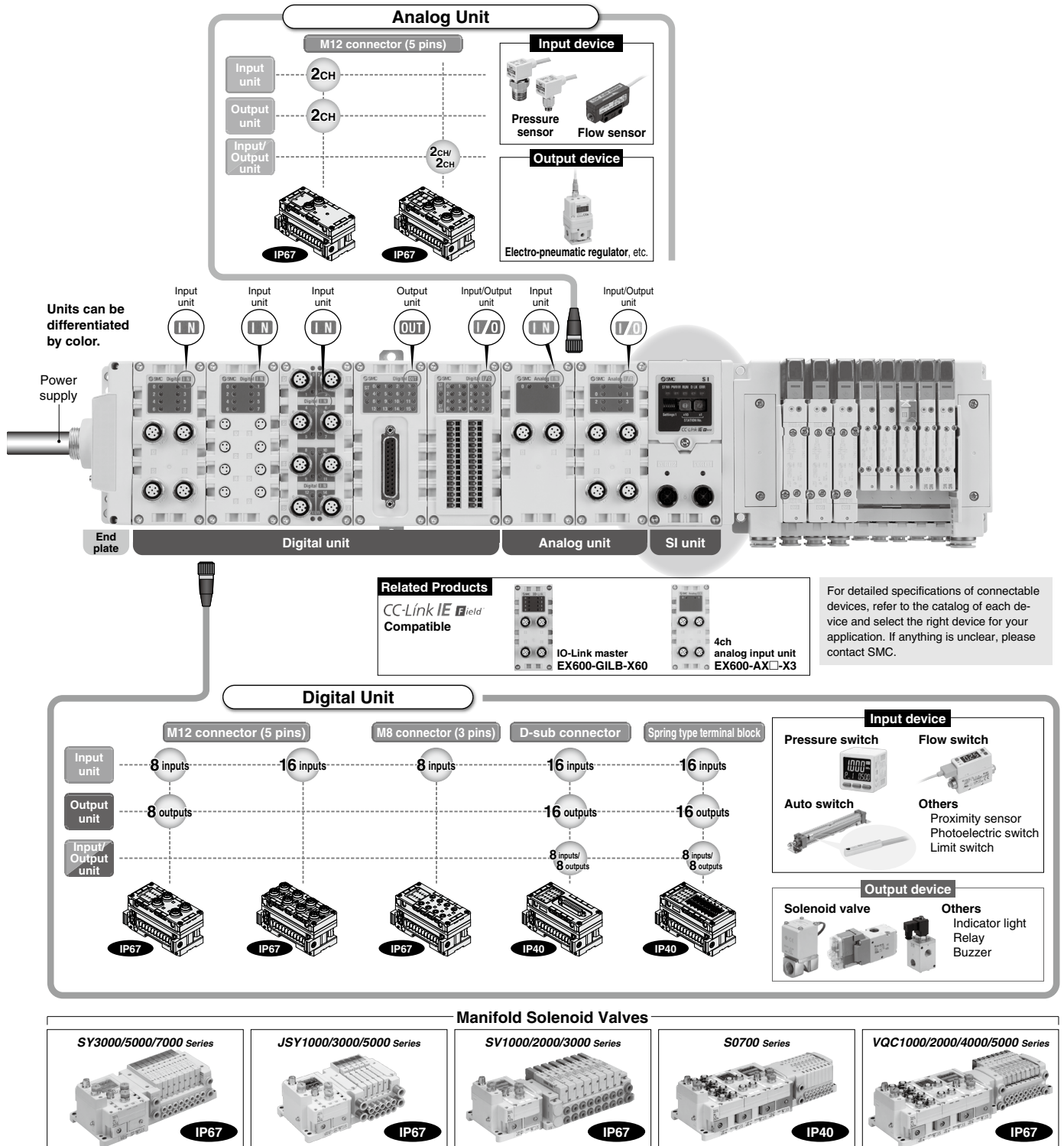# CC-Link IE Field™ Compatible Fieldbus System

CE RoHS

■ Supports the CC-Link IE Field™ communication protocol

∗ CC-Link IE Field: Industrial Ethernet that supports a communication speed of 1 Gbps

Analog Unit

M12 connector (5 pins)

Input unit	2CH
Output unit	2CH
Input/Output unit	2CH/2CH

Input device

Pressure sensor   Flow sensor

IP67   IP67

Output device

Electro-pneumatic regulator, etc.

Units can be differentiated by color.

Power supply

| Input unit | Input unit | Input unit | Output unit | Input/Output unit | Input unit | Input/Output unit |
| IN | IN | IN | OUT | I/O | IN | I/O |

End plate | Digital unit | Analog unit | SI unit

Related Products

CC-Link IE Field™ Compatible

IO-Link master EX600-GILB-X60

4ch analog input unit EX600-AX□-X3

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

Digital Unit

	M12 connector (5 pins)		M8 connector (3 pins)	D-sub connector	Spring type terminal block
Input unit	8 inputs	16 inputs	8 inputs	16 inputs	16 inputs
Output unit	8 outputs			16 outputs	16 outputs
Input/Output unit				8 inputs/8 outputs	8 inputs/8 outputs

IP67   IP67   IP67   IP40   IP40

Input device

Pressure switch   Flow switch

Auto switch   Others
Proximity sensor
Photoelectric switch
Limit switch

Output device

Solenoid valve   Others
Indicator light
Relay
Buzzer

Manifold Solenoid Valves

| SY3000/5000/7000 Series | JSY1000/3000/5000 Series | SV1000/2000/3000 Series | S0700 Series | VQC1000/2000/4000/5000 Series |
| IP67 | IP67 | IP67 | IP40 | IP67 |

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

EX600-SCF1-X60

SMC

20-E745

EX600-SCF1-X60

How to Order

EX600‑S CF 1‑X60

Communication protocol ●———————● Output specification

CF	CC-Link IE Field

1	32 outputs, PNP (Negative common)/Source

∗ Order the end plate and input/output units as a set to be used in combination.

Specifications

Item		Specifications
Communication	Protocol	CC-Link IE Field
	Station type	Intelligent device station
	Communication speed	1 Gbps
	Allowable station number setting	1 to 120
	Allowable network number setting	1 to 239
	Transmission method	Cyclic transmission
	Configuration file	CSP+
	Network topology	Star, Line, Ring
	Occupied input size	RX: 32 to 176 bits RWr: 32 to 608 words
	Occupied output size	RY: 32 to 176 bits RWw: 32 to 608 words
Internal current consumption (Power supply for control/input)		140 mA or less
Output	Output type	Source/PNP (Negative common)
	Number of outputs	32 outputs
	Connected load	Solenoid valve with surge voltage suppressor of 24 VDC and 1.0 W or less (made by SMC)
	Applicable valve manifold	SY3000, SY5000, SY7000 JSY1000, JSY3000, JSY5000 VQC1000, VQC2000, VQC4000, VQC5000 SV1000, SV2000, SV3000 S0700
	Power supply	24 VDC, 2 A
	Fail safe	HOLD/CLEAR
	Protection	Short-circuit protection
Operating temperature range		−10 to 50°C
Enclosure		IP67 (Manifold assembly)
Standards		CE marking (EMC directive/RoHS directive)
Weight		300 g or less

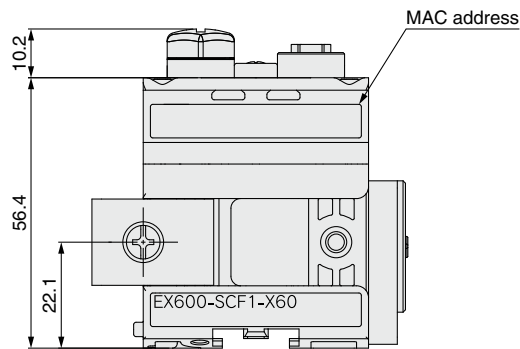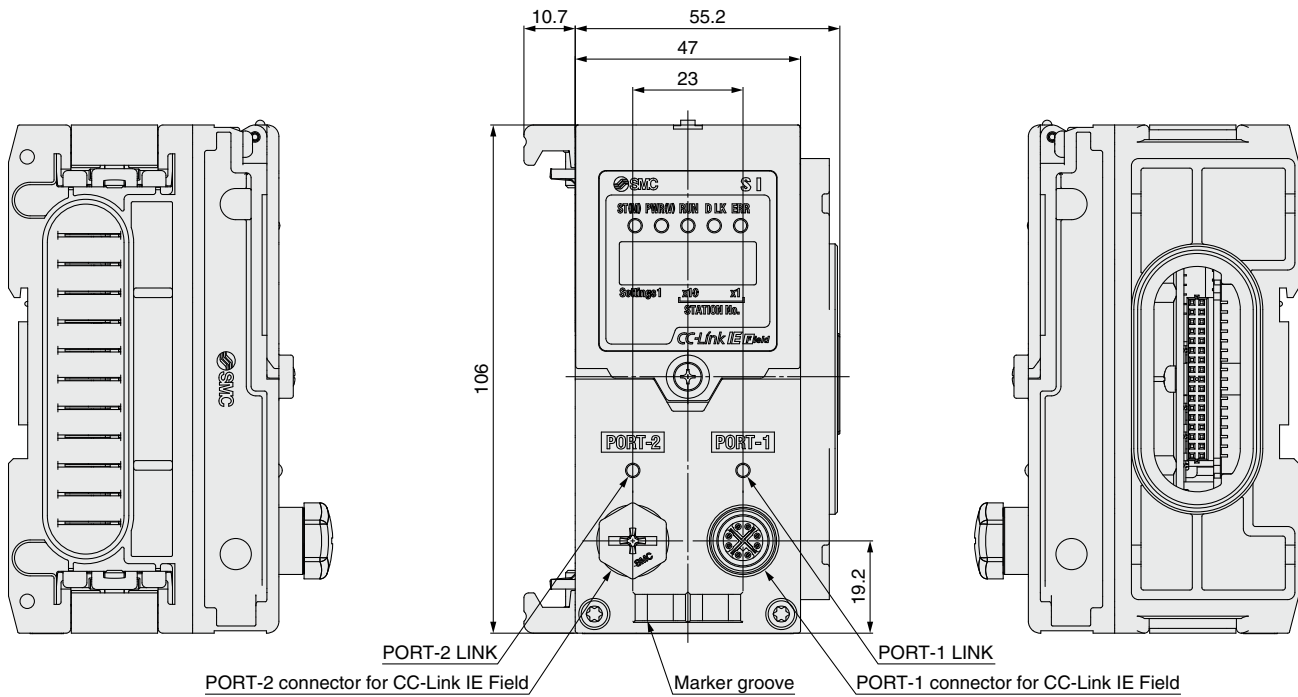Please contact SMC for the operation manual and configuration file.
Refer to the catalog and the SMC website for other specifications of the EX600, end plate, and input/output units.

Wiring Specifications

Communication connector PORT 1 & PORT 2

M12 8-pin socket, X-Coding (Cat.6A)

No.	Designation
1	DA+
2	DA−
3	DB+
4	DB−
5	DD+
6	DD−
7	DC−
8	DC+

⚠ Caution

Communication cables need to be ordered directly from each company.

Communication cable examples

[M12 connector — RJ45 connector]
(made by PHOENIX CONTACT)
NBC-MSX/1,0-94F/R4AC SCO (Order No.1407471)(1 m)
NBC-MSX/2,0-94F/R4AC SCO (Order No.1407472)(2 m)
NBC-MSX/5,0-94F/R4AC SCO (Order No.1407473)(5 m)

(made by Mitsubishi Electric System & Service Co., Ltd.)
SC-E5EW-SX□∗1M (For indoor use)
SC-E5EW-SX□∗2M-MV (For indoor moving parts)
∗1 The specified length (cable length) goes into the □. Units of 1 to 100 m/1 m
∗2 The specified length (cable length) goes into the □. Units of 1 to 45 m/1 m

[M12 connector — M12 connector]
(made by PHOENIX CONTACT)
NBC-MSX/1,0-94F/MSX SCO (Order No.1407483)(1 m)
NBC-MSX/2,0-94F/MSX SCO (Order No.1407484)(2 m)
NBC-MSX/5,0-94F/MSX SCO (Order No.1407485)(5 m)

(made by Mitsubishi Electric System & Service Co., Ltd.)
SC-E5EW-X□∗1M (For indoor use)
SC-E5EW-X□∗2M-MV (For indoor moving parts)
∗1 The specified length (cable length) goes into the □. Units of 1 to 100 m/1 m
∗2 The specified length (cable length) goes into the □. Units of 1 to 45 m/1 m

Dimensions

[mm]

PORT-2 LINK

PORT-2 connector for CC-Link IE Field

Marker groove

PORT-1 LINK

PORT-1 connector for CC-Link IE Field

MAC address

EX600-SCF1-X60

⚠ Caution

1. For the dimensions when combined with the valve manifold, use the valve manifold dimensions of the standard EX600 series.

2. Order the valve manifold, end plate, and input/output units separately.
Specify "without SI unit" and "negative common" or "non-polar" for the valve manifold specifications.