Wireless System

Noise resistance

Uses the 2.4 GHz ISM frequency band
Frequency hopping: Every 2 ms (Fastest)

Communication cables not required

Reduced wiring work, space, and cost
Minimised disconnection risk

Communication distance/speed, Response time*1

	Communication distance	Communication speed	Response time
Compact Type EXW1	100 m	1 Mbps	2 ms
		250 kbps	5 ms
Modular Type EX600-W	10 m	250 kbps	5 ms

*1 For the EXW1 construction, it depends on the operating environment.

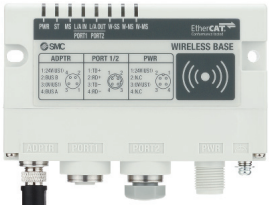
New EtherCAT has been added to the compact type EXW1 Series.

Compact Type EXW1 Series p. 11

Compatible protocols: New EtherCAT, CC-Link

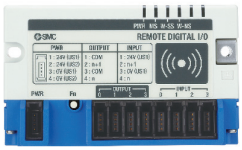
Compact and lightweight

Compact wireless base



Communication distance: 100 m

Compact wireless remote



Mixed input and output loading

Compared with the EX600-W series (base)

Volume: Approx. 75 %reduction *1

Weight: Approx. 73 %reduction *1

*1 The EtherCAT base includes a wireless adapter (body + installation plate).

Compared with the EX600-W series (remote)

Volume: Approx. 86 %reduction *2

Weight: Approx. 87 %reduction *2

*2 For the existing remote, M8 connector/8 digital inputs specification

Modular Type EX600-W Series p. 30

Compatible protocols: EtherNet/IP, PROFINET

Modular connection is possible.

- Up to 9 stations can be connected to the digital/analogue unit.
- Connector type: M12/M8, D-sub, Spring type terminal block

Communication distance: 10 m

For countries/regions in which wireless is supported

This product cannot be used in countries/regions where wireless is not supported. Refer to page 48 for details on countries/regions in which the product can be used.

EXW1/EX600-W Series

CAT.EU02-28E-UK

Provides communication stability in FA environments

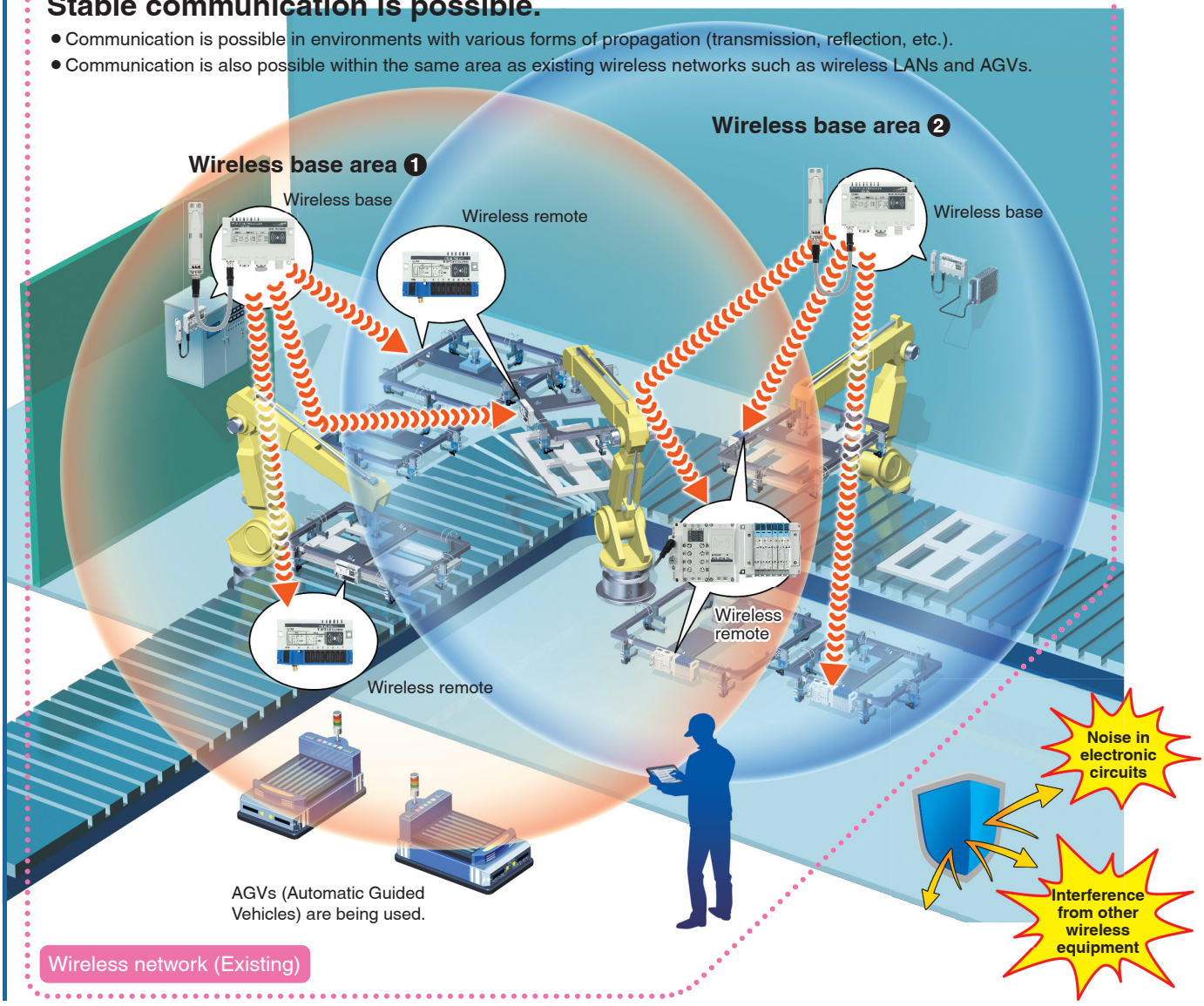
Compact EXW1 | Modular EX600-W

- Even if multiple wireless bases are in use in the same communication area, each wireless base is able to effectively communicate with the remotes they are paired with. Each wireless base is able to identify its wireless remotes by their P.I.D.

* P.I.D.: Product I.D.

Stable communication is possible.

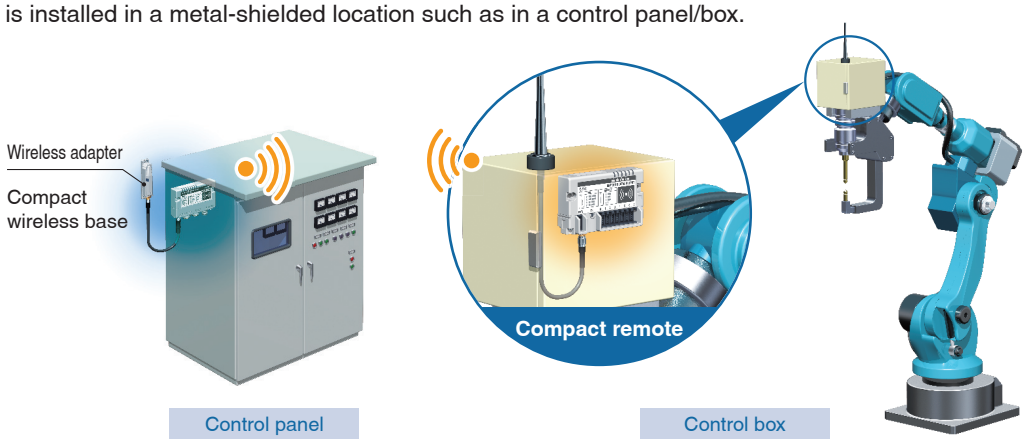
- Communication is possible in environments with various forms of propagation (transmission, reflection, etc.).
- Communication is also possible within the same area as existing wireless networks such as wireless LANs and AGVs.



Antenna support

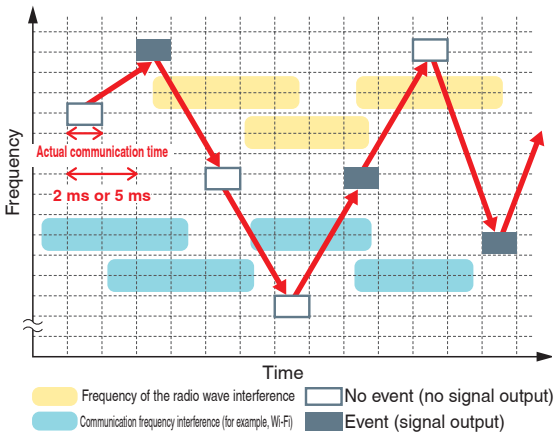
Compact EXW1

Communication is possible with a wireless adapter or external antenna even when the wireless base/remote is installed in a metal-shielded location such as in a control panel/box.



Frequency hopping/Event communication system

Compact EXW1 | Modular EX600-W



Frequency hopping

A stable wireless environment is established using an original protocol which is not affected by interference. Interference from other wireless equipment is reduced.

Frequency hopping cycle
2 ms∗1 **or 5 ms**

Event communication system

Wireless communication is performed only when there is a variation in the information, thereby suppressing the frequency of radio wave output in wireless communication and reducing interference with other wireless devices.

∗1 For the EXW1 only

F.C.S. (Frequency channel select) function supported

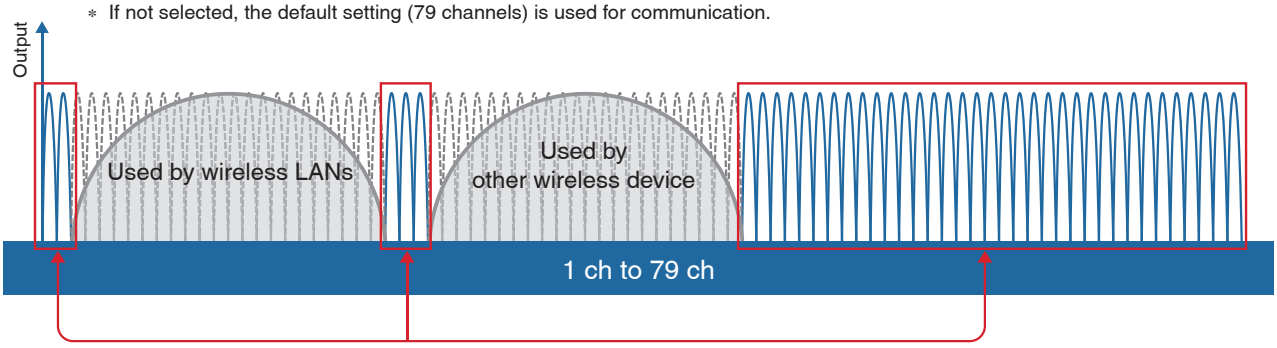
Compact EXW1

This is a function that allows for the selection of the frequency channel to be hopped to via frequency hopping. When the frequency used by wireless LANs, AGVs, or other wireless devices is known, selecting a different frequency channel will allow for hopping only to the selected frequency channel, thereby reducing communication collisions with other wireless devices and stabilizing communication.

∗ The number of selectable frequency channels varies depending on the country of use.

Symbol	Number of selectable frequency channels	Applicable countries
E	Min. 5/Max. 79 channels	Radio Law certified countries other than the U.S., Canada, South Korea, Brazil, Taiwan, Argentina, and Mexico
N	Min. 15/Max. 79 channels	Radio Law certified countries including the U.S., Canada, South Korea, Brazil, Taiwan, Argentina, and Mexico

∗ If not selected, the default setting (79 channels) is used for communication.

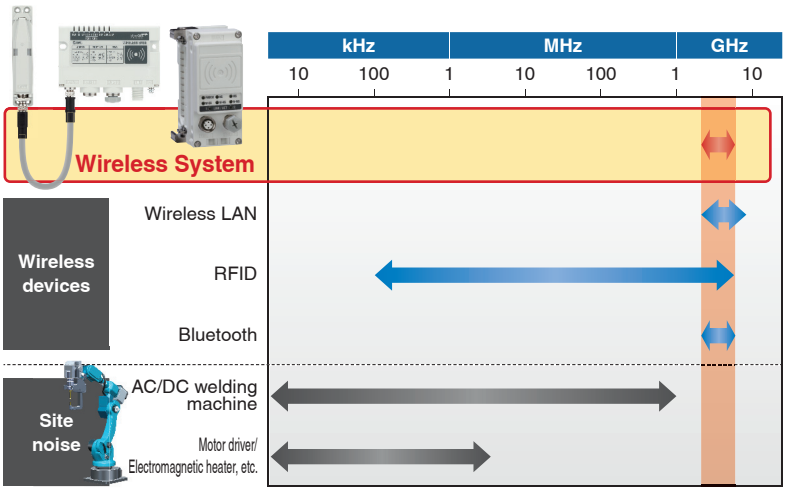


Hopping/communicating with the frequency channel within the selected red frame

Frequency band used

Compact EXW1 | Modular EX600-W

Uses the 2.4 GHz ISM frequency band

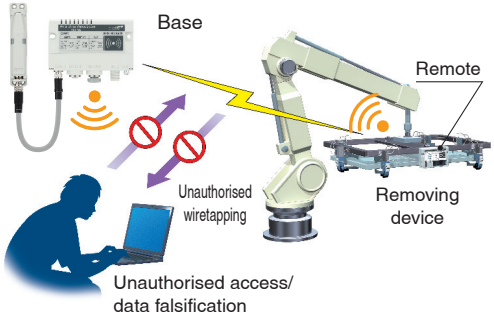


∗ ISM (Industrial, Scientific, and Medical) radio bands: Frequency bands allocated for industrial, scientific, and medical applications

High security using encryption

Compact EXW1 | Modular EX600-W

Unauthorised access from outside is prevented by using data encryption.



Remote high-speed connection

Compact EXW1 | Modular EX600-W

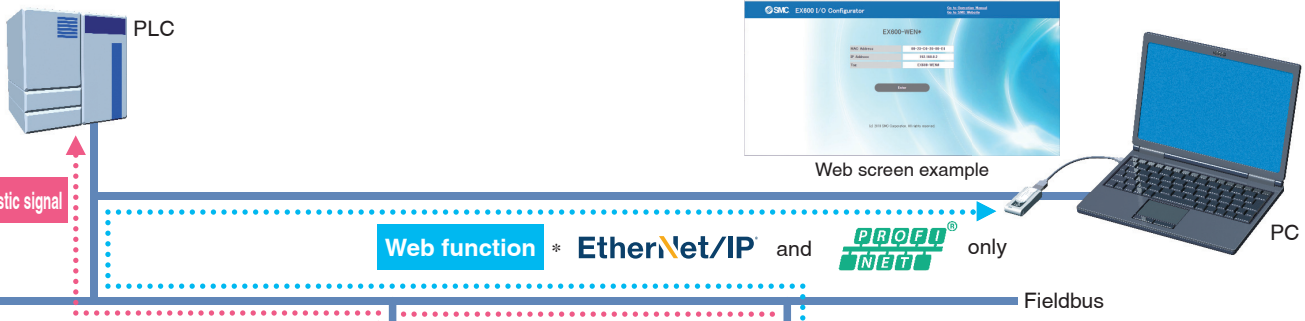
To start of communication: Min. **250 ms**

∗ Depends on the communication environment

Product diagnosis

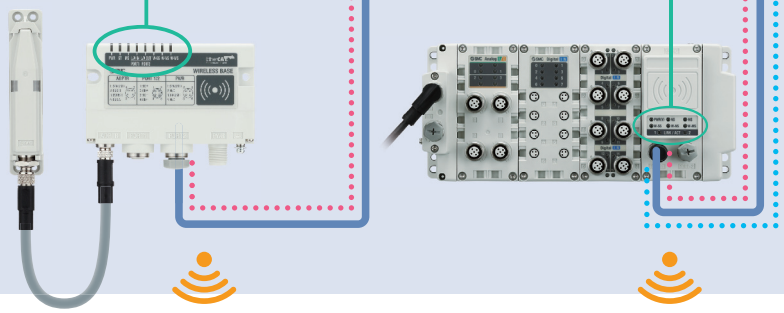
Compact EXW1 | Modular EX600-W

Diagnostic signals, **LEDs on the base/remote**, **Web function**, and **setting software (IO Configurator)** can be used for product diagnostics.



Wireless base

Compact Type EXW1 | Modular Type EX600-W



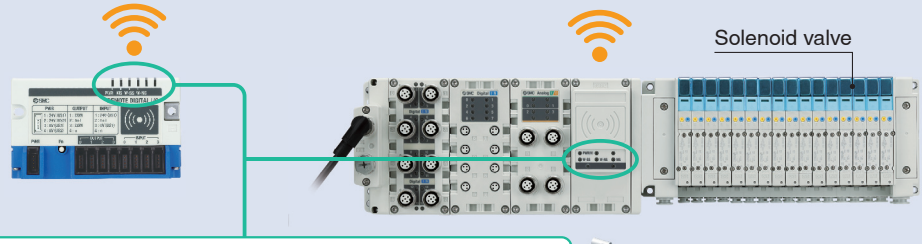
LED display for bases

The LED display can be used to identify the installation location and communication status according to the received signal strength level.

W-SS (Radio wave receiving intensity (For communication from remote to base))	
Green LED is ON.	The received power level of all remotes is 3.
Green LED flashes. (1 Hz)	There are connected remotes with a received power level of 2.
Green LED flashes. (2 Hz)	There are connected remotes with a received power level of 1.
Red LED flashes.	All the remotes that support protocol V.1.0 are not connected.
Orange LED flashes.	All the remotes that support protocol V.2.0 are not connected.
OFF	The remote module is not registered.

Wireless remote

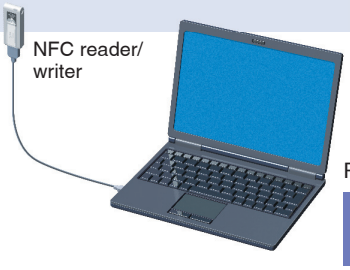
Compact Type EXW1 | Modular Type EX600-W



LED display for remotes

The LED display can be used to identify the installation location and communication status according to the received signal strength level.

W-SS (Radio wave receiving intensity (For communication from base to remote))			
Green LED is ON.	The received power level is 3.	Red LED flashes.	The base that supports protocol V.1.0 is not connected.
Green LED flashes. (1 Hz)	The received power level is 2.	Orange LED flashes.	The base that supports protocol V.2.0 is not connected.
Green LED flashes. (2 Hz)	The received power level is 1.	OFF	The base module is not registered.



Setting software (IO Configurator)

Diagnostic signal

The connection status of the wireless system can be judged by the PLC during operation by the diagnostic signal.

<Diagnostic signal output conditions>

- When an error occurs in the wireless system (base or remote)
- When communication from the remote cannot be received

Web function

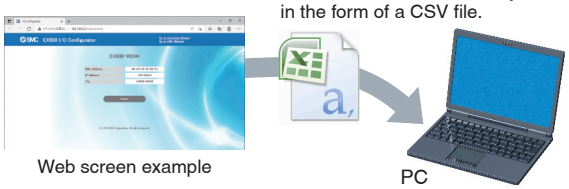
By connecting the base and PC, you can set up the product/wireless communication and check the communication status on the web screen. Log data of the number of wireless communication retries and of the received signal strength can be generated from the web screen and downloaded in a CSV file. The wireless environment and installation location can be optimised by checking the number of retries and the received radio wave intensity.

* Refer to the logging function on page 4.

EX600-W only

EtherNet/IP

PROFINET



SMC

Product diagnosis

Compact EXW1 | Modular EX600-W

Setting software (IO Configurator)

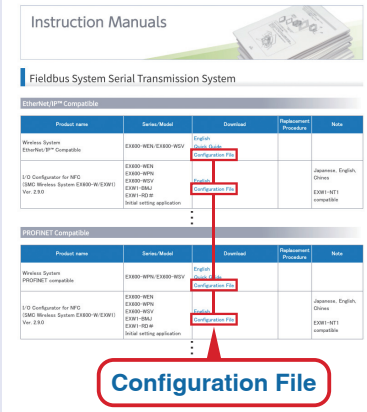
The NFC reader/writer can be used with the setting software to perform various checks and setting without contact.
(NFC: Near Field Communication)

- Base communication configuration
- Setting of the I/O points for the system, base, and remote
- Pairing of the base and remote
- I/O monitoring
- Monitoring of diagnostic data

∗ Refer to the logging function.

Setting software

Download the setting software from the “configuration file.”



From the SMC website

Documents/Download
↓
Operation Manuals
↓
Fieldbus System Serial Transmission System
↓
CC-Link Compatible or EtherCAT Compatible or EtherNet/IP™ Compatible
↓
PROFINET Compatible
↓
I/O Configurator for NFC
↓
Configuration File

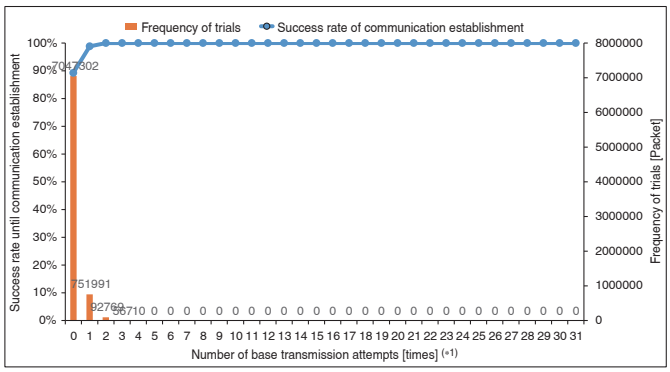
Logging function

Compact EXW1 | Modular EX600-W

The following information is saved in the internal memory of the product. It can be downloaded and visualised from the web function or the setting software (IO Configurator).

Number of retries

The number of retries (communication attempts) can be checked.

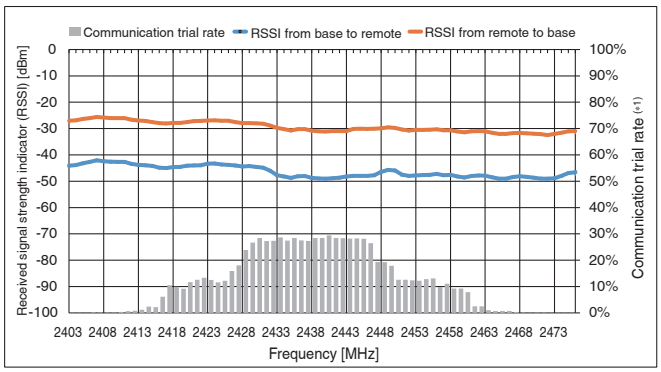


∗1 Characteristics of base-to-remote transmission packets

Graph 1. Communication response characteristics

Received signal strength indicator

The communication trial rate and received signal strength indicator (RSSI) can be checked for every frequency channel.
Number of retries, Received signal strength indicator, Operation status



∗1 Characteristics of base-to-remote transmission packets

Graph 2. Received signal strength indicator and communication trial rate characteristics with respect to frequency

Operation status

Error details, time information (timestamp), and remote numbers can be checked.

∗ Up to 30 pieces can be displayed.

Information | I/O monitor | Properties | Event | Wireless

ALL | CLEAR | Export | Refresh

Power on
R/W detected

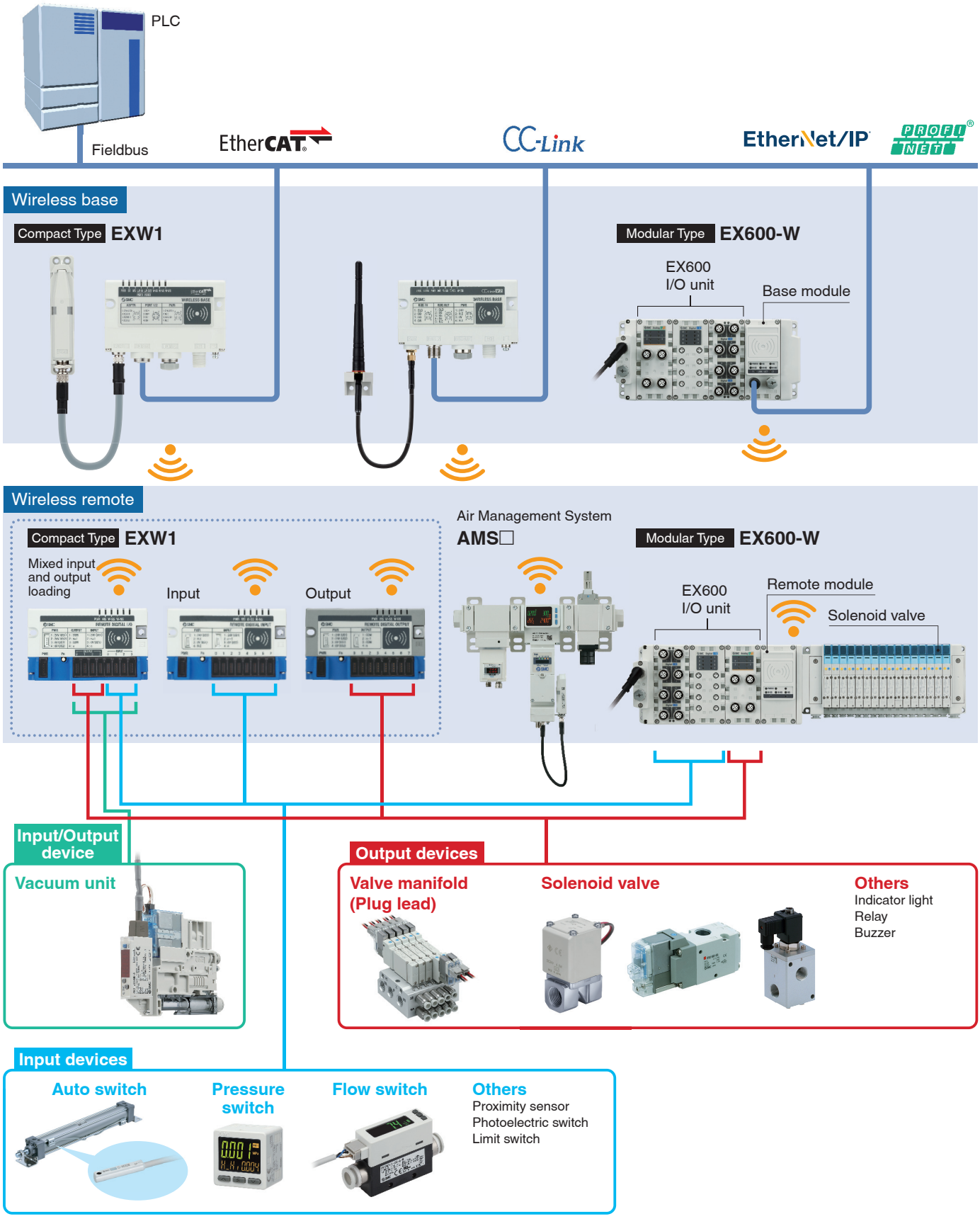
Timestamp	WCh	TAG	Unit	Channel	Status
2020/12/28 10:26:25	5	EX600-WSV1	3	5	0x00000001
2020/12/26 8:00:00	3	LINE4-S5-R-HAND	1	2	0x00000002
2020/12/24 5:33:35	2	LINE4-S5-L-HAND	1	2	0x00000002
2020/12/22 3:07:10	3	LINE4-S5-R-HAND	1	4	0x00000003
2020/12/20 0:40:45	1	LINE4-S2-R-HAND	1	4	0x00000004
2020/12/17 22:14:20	5	EX600-WSV1	3	5	0x00000005
2020/12/15 19:47:55	4	LINE4-S3-R-HAND	3	5	0x00000006

Scroll bar

The compact EXW1 and the modular EX600-W can be mixed.*1

*1 When they are mixed, the communication speed/response time is limited to the EX600-W's specifications. (Refer to the system configuration examples.)

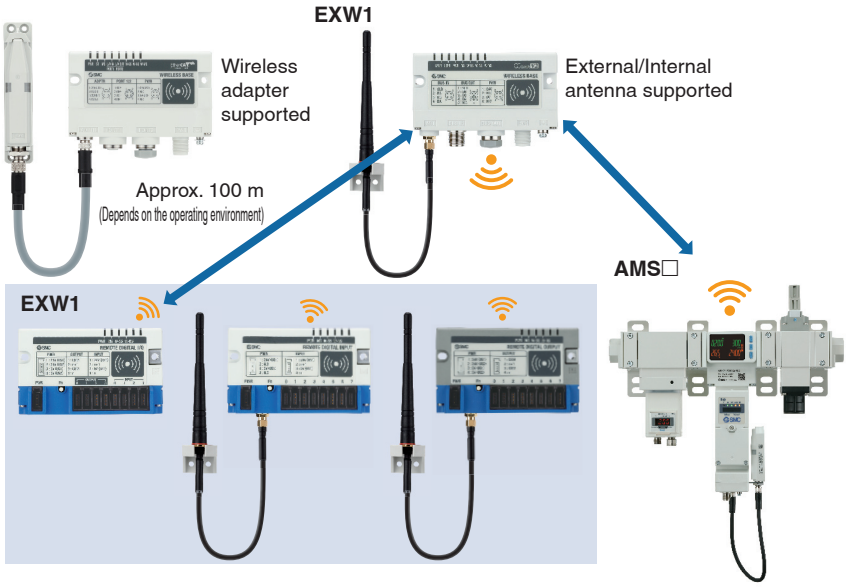
System Examples



System Configuration Examples

Compact Type Configuration example when using the EXW1 series base ①

(When the remote configuration is for the EXW1 series or air management hub only)

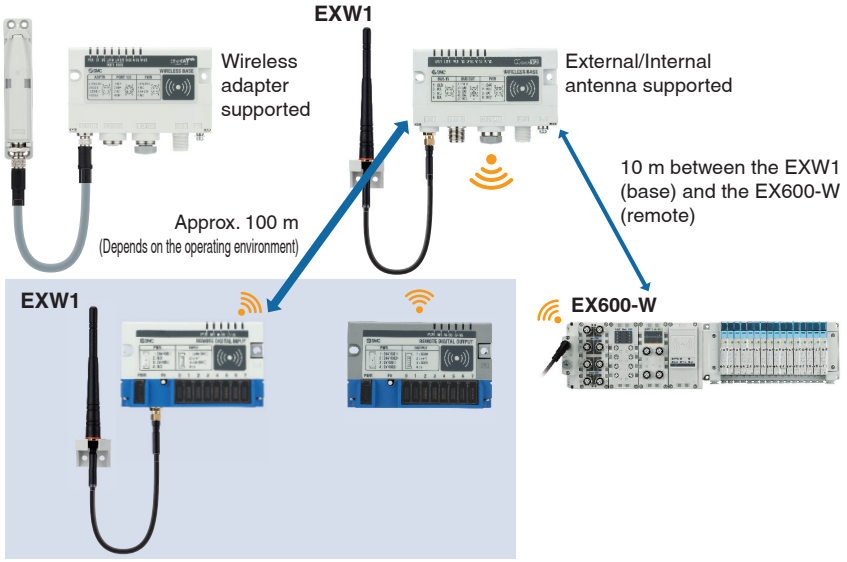


Applicable functions	
Frequency channel select (F.C.S.)	Applicable
Communication speed	Select from 1 Mbps or 250 kbps.*1
Response speed	Select from 2 ms or 5 ms.*1
Communication distance	Approx. 100 m (Depends on the operating environment)
Antenna specification*2	Wireless adapter and External/ Internal antenna supported

*1 The communication speed and response speed cannot be selected for the Air Management Hub. They are fixed at 1 Mbps and 2 ms, respectively.
*2 Refer to the "How to Order" section.

Compact Type Configuration example when using the EXW1 series base ②

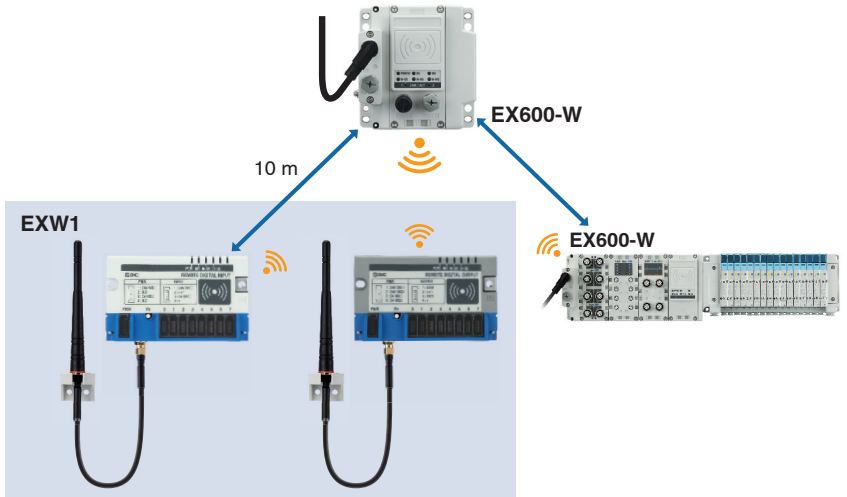
(When the remote configuration is for the EX600-W and the EXW1 series)



Applicable functions	
Frequency channel select (F.C.S.)	Not applicable
Communication speed	250 kbps
Response speed	5 ms
Communication distance	Approx. 100 m between the EXW1 base and remote (Depends on the operating environment) 10 m*1 between the EXW1 (base) and the EX600-W (remote)
Antenna specification*2	Wireless adapter and External/ Internal antenna supported

*1 The communication distance varies depending on the base/remote combination.
*2 Refer to the "How to Order" section.

Modular Type Configuration example when using the EX600-W series base



Applicable functions	
Frequency channel select (F.C.S.)	Not applicable
Communication speed	250 kbps
Response speed	5 ms
Communication distance	10 m
Antenna specification*1	External/Internal antenna supported

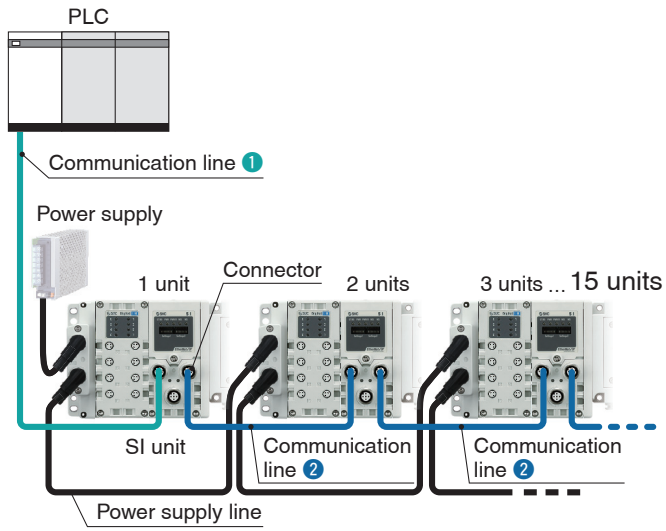
The specifications are the same as those of the EX600-W series.
*1 Refer to the "How to Order" section.

Wiring material cost and installation time can be reduced.*1

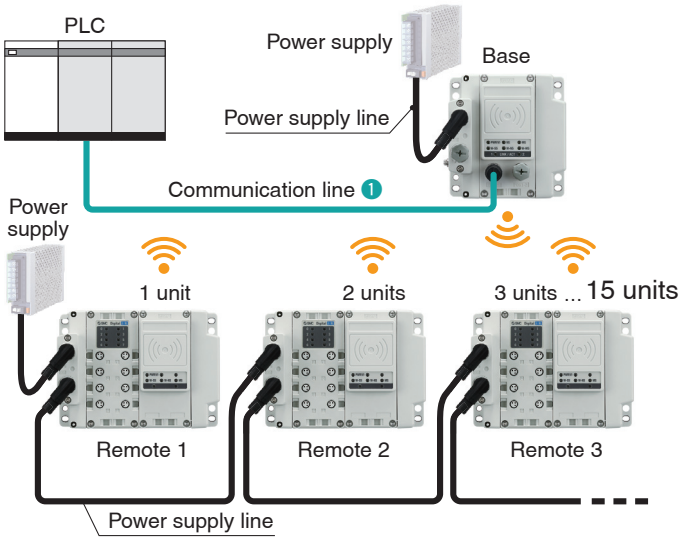
Compact EXW1 | Modular EX600-W

*1 For the EX600-W modular type

Existing (Wired) System



Wireless System



SI unit: Comparison when 15 units are connected	Number of communication devices	Communication line		Communication connectors required
		1	2	
Wireless system	Base: 1 unit Remote: 15 units	1 line (Connector at one end)	—	1 location
Existing (Wired) system	SI unit: 15 units	1 line (Connector at one end)	14 lines (Connector at both ends)	29 locations

Interchangeability maintained

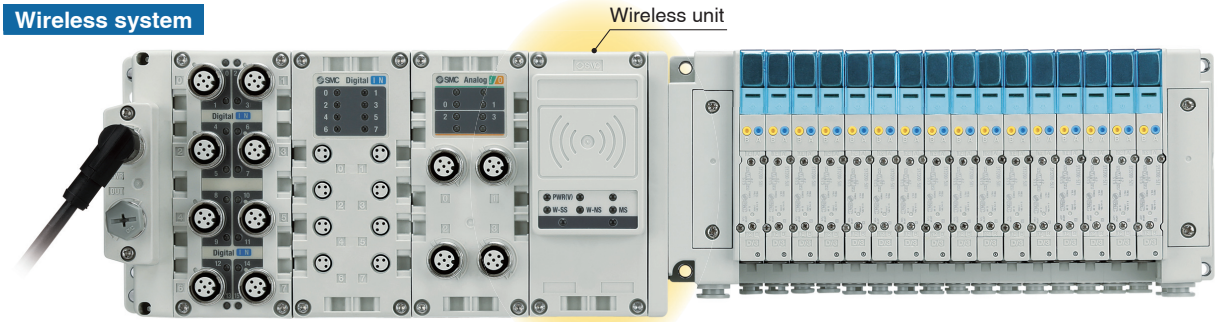
Modular EX600-W

Connection interchangeability between EX600 series SI units is maintained.

The replacement of wireless and wired systems is possible.

* The max. I/O points of the base/remote module is limited to 128 points.

Wireless system

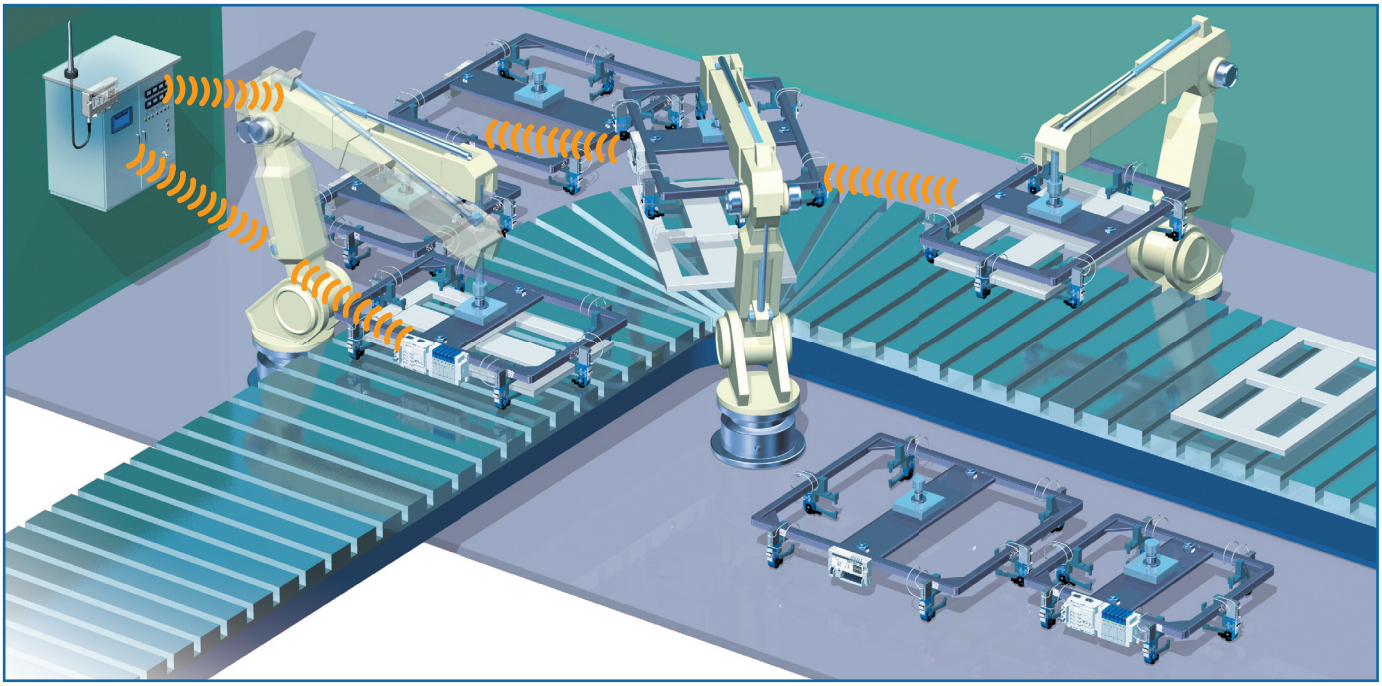


Wired system

Application Examples

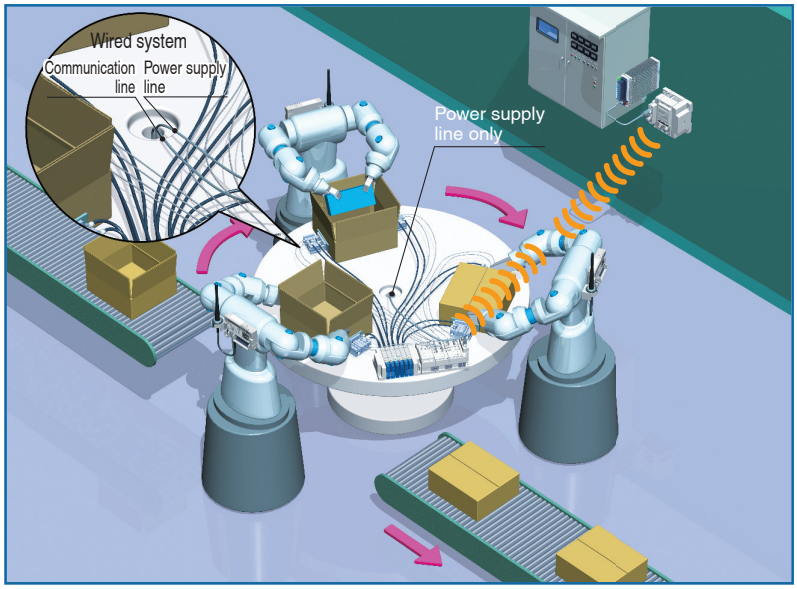
For tool changing

- A communication cable is not necessary for moving parts.
- Minimised disconnection risk
- Shorter time for establishing communication (startup time)



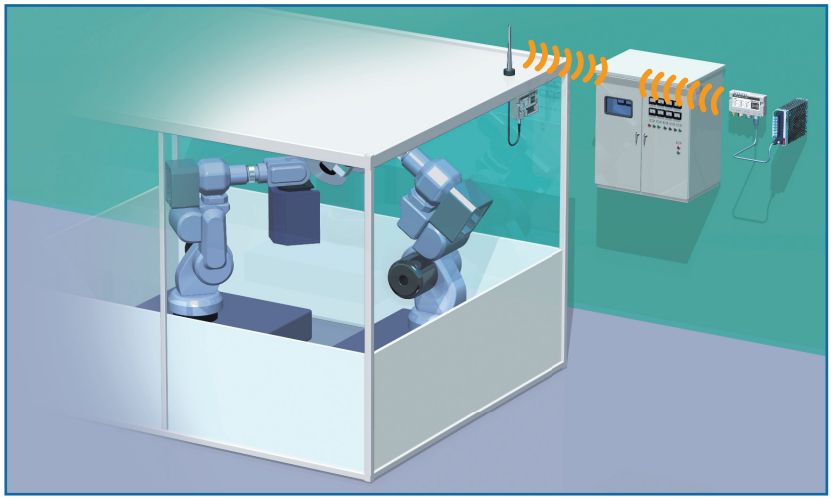
For rotary tables

- Minimised disconnection risk
- Smaller diameter communication cable/tubing



For the blocking of radio waves

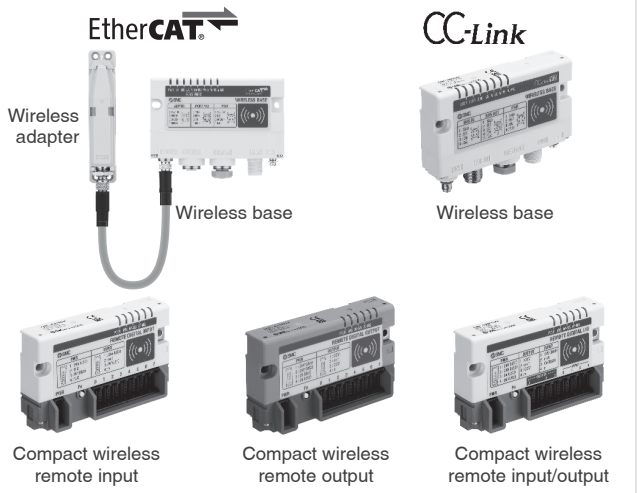
Communication is possible by placing the external antenna outside the control panel when the unit is installed in a metal box, etc.



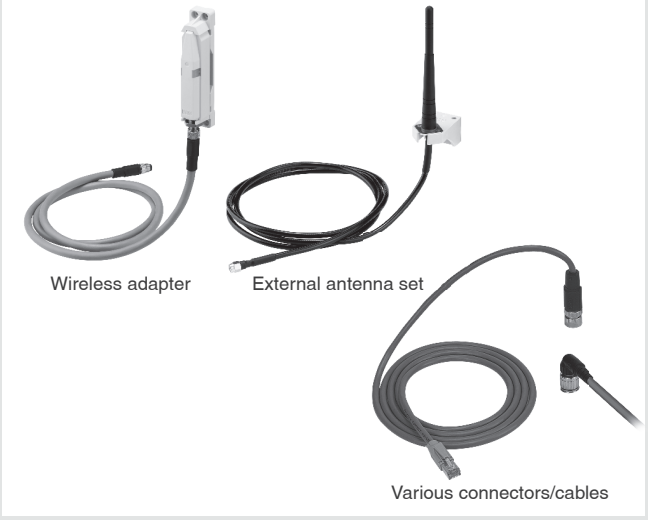
CONTENTS

Wireless System

Compact Type *EXW1 Series*



Accessories/Made to Order

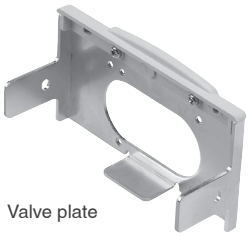


Modular Type *EX600-W Series*

Base module　　Remote module

Accessories

End plate bracket



Valve plate

Power supply cable

Wireless System
Compact Type
EXW1 Series

How to Order

Compact Wireless Base (EtherCAT)

EXW1 – B EC A C

- **Compact wireless**
- **Base**
- **Communication protocol**

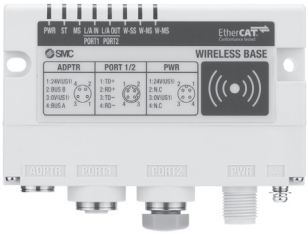
Symbol	Protocol
EC	EtherCAT

- **Connector**

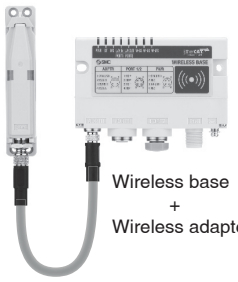
Symbol	Connector interface
A	M12

- **Antenna specification for wireless communication**[*1]

Symbol	Antenna specification
C	Wireless adapter



Components



Wireless base
+
Wireless adapter

*1 The EtherCAT compatible wireless base is a wireless system base used in combination with a wireless adapter. When using this product, order the wireless adapter and wireless adapter cable separately.

Wireless Adapter

EXW1 – A1 1 N

- **Compact wireless**
- **Wireless adapter**
- **Applicable model**

Symbol	Applicable model
1	EXW1-BECAC Air Management Hub (EXA1-□)

- **Frequency channel selection**

Symbol	Number of selectable frequency channels	Applicable countries
E	Min. 5/Max. 79 channels	Radio Law certified countries other than the U.S., Canada, South Korea, Brazil, Taiwan, Argentina, and Mexico
N	Min. 15/Max. 79 channels	Radio Law certified countries including the U.S., Canada, South Korea, Brazil, Taiwan, Argentina, and Mexico

* A dedicated cable is required to connect the wireless base and wireless adapter. When using this product, order the wireless adapter cable separately. An installation plate (EXW1-AB4) is included as an accessory.

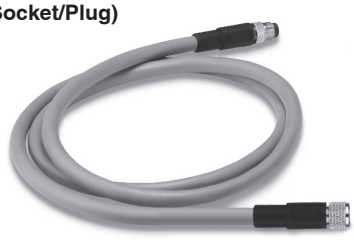
* Select this according to the country of use.
* Applicable countries differ depending on the part number. Before purchasing, refer to the “Country-specific Radio Law Compliance Table” on page 48.

Wireless Adapter Cable

EXW1 – AC1 – X1 **[Cable length: 300 mm]**

* Select a secondary battery compatible cable from below.

With connector on both sides (Socket/Plug)



● **Secondary battery compatible**

EXW1 – AC001 – SAPU **[Cable length: 100 mm]**

EXW1 – AC030 – SSPS **[Cable length: 2950 mm]**

* This cable is required to connect the wireless base and wireless adapter.

How to Order

Compact Wireless Base (CC-Link)

EXW1 – B MJ A B E

External antenna set

Compact wireless

Base

Communication protocol

Symbol	Protocol
MJ	CC-Link

Connector

Symbol	Connector interface
A	M12

Antenna specification for wireless communication

Symbol	Antenna specification*5
A*6	Internal antenna
B*7, *8	External antenna

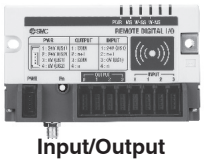
Frequency channel selection

Symbol	Number of selectable frequency channels	Applicable countries
E	Min. 5/Max. 79 channels	Radio Law certified countries other than the U.S., Canada, South Korea, Brazil, Taiwan, Argentina, and Mexico
N	Min. 15/Max. 79 channels	Radio Law certified countries including the U.S., Canada, South Korea, Brazil, Taiwan, Argentina, and Mexico

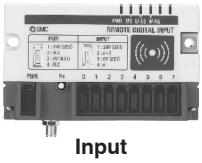
* Select this according to the country of use.
* Applicable countries differ depending on the part number. Before purchasing, refer to the "Country-specific Radio Law Compliance Table" on page 48.

Compact Wireless Remote

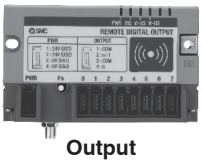
EXW1 – R D M P E3 B E



Input/Output



Input



Output

External antenna set

Compact wireless

Remote

Type

Symbol	Description
D	Digital

Type

Symbol	Description
X	Input
Y	Output
M	Input/Output

Polarity

Symbol	Description
P*1	PNP
N*2	NPN

*1 Can be selected with type "M"
*2 Available for all types

Antenna specification for wireless communication

Symbol	Antenna specification*5
A*6	Internal antenna
B*7, *8	External antenna

Connector and number of points/ports

Symbol	Description	
	Connector	Number of points/ports
E3*3	e-CON	Input: 8 inputs/ Output: 8 outputs
E4*4	e-CON	16 points

*3 Can be selected with type "M"
*4 Can be selected with types "X" and "Y"

Frequency channel selection

Symbol	Number of selectable frequency channels	Applicable countries
E	Min. 5/Max. 79 channels	Radio Law certified countries other than the U.S., Canada, South Korea, Brazil, Taiwan, Argentina, and Mexico
N	Min. 15/Max. 79 channels	Radio Law certified countries including the U.S., Canada, South Korea, Brazil, Taiwan, Argentina, and Mexico

* Select this according to the country of use.
* Applicable countries differ depending on the part number. Before purchasing, refer to the "Country-specific Radio Law Compliance Table" on page 48.

*5 The antenna specification selected cannot be changed after purchase.
*6 The external antenna set cannot be used for the internal antenna specification.
*7 An external antenna set is included with the external antenna specification.
*8 It is not possible to use the external antenna set without connecting it with the external antenna specification.

NFC Reader/Writer

EXW1 – NT1

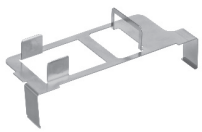
* Order a fixing bracket.
* A USB cable (3 m) is also included.

● Fixing bracket (Option)

When optional parts are required, order with the part number below.

EXW1-AB 2

Variations

Symbol	Description	Appearance	
		Single unit	Product mounting view
2	For the EXW1		

Specifications: Wireless Communication, Wireless Adapter, Compact Wireless Base

Wireless Communication Specifications

Item		Specifications
Protocol		SMC original protocol (SMC encryption)
	Between compact EXW1 remote	V.2.0 or V.1.0 (Selectable)
	Between modular EX600-W remote	V.1.0
Radio wave type (spread)		Frequency Hopping Spread Spectrum (FHSS)
Frequency		2.4 GHz (2403 to 2481 MHz)
Number of frequency channels		5 to 79 ch or 15 to 79 ch (Refer to page 2.)
Frequency channel selection		Applicable (Refer to page 2.)
Channel bandwidth		1.0 MHz
Communication speed	**V.2.0**	1 Mbps
	V.1.0	250 kbps
Communication distance		Approx. 100 m (Depends on the operating environment)
Countries in which Radio Law certified		Refer to page 48 for the latest information regarding in which countries the product is certified.
Number of connected wireless remotes∗1		Max. 127 units (15/31/63/127 units)

∗1 The number of connected units varies depending on the product.

Wireless Adapter Specifications (EXW1-A11□)
Electrical Specifications

Item	Specifications
US1 (for control) power supply voltage range	24 VDC ±10%
Internal current consumption	50 mA or less

General Specifications

Item	Specifications
Enclosure	IP67
Vibration resistance	EN 61131-2 compliant 5 ≤ f < 8.4 Hz 3.5 mm 8.4 ≤ f < 150 Hz 9.8 m/s^2
Impact resistance	EN 61131-2 compliant, 147 m/s^2, 11 ms
Standards	CE/UKCA marking
Weight	40 g (Body), 20 g (Installation plate)

∗ Air bubbles may be visible on the exterior of the product, but this does not affect the product's performance.

Compact Wireless Base Specifications (EXW1-BECAC)
EtherCAT Communication Specifications

Item	Specifications
Protocol	EtherCAT(Conformance Test Record V.2.3.0)
Communication speed	100 Mbps
Occupation area (Number of inputs/outputs)	Max. 11784 inputs/11784 outputs (1473 bytes/1473 bytes)
Configuration file	ESI (XML file)∗1
Configuration	Online∗2

∗1 The configuration file can be downloaded from the SMC website: https://www.smc.eu
∗2 The control component (PLC etc..) should be supported an online configuration.

Electrical Specifications

Item	Specifications
US1 (for control) power supply voltage range	24 VDC ±10%
Internal current consumption	150 mA or less

General Specifications

Item	Specifications
Enclosure	IP67
Vibration resistance	EN 61131-2 compliant 5 ≤ f < 8.4 Hz 3.5 mm 8.4 ≤ f < 150 Hz 9.8 m/s^2
Impact resistance	EN 61131-2 compliant, 147 m/s^2, 11 ms
Standards	CE/UKCA marking
Weight	150 g

Specifications: Compact Wireless Base

Compact Wireless Base Specifications (EXW1-BMJA□)

CC-Link Communication Specifications

Item	Specifications
Protocol	CC-Link (Ver. 1.10, Ver. 2.00)
Station type	Remote device station
Device type	Wireless equipment (Code 0x4B)
Station number	1 to 64
Communication speed	156/625 kbps 2.5/5/10 Mbps
Configuration file	CSP+ file*1
Occupation area (Number of inputs/outputs)	Max. (896 inputs/896 outputs)
Max. number of occupied stations	4 stations
Supported functions	Cyclic transmission Extended cyclic transmission (Only when Ver. 2.00 is specified) Longer cable between stations

*1 The configuration file can be downloaded from the SMC website: https://www.smc.eu

Electrical Specifications

Item	Specifications
US1 (for control) power supply voltage range	24 VDC ±10%
Internal current consumption	100 mA or less

General Specifications

Item	Specifications
Enclosure	IP67
Vibration resistance	EN 61131-2 compliant 5 ≤ f < 8.4 Hz 3.5 mm 8.4 ≤ f < 150 Hz 9.8 m/s^2
Impact resistance	EN 61131-2 compliant, 147 m/s^2, 11 ms
Standards	CE/UKCA marking
Weight	150 g (Body), 100 g (External antenna set)

Specifications: Compact Wireless Remote

Communication Specifications (Common)

Item		Specifications
Protocol		SMC original protocol (SMC encryption)
	Between compact EXW1 bases	V.2.0 or V.1.0 (Selectable)
	Between modular EX600-W bases	V.1.0
Radio wave type (spread)		Frequency Hopping Spread Spectrum (FHSS)
Frequency		2.4 GHz (2403 to 2481 MHz)
Number of frequency channels		5 to 79 ch or 15 to 79 ch (Refer to page 2.)
Frequency channel selection		Applicable (Refer to page 2.)
Channel bandwidth		1.0 MHz
Communication speed	**V.2.0**	1 Mbps
	V.1.0	250 kbps
Communication distance		Approx. 100 m (Depends on the operating environment)
Countries in which Radio Law certified		Refer to page 48 for the latest information regarding in which countries the product is certified.

Electrical Specifications (Input/Output Type)

Item		Specifications	
		EXW1-RDMPE3□□	**EXW1-RDMNE3□□**
US1 (for control/input) power supply voltage range		24 VDC ±10%	
US2 (for output) power supply voltage range		24 VDC ±10%	
Internal current consumption		100 mA or less	
Isolation		Yes (between US1 and US2)	
Input	**Number of points**	8 points (2 points/connector)	
	Type	PNP (-COM)	NPN (+COM)
	Max. sensor supply current	0.3 A/connector, 1 A/unit	
	ON current	Typ. 5 mA	
	OFF current	2 mA or less	
	ON voltage	11 V or more	
	OFF voltage	5 V or less	
	Over current protection/detection function	Applicable	
Output	**Number of points**	8 points (2 points/connector)	
	Type	PNP (-COM)	NPN (+COM)
	Max. output current	0.3 A/point, 2 A/unit	
	Over current protection/detection function	Applicable	

Electrical Specifications (Input Type)

Item		Specifications
US1 (for control/input) power supply voltage range		24 VDC ±10%
Internal current consumption		100 mA or less
Input	**Number of points**	16 points (2 points/connector)
	Type	NPN (+COM)
	Max. sensor supply current	0.3 A/connector, 2 A/unit
	ON current	Typ. 5 mA
	OFF current	2 mA or less
	ON voltage	11 V or more
	OFF voltage	5 V or less
	Over current protection/detection function	Applicable

Electrical Specifications (Output Type)

Item		Specifications
US1 (for control/input) power supply voltage range		24 VDC ±10%
US2 (for output) power supply voltage range		24 VDC ±10%
Internal current consumption		100 mA or less
Isolation		Yes (between US1 and US2)
Output	**Number of points**	16 points (2 points/connector)
	Type	NPN (+COM)
	Max. output current	0.3 A/point, 2 A/unit
	Over current protection/detection function	Applicable

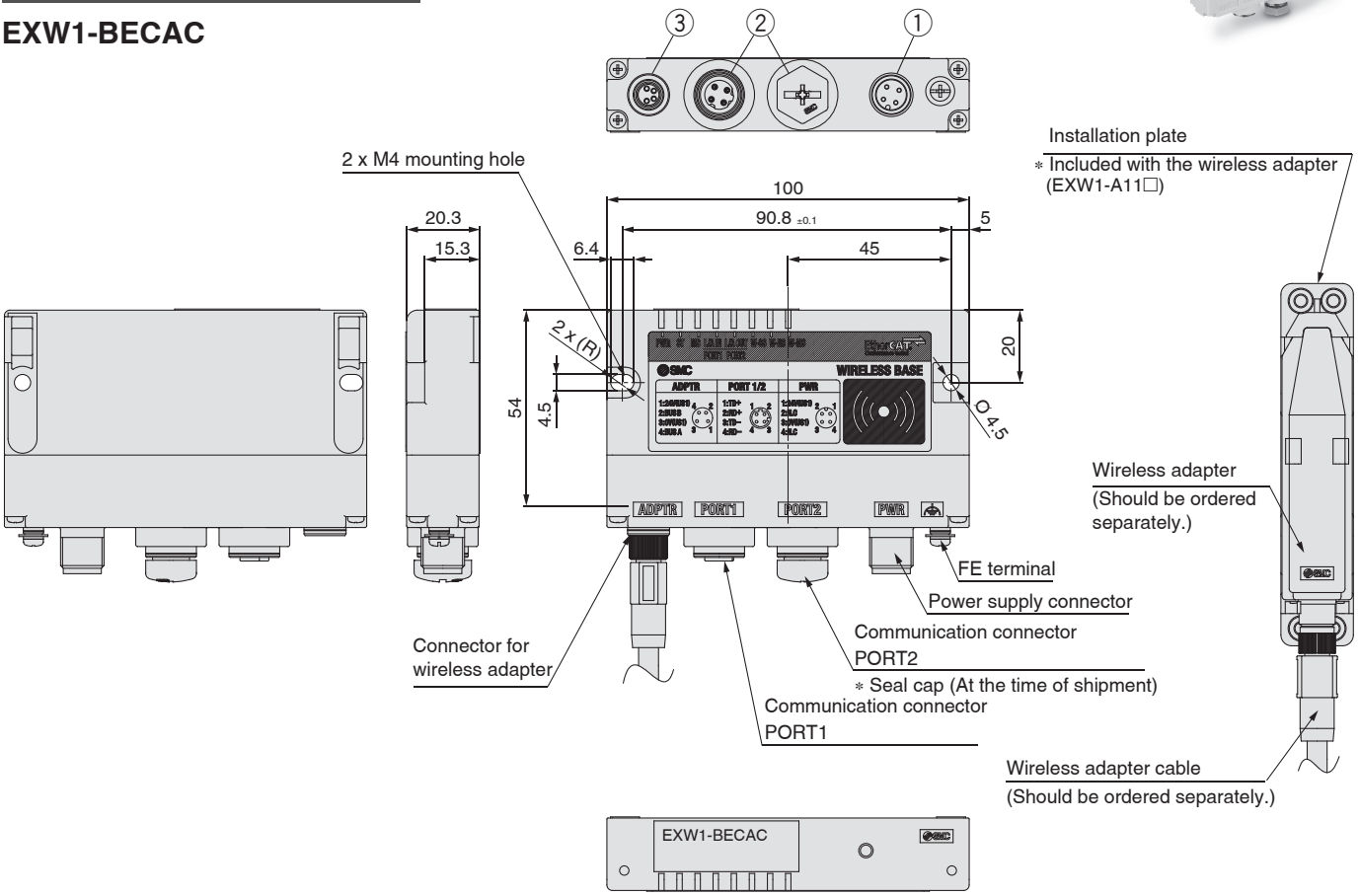
General Specifications (Common)

Item	Specifications
Connector type	e-CON (4-pin, Socket)
Enclosure	IP20
Standards	CE/UKCA marking
Vibration resistance	EN 61131-2 compliant $5 \leq f < 8.4$ Hz 3.5 mm $8.4 \leq f < 150$ Hz 9.8 m/s^2
Impact resistance	EN 61131-2 compliant, 147 m/s^2, 11 ms
Weight	130 g (Body), 100 g (External antenna set)

Dimensions/Parts Description

Compact Wireless Base

EXW1-BECAC



①Power supply connector

No.	Signal	M12, 4-pin, plug A-coded
1	24 V	
2	N.C.	
3	0 V	
4	N.C.	

②EtherCAT communication connector

No.	Signal	M12, 4-pin, D-coded, socket
1	TD+	
2	RD+	
3	TD−	
4	RD−	

③Connector for wireless adapter

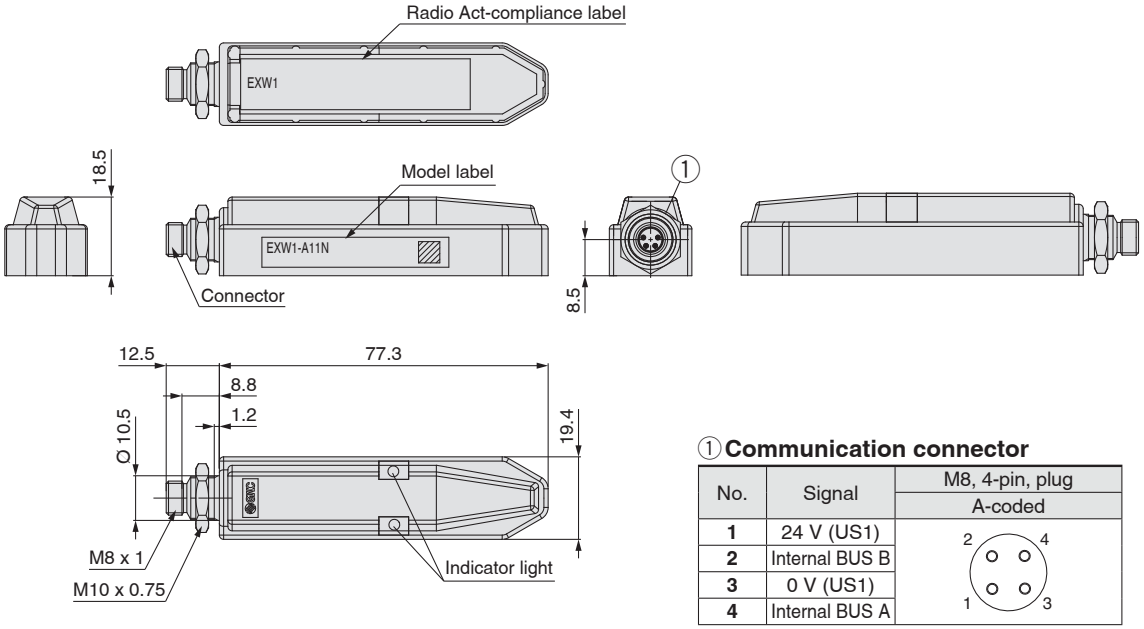
No.	Signal	M8, 4-pin, socket
1	24 V (US1)	
2	Internal BUS B	
3	0 V (US1)	
4	Internal BUS A	

∗ The compact wireless base (EtherCAT) is a wireless system base used in combination with a wireless adapter that has wireless communication capabilities. When using this product, it is necessary to order the wireless adapter and wireless adapter cable separately.

Dimensions/Parts Description

Wireless Adapter

EXW1-A11□



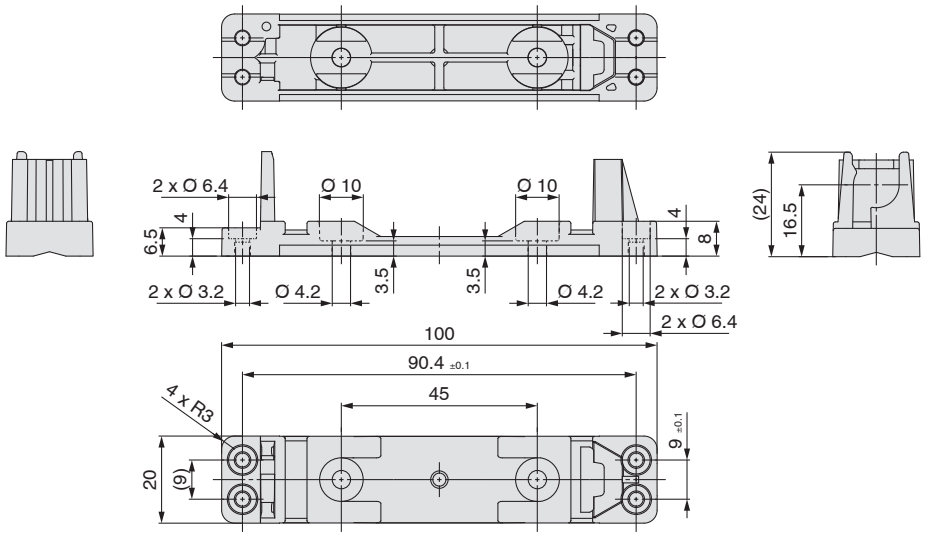
① Communication connector

No.	Signal	M8, 4-pin, plug A-coded
1	24 V (US1)	
2	Internal BUS B	
3	0 V (US1)	
4	Internal BUS A	

Installation Plate

EXW1-AB4 (Option for wireless adapter)

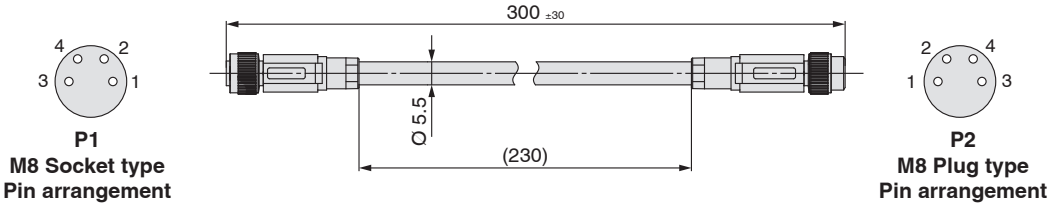
* Included with the EXW1-A11□



Dimensions/Parts Description

Wireless Adapter Cable

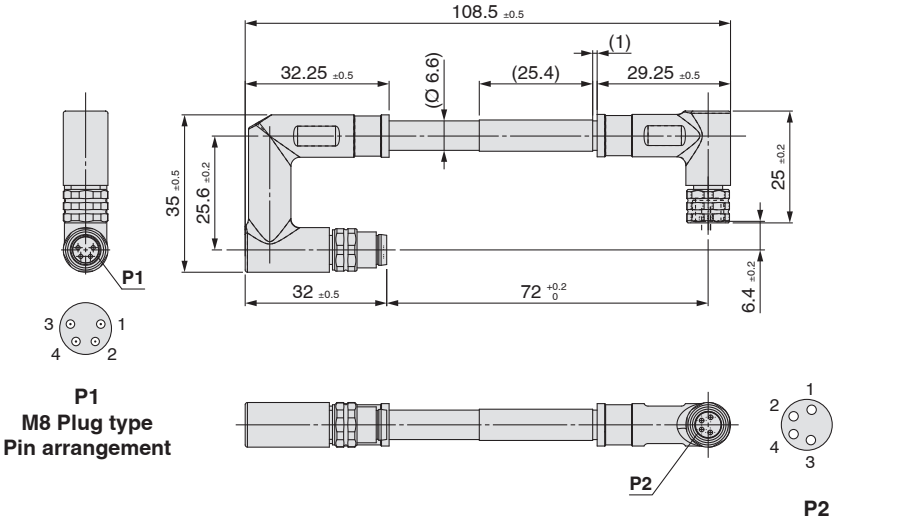
EXW1-AC1-X1



P1
M8 Socket type
Pin arrangement

P2
M8 Plug type
Pin arrangement

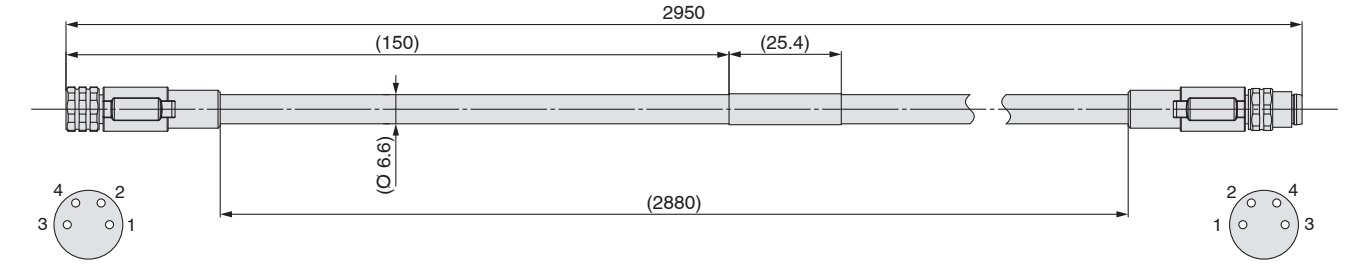
EXW1-AC001-SAPU



P1
M8 Plug type
Pin arrangement

P2
M8 Socket type
Pin arrangement

EXW1-AC030-SSPS



P1
M8 Socket type
Pin arrangement

P2
M8 Plug type
Pin arrangement

Dimensions/Parts Description

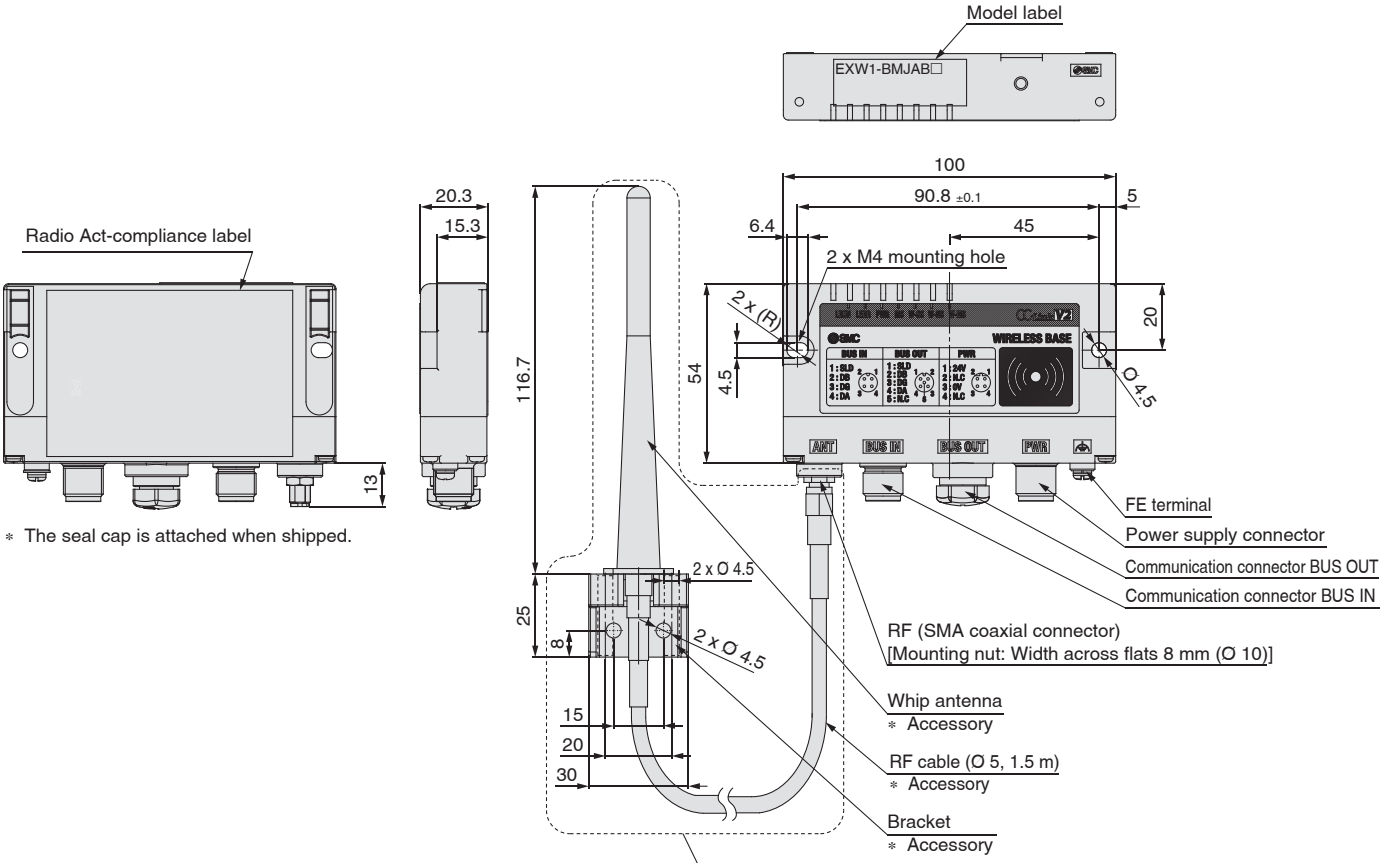
Compact Wireless Base

EXW1-BMJA□

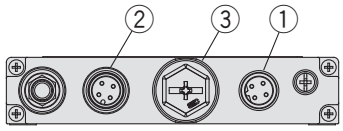

Internal antenna


External antenna

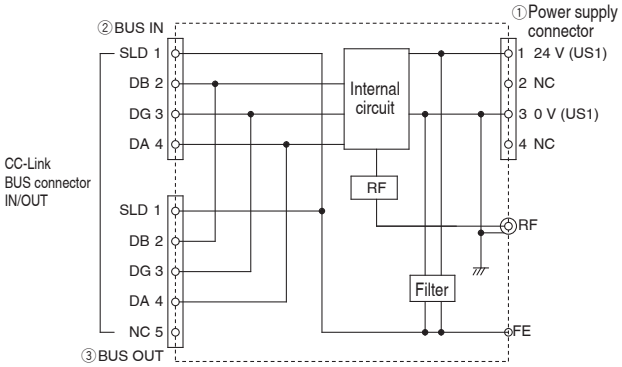

External antenna set



* The seal cap is attached when shipped.

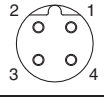


Internal circuit



* The metal housing part of the RF (SMA coaxial connector) is connected to 0 V (US1).

① Power supply connector

No.	Signal	M12, 4-pin, plug B-coded
1	24 V (US1)	
2	N.C.	
3	0 V (US1)	
4	N.C.	

②③ CC-Link BUS connector

No.	② BUS IN	
	Signal	M12, 4-pin, plug A-coded
1	SLD	
2	DB	
3	DG	
4	DA	

No.	③ BUS OUT	
	Signal	M12, 5-pin, socket A-coded
1	SLD	
2	DB	
3	DG	
4	DA	
5	N.C.	

Dimensions/Parts Description

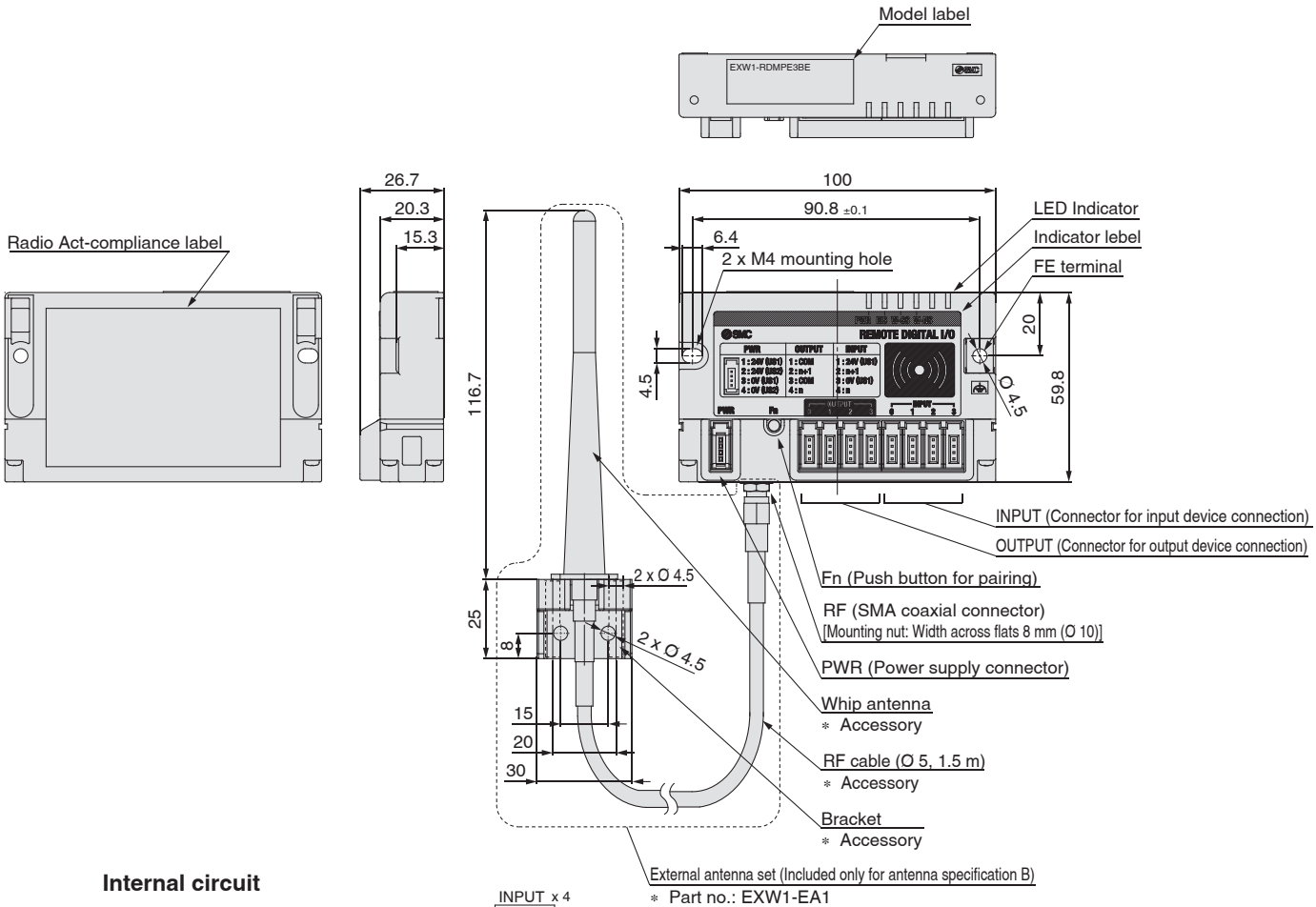
Compact Wireless Remote Input/Output

EXW1-RDM□□□□

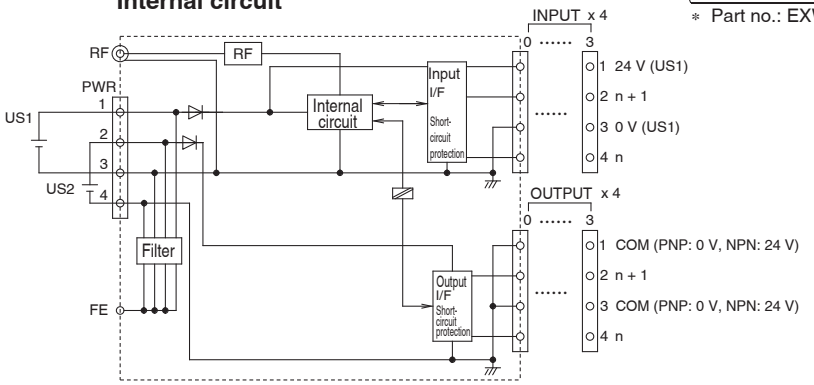

Internal antenna


External antenna


External antenna set



Internal circuit

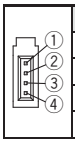


∗ The metal housing part of the RF (SMA coaxial connector) is connected to 0 V (US1).

PWR (Power supply connector)

Pin no.	Description
1	24 V (US1)
2	24 V (US2)
3	0 V (US1)
4	0 V (US2)

INPUT (Connector for input device connection)



Pin no.	Description
1	24 V (US1)
2	n + 1
3	0 V (US1)
4	n

OUTPUT (Connector for output device connection, EXW1-RDMPE3□□)∗1

Pin no.	Description
1	-COM (US2_0 V)
2	n + 1
3	-COM (US2_0 V)
4	n

OUTPUT (Connector for output device connection, EXW1-RDMNE3□□)∗1

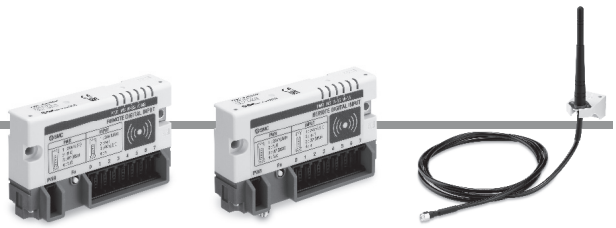
Pin no.	Description
1	+COM (US2_24 V)
2	n + 1
3	+COM (US2_24 V)
4	n

∗1 The specifications of pin numbers ① and ③ differ depending on the part number system.

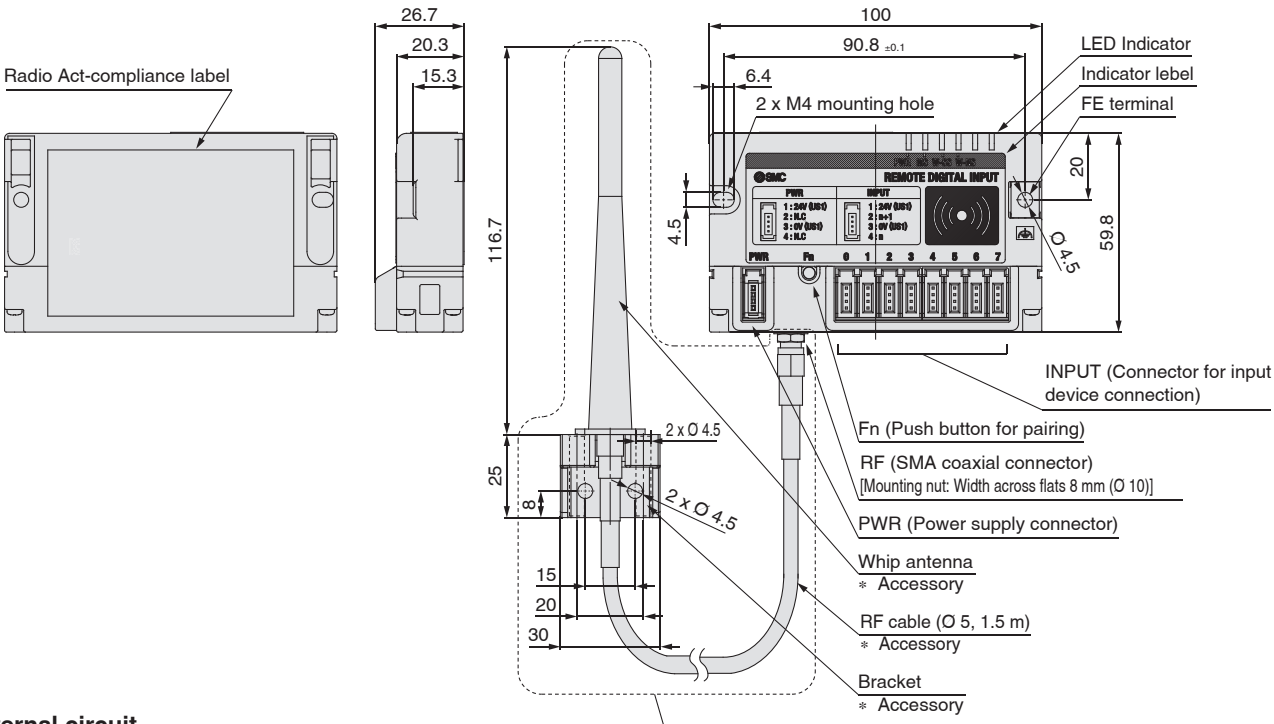
Dimensions/Parts Description

Compact Wireless Remote Input

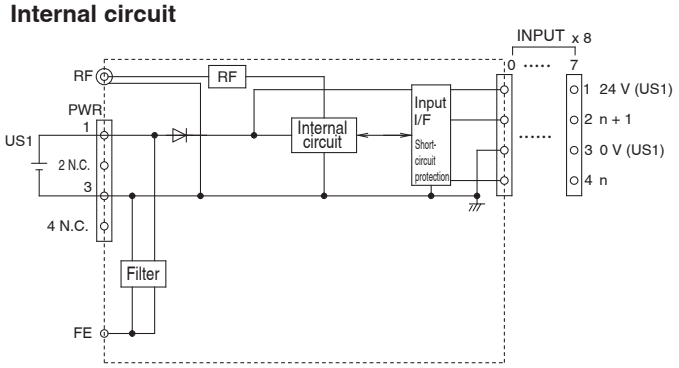
EXW1-RDX□□□□



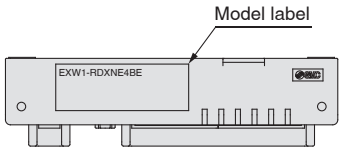
Internal antenna | External antenna | External antenna set



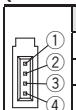
Internal circuit



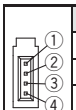
* The metal housing part of the RF (SMA coaxial connector) is connected to 0 V (US1).



PWR
(Power supply connector)

	Pin no.	Description
	**1**	24 V (US1)
	2	N.C.
	3	0 V (US1)
	4	N.C.

INPUT
(Connector for input device connection)

	Pin no.	Description
	**1**	24 V (US1)
	2	n + 1
	3	0 V (US1)
	4	n

Dimensions/Parts Description

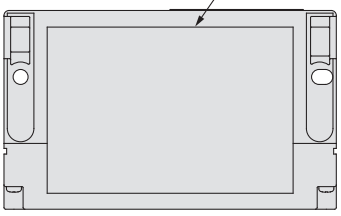
Compact Wireless Remote Output

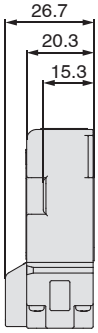
EXW1-RDY□□□□

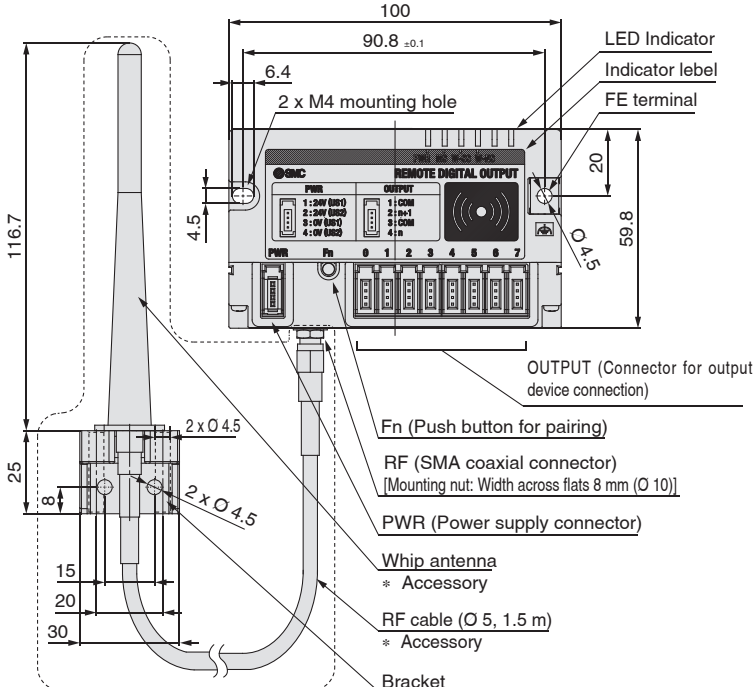

Internal antenna


External antenna

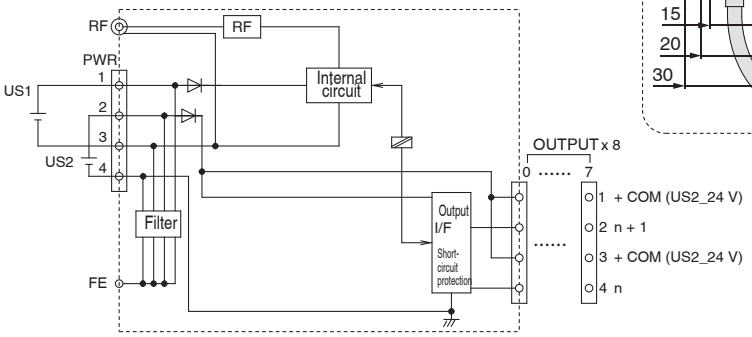

External antenna set



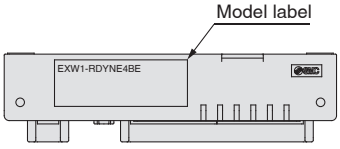




Internal circuit



∗ The metal housing part of the RF (SMA coaxial connector) is connected to 0 V (US1).



PWR
(Power supply connector)

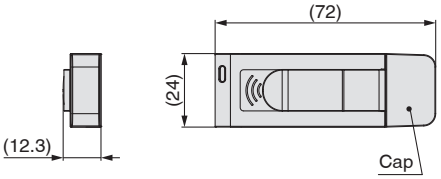
Pin no.	Description
1	24 V (US1)
2	24 V (US2)
3	0 V (US1)
4	0 V (US2)

OUTPUT
(Connector for output device connection)

Pin no.	Description
1	+ COM (US2_24 V)
2	n + 1
3	+ COM (US2_24 V)
4	n

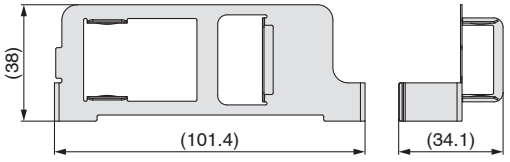
NFC Reader/Writer

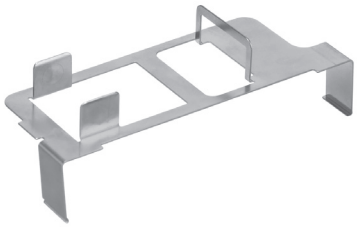
EXW1-NT1



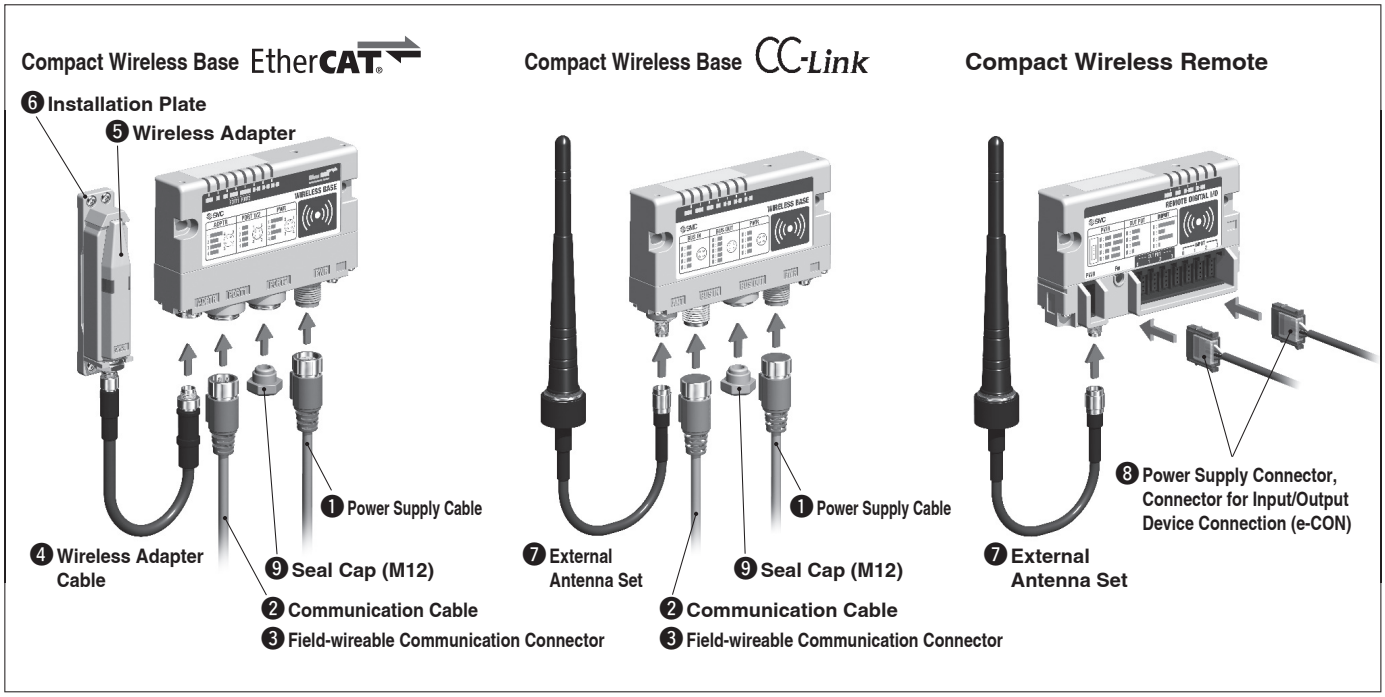
Fixing Bracket

EXW1-AB2 (Option, For EXW1)





EXW1 Series
Accessories (Optional Parts)



❶ Power Supply Cable

For EtherCAT

EX500-AP 050 - S

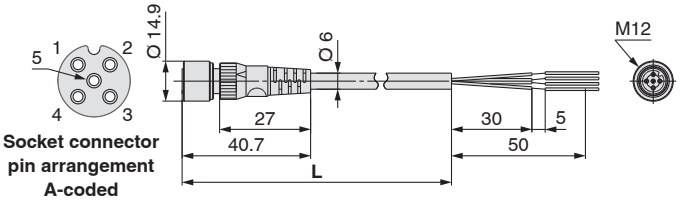
Cable length (L)

010	1000 mm
050	5000 mm

Connector specification

S	Straight
A	Angled

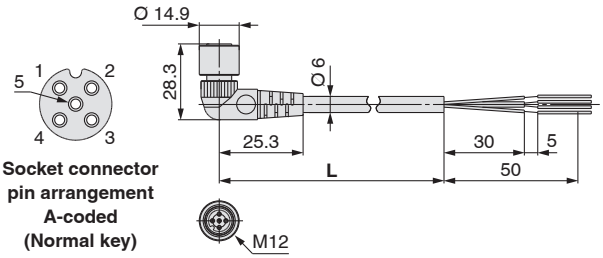
Straight connector type



Socket connector pin arrangement A-coded (Normal key)

Item	Specifications
Cable O.D.	Ø 6 mm
Conductor nominal cross section	0.3 mm²/AWG22
Wire O.D. (Including insulator)	1.5 mm
Min. bending radius (Fixed)	40 mm

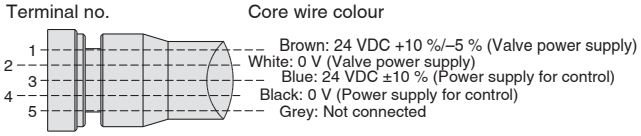
Angled connector type



Socket connector pin arrangement A-coded (Normal key)

Item	Specifications
Cable O.D.	Ø 6 mm
Conductor nominal cross section	0.3 mm²/AWG22
Wire O.D. (Including insulator)	1.5 mm
Min. bending radius (Fixed)	40 mm

Connections



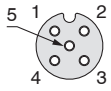
❶ Power Supply Cable

For EtherCAT

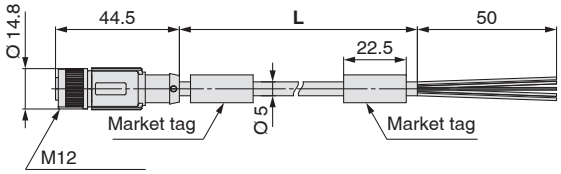
PCA-1401804

Cable length (L)

1401804	1500 mm
1401805	3000 mm
1401806	5000 mm

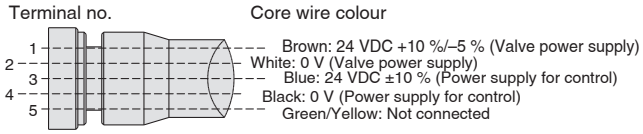


Socket connector pin arrangement A-coded (Normal key)



Item	Specifications
Cable O.D.	Ø 5 mm
Conductor nominal cross section	0.34 mm²/AWG22
Wire O.D. (Including insulator)	1.27 mm
Min. bending radius (Fixed)	21.7 mm

Connections



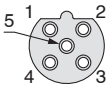
For CC-Link

Straight connector type

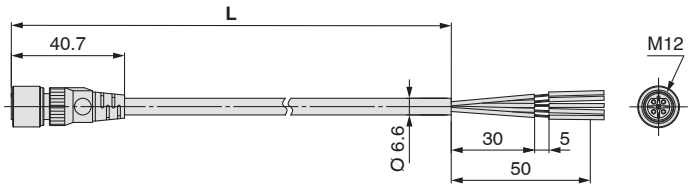
EX9-AC050-1

Cable length (L)

010	1000 mm
030	3000 mm
050	5000 mm

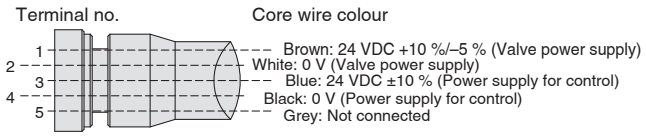


Socket connector pin arrangement B-coded (Reverse key)



Item	Specifications
Cable O.D.	Ø 6.6 mm
Conductor nominal cross section	0.3 mm²/AWG22
Wire O.D. (Including insulator)	1.65 mm
Min. bending radius (Fixed)	40 mm

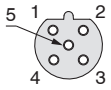
Connections



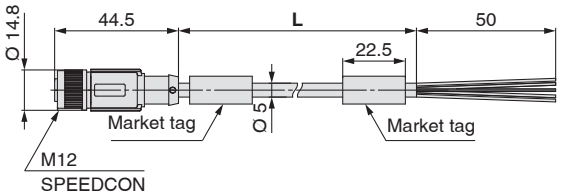
PCA-1401807

Cable length (L)

1401807	1500 mm
1401808	3000 mm
1401809	5000 mm

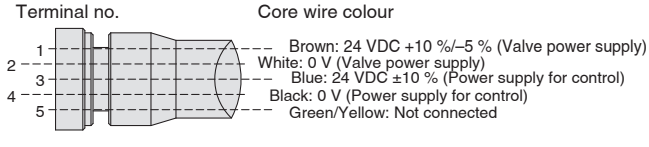


Socket connector pin arrangement B-coded (Reverse key)



Item	Specifications
Cable O.D.	Ø 5 mm
Conductor nominal cross section	0.34 mm²/AWG22
Wire O.D. (Including insulator)	1.27 mm
Min. bending radius (Fixed)	21.7 mm

Connections



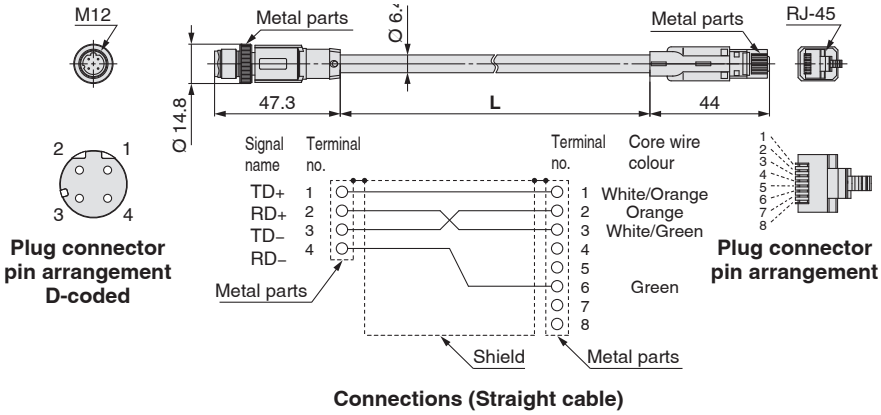
❷ Communication Cable

For EtherCAT

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

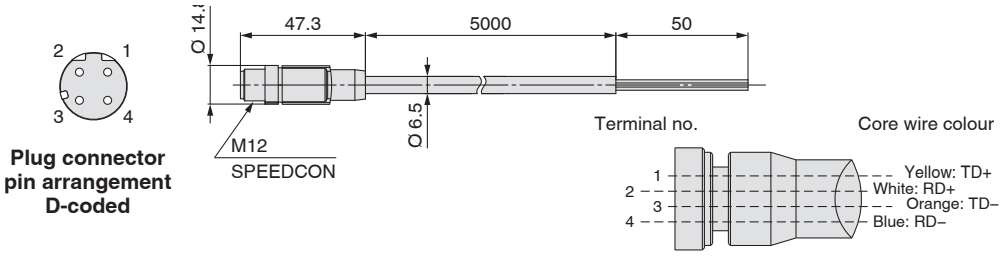
Cable length (L)

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



Connections (Straight cable)

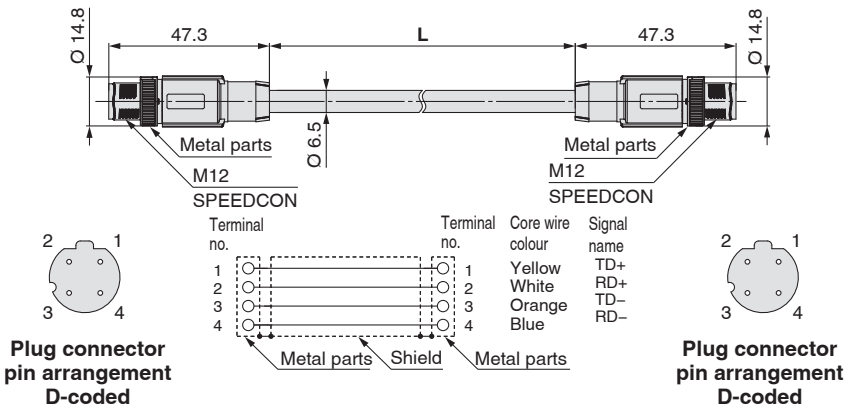
PCA-1446566 (Plug)



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

Cable length (L)

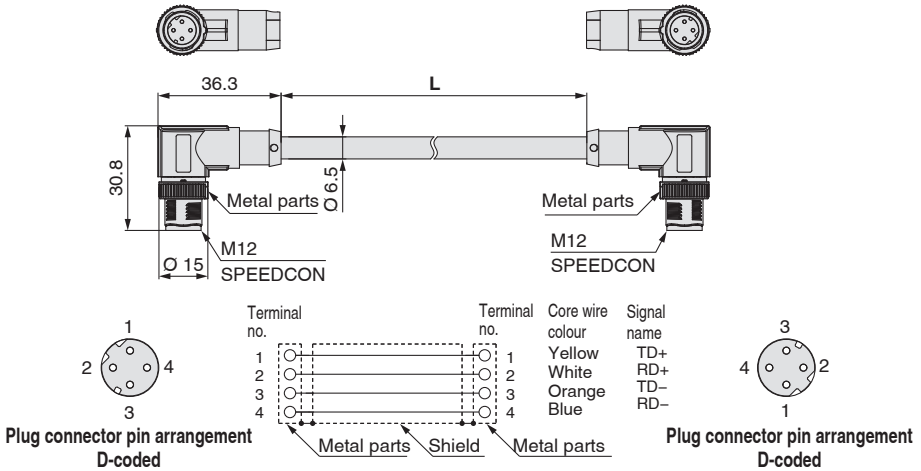
005	500 mm
010	1000 mm
020	2000 mm
030	3000 mm
050	5000 mm
100	10000 mm



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

Cable length (L)

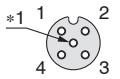
005	500 mm
010	1000 mm
020	2000 mm
030	3000 mm
050	5000 mm
100	10000 mm



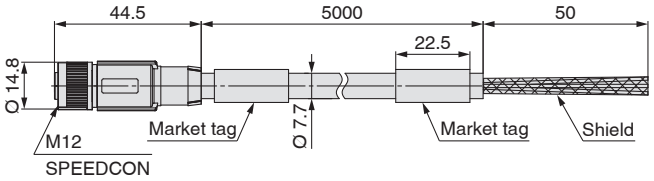
❷ Communication Cable

For CC-Link

PCA-1567720
(Socket)

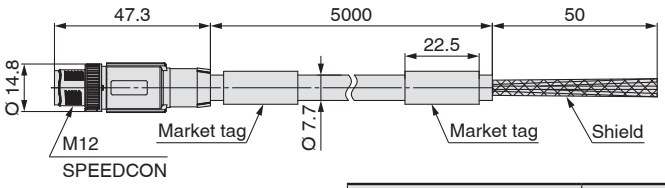


Socket connector pin arrangement
A-coded (Normal key)
∗1 Number of holes: 5,
Total number of pins: 4



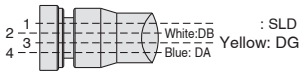
PCA-1567717
(Plug)

Plug connector pin arrangement
A-coded (Normal key)



Made to Order

Cable length	10000 mm	Refer to page 29.



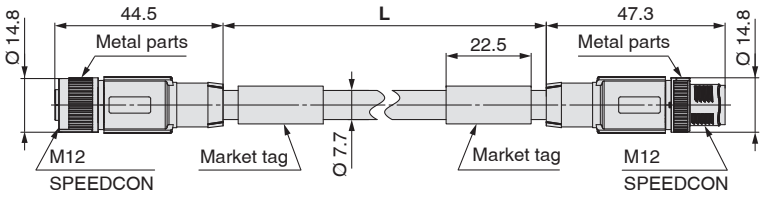
Connections

Item		Specifications
Cable O.D.		O 7.7 mm
Conductor nominal cross section	**Data pair**	0.5 mm²/AWG20
	Drain	0.34 mm²/AWG22
Wire O.D. (Including insulator)		2.55 mm
Min. bending radius (Fixed)		77 mm

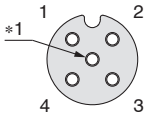
EX9-AC 005 MJ-SSPS (With connector on both sides (Socket/Plug))

Cable length (L)

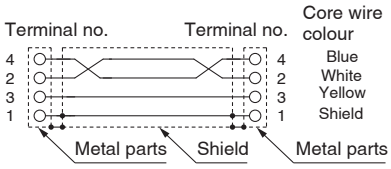
005	500 mm
010	1000 mm
020	2000 mm
030	3000 mm
050	5000 mm
100	10000 mm



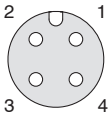
Item		Specifications
Cable O.D.		O 7.7 mm
Conductor nominal cross section	**Data pair**	0.5 mm²/AWG20
	Drain	0.34 mm²/AWG22
Wire O.D. (Including insulator)		2.55 mm
Min. bending radius (Fixed)		77 mm



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



Connections

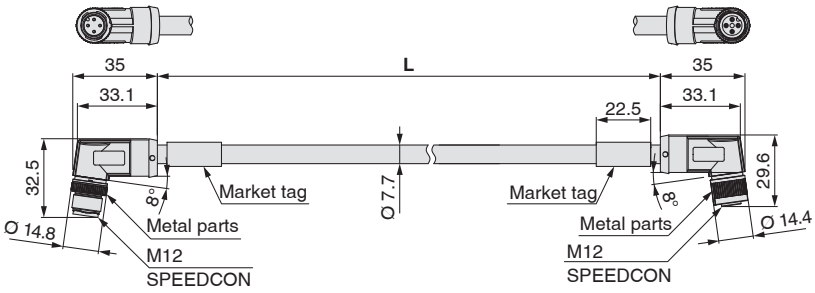


Plug connector pin arrangement
A-coded (Normal key)

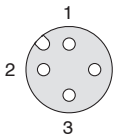
EX9-AC 005 MJ-SAPA (With angled connector on both sides (Socket/Plug))

Cable length (L)

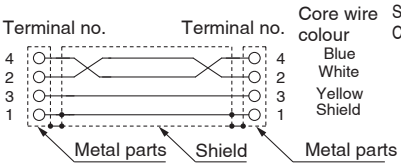
005	500 mm
010	1000 mm
020	2000 mm
030	3000 mm
050	5000 mm
100	10000 mm



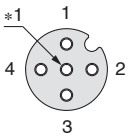
Item		Specifications
Cable O.D.		O 7.7 mm
Conductor nominal cross section	**Data pair**	0.5 mm²/AWG20
	Drain	0.34 mm²/AWG22
Wire O.D. (Including insulator)		2.55 mm
Min. bending radius (Fixed)		77 mm



Plug connector pin arrangement
A-coded (Normal key)



Connections



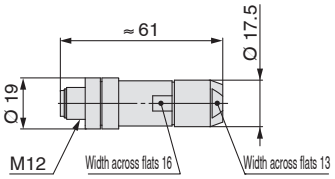
Socket connector pin arrangement
A-coded (Normal key)
∗1 Number of holes: 5,
Total number of pins: 4

❸ Field-wireable Communication Connector

Plug

For EtherCAT

PCA-1446553



D-coded

Applicable Cable

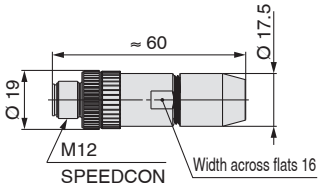
Item	Specifications
Cable O.D.	4.0 to 8.0 mm
Wire gauge (Stranded wire cross section)	0.14 to 0.34 mm²/AWG26 to 22

* 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.

Plug

For CC-Link

PCA-1075526



A-coded (Normal key)

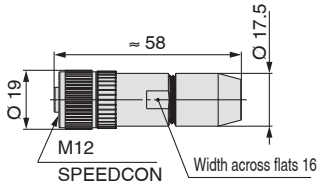
Applicable Cable

Item	Specifications
Cable O.D.	4.0 to 8.0 mm
Wire gauge (Stranded wire cross section)	0.14 to 0.5 mm²/AWG26 to 20

Socket

For CC-Link

PCA-1075527



A-coded (Normal key)

Applicable Cable

Item	Specifications
Cable O.D.	4.0 to 8.0 mm
Wire gauge (Stranded wire cross section)	0.14 to 0.5 mm²/AWG26 to 20

❹ Wireless Adapter Cable

EXW1-AC1-X1

● **Secondary battery compatible**

EXW1-AC001-SAPU

EXW1-AC030-SSPS

* Refer to page 18 for the dimensions and parts description.
* This cable is required to connect the wireless base and wireless adapter.

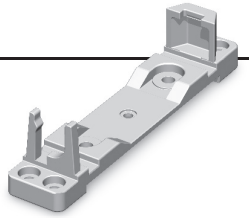
❺ Wireless Adapter

EXW1-A11□

A wireless adapter cable is required to connect the wireless base and wireless adapter.
An installation plate (EXW1-AB4) is included as an accessory.

* Refer to page 17 for the dimensions and parts description.

❻ Installation Plate



EXW1-AB4

Included as an accessory with the wireless adapter (EXW1-A11□)

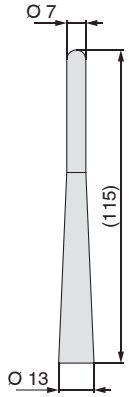
* Refer to page 17 for the dimensions.

❼ External Antenna Set

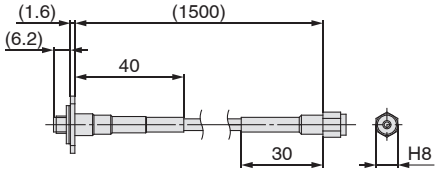
EXW1-EA1

(A set containing a whip antenna, coaxial cable, and bracket)

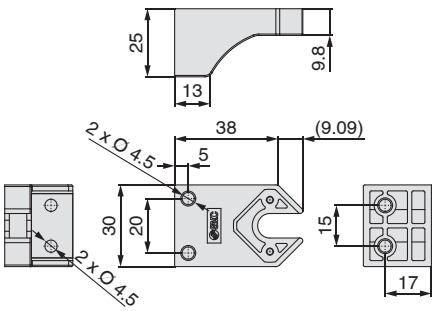
*1 The set is included with the external antenna specification. Only the included whip antenna and coaxial cable can be used with the product. Be sure to use them as a set.
*2 The external antenna set cannot be used for the internal antenna specification.
*3 It is not possible to use the external antenna set without connecting it with the external antenna specification.



① **Whip antenna**



② **Coaxial cable**

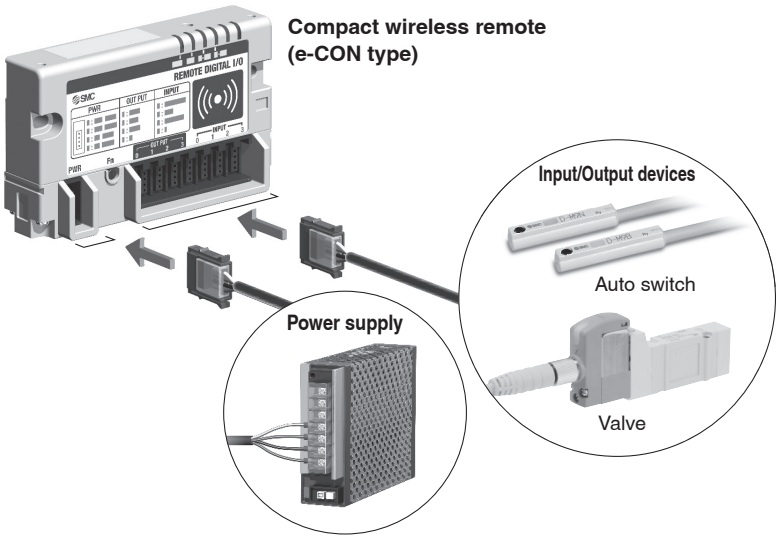


③ **Bracket**

❽ Power Supply Connector, Connector for Input/Output Device Connection (e-CON)

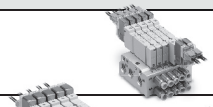
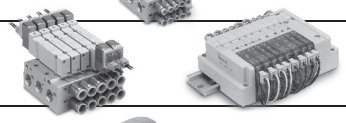
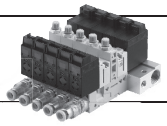
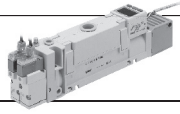
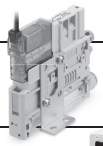
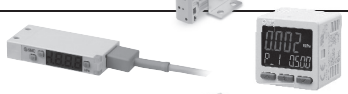
Select the applicable e-CON connectors based on the lead wire specifications of the components to be connected.
Both the power supply and I/O connectors have the same shape as the e-CON (4-pin, socket).
The lead wire specifications of each of our I/O devices are shown below for reference.

Connecting the remote and I/O devices



e-CON Part Nos. List

Part no.	AWG No.	Conductor cross section [mm SQ]	Finished outside diameter [mm]	Cover colour
ZS-28-C-1	24 to 26	0.14 to 0.2	Ø 1.0 to Ø 1.2	Yellow
ZS-28-C-2			Ø 1.2 to Ø 1.6	Orange
ZS-28-C-3	22 to 20	0.3 to 0.5	Ø 1.0 to Ø 1.2	Green
ZS-28-C-4			Ø 1.2 to Ø 1.6	Blue
ZS-28-C-5			Ø 1.6 to Ø 2.0	Grey
ZS-28-CA-1	—	0.1 to 0.5	Ø 0.6 to Ø 0.9	Orange
ZS-28-CA-2			Ø 0.9 to Ø 1.0	Red
ZS-28-CA-3			Ø 1.0 to Ø 1.15	Yellow
ZS-28-CA-4			Ø 1.15 to Ø 1.35	Blue
ZS-28-CA-5			Ø 1.35 to Ø 1.6	Green

Input/ Output	Product	Series	Appearance	Conductor cross section [mm²]	Insulator O.D. [mm]	Applicable e-CON part no.
Output	Valve	**JSY1000 Plug lead (V050-30-4A-□)**		0.3	Ø 1.55	ZS-28-C-4 ZS-28-CA-5
		JSY3000, 5000/SYJ/SJ Plug lead (SY100-30-4A-□)		0.3	Ø 1.55	ZS-28-C-4 ZS-28-CA-5
		SY/SYJ M8 connector (V100-49-1-□)		0.16 (AWG25)	Ø 1.2	ZS-28-C-1 ZS-28-CA-4
	Ejector	**ZB (AXT661-13A/14A-□)**		AWG24	Ø 1.4	ZS-28-C-2 ZS-28-CA-5
		ZL/ZM (SY100-30-4A-□)		0.3	Ø 1.55	ZS-28-C-4 ZS-28-CA-5
		ZK2 (ZK2-LV□□-A)		0.2 (AWG24)	Ø 1.4	ZS-28-C-2 ZS-28-CA-5
Input	Pressure	**Z/ISE10, 20**		0.15 (AWG26)	Ø 1.0	ZS-28-C-1 ZS-28-CA-2
		PS1000		0.18	Ø 0.96	ZS-28-CA-2
	Auto switch	**D-M9**		0.15	Ø 0.88	ZS-28-CA-1
	Flow	**PF2M**		AWG26 (0.13)	Ø 1	ZS-28-CA-2

❾ Seal Cap (10 pcs.)

Be sure to mount a seal cap on any unused communication connectors.
Otherwise, the specified enclosure cannot be maintained.
* One cap is included with the wireless base (EXW1-B□).

EX9-AWTS
For M12

Made to Order

Please contact SMC for detailed specifications and lead times.

Made to Order

❶ Communication Cable

With connector on one side (Socket)

Cable length: 10000 mm

For CC-Link

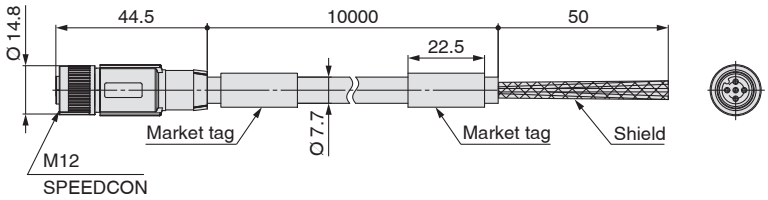
EX9-AC100 MJ -X12

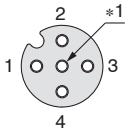
Applicable protocol

MJ	CC-Link

Dimensions

For CC-Link





Socket connector pin arrangement A-coded (Normal key)

Connections

Terminal no.	Core wire colour: 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.		Ø 7.7 mm
Conductor nominal cross section	Data pair	0.5 mm²/AWG20
	Drain	0.34 mm²/AWG22
Wire O.D. (Including insulator)		2.55 mm
Min. bending radius (Fixed)		77 mm

Wireless System

Modular Type

EX600-W Series

How to Order

Wireless Unit

EX600 – W EN 1

Wireless compatible

Protocol

Symbol	Specifications	Note
EN	Base module	For EtherNet/IP™
PN	Base module	For PROFINET
SV	Remote module	—

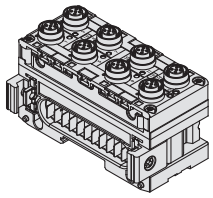
Output type

Symbol	Specifications
1	PNP
2	NPN

Base module **Remote module**

Digital Input Unit*1

EX600 – DX P D



Digital input

Input type

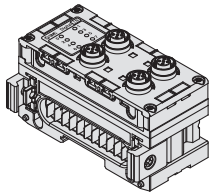
Symbol	Description
P	PNP
N	NPN

Number of inputs and connector

Symbol	Number of inputs	Connector
B	8 inputs	M12 connector (5 pins) 4 pcs.
C	8 inputs	M8 connector (3 pins) 8 pcs.
C1	8 inputs	M8 connector (3 pins) 8 pcs., With open-circuit detection
D	16 inputs	M12 connector (5 pins) 8 pcs.
E	16 inputs	D-sub connector (25 pins)
F	16 inputs	Spring type terminal block (32 pins)

Digital Output Unit*1

EX600 – DY P B



Digital output

Output type

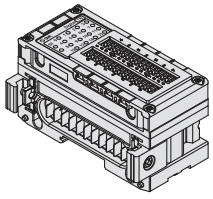
Symbol	Description
P	PNP
N	NPN

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*1

EX600 – DM P F



Digital input/output

Input/Output type

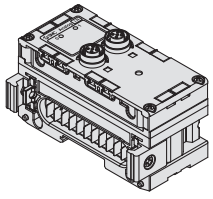
Symbol	Description
P	PNP
N	NPN

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)

Analogue Input Unit*1

EX600 – AX A



Analogue input

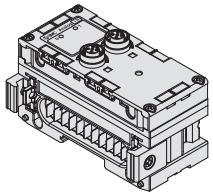
Number of input channels and connector

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

*1 For specifications, refer to the Fieldbus system EX600 series in the **Catalogue on www.smc.eu.**.

How to Order

Analogue Output Unit*1 EX600 – AY A

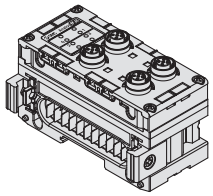


Analogue output

Number of output channels and connector

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

Analogue Input/Output Unit*1 EX600 – AM B



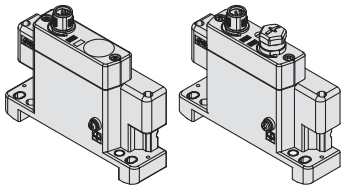
Analogue input/output

Number of input/output channels and connector

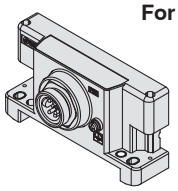
Symbol	Number of input channels	Number of output channels	Connector
B	2 channels	2 channels	M12 connector (5 pins) 4 pcs.

*1 For specifications, refer to the Fieldbus system EX600 series in the **Catalogue on www.smc.eu.**.

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

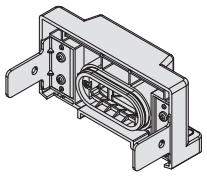
*1 The pin layout for "4" and "5" pin connector is different.
Refer to the dimensions on page 28.

Mounting method

Symbol	Description	Note
—	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.

End Plate (U side) EX600 – EU 1 – 2



End plate

End plate mounting position: U side

Specifications

Symbol	Specifications
1	Waterproof cover

Mounting method

Symbol	Description	Note
—	Without DIN rail mounting bracket	—
2	With DIN rail mounting bracket	For EX600-ED□-2
3	With DIN rail mounting bracket	For EX600-ED□-3

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

NFC Reader/Writer

EXW1 – NT1

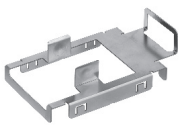
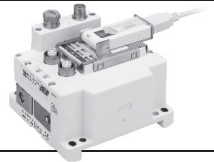
* Order a fixing bracket.
* A USB cable (3 m) is also included.

● **Fixing bracket (Option)**

When optional parts are required, order with the part number below.

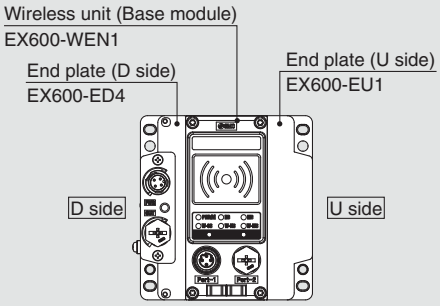
EXW1-AB 1

Variations

Symbol	Description	Appearance	
		Single unit	Product mounting view
1	For EX600-W		

Ordering Example of the Base Module

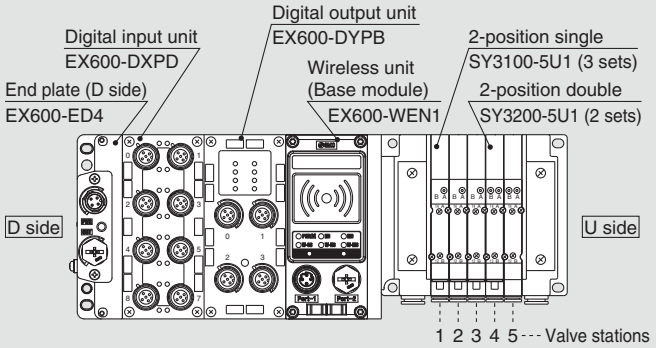
Base module: Without valve manifold and input/output unit



EX600-ED4 ····· **1 set**
EX600-WEN1 ····· **1 set**
EX600-EU1 ····· **1 set**

· Products should be ordered separately and assembled by the customer.

Manifold with base module: With input/output unit

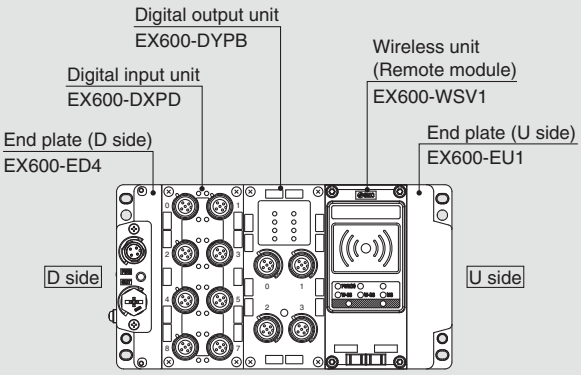


SS5Y3-10S6WE72-05B-C6
(Type 10 5-station manifold base, Base EtherNet/IP™ compatible)
Negative common, M12 connector IN/OUT pin arrangement 1, I/O unit: 2 stations
∗ SY3100-5U1 ····· **3 sets (2-position single part no.)**
∗ SY3200-5U1 ····· **2 sets (2-position double part no.)**
∗ EX600-DXPD ····· **1 set I/O unit part no. (Stations 1)**
∗ EX600-DYPB ····· **1 set I/O unit part no. (Stations 2)**
→The asterisk denotes the symbol for the assembly. Prefix it to the part numbers of the valve, etc.

· For details, refer to the catalogue of each valve series.

Ordering Example of the Remote Module

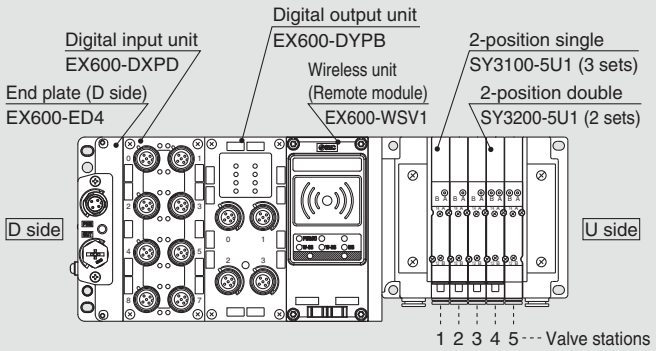
Remote module: Without valve manifold and with input/output unit



EX600-ED4 ····· **1 set**
EX600-DXPD ····· **1 set**
EX600-DYPB ····· **1 set**
EX600-WSV1 ····· **1 set**
EX600-EU1 ····· **1 set**

· Products should be ordered separately and assembled by the customer.

Manifold with remote module: With input/output unit



SS5Y3-10S6WS72-05B-C6
(Type 10 5-station manifold base, remote)
Negative common, M12 connector IN/OUT pin arrangement 1, I/O unit: 2 stations
∗ SY3100-5U1 ····· **3 sets (2-position single part no.)**
∗ SY3200-5U1 ····· **2 sets (2-position double part no.)**
∗ EX600-DXPD ····· **1 set I/O unit part no. (Stations 1)**
∗ EX600-DYPB ····· **1 set I/O unit part no. (Stations 2)**
→The asterisk denotes the symbol for the assembly. Prefix it to the part numbers of the valve, etc.

· For details, refer to the catalogue of each valve series.

Specifications

Base Module: EX600-WEN□

Item			Specifications
EtherNet/IP™ communication	Communication protocol		EtherNet/IP™ (Conformance test version: Composite 12)
	Transmission medium (cable)		Standard Ethernet cable (CAT5 or higher, 100BASE-TX)
	Communication speed		10 Mbps/100 Mbps
	Communication method		Full duplex/Half duplex
	Configuration file		EDS file*1
	IP address setting		Manual/BOOTP, DHCP
	Device information		Vendor ID: 7 (SMC Corp.) Device type: 12 (Communication Adaptor) Product code: 186
	Topology		Star, Bus, Ring (DLR), Line, Tree
	QuickConnect™ function		Applicable
	DLR function		Applicable
	Web server function		Applicable
Wireless communication	Protocol		SMC original protocol (SMC encryption) V.1.0
	Radio wave type (spread)		Frequency Hopping Spread Spectrum (FHSS)
	Frequency		2.4 GHz (2403 to 2481 MHz)
	Number of frequency channels		79 ch (Bandwidth: 1.0 MHz)
	Communication speed		250 kbps
	Communication distance		10 m (Depending on the operating environment)
	Radio Law certificate		Refer to the SMC website for the latest information regarding in which countries the product is certified.
Electrical	For control/input (US1)	Power supply voltage	24 VDC ±10%
		Current consumption	150 mA or less
	For output (US2)	Power supply voltage	24 VDC ±10%
		Max. supply current	4 A
Input/Output	Number of inputs	System input size	Max. 1280 points together with the registered remote modules
		Input size	Max. 128 points (increase or decrease by 16 points)
	Number of outputs	System output size	Max. 1280 points together with the registered remote modules
		Output size	Max. 128 points (increase or decrease by 16 points)
	Analogue input/output	AD refresh time	10 ms or less (the input connected to the base module) 0.1/0.2/0.5/1/2/5/10/30/60 s (the input connected to the remote module)*2
		DA refresh time	10 ms or less (the output connected to the base module) 0.1/0.2/0.5/1/2/5/10/30/60 s (the output connected to the remote module)*2
	Valve output	Output type	EX600-WEN1: Source/PNP (–COM) EX600-WEN2: Sink/NPN (+COM)
		Number of outputs	Max. 32 points (0/8/16/24/32 points)
		Connected load	Solenoid valve with surge voltage suppressor of 24 VDC and 1.5 W or less (manufactured by SMC)
	Number of remote modules connected		Max. 127 units (0/15/31/63/127 units)
	Number of connected EX600 I/O units		Max. 9 EX600 series I/O units (I/O = 128. I/O above 128 cannot be recognized.)
General	Enclosure		Conforms to IP67 (with manifold assembled)
	Ambient temperature (Operating temperature)		–10 to +50 °C
	Ambient temperature (Storage temperature)		–20 to +60 °C
	Ambient humidity		35 to 85 %RH (No condensation)
	Withstand voltage		500 VAC for 1 minute between external terminals and metallic parts
	Insulation resistance		10 MΩ or more (500 VDC between external terminals and metallic parts)
	Vibration resistance		Conforms to EN 61131-2 5 ≤ f < 8.4 Hz 3.5 mm 8.4 ≤ f < 150 Hz 9.8 m/s² (Excludes valve manifold)
	Impact resistance		Conforms to EN 61131-2 147 m/s², 11 ms (Excludes valve manifold)
	Standards		CE/UKCA marking
	Weight		300 g
NFC communication*3	Communication standard		ISO/IEC 14443B (Type-B)
	Frequency		13.56 MHz
	Communication speed		20 to 100 kHz (I2C)
	Communication distance		Up to 1 cm

*1 The configuration file can be downloaded from the SMC website: https://www.smc.eu
*2 Varies depending on the wireless communication status and the surrounding environment
*3 The NFC communication RFID tag of the 13.56 MHz passive type

■ **Trademark**
EtherNet/IP® is a registered trademark of ODVA. Inc.

Specifications

Base Module: EX600-WPN□

Item			Specifications
PROFINET communication	Communication protocol		PROFINET IO
	Conformance class		Class C (Only for IRT switch function)
	Transmission medium (cable)		Standard Ethernet cable (CAT5 or higher, 100BASE-TX)
	Transmission speed		100 Mbps
	Configuration file		GSDML file*1
	FSU (Fast Start Up)		Applicable
	MRP (Media Redundancy Protocol)		Applicable
	Web server function		Applicable
Wireless communication	Protocol		SMC original protocol (SMC encryption) V.1.0
	Radio wave type (spread)		Frequency Hopping Spread Spectrum (FHSS)
	Frequency		2.4 GHz (2403 to 2481 MHz)
	Number of frequency channels		79 ch (Bandwidth: 1.0 MHz)
	Communication speed		250 kbps
	Communication distance		10 m (Depending on the operating environment)
	Radio Law certificate		Refer to the SMC website for the latest information regarding in which countries the product is certified.
Electrical	For control/input (US1)	Power supply voltage	24 VDC ±10%
		Current consumption	150 mA or less
	For output (US2)	Power supply voltage	24 VDC ±10%
		Max. supply current	4 A
Input/Output	Number of inputs	System input size	Max. 1280 points together with the registered remote modules
		Input size	Max. 128 points (increase or decrease by 16 points)
	Number of outputs	System output size	Max. 1280 points together with the registered remote modules
		Output size	Max. 128 points (increase or decrease by 16 points)
	Analogue input/output	AD refresh time	10 ms or less (the input connected to the base module) 0.1/0.2/0.5/1/2/5/10/30/60 s (the input connected to the remote module)*2
		DA refresh time	10 ms or less (the output connected to the base module) 0.1/0.2/0.5/1/2/5/10/30/60 s (the output connected to the remote module)*2
	Valve output	Output type	EX600-WPN1: Source/PNP (–COM) EX600-WPN2: Sink/NPN (+COM)
		Number of outputs	Max. 32 points (0/8/16/24/32 points)
		Connected load	Solenoid valve with surge voltage suppressor of 24 VDC and 1.5 W or less (manufactured by SMC)
	Number of remote modules connected		Max. 31 units (0/15/31 units)
	Number of connected EX600 I/O units		Max. 9 EX600 series I/O units (I/O = 128. I/O above 128 cannot be recognized.)
General	Enclosure		Conforms to IP67 (with manifold assembled)
	Ambient temperature (Operating temperature)		–10 to +50 °C
	Ambient temperature (Storage temperature)		–20 to +60 °C
	Ambient humidity		35 to 85 %RH (No condensation)
	Withstand voltage		500 VAC for 1 minute between external terminals and metallic parts
	Insulation resistance		10 MΩ or more (500 VDC between external terminals and metallic parts)
	Vibration resistance		Conforms to EN 61131-2 5 ≤ f < 8.4 Hz 3.5 mm 8.4 ≤ f < 150 Hz 9.8 m/s^2 (Excludes valve manifold)
	Impact resistance		Conforms to EN 61131-2 147 m/s^2, 11 ms (Excludes valve manifold)
	Standards		CE/UKCA marking
	Weight		300 g
NFC communication*3	Communication standard		ISO/IEC 14443B (Type-B)
	Frequency		13.56 MHz
	Communication speed		20 to 100 kHz (I2C)
	Communication distance		Up to 1 cm

*1 The configuration file can be downloaded from the SMC website: https://www.smc.eu
*2 Varies depending on the wireless communication status and the surrounding environment
*3 The NFC communication RFID tag of the 13.56 MHz passive type

Specifications

Remote Module: EX600-WSV□

Item			Specifications
Electrical	For control/input (US1)	Power supply voltage	24 VDC ±10%
		Current consumption	70 mA or less
	For output (US2)	Power supply voltage	24 VDC ±10%
		Max. supply current	4 A
Input/Output	Number of inputs	Input size	Max. 128 points (increase or decrease by 16 points)
	Number of outputs	Output size	Max. 128 points (increase or decrease by 16 points)
	AD/DA refresh time		0.1/0.2/0.5/1/2/5/10/30/60 s*1
	Number of connected EX600 I/O units		Max. 9 EX600 I/O units (I/O = 128. I/O above 128 cannot be recognized.)
	Valve output	Output type	EX600-WSV1: Source/PNP (–COM) EX600-WSV2: Sink/NPN (+COM)
		Number of outputs	Max. 32 points (0/8/16/24/32 points)
		Connected load	Solenoid valve with surge voltage suppressor of 24 VDC and 1.5 W or less (manufactured by SMC)
Wireless communication	Protocol		SMC original protocol (SMC encryption) V.1.0
	Radio wave type (spread)		Frequency Hopping Spread Spectrum (FHSS)
	Frequency		2.4 GHz (2403 to 2481 MHz)
	Number of frequency channels		79 ch (Bandwidth: 1.0 MHz)
	Communication speed		250 kbps
	Communication distance		10 m (Depending on the operating environment)
	Radio Law certificate		Refer to the SMC website for the latest information regarding in which countries the product is certified.
General	Enclosure		Conforms to IP67 (with manifold assembled)
	Ambient temperature (Operating temperature)		-10 to +50 °C
	Ambient temperature (Storage temperature)		-20 to +60 °C
	Ambient humidity		35 to 85 %RH (No condensation)
	Withstand voltage		500 VAC for 1 minute between external terminals and metallic parts
	Insulation resistance		10 MΩ or more (500 VDC between external terminals and metallic parts)
	Vibration resistance		Conforms to EN 61131-2 5 ≤ f < 8.4 Hz 3.5 mm 8.4 ≤ f < 150 Hz 9.8 m/s² (Excludes valve manifold)
	Impact resistance		Conforms to EN 61131-2 147 m/s², 11 ms (Excludes valve manifold)
	Standards		CE/UKCA marking
	Weight		280 g
NFC communication*2	Communication standard		ISO/IEC 14443B (Type-B)
	Frequency		13.56 MHz
	Communication speed		20 to 100 kHz (I2C)
	Communication distance		Up to 1 cm

*1 Varies depending on the wireless communication status and the surrounding environment
*2 The NFC communication RFID tag of the 13.56 MHz passive type

End Plate (D side)

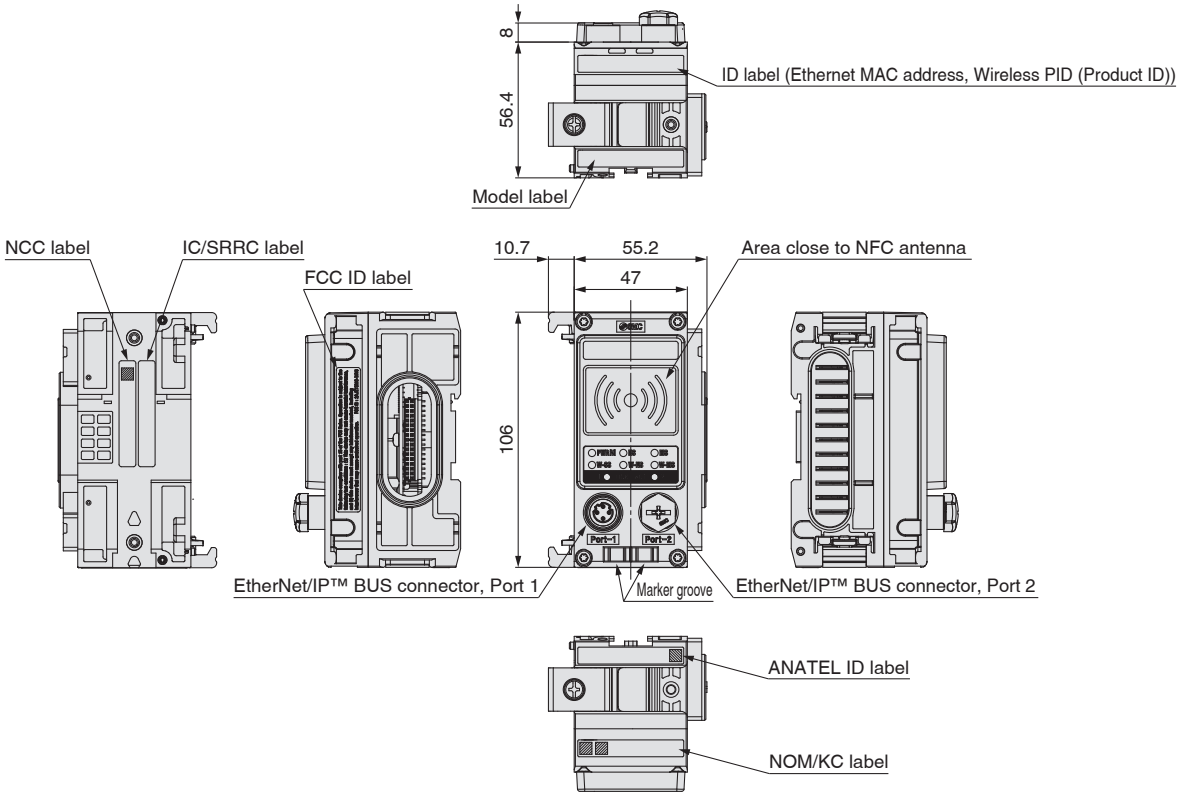
Model			EX600-ED2-□	EX600-ED3-□	EX600-ED4/5-□
Electrical	Power supply connector	PWR IN	M12 (5-pin) plug	7/8 inch (5-pin) plug	M12 (4-pin) plug
		PWR OUT	—	—	M12 (5-pin) socket
	Rated voltage	Power supply for control/input	24 VDC ±10%		
		Power supply for output	24 VDC +10/–5%		
	Rated current	Power supply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

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

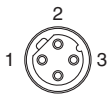
Dimensions

Base Module

EX600-WEN□



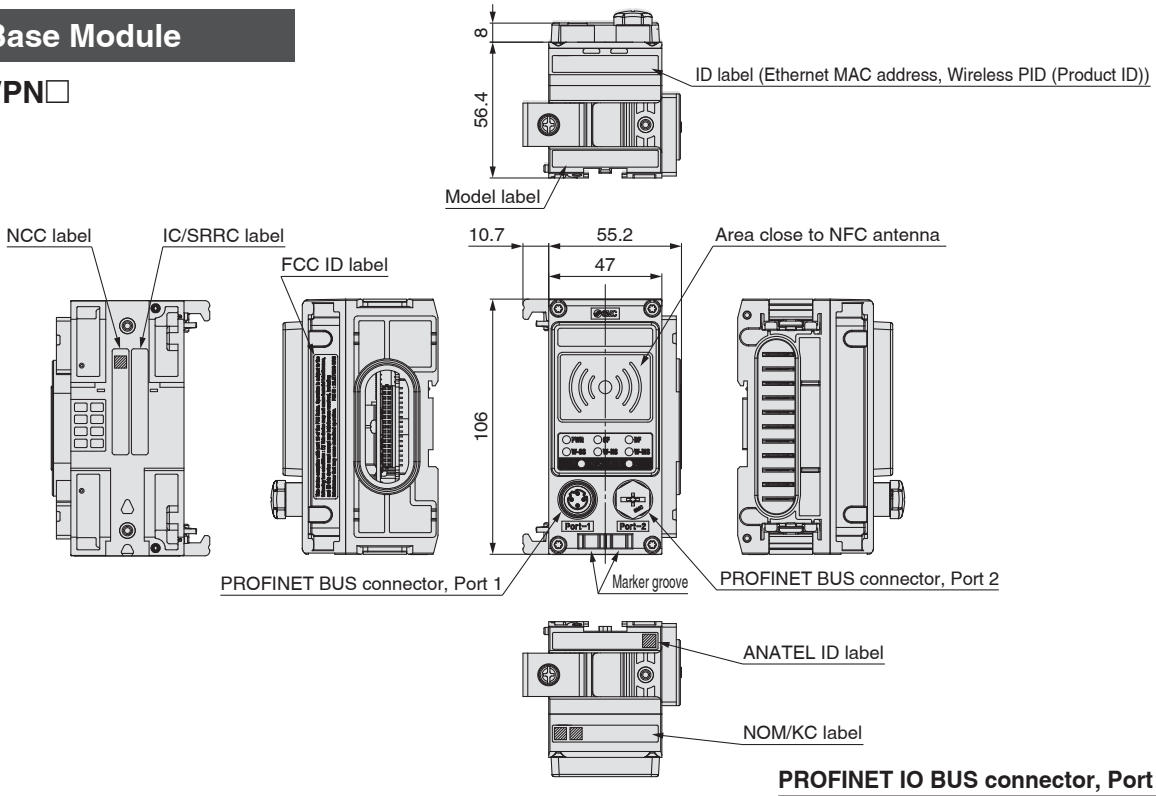
Connector for EtherNet/IP™ Port 1/Port 2

M12, 4-pin, D-coded, socket	Pin no.	Description
	**1**	Tx+
	2	Rx+
	3	Tx–
	4	Rx–

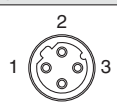
Dimensions

Base Module

EX600-WPN□

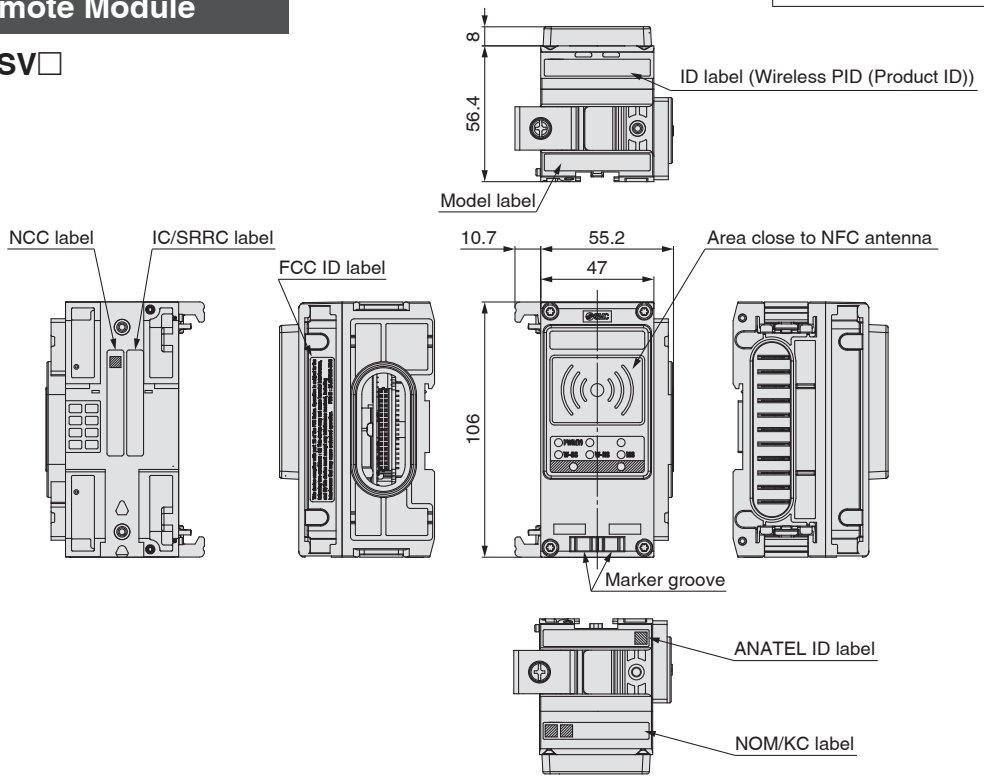


PROFINET IO BUS connector, Port 1/Port 2

M12, 4-pin, D-coded, socket	Pin no.	Description
	**1**	TD+
	2	RD+
	3	TD–
	4	RD–

Remote Module

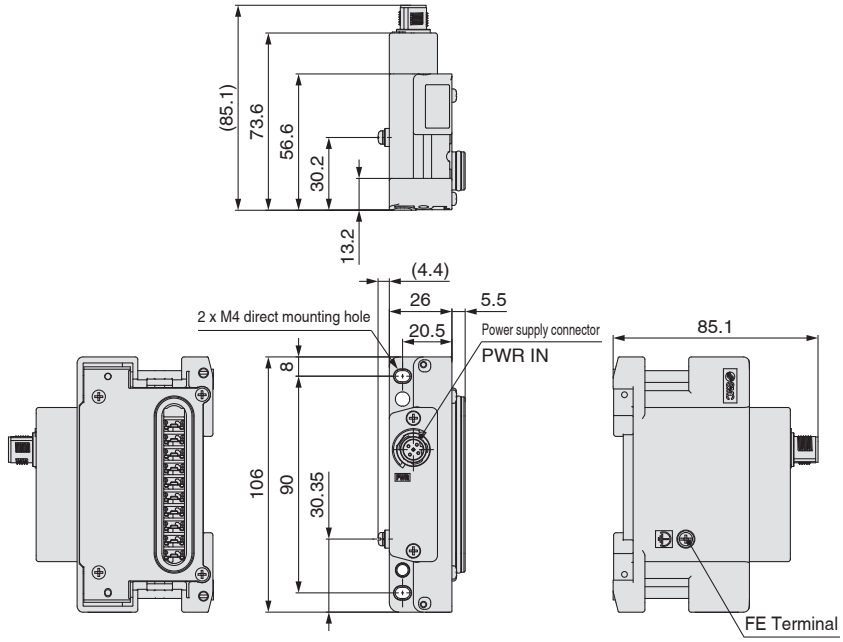
EX600-WSV□



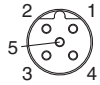
Dimensions

End Plate (D side)

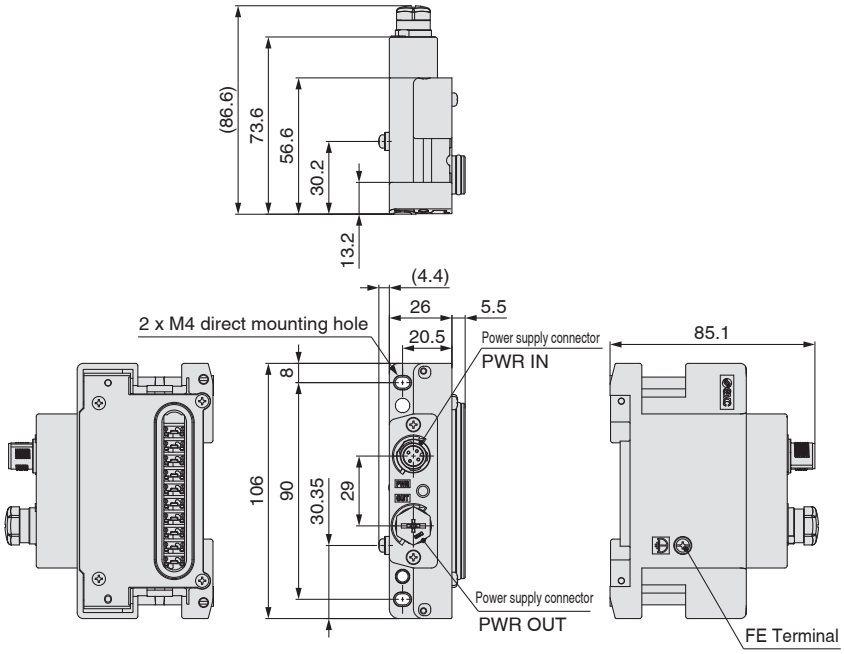
EX600-ED2



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

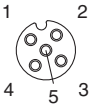
EX600-ED4/ED5



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)

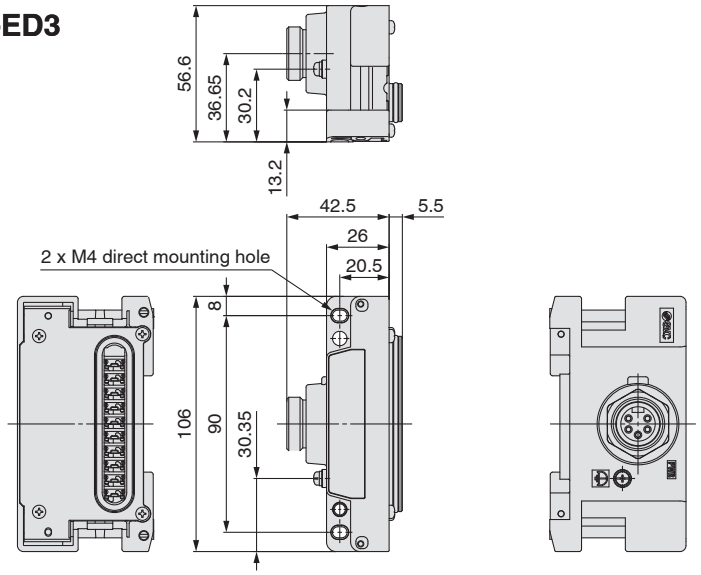
Power supply connector PWR OUT: M12 5-pin socket, A-coded

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

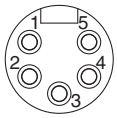
Dimensions

End Plate (D side)

EX600-ED3

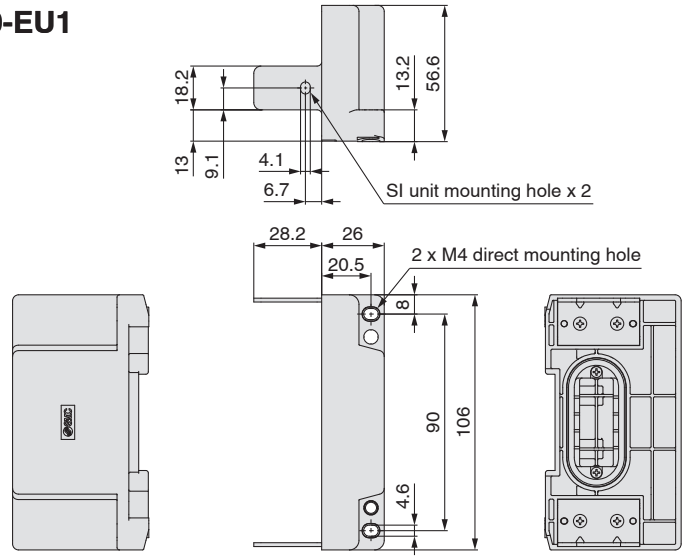


Power supply connector PWR: 7/8 inch 5-pin plug

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)

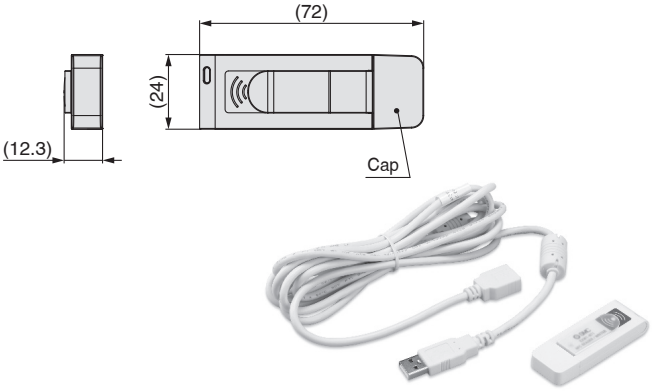
End Plate (U side)

EX600-EU1



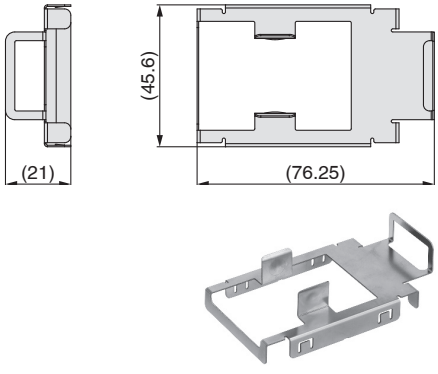
NFC Reader/Writer

EXW1-NT1



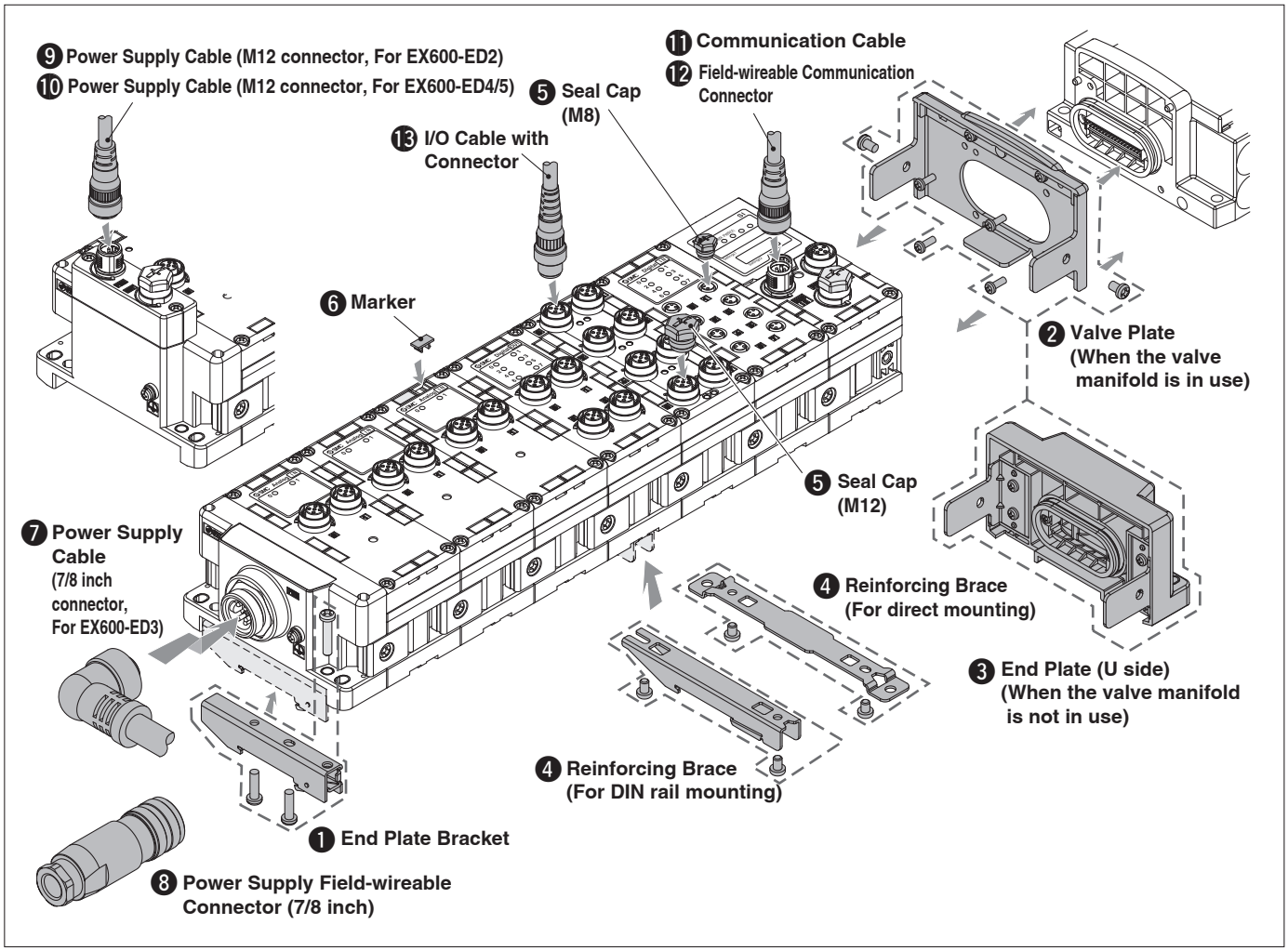
Fixing Bracket

EXW1-AB1 (Option, For EX600-W)



∗ Order a fixing bracket.

EX600-W Series
Accessories (Optional Parts)



❶ End Plate Bracket

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

EX600-ZMA2
(For the SV, S0700, and VQC series)

Enclosed parts

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

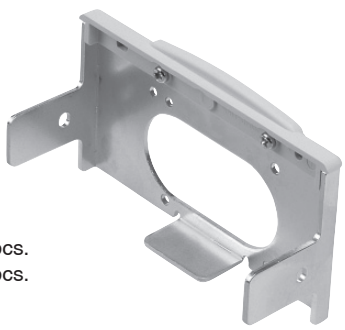
EX600-ZMA3
(For the SY and JSY series)

Enclosed parts

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

❷ Valve Plate

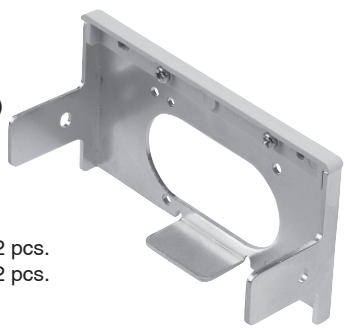
EX600-ZMV1
(For the SV, S0700, and VQC series)



Enclosed parts

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

EX600-ZMV2
(For the SY and JSY series)



Enclosed parts

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

❸ End Plate (U side)

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

EX600-EU1-2

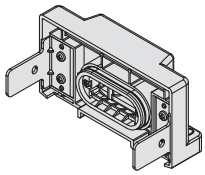
- **End plate**
- **End plate mounting position: U side**
- **Specification**

Symbol	Specification
1	Waterproof cover

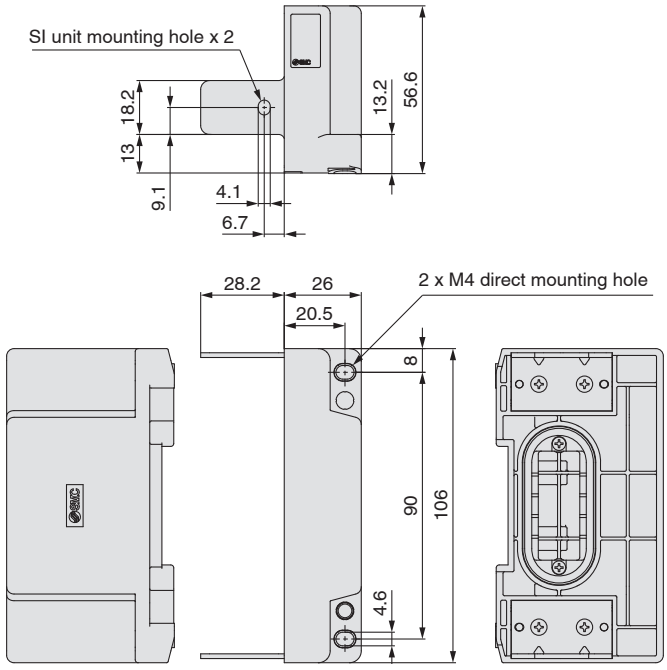
- **Mounting method**

Symbol	Description	Note
—	Without DIN rail mounting bracket	—
2	With DIN rail mounting bracket	For EX600-ED□-2
3	With DIN rail mounting bracket	For EX600-ED□-3

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



EX600-EU1



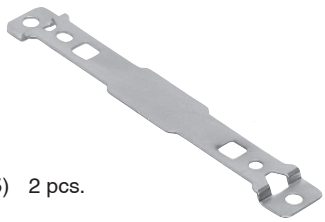
Enclosed parts
Round head screw (M4 x 6) 2 pcs.

❹ Reinforcing Brace

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

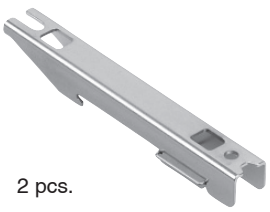
∗ Be sure to attach this bracket to prevent connection failure between the units caused by deflection.

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.

❺ Seal Cap (10 pcs.)

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

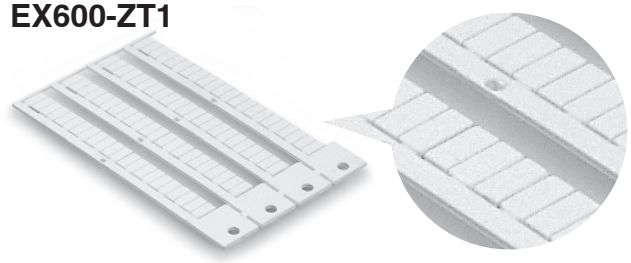
EX9-AWES
For M8

EX9-AWTS
For M12

❻ Marker (1 sheet, 88 pcs.)

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

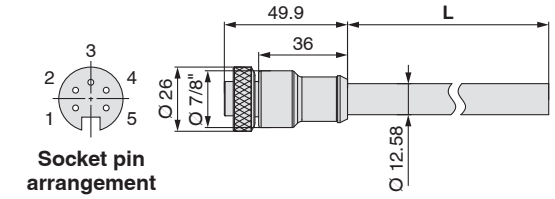
EX600-ZT1

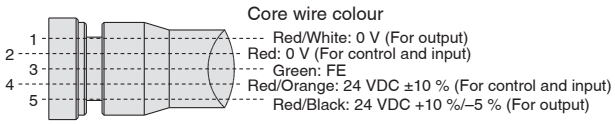


❼ Power Supply Cable (7/8 inch connector, For EX600-ED3)

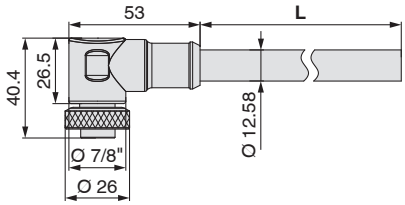
PCA-1558810 Straight 2 m
PCA-1558823 Straight 6 m
PCA-1558836 Right angled 2 m
PCA-1558849 Right angled 6 m

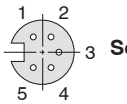
Straight connector type

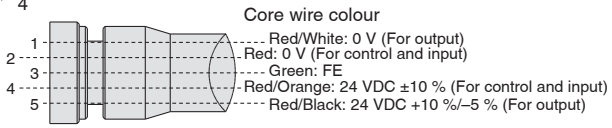




Angled connector type







Item	Specifications
Cable O.D.	O 12.58 mm
Conductor nominal cross section	1.5 mm²/AWG16
Wire O.D. (Including insulator)	2.35 mm
Min. bending radius (Fixed)	110 mm

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

PCA-1578081 Socket [compatible with AWG22-16]

Applicable Cable

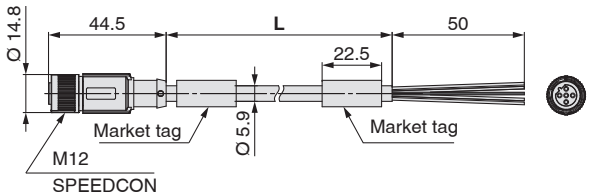
Item	Specifications
Cable O.D.	O 12.0 to 14.0 mm
Wire gauge (Stranded wire cross section)	0.34 to 1.5 mm² AWG22 to 16

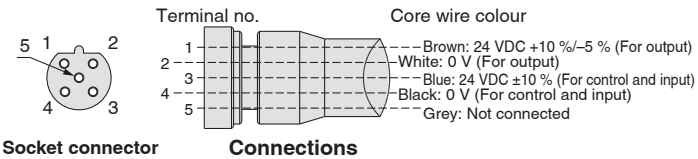
❾ Power Supply Cable (M12 connector, For EX600-ED2) * The shape of the M12 connector is B-coded (Reverse key).

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

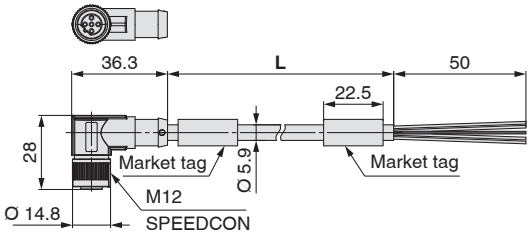
SPEEDCON

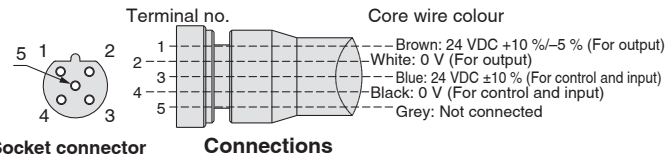
Straight connector type





Angled connector type





Item	Specifications
Cable O.D.	O 5.9 mm
Conductor nominal cross section	0.34 mm²/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 (Normal key).

EX500-AP 050 - S

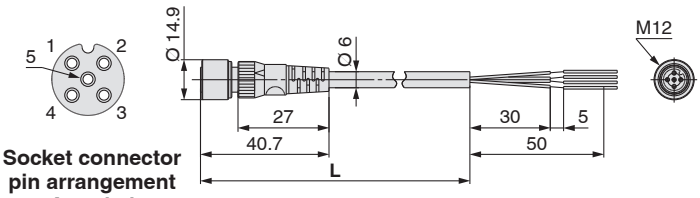
Cable length (L)

010	1000 mm
050	5000 mm

Connector specification

S	Straight
A	Angled

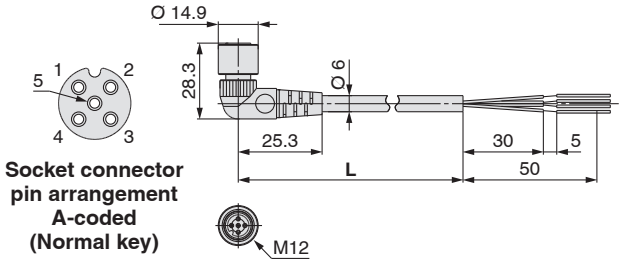
Straight connector type



Socket connector pin arrangement A-coded (Normal key)

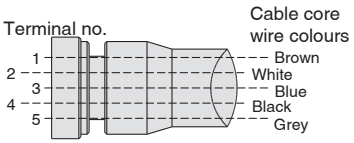
Item	Specifications
Cable O.D.	O 6 mm
Nominal cross section	0.3 mm²/AWG22
Wire diameter (Including insulator)	1.5 mm
Min. bending radius	40 mm (Fixed)

Angled connector type



Socket connector pin arrangement A-coded (Normal key)

Item	Specifications
Cable O.D.	O 6 mm
Nominal cross section	0.3 mm²/AWG22
Wire diameter (Including insulator)	1.5 mm
Min. bending radius	40 mm (Fixed)



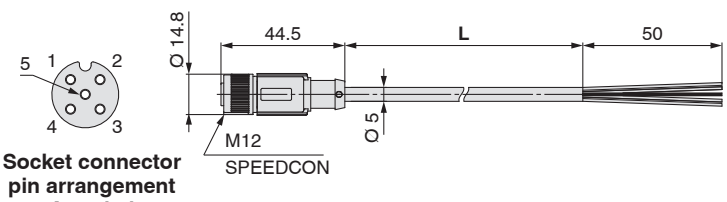
Connections

SPEEDCON

PCA- 1401804

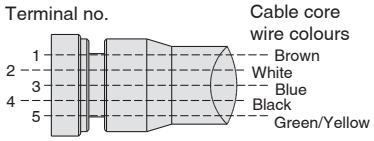
Cable length (L)

1401804	1500 mm
1401805	3000 mm
1401806	5000 mm



Socket connector pin arrangement A-coded (Normal key)

Item	Specifications
Cable O.D.	O 5 mm
Nominal cross section	0.3 mm²/AWG22
Wire diameter (Including insulator)	1.27 mm
Min. bending radius	21.7 mm (Fixed)

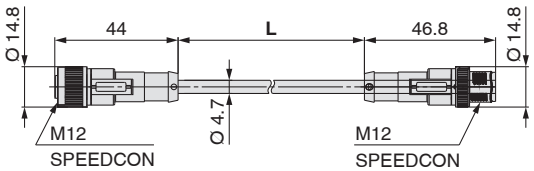


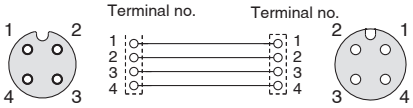
Connections

PCA- 1557769

Cable length (L)

1557769	3000 mm





Socket connector pin arrangement A-coded (Normal key)

Connections

Plug connector pin arrangement A-coded (Normal key)

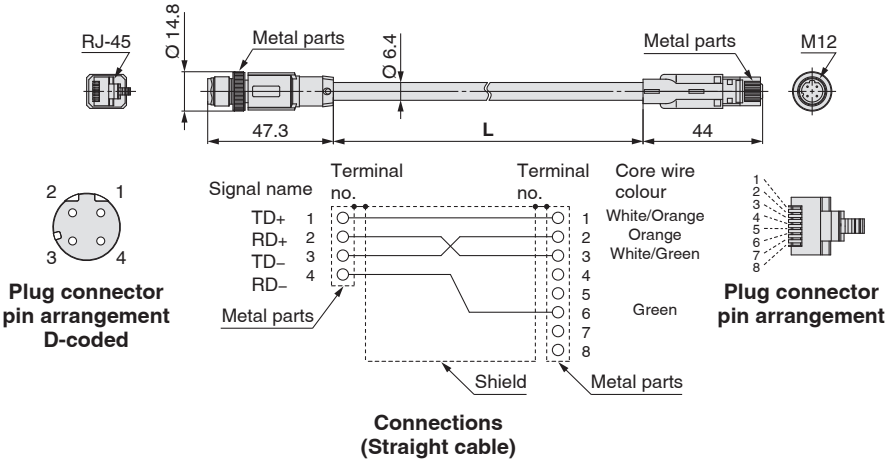
⓫ Communication Cable

For PROFINET **For EtherNet/IP™**

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

Cable length (L)

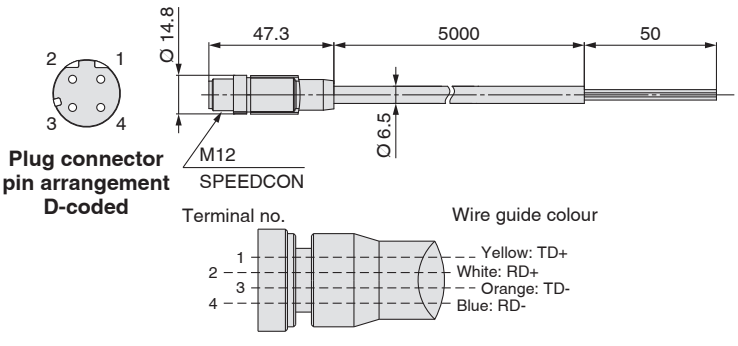
010	1000 mm
020	2000 mm
030	3000 mm
050	5000 mm
100	10000 mm



Connections (Straight cable)

Item	Specifications
Cable O.D.	Ø 6.4 mm
Conductor nominal cross section	0.14 mm²/AWG26
Wire O.D. (Including insulator)	0.98 mm
Min. bending radius (Fixed)	26 mm

PCA-1446566 (Plug)



Connections

Item	Specifications
Cable O.D.	Ø 6.5 mm
Conductor nominal cross section	AWG22
Wire O.D. (Including insulator)	1.55 mm
Min. bending radius (Fixed)	45.5 mm

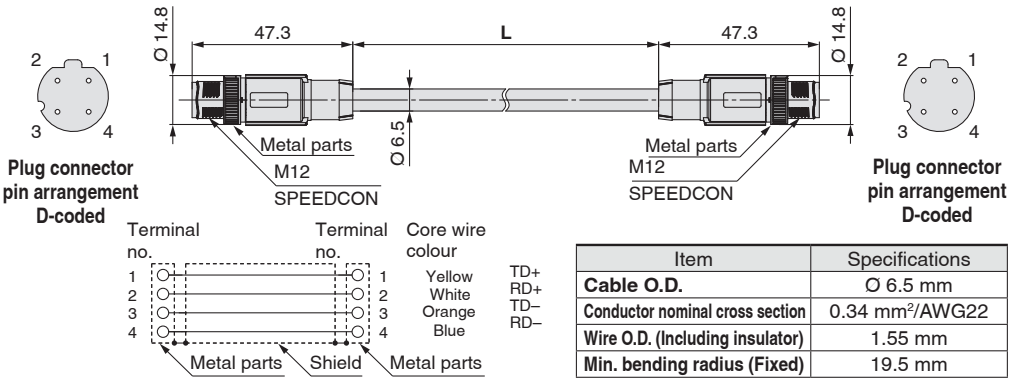
⓫ Communication Cable

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



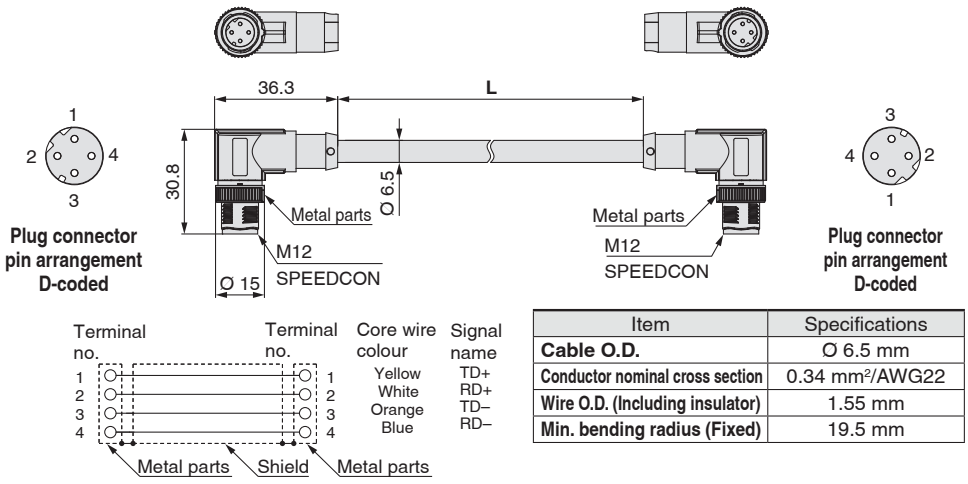
Connections (Straight cable)

Item	Specifications
Cable O.D.	Ø 6.5 mm
Conductor nominal cross section	0.34 mm²/AWG22
Wire O.D. (Including insulator)	1.55 mm
Min. bending radius (Fixed)	19.5 mm

EX9-AC 005 EN-PAPA (With angled 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



Connections (Straight cable)

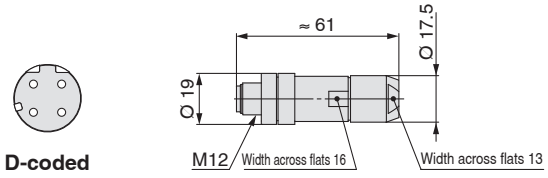
Item	Specifications
Cable O.D.	Ø 6.5 mm
Conductor nominal cross section	0.34 mm²/AWG22
Wire O.D. (Including insulator)	1.55 mm
Min. bending radius (Fixed)	19.5 mm

⓬ Field-wireable Communication Connector

Plug

For PROFINET **For EtherNet/IP™**

PCA-1446553



Applicable Cable

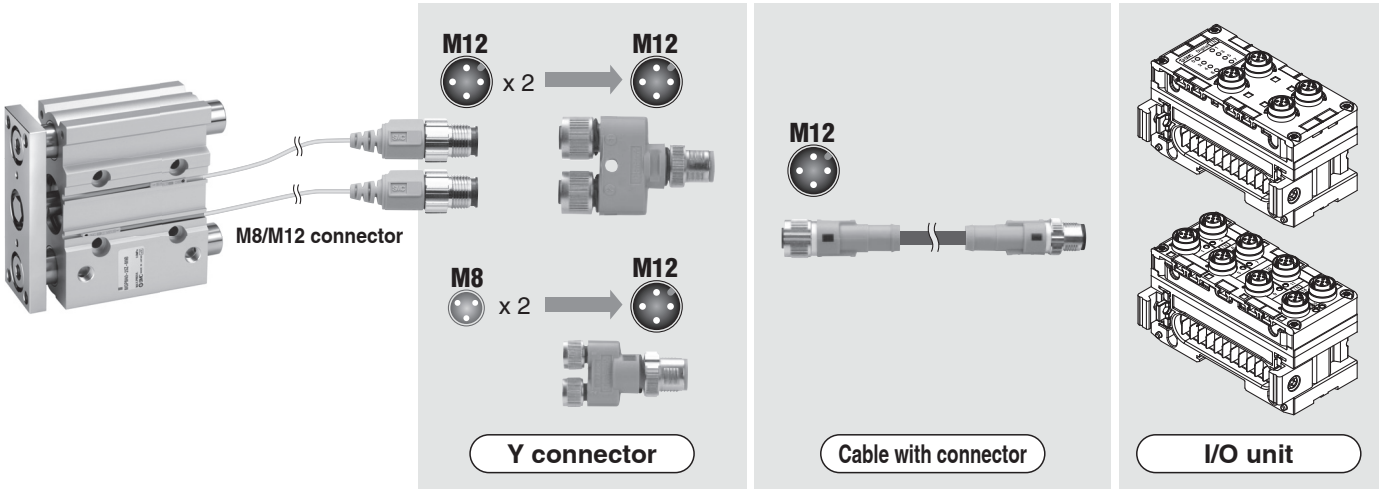
Item	Specifications
Cable O.D.	4.0 to 8.0 mm
Wire gauge (Stranded wire cross section)	0.14 to 0.34 mm²/AWG26 to 22

* 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.

⓭ I/O Cable with Connector, I/O Connector

Name	Use	Part no.	Description
Cable with connector	For sensor 	**PCA-1557769**	Cable with M12 connector (4 pins/3 m)
		PCA-1557772	Cable with M8 connector (3 pins/3 m)
Field-wireable connector	For sensor 	**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	
Y connector	For sensor 	**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)

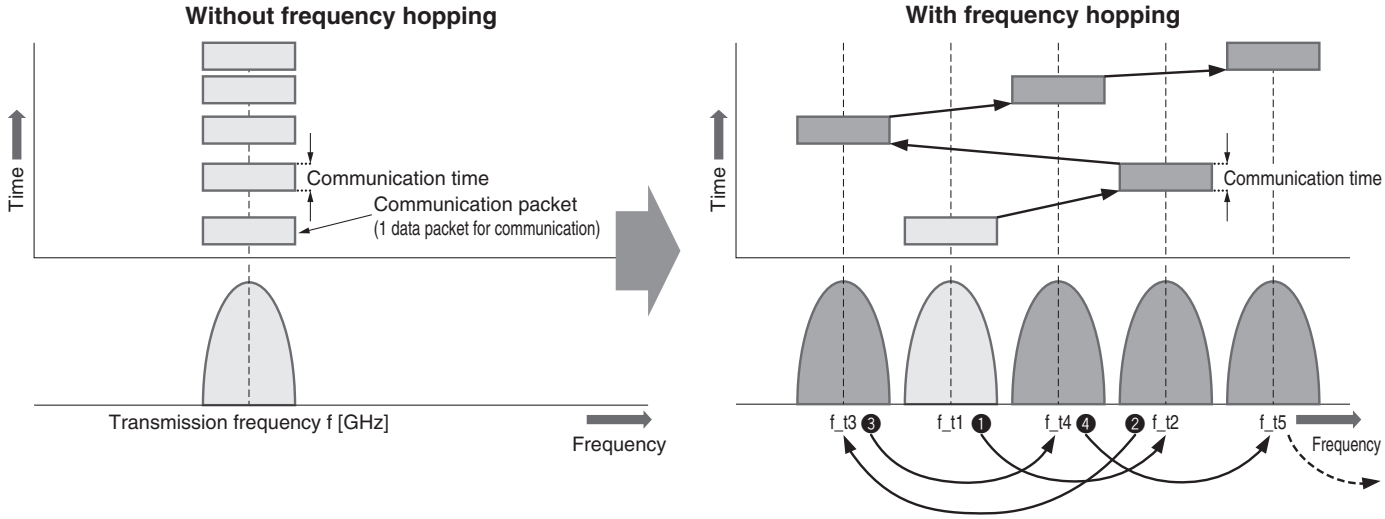
* For further information, refer to the M8/M12 connector PCA series in the **Catalogue on www.smc.eu.**.
* When using the Y connector, connect it to the connector on the I/O unit through the sensor cable (PCA-1557769) with the M12 connector.

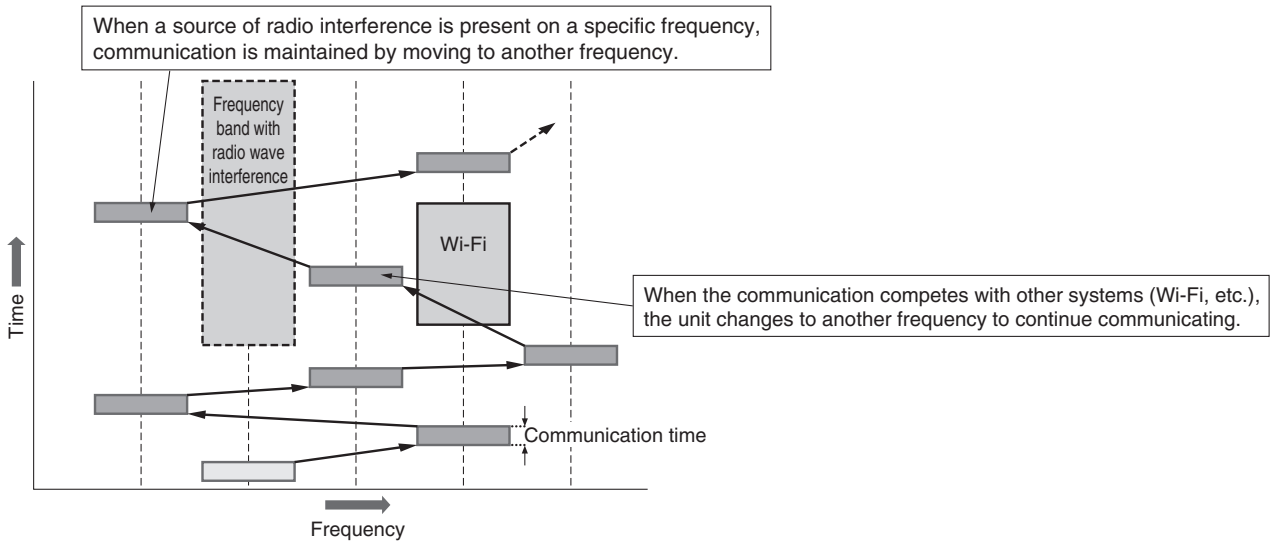


Technical Data

Frequency Hopping (FHSS: Frequency Hopping Spread Spectrum)

This communication technology uses spread spectrum transmission with frequency hopping to rapidly switch between frequencies. Because the frequency is constantly changing, this communication method is resistant to radio wave interference due to reflections or noise from other wireless equipment. It also allows for a high level of data security. Multiple systems can be installed in the same area, and it is a suitable technology for point-to-multipoint communication.



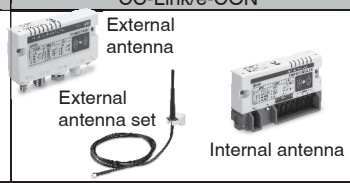


⚠Warning <Important>

- This product is already certified in accordance with the Radio Act and the Japanese Radio Law, so customers do not need to apply for a license to use this product.
  However, be sure to comply with the following.
  · Do not disassemble or modify the product. Disassembly and modification are prohibited by law.
  · Customers in countries that comply with the Radio Law should refer to the "Country-specific Radio Law Compliance Table."
- As this product communicates by radio waves, communication may stop temporarily due to the ambient environment and/or operating method. SMC will not be held responsible for any secondary failure which may cause personal injury or damage to other devices or equipment.
- When several units are installed in close proximity to each other, slight interference may occur due to the characteristics of the wireless product.
- The electromagnetic waves emitted from this product may interfere with implantable medical devices such as cardiac pacemakers and cardioverter defibrillators, resulting in the malfunction of the medical device or other adverse effects.
  Please use extreme caution when operating equipment which may have an adverse effect on your implantable medical device. Be sure to thoroughly read the precautions stated in the catalogue, operation manual, etc., of your implantable medical device, or contact the manufacturer directly for further details on what types of equipment need to be avoided.
- The communication performance is affected by the ambient environment, so be sure to perform communication testing before use.

EXW1/EX600-W Series
Country-specific Radio Law Compliance Table

As of September 2023

		Wireless system					
		Compact type **EXW1**				Modular type **EX600-W**	NFC reader/writer
		Wireless adapter **EXW1-A1□**		Compact base/remote CC-Link/e-CON			
							
Area	Country/Region	Part number suffix: **E** type	Part number suffix: **N** type	Part number suffix: **E** type	Part number suffix: **N** type	**EX600-W**	**EXW1-NT1**
Europe CE	**Ireland**	○	○	○	○	○	○
	Italy	○	○	○	○	○	○
	Estonia	○	○	○	○	○	○
	Austria	○	○	○	○	○	○
	Netherlands	○	○	○	○	○	○
	Cyprus	○	○	○	○	○	○
	Greece	○	○	○	○	○	○
	Croatia	○	○	○	○	○	○
	Sweden	○	○	○	○	○	○
	Spain	○	○	○	○	○	○
	Slovakia	○	○	○	○	○	○
	Slovenia	○	○	○	○	○	○
	Czech Republic	○	○	○	○	○	○
	Denmark	○	○	○	○	○	○
	Germany	○	○	○	○	○	○
	Hungary	○	○	○	○	○	○
	Finland	○	○	○	○	○	○
	France	○	○	○	○	○	○
	Bulgaria	○	○	○	○	○	○
	Belgium	○	○	○	○	○	○
	Poland	○	○	○	○	○	○
	Portugal	○	○	○	○	○	○
	Malta	○	○	○	○	○	○
	Latvia	○	○	○	○	○	○
	Lithuania	○	○	○	○	○	○
	Romania	○	○	○	○	○	○
	Luxembourg	○	○	○	○	○	○
Other Europe	**Iceland**	○	○	○	○	○	○
	Liechtenstein	○	○	○	○	○	○
	Switzerland	○	○	○	○	○	○
	Norway	○	○	○	○	○	○
	Turkey	○	○	○	○	○	○
	U.K.	○	○	○	○	○	○
	Ukraine	—	—	—	—	○	○
	Israel	○	○	—	—	—	—
	Saudi Arabia	○	○	—	—	—	—
	United Arab Emirates	○	○	—	—	—	—
	Serbia	○	○	—	—	—	—
Africa	**South Africa**	○	○	—	—	○	○
	Egypt	○	○	—	—	—	—
	Morocco	—	—	—	—	○	○
North, Central, and South America	**U.S.**	—	○	—	○	○	○
	Argentina	—	○	—	○	○	○
	Canada	—	○	—	○	○	○
	Chile	○	○	—	—	—	○
	Colombia	○	○	○	○	○	○
	Peru	○	○	—	—	—	—
	Brazil	—	○	—	○	○	○
	Mexico	—	○	—	—	○	○
Asia	**India**	○	○	○	○	○	○
	Pakistan	○	○	—	—	—	—
	Indonesia	○	○	—	—	—	○
	Australia	○	○	○	○	○	○
	South Korea	—	○	—	○	○	○
	Singapore	○	○	—	—	○	○
	Thailand	○	○	○	○	○	○
	China	○	○	○	○	○	○
	Japan	○	○	○	○	○	○
	New Zealand	○	○	○	○	○	○
	Philippines	○	○	—	—	○	○
	Myanmar	○	○	—	—	—	—
	Vietnam	○	○	○	○	○	○
	Bangladesh	○	○	—	—	—	—
	Hong Kong	○	○	—	—	—	—
	Malaysia[*1]	○	○	○	○	○	○
	Taiwan	—	○	—	—	○	○

*1 If this product is to be imported into Malaysia (including if the product is integrated into other equipment), an SMC Wireless System Certificate of Compliance and a test report may be required in some cases. Please contact SMC for further details.

EXW1/EX600-W Series
Specific Product Precautions

Be sure to read this before handling the products. Refer to the back cover for safety instructions. For fieldbus system precautions, refer to the "Operation Manual" on the SMC website: https://www.smc.eu

Notice

⚠ Caution

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

Handling Precautions

⚠ Caution

1. This equipment complies with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules.
This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the operation manual, may cause harmful interference to radio communications.
Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

2. This device complies with Industry Canada's license-exempt RSSs.
Operation is subject to the following two conditions:
(1) This device may not cause interference; and
(2) This device must accept any interference, including interference that may cause undesired operation of the device.

3. When operating the product, please be sure to maintain a separation distance of at least 20 cm between your body (excluding fingers, hands, wrists, ankles, and feet) and the product to meet RF exposure safety requirements as determined by FCC and Innovation, Science and Economic Development Canada.
Installation of this device must ensure that at 20 cm separation distance is maintained between the device and end users.

⚠ Safety Instructions

These safety instructions are intended to prevent hazardous situations and/or equipment damage. These instructions indicate the level of potential hazard with the labels of **"Caution," "Warning"** or **"Danger."** They are all important notes for safety and must be followed in addition to International Standards (ISO/IEC) [1], and other safety regulations.

⚠ **Danger:**	**Danger** indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.
⚠ **Warning:**	**Warning** indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.
⚠ **Caution:**	**Caution** indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.

1) ISO 4414: Pneumatic fluid power – General rules and safety requirements for systems and their components.
ISO 4413: Hydraulic fluid power – General rules and safety requirements for systems and their components.
IEC 60204-1: Safety of machinery – Electrical equipment of machines. (Part 1: General requirements)
ISO 10218-1: Robots and robotic devices - Safety requirements for industrial robots - Part 1: Robots.
etc.

⚠ Warning

1. The compatibility of the product is the responsibility of the person who designs the equipment or decides its specifications.
Since the product specified here is used under various operating conditions, its compatibility with specific equipment must be decided by the person who designs the equipment or decides its specifications based on necessary analysis and test results. The expected performance and safety assurance of the equipment will be the responsibility of the person who has determined its compatibility with the product. This person should also continuously review all specifications of the product referring to its latest catalogue information, with a view to giving due consideration to any possibility of equipment failure when configuring the equipment.

2. Only personnel with appropriate training should operate machinery and equipment.
The product specified here may become unsafe if handled incorrectly. The assembly, operation and maintenance of machines or equipment including our products must be performed by an operator who is appropriately trained and experienced.

3. Do not service or attempt to remove product and machinery/ equipment until safety is confirmed.
1. The inspection and maintenance of machinery/equipment should only be performed after measures to prevent falling or runaway of the driven objects have been confirmed.
2. When the product is to be removed, confirm that the safety measures as mentioned above are implemented and the power from any appropriate source is cut, and read and understand the specific product precautions of all relevant products carefully.
3. Before machinery/equipment is restarted, take measures to prevent unexpected operation and malfunction.

4. Our products cannot be used beyond their specifications.
Our products are not developed, designed, and manufactured to be used under the following conditions or environments.
Use under such conditions or environments is not covered.
1. Conditions and environments outside of the given specifications, or use outdoors or in a place exposed to direct sunlight.
2. Use for nuclear power, railways, aviation, space equipment, ships, vehicles, military application, equipment affecting human life, body, and property, fuel equipment, entertainment equipment, emergency shut-off circuits, press clutches, brake circuits, safety equipment, etc., and use for applications that do not conform to standard specifications such as catalogues and operation manuals.
3. Use for interlock circuits, except for use with double interlock such as installing a mechanical protection function in case of failure. Please periodically inspect the product to confirm that the product is operating properly.

⚠ Caution

We develop, design, and manufacture our products to be used for automatic control equipment, and provide them for peaceful use in manufacturing industries.
Use in non-manufacturing industries is not covered.
Products we manufacture and sell cannot be used for the purpose of transactions or certification specified in the Measurement Act.
The new Measurement Act prohibits use of any unit other than SI units in Japan.

Limited warranty and Disclaimer/Compliance Requirements

The product used is subject to the following "Limited warranty and Disclaimer" and "Compliance Requirements".Read and accept them before using the product.

Limited warranty and Disclaimer

1. The warranty period of the product is 1 year in service or 1.5 years after the product is delivered, whichever is first. [2] Also, the product may have specified durability, running distance or replacement parts. Please consult your nearest sales branch.
2. For any failure or damage reported within the warranty period which is clearly our responsibility, a replacement product or necessary parts will be provided. This limited warranty applies only to our product independently, and not to any other damage incurred due to the failure of the product.
3. Prior to using SMC products, please read and understand the warranty terms and disclaimers noted in the specified catalogue for the particular products.

2) Vacuum pads are excluded from this 1 year warranty.
A vacuum pad is a consumable part, so it is warranted for a year after it is delivered. Also, even within the warranty period, the wear of a product due to the use of the vacuum pad or failure due to the deterioration of rubber material are not covered by the limited warranty.

Compliance Requirements

1. The use of SMC products with production equipment for the manufacture of weapons of mass destruction (WMD) or any other weapon is strictly prohibited.
2. The exports of SMC products or technology from one country to another are governed by the relevant security laws and regulations of the countries involved in the transaction. Prior to the shipment of a SMC product to another country, assure that all local rules governing that export are known and followed.

Revision History

Edition B	- A U-side end plate (for the SY) has been added.	QS
Edition C	- The EXW1 series compact wireless system has been added.	XU
Edition D	- UKCA compliance has been added. - Countries in which the product is Radio Law certified have been added.	XZ
Edition E	- EtherCAT (protocol) has been added to the EXW1 series (compact type). - The number of pages has been increased from 48 to 52.	BX

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