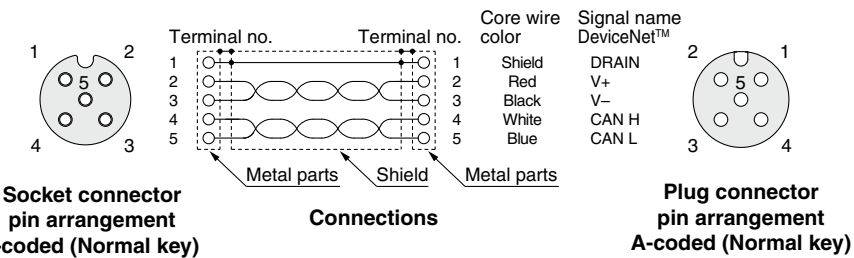
EX9-AC 005 DN-SSPS (With connector on both sides (Socket/Plug))

• Cable length (L)

| | |
|-----|----------|
| 005 | 500 mm |
| 010 | 1000 mm |
| 020 | 2000 mm |
| 030 | 3000 mm |
| 050 | 5000 mm |
| 100 | 10000 mm |



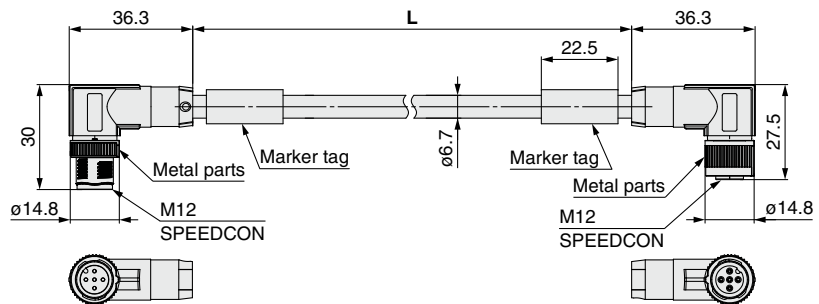
| Item | | Specifications |
|--|------------|-----------------------------|
| Cable O.D. | | ø6.7 mm |
| Conductor nominal cross section | Power pair | 0.34 mm ² /AWG22 |
| | Data pair | 0.25 mm ² /AWG24 |
| Wire O.D. (Including insulator) | Power pair | 1.4 mm |
| | Data pair | 2.05 mm |
| Min. bending radius (Fixed) | | 67 mm |



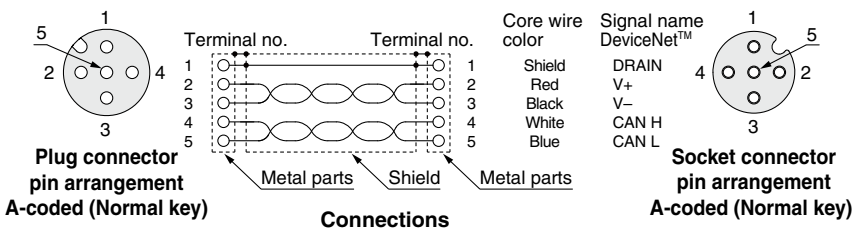
EX9-AC 005 DN-SAPA (With angle connector on both sides (Socket/Plug))

• Cable length (L)

| | |
|-----|----------|
| 005 | 500 mm |
| 010 | 1000 mm |
| 020 | 2000 mm |
| 030 | 3000 mm |
| 050 | 5000 mm |
| 100 | 10000 mm |



| Item | | Specifications |
|--|------------|-----------------------------|
| Cable O.D. | | ø6.7 mm |
| Conductor nominal cross section | Power pair | 0.34 mm ² /AWG22 |
| | Data pair | 0.25 mm ² /AWG24 |
| Wire O.D. (Including insulator) | Power pair | 1.4 mm |
| | Data pair | 2.05 mm |
| Min. bending radius (Fixed) | | 67 mm |



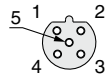
Type 1 EX260
 EX123/124/126
 Type 2 EX500
 EX600
 Type 3 EX245
 EX250
 Type 1 EX140
 EX180
 Type 2 EX510
 M8/M12
 ATEX

EX600 Series

① Communication Cable

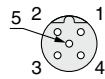
For PROFIBUS DP

PCA-1557688
(Socket)

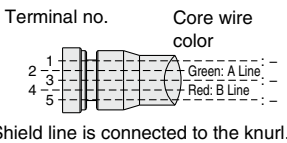
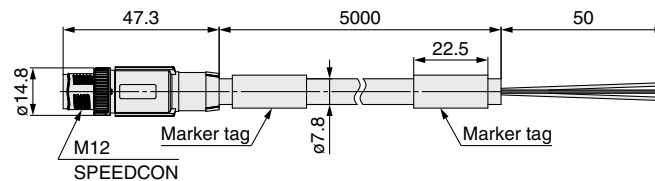
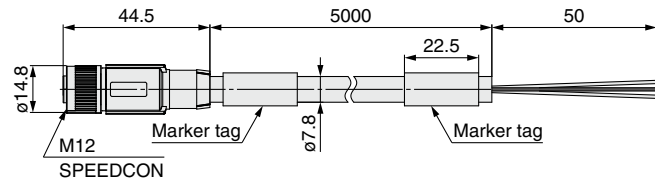


Socket connector pin arrangement
B-coded (Reverse key)

PCA-1557691
(Plug)



Plug connector pin arrangement
B-coded (Reverse key)



Connections

| Item | Specifications |
|---------------------------------|-----------------------------|
| Cable O.D. | ø7.8 mm |
| Conductor nominal cross section | 0.34 mm ² /AWG22 |
| Wire O.D. (Including insulator) | 2.55 mm |
| Min. bending radius (Fixed) | 78 mm |

For EtherCAT For PROFINET For EtherNet/IP™

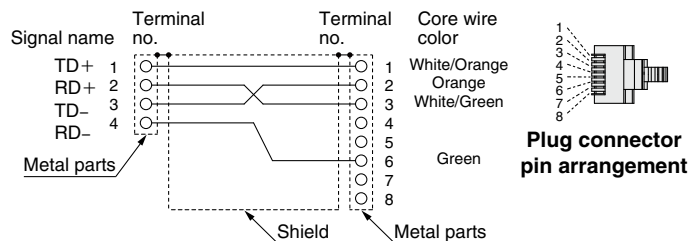
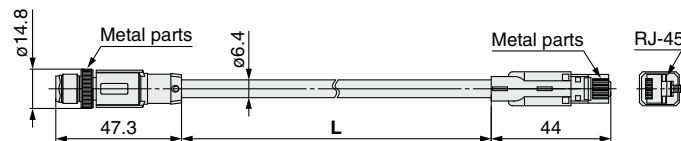
EX9-AC 020 EN-PSRJ (Plug/RJ-45 connector)

● Cable length (L)

| | |
|-----|----------|
| 010 | 1000 mm |
| 020 | 2000 mm |
| 030 | 3000 mm |
| 050 | 5000 mm |
| 100 | 10000 mm |



Plug connector pin arrangement
D-coded



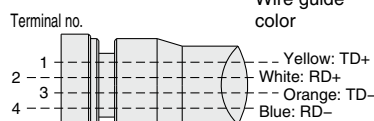
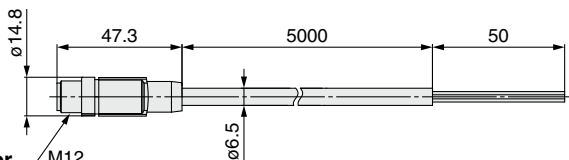
Connections
(Straight cable)

| Item | Specifications |
|---------------------------------|-----------------------------|
| Cable O.D. | ø6.4 mm |
| Conductor nominal cross section | 0.14 mm ² /AWG26 |
| Wire O.D. (Including insulator) | 0.98 mm |
| Min. bending radius (Fixed) | 26 mm |

PCA-1446566 (Plug)



Plug connector pin arrangement
D-coded



Connections

| Item | Specifications |
|---------------------------------|----------------|
| Cable O.D. | ø6.5 mm |
| Conductor nominal cross section | AWG22 |
| Wire O.D. (Including insulator) | 1.55 mm |
| Min. bending radius (Fixed) | 45.5 mm |



Made to Order

Change in the cable length

p. 131

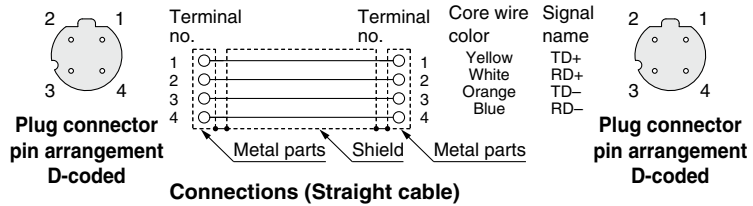
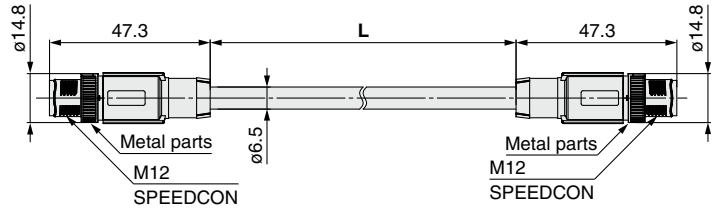
① Communication Cable

For EtherCAT® For PROFINET For EtherNet/IP™

EX9-AC 005 EN-PSPS (With connector on both sides (Plug/Plug))

• Cable length (L)

| | |
|-----|----------|
| 005 | 500 mm |
| 010 | 1000 mm |
| 020 | 2000 mm |
| 030 | 3000 mm |
| 050 | 5000 mm |
| 100 | 10000 mm |

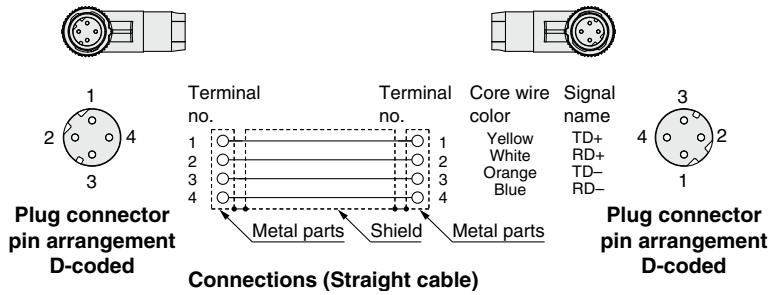
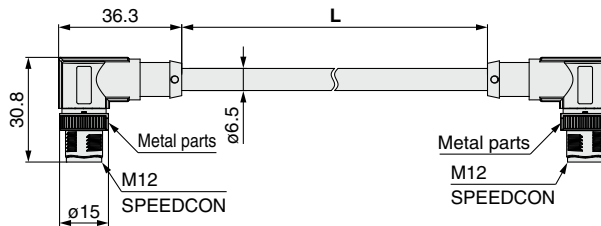


| Item | Specifications |
|---------------------------------|-----------------------------|
| Cable O.D. | ø6.5 mm |
| Conductor nominal cross section | 0.34 mm ² /AWG22 |
| Wire O.D. (Including insulator) | 1.55 mm |
| Min. bending radius (Fixed) | 19.5 mm |

EX9-AC 005 EN-PAPA (With angle connector on both sides (Plug/Plug))

• Cable length (L)

| | |
|-----|----------|
| 005 | 500 mm |
| 010 | 1000 mm |
| 020 | 2000 mm |
| 030 | 3000 mm |
| 050 | 5000 mm |
| 100 | 10000 mm |



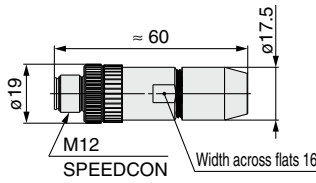
| Item | Specifications |
|---------------------------------|-----------------------------|
| Cable O.D. | ø6.5 mm |
| Conductor nominal cross section | 0.34 mm ² /AWG22 |
| Wire O.D. (Including insulator) | 1.55 mm |
| Min. bending radius (Fixed) | 19.5 mm |

Type 1
EX260
EX123/124/126
Type 2
EX500
EX600
Type 3
EX245
EX250
Type 1
EX120/121/122
EX140
EX180
Type 2
EX510
M8/M12
ATEX

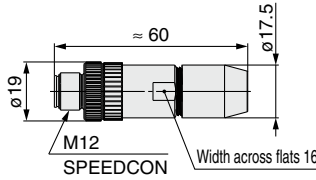
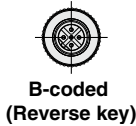
12 Field-wireable Communication Connector

Plug

For CC-Link **For DeviceNet™**
PCA-1075526 **PCA-1075528**



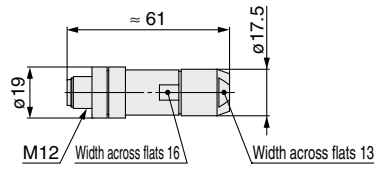
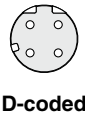
For PROFIBUS DP
PCA-1075530



Applicable Cable

| Item | Specifications |
|---|---|
| Cable O.D. | 4.0 to 8.0 mm |
| Wire gauge (Stranded wire cross section) | 0.14 to 0.75 mm ² /AWG26 to 18 (Solid cable/Flexible cable) 0.08 to 0.5 mm ² /AWG28 to 20 (With ferrule) |

For EtherCAT **For PROFINET** **For EtherNet/IP™**
PCA-1446553



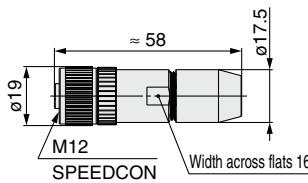
Applicable Cable

| Item | Specifications |
|---|---|
| Cable O.D. | 4.0 to 8.0 mm |
| Wire gauge (Stranded wire cross section) | 0.14 to 0.34 mm ² /AWG26 to 22 |

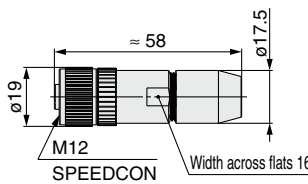
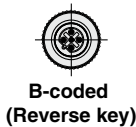
* The table above shows the specifications for the applicable cable. Adaptation for the connector may vary on account of the conductor construction of the electric wire.

Socket

For CC-Link **For DeviceNet™**
PCA-1075527 **PCA-1075529**



For PROFIBUS DP
PCA-1075531



Applicable Cable

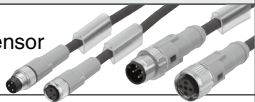


| Item | Specifications |
|---|---|
| Cable O.D. | 4.0 to 8.0 mm |
| Wire gauge (Stranded wire cross section) | 0.14 to 0.75 mm ² /AWG26 to 18 (Solid cable/Flexible cable) 0.08 to 0.5 mm ² /AWG28 to 20 (With ferrule) |

| | |
|--------|---------------|
| Type 1 | EX260 |
| Type 1 | EX123/124/126 |
| Type 2 | EX500 |
| Type 3 | EX600 |
| Type 3 | EX245 |
| Type 3 | EX250 |
| Type 1 | EX120/121/122 |
| Type 1 | EX140 |
| Type 1 | EX180 |
| Type 2 | EX510 |
| | M8/M12 |
| | ATEX |

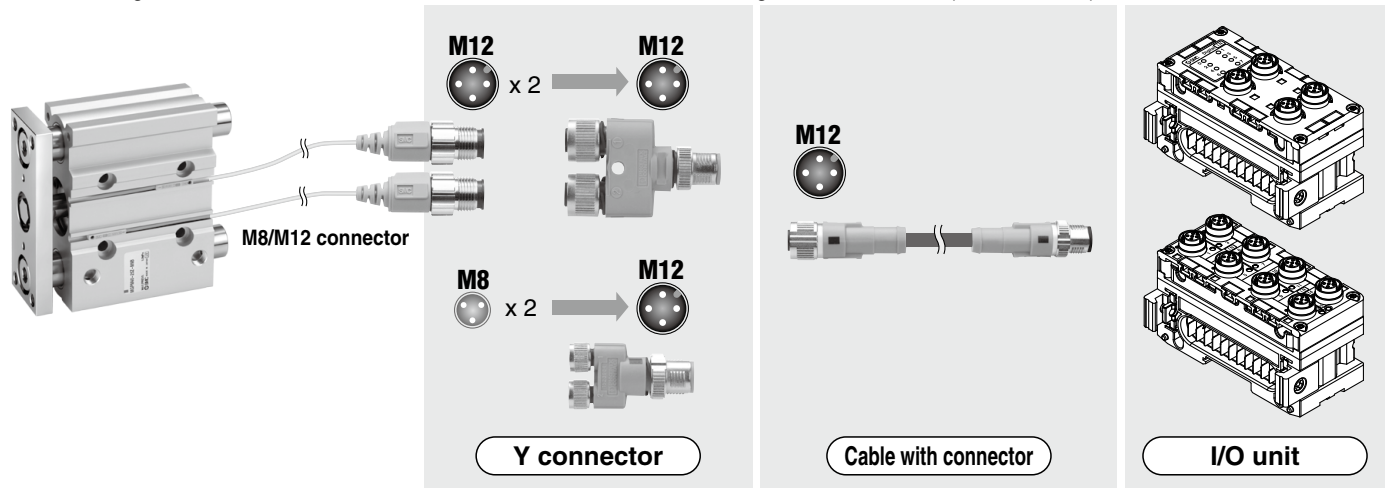
EX600 Series

⑬ I/O Cable with Connector / I/O Connector

For details, refer to pages 237 to 239 and later.

| Name | Use | Part no. | Description |
|---------------------------------|---|--------------------|--|
| Cable with connector |  | PCA-1557769 | Cable with M12 connector (4 pins/3 m) |
| | | PCA-1557772 | Cable with M8 connector (3 pins/3 m) |
| Field-wireable connector |  | PCA-1557730 | Field-wireable connector (M8/3 pins/Plug/Piercecon® connection) |
| | | PCA-1557743 | Field-wireable connector (M12/4 pins/Plug/QUICKON-ONE connection/SPEEDCON) |
| | | PCA-1557756 | Field-wireable connector (M12/4 pins/Plug/QUICKON-ONE connection/SPEEDCON) |
| Y connector |  | PCA-1557785 | Y connector (2 x M12 (5 pins)-M12 (5 pins)/SPEEDCON) |
| | | PCA-1557798 | Y connector (2 x M8 (3 pins)-M12 (4 pins)/SPEEDCON) |

* When using the Y connector, connect it to the connector on the I/O unit through the sensor cable (PCA-1557769) with the M12 connector.



EX600 Series

Made to Order

Please contact SMC for detailed specifications and lead times.



SI Unit

Prepare the SI unit, each type of unit, and the manifold valve (without SI unit) separately, and combine them before use.

① MRP (PROFINET) compatible

EX600-SPN1A-X34

- Dimensions are the same as those of the EX600-SPN1.

② Ethernet POWERLINK compatible

EX600-SPL1-X26

- Dimensions are the same as those of the EX600-SEN3.

| | |
|--------|---------------|
| Type 1 | EX260 |
| Type 2 | EX500 |
| Type 3 | EX600 |
| | EX245 |
| | EX250 |
| Type 1 | EX120/121/122 |
| Type 1 | EX140 |
| Type 1 | EX180 |
| Type 2 | EX510 |
| | M8/M12 |
| | ATEX |

Communication Cable

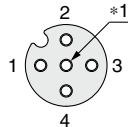
③ With connector on one side (Socket)
Cable length: 10000 mm

For CC-Link For DeviceNet™

EX9-AC100 **MJ** -X12

• Applicable protocol

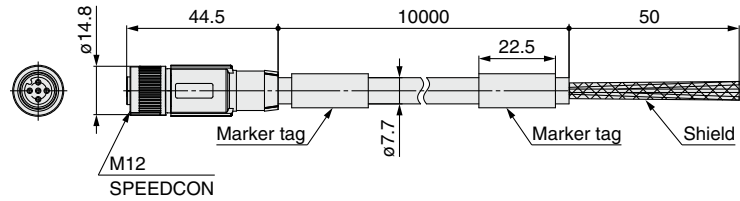
| | |
|-----------|------------|
| MJ | CC-Link |
| DN | DeviceNet™ |



Socket connector pin arrangement A-coded (Normal key)

For CC-Link

Dimensions



Connections

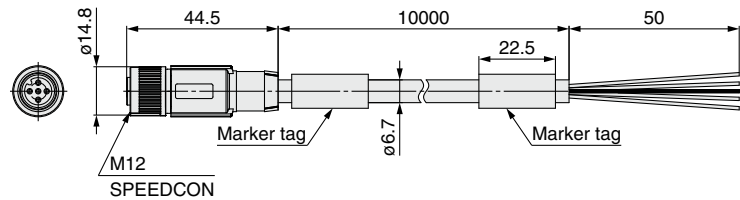
| Terminal no. | Core wire color: Signal name (CC-Link) |
|--------------|--|
| 1 | Shield: SLD |
| 2 | White: DB |
| 3 | Yellow: DG |
| 4 | Blue: DA |

*1 Number of holes: 5, Total number of pins: 4

| Item | | Specifications |
|--|-----------|-----------------------------|
| Cable O.D. | | ø7.7 mm |
| Conductor nominal cross section | Data pair | 0.5 mm ² /AWG20 |
| | Drain | 0.34 mm ² /AWG22 |
| Wire O.D. (Including insulator) | | 2.55 mm |
| Min. bending radius (Fixed) | | 77 mm |

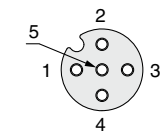
For DeviceNet™

Dimensions



Connections

| Terminal no. | Core wire color: Signal name (DeviceNet™) |
|--------------|---|
| 1 | Shield: DRAIN |
| 2 | Red: V+ |
| 3 | Black: V- |
| 4 | White: CAN H |
| 5 | Blue: CAN L |



Socket connector pin arrangement A-coded (Normal key)

| Item | | Specifications |
|--|------------|-----------------------------|
| Cable O.D. | | ø6.7 mm |
| Conductor nominal cross section | Power pair | 0.34 mm ² /AWG22 |
| | Data pair | 0.25 mm ² /AWG24 |
| Wire O.D. (Including insulator) | Power pair | 1.4 mm |
| | Data pair | 2.05 mm |
| Min. bending radius (Fixed) | | 67 mm |

| | |
|--------|---------------|
| Type 1 | EX260 |
| Type 1 | EX123/124/126 |
| Type 2 | EX500 |
| Type 2 | EX600 |
| Type 3 | EX245 |
| Type 3 | EX250 |
| Type 1 | EX120/121/122 |
| Type 1 | EX140 |
| Type 1 | EX180 |
| Type 2 | EX510 |
| Type 2 | M8/M12 |
| Type 2 | ATEX |



EX600 Series

Specific Product Precautions

Be sure to read this before handling the products. Refer to page 277 for safety instructions. For fieldbus system precautions, refer to pages 278 to 280 and the "Operation Manual" on the SMC website: <http://www.smcworld.com>

Mounting

⚠ Caution

1. When handling and assembling units, do not touch the sharp metal parts of the connector or plug.
2. When connecting six stations or more, be sure to use the intermediate reinforcing brace (EX600-ZMB1 or EX600-ZMB2).

Operating Environment

⚠ Caution

1. Select the proper type of enclosure according to the operating environment.

IP65/67 is achieved when the following conditions are met.

- 1) Provide appropriate wiring between all units using electrical wiring cables, communication connectors and cables with M12 connectors.
- 2) Appropriately mount each unit and valve manifold.
- 3) Be sure to mount a seal cap on any unused connectors.

If using in an environment that is exposed to water splashes, please take measures such as using a cover.

When the enclosure is IP40, do not use in an operating environment or atmosphere where it may come in contact with corrosive gas, chemical agents, seawater, water, or water vapor. When connected to the EX600-D□□E or EX600-D□□F, manifold enclosure is IP40.

Also, the handheld terminal conforms to IP20, so prevent foreign matter from entering inside, and water, solvent or oil from coming in direct contact with it.

Adjustment / Operation

⚠ Warning

<Handheld Terminal>

1. Do not apply pressure to the LCD.
There is a possibility of the crack of LCD and injuring.
2. The forced input/output function is used to change the signal status forcibly. When operating this function, be sure to check the safety of the surroundings and installation.

This may cause, injuries or equipment damage.

3. Incorrect setting of parameters can cause a malfunction. Be sure to check the settings before use.

This may cause injuries or equipment damage.

⚠ Caution

<Handheld Terminal>

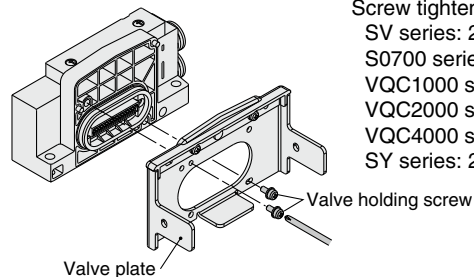
1. Do not press the setting buttons with a sharp pointed object.

This may cause damage or equipment failure.

2. Do not apply excessive load and impact to the setting buttons.

This may cause damage, equipment failure or malfunction.

When the order does not include the SI unit, a valve plate which connects the manifold and SI unit, is not mounted. Use attached valve holding screws and mount the valve plate.
(Tightening torque: 0.6 to 0.7 N·m)



■ Trademark

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EtherNet/IP™ is a trademark of ODVA.

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Modbus® is a registered trademark of Schneider Electric, licensed to the Modbus Organization, Inc.

QuickConnect™ is a trademark of ODVA.

| | |
|--------|--------|
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| Type 2 | EX500 |
| Type 3 | EX245 |
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