Fieldbus System





(For Input/Output)

Supports digital inputs/outputs, analog inputs/outputs, and IO-Link masters



<Compatible Protocols>

DeviceNet Clink IO-Link



EtherNet/IP EtherCAT









Please contact SMC for details on compatible products.



- 2 models (port class A and port class B)
- Master/device diagnosis function
- The data can be accessed from via PC (setting tool).
- Device parameter setting function, Automatic saving/writing
- For the integrated SI unit, only PROFINET or EtherNet/IP™ can be selected.
- PROFINET: Up to 9 IO-Link master unit modules can be connected.
- EtherNet/IPTM: Up to 4 IO-Link master unit modules can be connected. (Made to order)

Self-diagnosis function

Equipped with an input/output open/shortcircuit detection function and an input/output signal ON/OFF counter function

Web server function*1

Status checks and forced output are possible



Various connectors available

The following connectors are selectable for the input/output devices: M12 connectors, M8 connectors, D-sub connectors, and spring type terminal blocks.

Up to 9 units*1 can be connected.

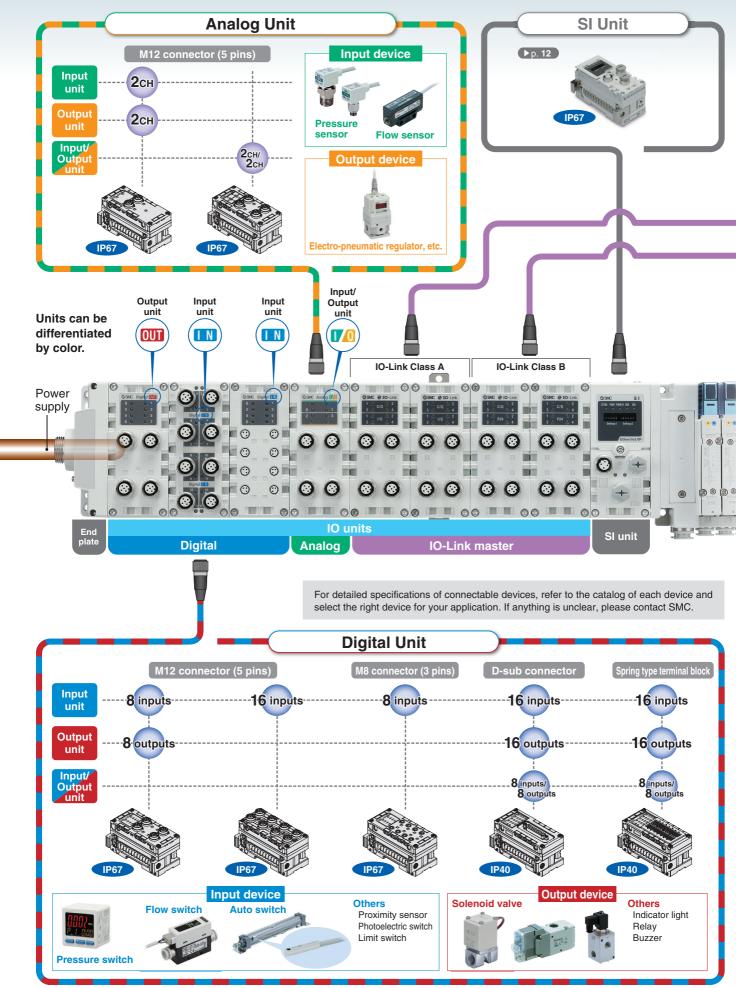
Up to 9 units can be connected in any order.

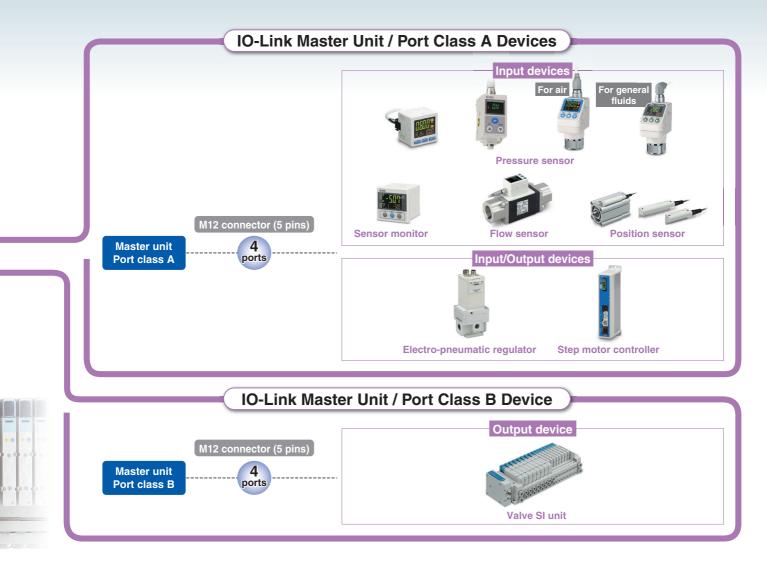




EX600 Series

Can be connected with digital, analog, and IO-Link master units





■ Connectable Solenoid Valve Series

Series	Flow rate characteristics (4/2 $ ightarrow$ 5/3)		Max. number	Power consumption	Applicable	
Series		C [dm³/(s·bar)]	b	of solenoids	[W]	cylinder size
IP67 *1	SY3000	1.6	0.19			ø50
CE	SY5000	3.6	0.17	32	0.35 (Standard) 0.1 (With power-saving circuit)	ø63
c Al us	SY7000	5.9	0.20			ø80
IP67 *1, *3	JSY1000	0.91	0.48		0.2 (With power-saving circuit)	ø40
CE	JSY3000	2.77	0.27	32	0.4 (Standard)	ø50
	JSY5000	6.59	0.22		0.1 (With power-saving circuit)	ø80
IP40 (E	S0700*2	0.37	0.39	32	0.35	ø25
IP67 *1	SV1000*2	1.1	0.35			ø40
(6	SV2000*2	2.4	0.18	32	0.6	ø63
c Al us	SV3000*2	4.3	0.21			ø80
IP67 *1	VQC1000	1.0	0.30		0.4 (Standard)	ø40
(€	VQC2000	3.2	0.30	24	0.4 (Standard)	ø63
	VQC4000	7.3	0.38		0.95 (Standard)	ø160
	VQC5000	17	0.31		0.4 (Low-wattage type)	ø180

^{*1} Units with a D-sub communication connector are IP40.



^{*2} There is no manifold part number setting for the EX600-SPN3/4. (Order it separately.)

^{*3} The JSY1000 is IP40.

IO-Link

IO-Link is a communication technology for sensors and actuators that is an international standard, IEC 61131-9.

This technology is used to send/receive device information such as manufacturer, product part number, parameters, and diagnostic data, as well as the control data including ON/OFF signals and measured values of the sensor, by connecting the IO-Link master and sensor in a 1:1 configuration.

IO-Link enables condition monitoring and error detection of the sensor and equipment, and it can contribute to the reduction of startup labor and recovery time and the realization of preventive and predictive maintenance.

Reduced design and startup labor

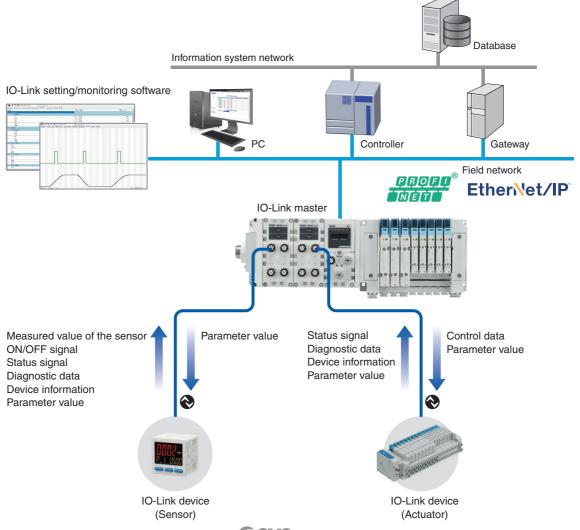
- Batch setting of device parameters from the upper level
- Remote check of device information
- Detection and remote unified check of device misconnection/non-connection

Minimum recovery time due to error detection

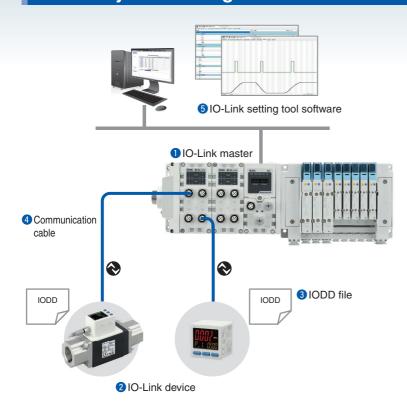
- Early detection of location where problem is occurring via communication
- Early obtaining of information on problem phenomenon via communication
- Early recovery during product replacement (automatic setting of device parameters)

Preventive and predictive maintenance through condition monitoring

- Monitors changes in measured values of a sensor during signal ON/OFF
- Monitors the number of device operations and automatically notifies when the set number of operations has been exceeded
- Remote monitoring of device and equipment conditions via communication



IO-Link System Configuration



10-Link master

 Acts as a gateway between the IO-Link communication and the upper level communication

2 IO-Link device

 A sensor/actuator connecting to an IO-Link master in a 1:1 configuration

3 IODD file

- A file in which device properties and parameters are described
- Registered to the setting tool
- Provided by the device manufacturer

4 Communication cable

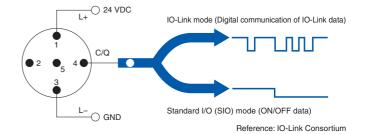
- A 4-wire or 5-wire general-purpose cable that is the same as the existing sensor cable (Unshielded cable)
- Max. cable length: 20 m

5 IO-Link setting tool software

- Software for the setting and monitoring of a master/ device
- Provided by the master manufacturer*1
- *1 A setting tool compatible with the masters of every manufacturer is used for the SMC EX600 series IO-Link master. (IO-Link Device Tool V5 manufactured by TMG Technologie und Engineering, Germany)

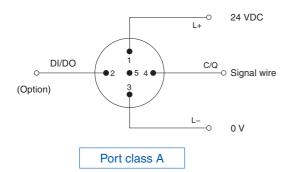
IO-Link Interface

The connecting part between the IO-Link master and the device is called a "port." Each port can be switched between "IO-Link mode" for digital communication and "standard I/O mode" for conventional contact input/output.

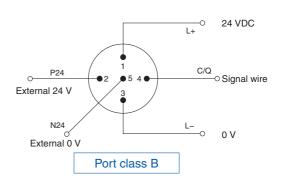


2 types of interfaces

There are two methods for power supply: one is for sensors, and the other is for actuators.



The control power supply wire and signal wire can be connected with one cable. (Mainly for sensors)



The control power supply wire, external power supply wire, and signal wire can be connected with one cable. (Mainly for actuators)



IO-Link Master Unit

■ Can be connected with digital, analog, and IO-Link master units

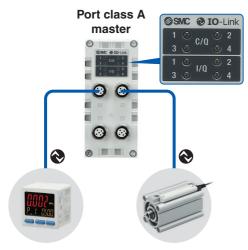
PROFINET: Up to 9 IO-Link master units can be connected. (Total of 36 ports)

EtherNet/IP™: Up to 4 IO-Link master units can be connected. (Total of 16 ports)

Digital units, analog units, and IO-Link master units can be mixed, and up to 9 units can be connected in any order.

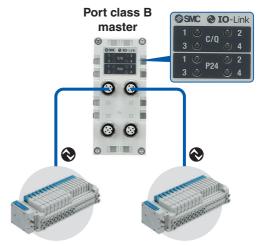


■ Supports both port class A and port class B



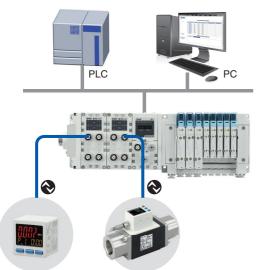
For connecting IO-Link sensors

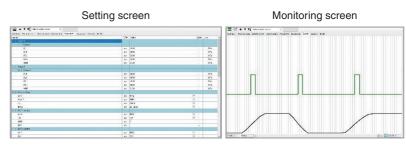
Pressure sensors, flow sensors, actuator position sensors, electro-pneumatic regulators, etc.



For connecting IO-Link compatible SI units (for valve driving)

■ The data can be accessed from via PC (setting tool).





The setting and monitoring of the master and device are possible via PC, without using the PLC.

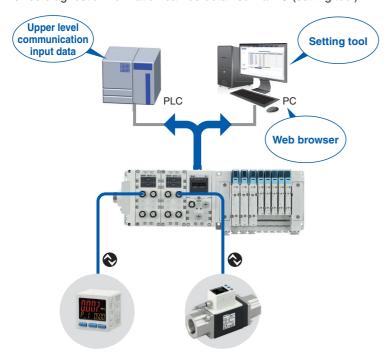
- Process data
- Device parameters, Master parameters
- Master information, Device information
- Port diagnosis, Device diagnosis



Diagnosis function

Diagnosis on a master and device is possible from the upper level communication.

Master (port) diagnostic information can be obtained via PLC program or PC (web browser). Device diagnostic information can be obtained via PC (setting tool).



It is also possible to use output data or message data via PLC program.

Items of master (port) diagnosis
Detection of port short-circuit
Detection of non-connected device
Detection of misconnected device (check error)
Notification of port misconfiguration (excessively large input/output data)
Conditions of diagnostic event (port, device)

Items of device diagnosis

Diagnostic results (problem phenomenon) received from devices are shown in event codes.

■ Device parameter setting function, Automatic saving/writing

The parameter setting of devices is possible from the upper level communication.

Parameter setting is possible via PC (setting tool).

the data storage function

automatically

replacement

• Saves device parameters to the master

• Automatic writing from the master during device

Device parameters can even be set from the PLC program.

Automatic saving of parameters

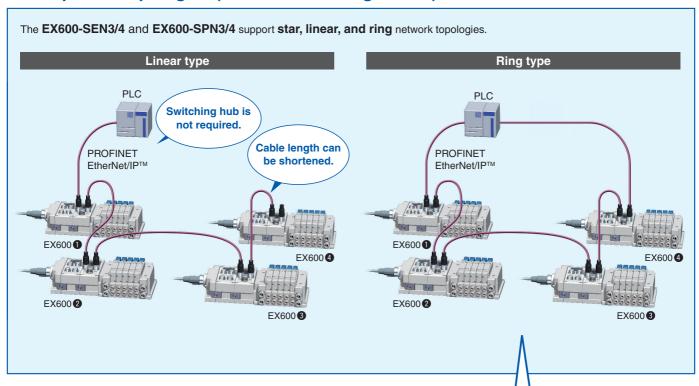
Automatic saving and writing using

Automatic saving of parameters

EtherNet Fieldbus Functions

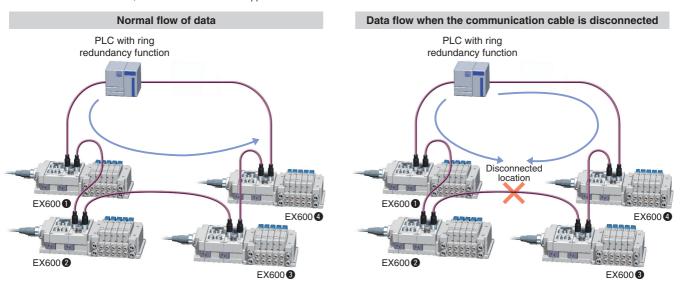
PROFINET (EX600-SPN3/4) and EtherNet/IP™ (EX600-SEN3/4) support the following functions.

■ Compatible topologies (Connection configuration)



For ring networks, communication can be continued even if one of the communication cables in the network is disconnected or damaged. As the EX600-SEN3/4 supports Device Level Ring (DLR), and the EX600-SPN3/4 supports Media Redundancy Protocol (MRP), the disconnected point can be identified.

* In order to use DLR or MRP, the PLC must be able to support it.



■ Supports the QuickConnect[™] function and the Fast Start Up function

Time from power ON to communication connection

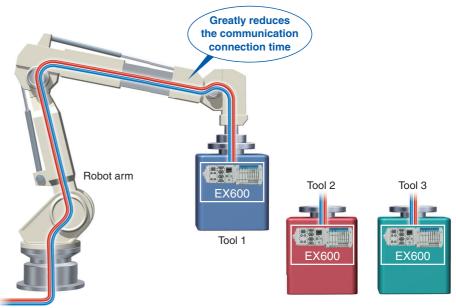
Approx.

0.5 s

In the case of a tool changer, it takes about 10 seconds for communication to be connected in some products after the power to the device installed on the tool is turned ON.

As the EX600-SEN3/4 supports the QuickConnect™ function, and the EX600-SPN3/4 supports the Fast Start Up function, communication connection in only approx. 0.5 s is possible.

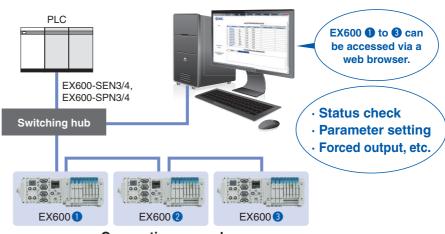
* In order to use the QuickConnect™ function or the Fast Start Up function, the PLC must be able to support it.



■ Built-in web server function

The EX600-SEN3/4 and EX600-SPN3/4 have a built-in web server function, which enables status checks, parameter settings (EX600-SEN3/4 only), and forced output of the EX600 using general-purpose web browsers, such as Microsoft Edge.

Start-up of the system and maintenance can be performed efficiently.



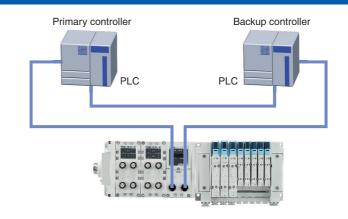
Connection example

Latest PROFINET Technology

■ System Redundancy S2

As the EX600-SPN3/4 supports System Redundancy S2, it can continue communication using the backup controller when the primary controller malfunctions. This allows for the prevention of problems caused by unexpected communication interruption.

* In order to use System Redundancy S2, the PLC must be able to support this function.





Fieldbus System EX600

D-sub connector

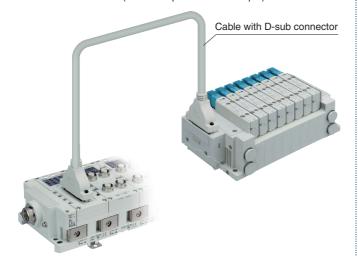
IP40

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

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

- SY seriesSV series
- S0700 seriesVQC series
 - ies SJ
- SJ seriesVQ series
- ries SQ series • JSY series
- * Please limit the number of valve connections to 16 stations for single and 8 stations for double. Refer to the catalog of each product for pin assignment details.

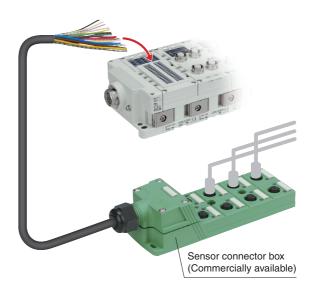
VVZS3000-21A-□-X192 (Non-waterproof cable example)



■ Spring type terminal block

IP40

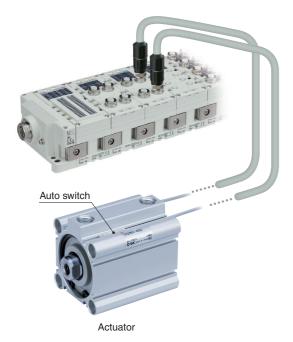
These terminal block units are compatible with individual wiring configurations. There are three types of units: for digital input, output, and input/output. Wiring connection to a sensor connector box, etc., can be carried out easily using only a flat head screwdriver.



■ Digital input unit



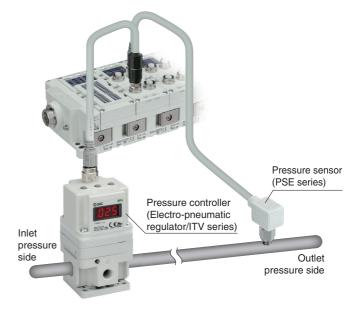
This unit is for inputting a digital signal (ON/OFF signal). The signal of a 2-wire/3-wire auto switch attached to the actuator can be acquired to feedback a signal to the PLC. The control signal of an entire system can be managed by a Fieldbus system.



■ Analog input/output unit



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



Self-diagnosis function

The following shows examples of the self-diagnosis function.

Short/Open-circuit detection

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





Green ON Normal



Counter function

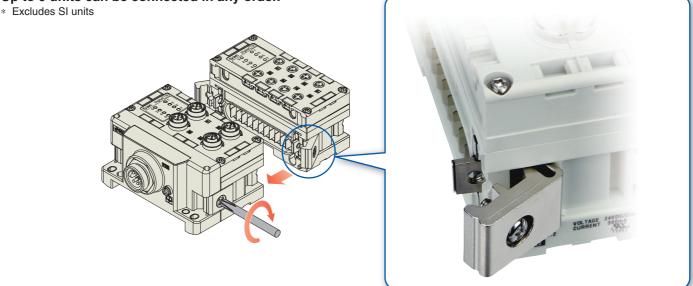
It is possible to ascertain the maintenance period and identify the parts that require maintenance by an input and output signal ON/OFF counter function. When the counter function is enabled and a certain number of contact operations is reached, the display of the counter will flash in red.

* The counter function is not provided with analog units.

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

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

Up to 9 units can be connected in any order.

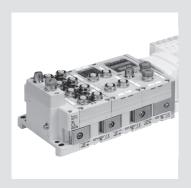


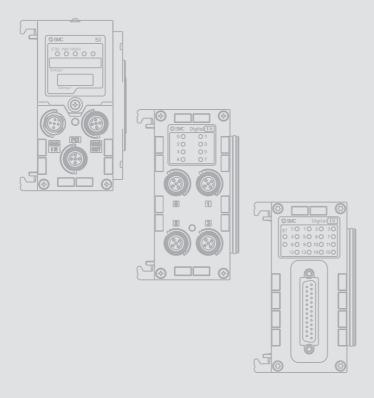


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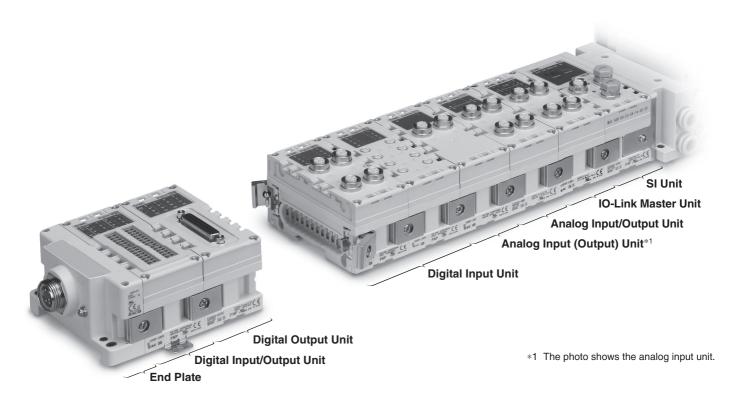
Fieldbus System For Input/Output







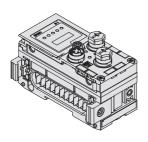
Parts Structure



How to Order

SI Unit

EX600-SPR1A-



			Specifications
Symbol	Protocol	Output type	Note
PR1A	PROFIBUS DP	PNP (Negative common)	-
PR2A	FROFIBUS DF	NPN (Positive common)	_
DN1A	DeviceNet™	PNP (Negative common)	_
DN2A	Devicemet	NPN (Positive common)	_
MJ1	CC-Link CC-Link IE Field	PNP (Negative common)	_
MJ2		NPN (Positive common)	_
CF1-X60		PNP (Negative common)	(Made to order)
EN1	EtherNet/IP™	PNP (Negative common)	1 port
EN2		NPN (Positive common)	1 port
EN3		PNP (Negative common)	2 ports
EN4	Ellietivel/iF	NPN(Positive common)	2 ports
EN3-X80		PNP (Negative common)	IO-Link master (Made to order)
EC1	EtherCAT	PNP (Negative common)	
EC2	EllielOAI	NPN (Positive common)	
PN1	PROFINET	PNP (Negative common)	_
PN2		NPN (Positive common)	
PN3	THOME	PNP (Negative common)	IO-Link master
PN4		NPN (Positive common)	IO-I ink master

● Made to order (Refer to page 44.)

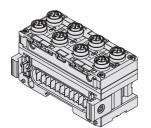
Ethernet POWERLINK
Modbus TCP
CC-Link IE Field
NPN (Positive common)



How to Order

Digital Input Unit





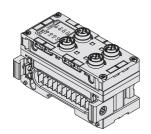
	mpar typo -
Symbol	Description
Р	PNP
N	NPN

Number of inputs, open-circuit detection, and connector

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

Digital Output Unit

EX600-DYPB



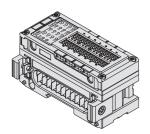
	output typo
Symbol	Description
Р	PNP
N	NPN

Number of outputs and connector

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

Digital Input/Output Unit **EX600-DMP F**





Input/Output type

•••	.6	output type -
	Symbol	Description
	Р	PNP
	N	NPN

Number of inputs/outputs and connector

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

Analog Input Unit

EX600-AXA

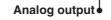


Number of input channels and connector

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

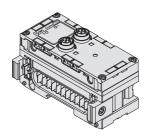
Analog Output Unit

EX600-AYA



Number of output channels and connector

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





How to Order

Analog Input/Output Unit **EX600-AMB**

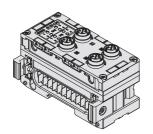
Analog input/output

Number of input/output channels and connector

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

IO-Link Master Unit

EX600-LAB1



	1 ort opcomoation			
Symbol	Description			
Α	Port class A			
В	Port class B			

Number of ports and connector

Symbol	Number of ports	Connector
В	4 ports	M12 connector (5 pins) 4 pcs.

The only available SI unit part numbers are "EX600-SEN3-X80" (EtherNet/IP™ compatible) and "EX600-SPN3/4" (PROFINET compatible). Refer to page 12.

End Plate (D side)

EX600-ED

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



For M12

For 7/8 inch

End plate •

Power supply connector

Symbol	Power supply connector	Specifications
2	IN	
3	IN	
4	IN/OUT	
5	IN/OUT	

^{*1} The pin layout for the "4" and "5" pin connectors is different.

Refer to the dimensions on page 24.

Mounting method

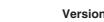
Symbol		Description	Note
		Without DIN rail mounting bracket	_
	2	With DIN rail mounting bracket	For SV, S0700, and VQC series
	3	With DIN rail mounting bracket	For SY and JSY series

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

Handheld Terminal

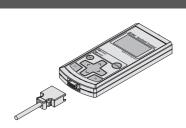
EX600-HT1A

Handheld terminals are not yet UL-compliant.



Cable length

	Symbol	Description
	Nil	No cable
Ì	1	1 m
	3	3 m



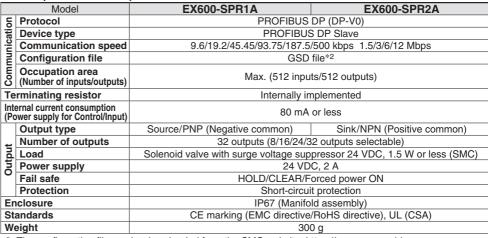
Specifications

All Units Common Specifications

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

^{*1} Except handheld terminals

SI Unit (EX600-SPR□A)



^{*2} The configuration file can be downloaded from the SMC website: https://www.smcworld.com

SI Unit (EX600-SDN□A)

Protocol DeviceNet™: Volume 1 (Edition 2.1), Volume 3 (Edition 1.1)	_	(=1.000 051.1=1.ty					
Device type		Model	EX600-SDN1A	EX600-SDN2A			
Communication speed Configuration file EDS file*3 Occupation area (Number of inputs/outputs) Applicable messages Applicable function DeviceNet™ power supply Internal current consumption (Power supply for Control/Input) Output type Source/PNP (Negative common) Sink/NPN (Positive common) Number of outputs Solenoid valve with surge voltage suppressor 24 VDC, 1.5 W or less (SMC) Protection Short-circuit protection Enclosure Standards Communication speed EDS file*3 Max. (512 inputs/512 outputs) Applicable messages Explicit Message (Group 2), Poll I/O Message (Predefined M/S Connection set) QuickConnect™ QuickConnect™ So mA or less So mA or less Solenoid valve common) Sink/NPN (Positive common) Sink/NPN (Positive common) Solenoid valve with surge voltage suppressor 24 VDC, 1.5 W or less (SMC) Protection Short-circuit protection Enclosure IP67 (Manifold assembly) Standards CE marking (EMC directive/RoHS directive), UL (CSA)	_	Protocol	DeviceNet™: Volume 1 (Edition	on 2.1), Volume 3 (Edition 1.1)			
Applicable messages Applicable function DeviceNet™ power supply Internal current consumption (Power supply for Control/Input) Output type Source/PNP (Negative common) Load Solenoid valve with surge voltage suppressor 24 VDC, 1.5 W or less (SMC) Power supply Fail safe Protection Enclosure Applicable messages Explicit Message (Group 2), Poll I/O Message (Predefined M/S Connection set) QuickConnect™ QuickConnect™ Source/PNP (Current consumption 50 mA or less) Sink/NPN (Positive common) Sink/NPN (Positive common) Source/PNP (Negative common) Source/PNP (Negative common) Source/PNP (Negative common) Source/PNP (Negative common) Source/PNP (Negative common) Source/PNP (Negative common) Source/PNP (Negative common) Source/PNP (Negative common) Source/PNP (Positive common) Applicable message (Predefined M/S Connection set) Source/PNP (Internation of less)		Device type	Group 2 O	Inly Server			
Applicable messages Applicable function DeviceNet™ power supply Internal current consumption (Power supply for Control/Input) Output type Source/PNP (Negative common) Load Solenoid valve with surge voltage suppressor 24 VDC, 1.5 W or less (SMC) Power supply Fail safe Protection Enclosure Applicable messages Explicit Message (Group 2), Poll I/O Message (Predefined M/S Connection set) QuickConnect™ QuickConnect™ Source/PNP (Current consumption 50 mA or less) Sink/NPN (Positive common) Sink/NPN (Positive common) Source/PNP (Negative common) Source/PNP (Negative common) Source/PNP (Negative common) Source/PNP (Negative common) Source/PNP (Negative common) Source/PNP (Negative common) Source/PNP (Negative common) Source/PNP (Negative common) Source/PNP (Positive common) Applicable message (Predefined M/S Connection set) Source/PNP (Internation of less)	유	Communication speed	125/250/	500 kbps			
Applicable messages Applicable function DeviceNet™ power supply Internal current consumption (Power supply for Control/Input) Output type Source/PNP (Negative common) Load Solenoid valve with surge voltage suppressor 24 VDC, 1.5 W or less (SMC) Power supply Fail safe Protection Enclosure Applicable messages Explicit Message (Group 2), Poll I/O Message (Predefined M/S Connection set) QuickConnect™ QuickConnect™ Source/PNP (Current consumption 50 mA or less) Sink/NPN (Positive common) Sink/NPN (Positive common) Source/PNP (Negative common) Source/PNP (Negative common) Source/PNP (Negative common) Source/PNP (Negative common) Source/PNP (Negative common) Source/PNP (Negative common) Source/PNP (Negative common) Source/PNP (Negative common) Source/PNP (Positive common) Applicable message (Predefined M/S Connection set) Source/PNP (Internation of less)	<u>:</u>	Configuration file	EDS	file*3			
Applicable messages Applicable function DeviceNet™ power supply Internal current consumption (Power supply for Control/Input) Output type Source/PNP (Negative common) Load Solenoid valve with surge voltage suppressor 24 VDC, 1.5 W or less (SMC) Power supply Fail safe Protection Enclosure Applicable messages Explicit Message (Group 2), Poll I/O Message (Predefined M/S Connection set) QuickConnect™ QuickConnect™ Source/PNP (Current consumption 50 mA or less) Sink/NPN (Positive common) Sink/NPN (Positive common) Source/PNP (Negative common) Source/PNP (Negative common) Source/PNP (Negative common) Source/PNP (Negative common) Source/PNP (Negative common) Source/PNP (Negative common) Source/PNP (Negative common) Source/PNP (Negative common) Source/PNP (Positive common) Applicable message (Predefined M/S Connection set) Source/PNP (Internation of less)	unu.		Max. (512 inputs/512 outputs)				
DeviceNet™ power supply 11 to 25 VDC (Current consumption 50 mA or less)	Con	Applicable messages					
Internal current consumption (Power supply for Control/Input) 55 mA or less		Applicable function	QuickCo	onnect™			
Court Control/input Cont	De	eviceNet™ power supply	11 to 25 VDC (Current consumption 50 mA or less)				
Number of outputs Load Solenoid valve with surge voltage suppressor 24 VDC, 1.5 W or less (SMC) Power supply Fail safe Protection Short-circuit protection Enclosure IP67 (Manifold assembly) Standards CE marking (EMC directive/RoHS directive), UL (CSA)			55 mA or less				
Load Solenoid valve with surge voltage suppressor 24 VDC, 1.5 W or less (SMC)		Output type	Source/PNP (Negative common)	Sink/NPN (Positive common)			
Fail safe HOLD/CLEAR/Forced power ON Protection Short-circuit protection Enclosure IP67 (Manifold assembly) Standards CE marking (EMC directive/RoHS directive), UL (CSA)	_ ـ	Number of outputs	32 outputs (8/16/24/3	32 outputs selectable)			
Fail safe HOLD/CLEAR/Forced power ON Protection Short-circuit protection Enclosure IP67 (Manifold assembly) Standards CE marking (EMC directive/RoHS directive), UL (CSA)	ם	Load	Solenoid valve with surge voltage sup	pressor 24 VDC, 1.5 W or less (SMC)			
Fail safe	Ħ	Power supply	24 VD	C, 2 A			
Enclosure IP67 (Manifold assembly) Standards CE marking (EMC directive/RoHS directive), UL (CSA)	0	Fail safe	HOLD/CLEAR/F	orced power ON			
Standards CE marking (EMC directive/RoHS directive), UL (CSA)		Protection	Short-circui	it protection			
	Er	nclosure	IP67 (Manifo	ld assembly)			
Weight 300 g	St	andards	CE marking (EMC directive	/RoHS directive), UL (CSA)			
	W	eight	30	0 g			

^{*3} The configuration file can be downloaded from the SMC website: https://www.smcworld.com

SI Unit (EX600-SMJ□)

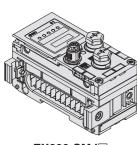
	of the (Excession)				
	Model	EX600-SMJ1	EX600-SMJ2		
Ę	Protocol	CC-Link (Ver.	1.10, Ver. 2.00)		
∃ë	Station type	Remote De	vice Station		
i.	Communication speed	156/625 kbps	2.5/5/10 Mbps		
E	Configuration file	CSP+	CSP+ file*4		
Communication	Occupation area (Number of inputs/outputs)	Max. (512 inputs/512 outputs) 1/2/3/4 stations occupied			
Int (Po	ernal current consumption ower supply for Control/Input)	75 mA or less			
	Output type	Source/PNP (Negative common)	Sink/NPN (Positive common)		
1	Number of outputs	32 outputs (8/16/24/32 outputs selectable)			
put	Load	Solenoid valve with surge voltage sup	pressor 24 VDC, 1.5 W or less (SMC)		
Out	Power supply	24 VDC, 2 A			
	Fail safe	HOLD/CLEAR/F	orced power ON		
	Protection	Short-circui	t protection		
En	closure	IP67 (Manifold assembly)			
St	andards	CE marking (EMC directive	/RoHS directive), UL (CSA)		
W	eight	30	0 g		

^{*4} The configuration file can be downloaded from the SMC website: https://www.smcworld.com





EX600-SDN□A



EX600-SMJ□



Specifications

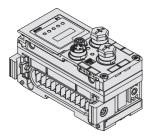


SI Unit (EX600-SCF1-X60)

Model		EX600-SCF1-X60*1	
	Protocol	CC-Link IE Field	
	Station type	Intelligent Device Station	
_	Communication speed	1 Gbps	
ţi	Allowable station number setting	1 to 120	
<u>ica</u>	Allowable network number setting	1 to 239	
딤	Transmission method	Cyclic transmission	
Communication	Configuration file	CSP+ file*2	
Š	Occupied input size	RX: 32 to 176 bits	
	Occupied iliput size	RWr: 32 to 608 words	
	Occupied output size	RY: 32 to 176 bits	
	Occupied output size	RWw: 32 to 608 words	
Internal current consumption (Power supply for Control/Input)		140 mA or less	
	Output type	Source/PNP (Negative common)	
	Number of outputs	32 outputs	
Output	Load	Solenoid valve with surge voltage suppressor	
븀	Load	24 VDC, 1.0 W or less (SMC)	
ō	Power supply	24 VDC, 2 A	
	Fail safe	HOLD/CLEAR/Forced power ON	
	Protection	Short-circuit protection	
Er	nclosure	IP67 (Manifold assembly)	
St	andards	CE marking (EMC directive/RoHS directive)	
Weight		300 g	

- *1 For details on this product, refer to the SMC website.
- *2 The configuration file can be downloaded from the SMC website: https://www.smcworld.com

EX600-SEN1/2



EX600-SEN3/4(-X80)

SI Unit (EX600-SEN□)

SI	Unit (EX600-SEN⊟)					
Model		EX600-SEN1	EX600-SEN2	EX600-SEN3	EX600-SEN4	EX600-SEN3-X80
	Number of communication ports	1 p	ort		2 ports	
	Protocol	EtherN	et/IP™		EtherNet/IP™	
	FIOLOCOI	(Conformance vers	sion: Composite 6)	(Conforma	nce version: Cor	nposite 11)
	Communication speed			10/100 Mbps		
	Communication method		Ful	l duplex/Half dup	lex	
on	Configuration file		EDS file*3			
nicati	Occupation area (Number of inputs/outputs)		Max. (512 inputs/512 outputs)			
Communication	IP address setting range			ettings: 192.168 CP server: Optio		
ပိ	Device information	Vendor ID: 7 (SM Device type: 12 (Com Product of	nmunication Adapter)	Vendor ID: 7 (SMC Corporation) Device type: 12 (Communication Adapted Product code: 203		tion Adapter)
	QuickConnect	_	_	•		•
	DLR			•		
	Web server function	_		•		•
10	-Link master	_	_	_		•
	ernal current consumption ower supply for Control/Input)	120 mA or less				
	0	Source/PNP	Sink/NPN	Source/PNP	Sink/NPN	Source/PNP
	Output type	(Negative common)	(Positive common)	(Negative common)	(Positive common)	(Negative common)
	Number of outputs	32 outputs (8/16/24/3	2 outputs selectable)	32 outputs		
Output	Load	Solenoid valve with sur 24 VDC, 1.5 W	0 11	Solenoid valve with surge voltage suppresson 24 VDC, 1.0 W or less (SMC)		0 11
0	Power supply			24 VDC, 2 A	-,	(====)
	Fail safe		HOLD/C	LEAR/Forced po	ower ON	
	Protection			ort-circuit protect		
En	closure			(Manifold assen		
Sta	andards	CE	marking (EMC	directive/RoHS d	irective), UL (CS	SA)
We	Weight 300 g					
. 0	The configuration file con	ha downloaded from the CMC website: https://www.cmaworld.com				

^{*3} The configuration file can be downloaded from the SMC website: https://www.smcworld.com



Specifications



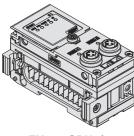
SI Unit (EX600-SEC□)

Model		EX600-SEC1	EX600-SEC2	
5 Protocol		EtherCAT (Conformance Test Record V.1.2)		
cati	Communication speed	100 ľ	Mbps	
Ē.	Configuration file	XML	file*1	
Protocol Communication speed Configuration file Occupation area (Number of inputs/outputs)		Max. (512 inputs/512 outputs)		
	ernal current consumption ower supply for Control/Input)	100 mA or less		
	Output type	Source/PNP (Negative common)	Sink/NPN (Positive common)	
	Number of outputs	32 outputs (8/16/24/32 outputs selectable)		
Output	Load	Solenoid valve with surge voltage sup	pressor 24 VDC, 1.5 W or less (SMC)	
Œ	Power supply	24 VDC, 2 A		
	Fail safe	HOLD/CLEAR/Forced power ON		
	Protection	Short-circuit protection		
En	closure	IP67 (Manifold assembly)		
Sta	andards	CE marking (EMC directive/RoHS directive), UL (CSA)		
We	eight	300	0 g	

^{*1} The configuration file can be downloaded from the SMC website: https://www.smcworld.com



EX600-SPN1/2



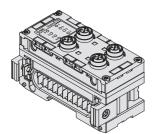
EX600-SPN3/4

SI Unit (EX600-SPN□)

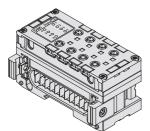
_	OIIII (EXOUD-SFN=)					
	Model	EX600-SPN1	EX600-SPN2	EX600-SPN3	EX600-SPN4	
	Duetocal	PROFII	PROFINET IO		PROFINET IO	
_	Protocol	(Conforman	ce Class B)	(Conforman	ce Class C)	
<u>5</u>	Communication speed		100	Mbps		
ca	Configuration file		GSDM	L file*2		
L I	Fast Start Up					
틸	(Communication connection time)	(Appro	x. 2 s)	(Approx.	500 ms)	
Communication	MRP	_	_			
0	System Redundancy S2	_	_			
	Web server	_		•		
10	-Link master	_		•		
Cι	irrent consumption	120 mA or less				
	Output type	Source/PNP	Sink/NPN	Source/PNP	Sink/NPN	
	Output type	(Negative common)	(Positive common)	(Negative common)	(Positive common)	
Output	Number of outputs	32 outputs				
Ĭ	Load	Solenoid valve with surge voltage suppressor 24 VDC, 1.0 W or less (SMC)				
	Fail safe	HOLD/CLEAR/Forced power ON				
	Protection	Short-circuit protection				
En	closure	IP67 (Manifold assembly)				
Sta	andards	CE marking (EMC directive/RoHS directive), UL (CSA)				
We	eight		30	0 g		

^{*2} The configuration file can be downloaded from the SMC website: https://www.smcworld.com

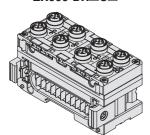
Specifications



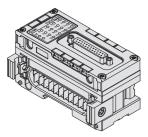
EX600-DX□B



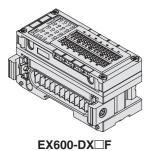
EX600-DX□C□



EX600-DX□D



EX600-DX□E



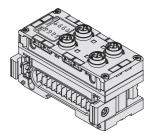
Digital Input Unit

;	Jitai IIIput OIII							
Model		EX600-DXPB	EX600-DXNB	EX600-DXPC□	EX600-DXNC□	EX600-DXPD	EX600-DXND	
	Input type		PNP	NPN	PNP	NPN	PNP	NPN
	Input connecto	r	M12 (5-pir	ı) socket*1	M8 (3-pin) socket*3	M12 (5-pir	n) socket*1
	Number of inpu	ıts	8 inputs (2 inp	uts/Connector)	8 inputs (1 inp	out/Connector)	16 inputs (2 inp	outs/Connector)
	Supplied voltage	ge			24 \	/DC		
	Max. supplied current			onnector Unit	0.25 A/Connector 2 A/Unit		0.5 A/Connector 2 A/Unit	
Input	Protection			Short-circuit protection				
드	Input current (at	24 VDC)	9 mA or less					
	ON voltage		17 V or more (At NPN input, between the pin for input terminal and supplied voltage of +24 V) (At PNP input, between the pin for input terminal and supplied voltage of 0 V)					
	OFF voltage		5 V or less (At NPN input, between the pin for input terminal and supplied voltage of +24 V) (At PNP input, between the pin for input terminal and supplied voltage of 0 V)					
	Open circuit	2 wires	_	_	0.5 mA	/Input*2	_	_
	detection current	3 wires	_	_	0.5 mA/Cd	onnector*2	_	_
Current consumption		50 mA	or less	55 mA	or less	70 mA	or less	
En	closure		IP67 (Manifold assembly)					
Standards				CE marking (EMC directive/RoHS directive), UL (CSA)				
Weight 300 g 275 g 340 g			0 g					

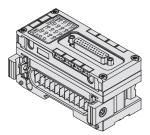
- *1 M12 (4-pin) connector can be connected.
- *2 Function only applies to the EX600-DX□C1.
 *3 When connecting the M8 plug connector, the tightening torque must be 0.2 N⋅m ±10%. If tightened with an excessive tightening torque, this may cause the connector thread of the unit to break.

	Model	EX600-DXPE	EX600-DXNE	EX600-DXPF	EX600-DXNF	
	Input type	PNP	NPN	PNP	NPN	
	Input connector	D-sub sock Lock screw: I	et (25 pins) No.4-40 UNC	Spring type terminal block (32 pins)		
	Number of inputs	16 in	puts	16 inputs (2 inp	outs x 8 blocks)	
	Supplied voltage		24 \	/DC		
Input	Max. supplied current	2 A/	2 A/Unit		0.5 A/Block 2 A/Unit	
_	Protection	Short-circuit protection				
	Input current (at 24 VDC)		5 mA or less			
	ON voltage	,	17 V or more (At NPN input, between the pin for input terminal and supplied voltage of +24 V (At PNP input, between the pin for input terminal and supplied voltage of 0 V)			
	OFF voltage	5 V or less (At NPN input, between the pin for input terminal and supplied voltage of +24 V (At PNP input, between the pin for input terminal and supplied voltage of 0 V)				
Αŗ	plicable wire	_	_	0.08 to 1.5 mm ² (AWG16 to 28)		
Current consumption		50 mA	or less	55 mA	or less	
Er	nclosure	IP40 (Manifold assembly)				
St	andards	CE marking (EMC directive/RoHS directive), UL (CSA)				
Weight		300 g				

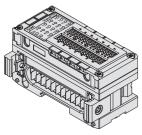
Specifications



EX600-DY□B



EX600-DY□E EX600-DM□E



EX600-DY□F EX600-DM□F

Digital Output Unit

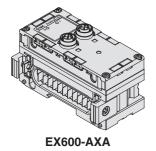
	Model	EX600-DYPB	EX600-DYNB	EX600-DYPE	EX600-DYNE	EX600-DYPF	EX600-DYNF	
	Output type	PNP	NPN	PNP	NPN	PNP	NPN	
_	Output connector	M12 (5-pir	M12 (5-pin) socket*1		D-sub socket (25 pins) Lock screw: No.4-40 UNC		Spring type terminal block (32 pins)	
l d	Number of outputs	8 outputs (2 out	puts/Connector)	16 ou	ıtputs	16 outputs (2 ou	tputs x 8 blocks)	
Output	Supplied voltage		24 VDC					
	Max. load current					0.5 A/Output 2 A/Unit		
	Protection	Short-circuit protection						
Aŗ	oplicable wire			_		1.5 mm² 6 to 28)		
Сι	irrent consumption	50 mA or less						
Enclosure		IP67 IP40 (Manifold assembly) (Manifold assembly)						
St	andards	CE marking (EMC directive/RoHS directive), UL (CSA)						
Weight		300 g						

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

Digital Input/Output Unit

Model		EX600-DMPE	EX600-DMNE	EX600-DMPF	EX600-DMNF
In	put/Output type	PNP	NPN	PNP	NPN
С	onnector	D-sub socket (25 pins) Lock screw: No.4-40 UNC		Spring type terminal block (32 pins)	
	Number of inputs	8 in	puts	8 inputs (2 inp	uts x 4 blocks)
	Supplied voltage		24 \	/DC	
	Max. supplied current	2 A/	'Unit	0.5 A/Block 2 A/Unit	
Input	Protection		Short-circu	it protection	
므	Input current (at 24 VDC)		5 mA	or less	
	ON voltage	17 V or more (At NPN input, between the pin for input terminal and supplied voltage of +24 (At PNP input, between the pin for input terminal and supplied voltage of 0 V)			
	OFF voltage	5 V or less (At NPN input, between the pin for input terminal and supplied voltage of +24 \ (At PNP input, between the pin for input terminal and supplied voltage of 0 V)			
	Number of outputs	8 ou	tputs	8 outputs (2 out	puts x 4 blocks)
늄	Supplied voltage	24 VDC			
Output	Max. load current	0.5 A/Output 2 A/Unit			
	Protection	Short-circuit protection			
Α	pplicable wire	_	_	0.08 to 1.5 mm ²	(AWG16 to 28)
С	urrent consumption	50 mA	or less	60 mA	or less
E	nclosure	IP40 (Manifold assembly)			
St	tandards	CE marking (EMC directive/RoHS directive), UL (CSA)			
W	eight	300 g			

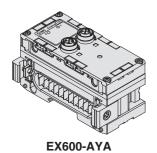
Specifications



Analog Input Unit

	Model		EX600)-AXA	
	Input type		Voltage input	Current input	
	Input conn	ector	M12 (5-pir	n) socket*1	
	Input chan	nel	2 channels (1 cha	annel/Connector)	
	Supplied v	oltage	24 \	/DC	
	Max. suppl	ied current	0.5 A/Cd	onnector	
	Protection		Short-circui	t protection	
Input	Input 12 bit resolution		0 to 10 V, 1 to 5 V, 0 to 5 V	0 to 20 mA, 4 to 20 mA	
-	signal range	16 bit resolution	–10 to 10 V, –5 to 5 V	–20 to 20 mA	
	Max. rated input signal		±15 V	±22 mA*2	
	Input impe	dance	100 kΩ	50 Ω	
	Linearity (2	!5°C)	±0.05% F.S.		
	Repeatabil	ity (25°C)	±0.15°	% F.S.	
	Absolute accuracy (25°C)		±0.5% F.S.	±0.6% F.S.	
Cı	Current consumption		70 mA or less		
En	Enclosure		IP67 (Manifold assembly)		
Sta	Standards		CE marking (EMC directive/RoHS directive), UL (CSA)		
We	Weight		290	0 g	

- $*1\,$ M12 (4-pin) connector can be connected.
- *2 When input signal exceeds 22 mA, the protection function activates and the input signal is interrupted.

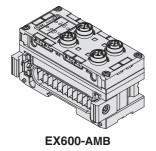


Analog Output Unit

	Mod	el	EX600	O-AYA		
	Output type	е	Voltage output	Current output		
	Output con	nector	M12 (5-pin	n) socket*3		
	Output cha	nnel	2 channels (1 cha	annel/Connector)		
	Supplied vo	oltage	24 \	/DC		
	Max. load current		0.5 A/Co	onnector		
Output	Protection		Short-circuit protection			
Out	Output signal range	12 bit resolution	0 to 10 V, 1 to 5 V, 0 to 5 V	0 to 20 mA, 4 to 20 mA		
	Load impedance		1 kΩ or more	600 Ω or less		
	Linearity (25°C)		±0.05% F.S.			
	Repeatabili	ity (25°C)	±0.15% F.S.			
	Absolute accuracy (25°C)		±0.5% F.S.	±0.6% F.S.		
Cı	Current consumption		70 mA or less			
En	Enclosure		IP67 (Manifold assembly)			
Sta	Standards		CE marking (EMC directive/RoHS directive), UL (CSA)			
We	eight		290	0 g		

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

Specifications

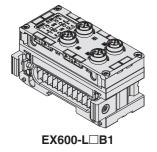


Analog Input/Output Unit

Model		el	EX600	-AMB		
	Input type		Voltage input	Current input		
	Input conn	ector	M12 (5-pin) socket*1			
	Input chan	nel	2 channels (1 channel/Connector)			
	Supplied v	oltage	24 V	/DC		
	Max. suppl	ied current	0.5 A/Co	onnector		
<u></u>	Protection		Short-circui	t protection		
Input	Input signal range	12 bit resolution	0 to 10 V, 1 to 5 V, 0 to 5 V	0 to 20 mA, 4 to 20 mA		
	Max. rated	input signal	15 V	22 mA*2		
	Input impe	dance	100 kΩ	250 Ω		
	Linearity (25°C)		±0.05%	% F.S.		
	Repeatability (25°C)		±0.15% F.S.			
	Absolute accuracy (25°C)		±0.5% F.S.	±0.6% F.S.		
	Output type		Voltage output	Current output		
	Output connector		M12 (5-pin) socket*1			
	Output channel		2 channels (1 channel/Connector)			
	Supplied voltage		24 VDC			
	Max. load	current	0.5 A/Connector			
Output	Protection		Short-circui	t protection		
ō	Output signal range	12 bit resolution	0 to 10 V, 1 to 5 V, 0 to 5 V	0 to 20 mA, 4 to 20 mA		
	Load impe		1 kΩ or more	600 Ω or less		
	Linearity (2	25°C)	±0.05%	% F.S.		
	Repeatability (25°C)		±0.159	% F.S.		
	Absolute accuracy (25°C)		±0.5% F.S.	±0.6% F.S.		
Cı	urrent consi	umption	100 mA	or less		
E	nclosure		IP67 (Manifo	ld assembly)		
St	tandards		CE marking (EMC directive	/RoHS directive), UL (CSA)		
Weight			300 g			

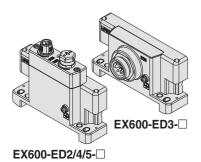
^{*1} M12 (4-pin) connector can be connected. *2 When input signal exceeds 22 mA, the protection function activates and the input signal is interrupted.

Specifications



IO-Link Master Unit

	Model	EX600-LAB1		EX600-LBB1	
IO-Link version			Version 1.1		
IC	-Link port class	Clas	ss A	Class B	
Communication speed		COM1 (4.8 kBaud) COM2 (38.4 kBaud) COM3 (230.4 kBaud) * Changes automatically according to the connected device			
N	umber of IO-Link ports		4	4	
	ompatible SI unit rotocol)			4 (PROFINET) 0 (EtherNet/IP™)	
Max. supply current	Device power supply (L+)	0.5 A/Co (2 A/		0.5 A/Connector (1 A/Unit)	
Max. supp	External power supply (P24)	_		1.6 A/Connector (3 A/Unit)	
	Pin no.	2	4	4	
	Input type	PNP			
Input	Protection	Short-circuit protection			
=	Rated input current	Approx. 2.5 mA	Approx. 5.8 mA		
	ON voltage	13 V or more			
	OFF voltage	8 V or less			
	Pin no.			4	
Ħ	Output type			NP	
Output	Max. load current (C/Q line)	0.25 A/Output (Supplied from the power supply for control/input)			
	Protection	Short-circuit protection			
Cı	urrent consumption	50 mA or less			
E	nclosure	IP67 (Manifold assembly)			
St	andards	CE marking (EMC directive/RoHS directive), UL (CSA)			
W	eight		32	0 g	



End Plate

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

^{*1} The EX600-ED4/5- \square is not compliant with UL (CSA) standards.



EX600-HT1A-□

Handheld Terminal

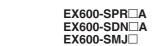
Model	EX600-HT1A-□	
Power supply	Power supplied from SI unit connector (24 VDC)	
Current consumption 50 mA or less		
Display LCD with backlight		
Connection cable	Handheld terminal cable (1 m ··· EX600-AC010-1, 3 m ··· EX600-AC030-1)	
Enclosure	IP20	
Standards*1	CE marking (EMC directive/RoHS directive)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

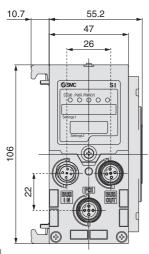
- *1 The handheld terminal is not compliant with UL (CSA) standards.
 * Cannot be used with the EX600-SPN3/4 and EX600-LAB1/LBB1

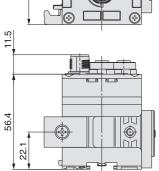


Dimensions

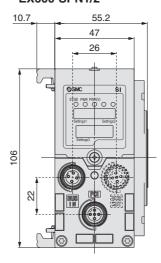
SI Unit

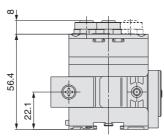


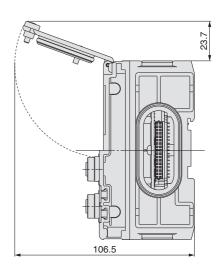




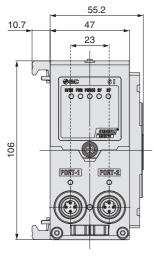
EX600-SEN□(-X80) EX600-SEC□ EX600-SPN1/2

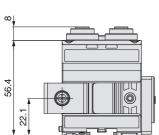


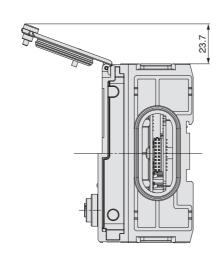




EX600-SPN3/4

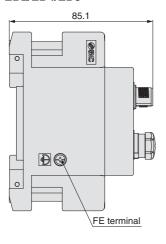


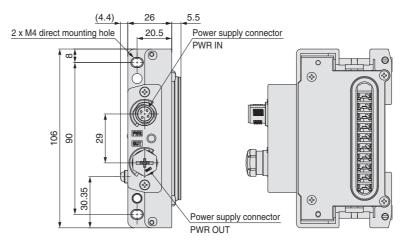


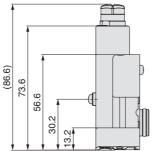


Dimensions

End Plate (D side) EX600-ED2/ED4/ED5







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

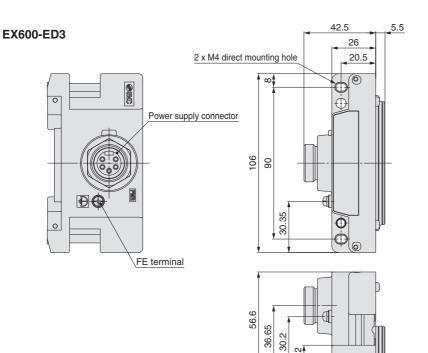
Configuration	E	X600-ED2
Configuration	Pin no.	Description
2 5 0 0 0 4	1	24 V (for output)
	2	0 V (for output)
	3	24 V (for control/input)
	4	0 V (for control/input)
	5	FE

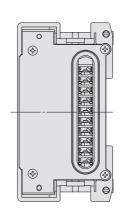
Power supply connector PWR IN: M12 4-pin plug, A-coded

Configurat	tion	EX600-l	EX600-ED4 (Pin arrangement 1)		EX600-ED5 (Pin arrangement 2)	
Cornigura	liOH	Pin no.	in no. Description		Description	
3 _	2	1	24 V (for control/input)	1	24 V (for output)	
600	4	2	24 V (for output)	2	0 V (for output)	
00)	3	0 V (for control/input)	3	24 V (for control/input)	
4	1	4	0 V (for output)	4	0 V (for control/input)	

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

Configurati	ion	EX600-ED4 (Pin arrangement 1)		EX600-ED5 (Pin arrangement 2)	
Cornigurali	1011	Pin no.	Description	Pin no.	Description
1	2	1	24 V (for control/input)	1	24 V (for output)
60	_	2	24 V (for output)	2	0 V (for output)
(%))	3	0 V (for control/input)	3	24 V (for control/input)
4	3	4	0 V (for output)	4	0 V (for control/input)
5	_	5	Unused	5	Unused





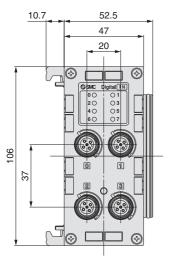
Power supply connector PWR: 7/8 inch 5-pin plug

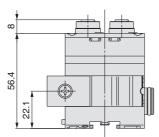
Configuration	Pin no.	Description
	1	0 V (for output)
	2	0 V (for control/input)
2003	3	FE
	4	24 V (for control/input)
	5	24 V (for output)

Dimensions

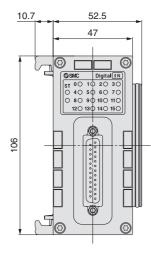
Digital Unit

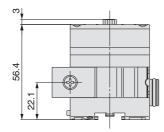
EX600-DX□B EX600-DY□B



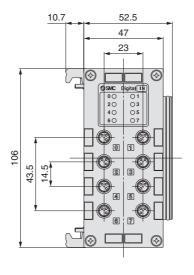


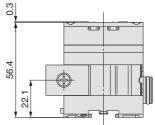
EX600-DX□E EX600-DY□E EX600-DM□E



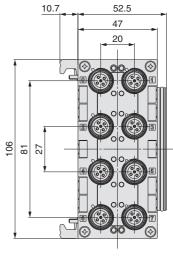


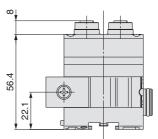
EX600-DX□C□



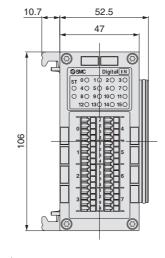


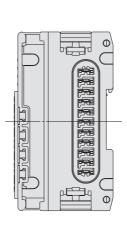
EX600-DX□D

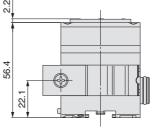




EX600-DX□F EX600-DY□F EX600-DM□F







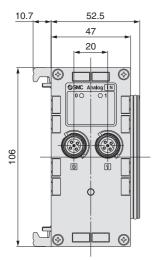


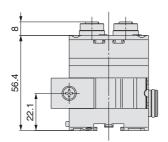


Dimensions

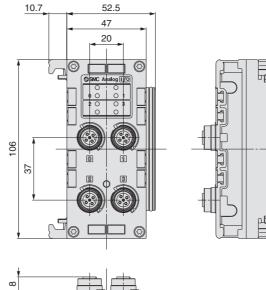
Analog Unit

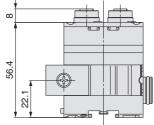
EX600-AXA EX600-AYA





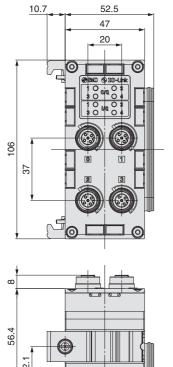
EX600-AMB

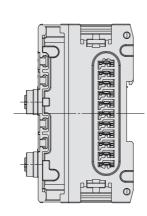


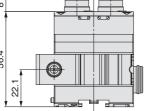


IO-Link Master Unit

EX600-LAB1 EX600-LBB1

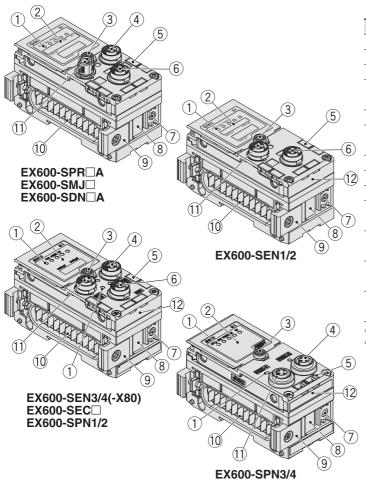






Parts Description

SI Unit

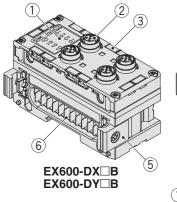


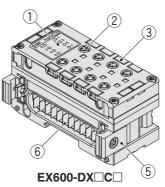
No.	Name	Use	
1	Status indication LED	Displays unit status	
2	Indication cover	Open for setting the switch.	
3	Indication cover set screw	Loosen for opening the indication cover.	
4	Connector (BUS OUT)	Connects to the fieldbus output cable (SPEEDCON)*1	
5	Marker groove	Can be used to mount a marker	
6	Connector (PCI)	Connects to the handheld terminal cable (SPEEDCON)	
7	Valve plate mounting holes	Fixes a valve plate in place	
8	Valve plate mounting groove	Inserts a valve plate	
9	Joint bracket	Links units to one another	
10	Connector for unit (Plug)	Transmits signals to the neighboring unit and supplies power	
11	Connector (BUS IN)	Connects to the cable for fieldbus input (SPEEDCON)*1	
12	MAC address name plate*2	Displays a unique 12-digit MAC address for each SI unit	
13	Seal cap	Mounted on the connectors (BUS OUT and PCI) at the time of shipment	
*1 Th	*1 The EX600-SPN3// is not SPEEDCON compatible		

- The EX600-SPN3/4 is not SPEEDCON compatible.
- *2 MAC address name plate is not provided on the EX600-SEC ...



Digital Unit

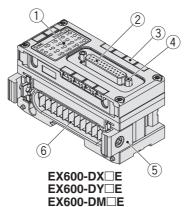


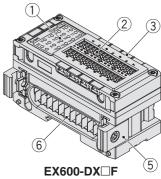


EX600)-DX□C□ (5)
① _	2
	(3)
6	0,
	5
FX600-DX	

EX600-DX□D

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

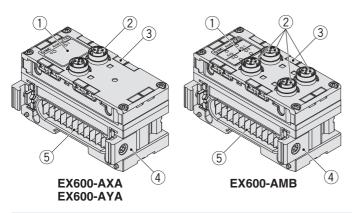




EX600-DX□F EX600-DY□F EX600-DM□F

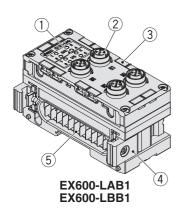
Parts Description

Analog Unit



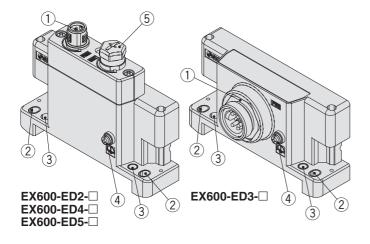
No.	Name	Use
1	Status indication LED	Displays unit status
2	Connector	Connects with input or output devices (SPEEDCON)
3	Marker groove	Can be used to mount a marker
4	Joint bracket	Links units to one another
5	Connector for unit (Plug)	Transmits signals to the neighboring unit and supplies power

IO-Link Master Unit



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

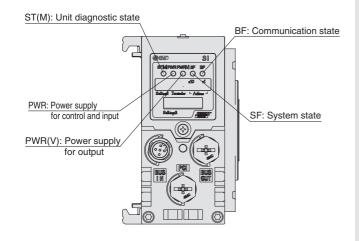
End Plate



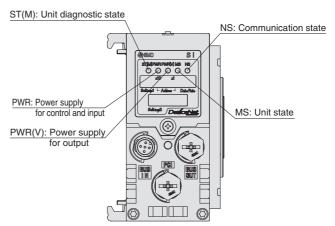
No.	Name	Use
1	Power connector (PWR IN)	Supplies power to the unit and/or input/output device (Only the EX600-ED2-□ is SPEEDCON compatible.)
2	Fixing hole for direct mounting	Connects directly to equipment
3	Fixing hole for DIN rail	Converts to manifold or for DIN rail mounting
4	FE terminal	Used for grounding Ground this terminal securely to improve noise immunity.
	EX600-ED2-□ Connector (Unused)	This connector has not yet been used. Do not remove the seal cap.
5	EX600-ED4-□ EX600-ED5-□ Power connector (PWR OUT)	Supplies power to the device on the downstream side

LED Indicator

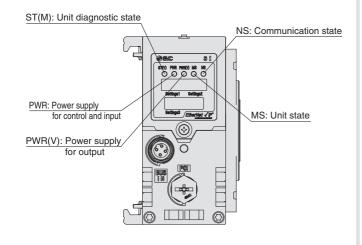
EX600-SPR□A



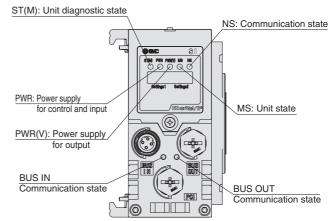
EX600-SDN□A



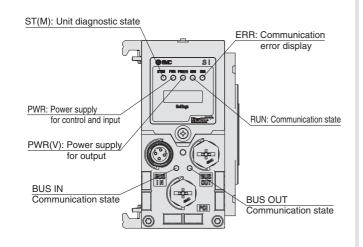
EX600-SEN1/SEN2



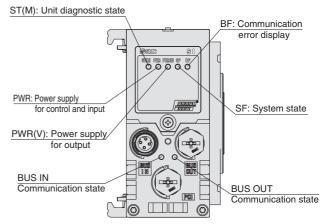
EX600-SEN3/SEN4(-X80)



EX600-SEC□

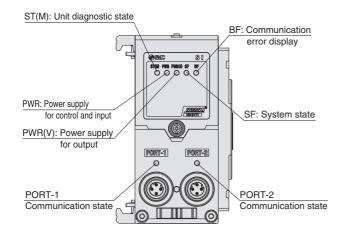


EX600-SPN1/SPN2

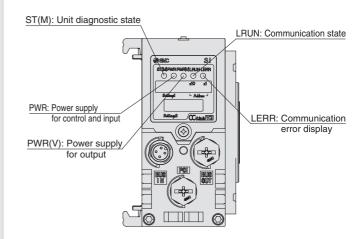


LED Indicator

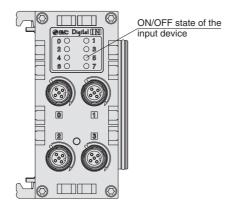
EX600-SPN3/SPN4



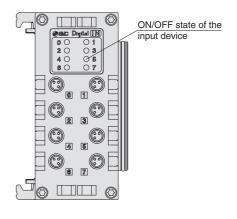
EX600-SMJ□



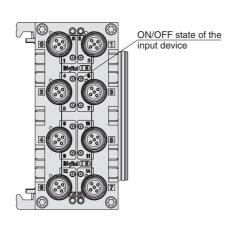
EX600-DX□B



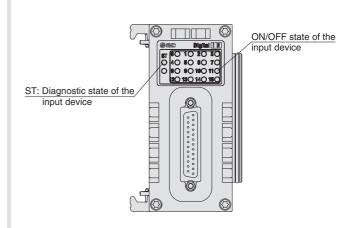
EX600-DX□C□



EX600-DX□D

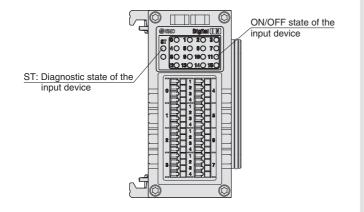


EX600-DX□E

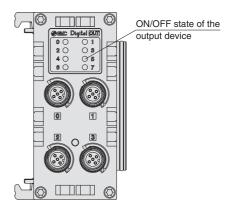


LED Indicator

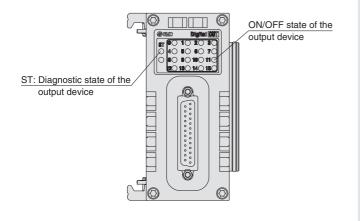
EX600-DX□F



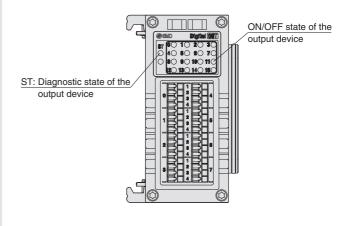
EX600-DY□B



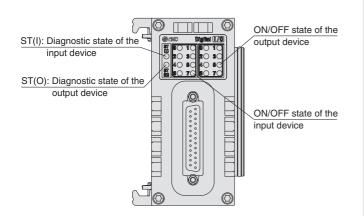
EX600-DY□E



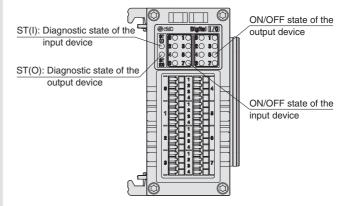
EX600-DY□F



EX600-DM□E

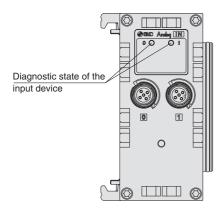


EX600-DM□F

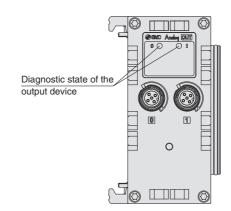


LED Indicator

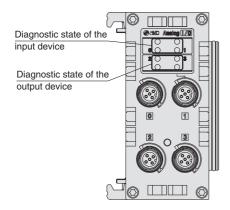
EX600-AXA



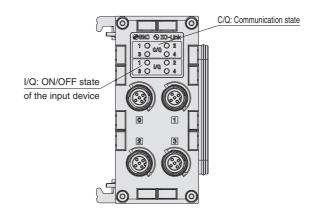
EX600-AYA



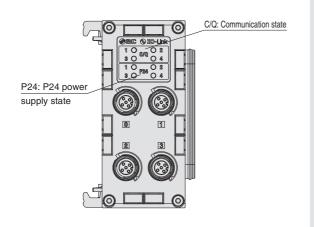
EX600-AMB



EX600-LAB1

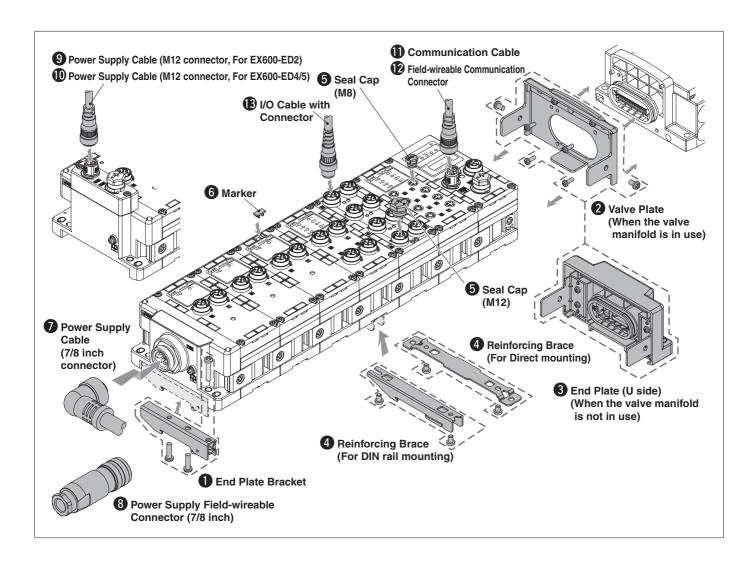


EX600-LBB1





Accessories



1 End Plate Bracket

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



EX600-ZMA2

Enclosed parts

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

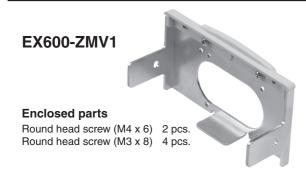
EX600-ZMA3

(Specialized for SY series)

Enclosed parts

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

2 Valve Plate



EX600-ZMV2

(Specialized for SY series)

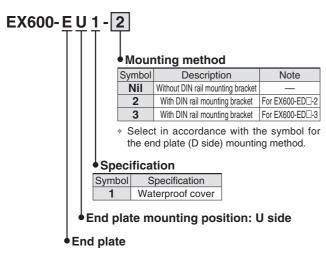
Enclosed parts

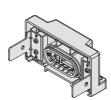
Round head screw (M4 x 6) 2 pcs. Round head screw (M3 x 8) 2 pcs.



3 End Plate (U side)

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





SI unit mounting hole x 2

Enclosed parts

Round head screw (M4 x 5) 2 pcs.

9.

4 Reinforcing Brace

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

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



For DIN rail mounting EX600-ZMB2



Seal Cap (10 pcs.)

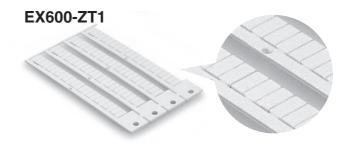
Be sure to mount a seal cap on any unused I/O connectors. Otherwise, the specified enclosure cannot be maintained.





6 Marker (1 sheet, 88 pcs.)

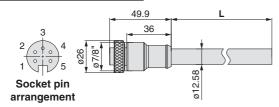
The signal name of I/O device and each unit address can be entered and mounted on each unit.

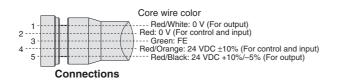


Power Supply Cable (7/8 inch connector)

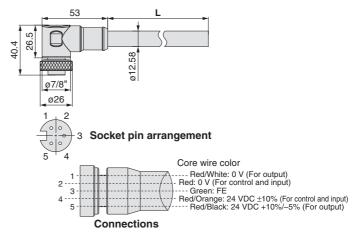
PCA-1558810 Straight 2 m PCA-1558823 Straight 6 m PCA-1558836 Right angled 2 m PCA-1558849 Right angled 6 m

Straight connector type





Angled connector type



Item	Specifications
Cable O.D.	ø12.58 mm
Conductor nominal cross section	1.5 mm ² /AWG16
Wire O.D. (Including insulator)	2.35 mm
Min. bending radius (Fixed)	110 mm

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

PCA-1578081

Socket [compatible with AWG22-16]



Applicable Cable

Item	Specifications
Cable O.D.	ø12.0 to 14.0 mm
Wire gauge (Stranded	0.34 to 1.5 mm ²
wire cross section)	AWG22 to 16

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

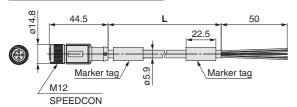
PCA-1564927 Straight 2 m PCA-1564930 Straight 6 m PCA-1564943 Right angled 2 m PCA-1564969 Right angled 6 m

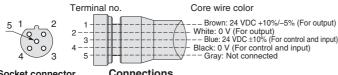


Angled connector type

SPEEDCON

Straight connector type





Socket connector pin arrangement B-coded (Reverse key)

White: 0 V (For output)

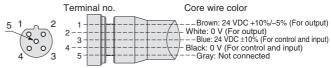
-- Blue: 24 VDC ±10% (For control and input)

Black: 0 V (For control and input)

-- Gray: Not connected Connections

Socket connector pin arrangement B-coded (Reverse key)

36.3 50 22.5 Marker tag Marker tag M12 ø14.8 SPEEDCON



Connections

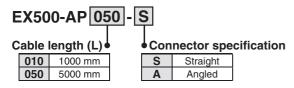
Item	Specifications
Cable O.D.	ø5.9 mm
Conductor nominal cross section	0.34 mm ² /AWG22
Wire O.D. (Including insulator)	1.27 mm
Min bending radius (Fixed)	59 mm



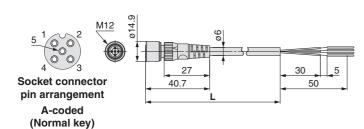
Accessories **EX600** Series

1 Power Supply Cable (M12 connector, For EX600-ED4/5)

* The shape of the M12 connector is A-coded (Normal key).

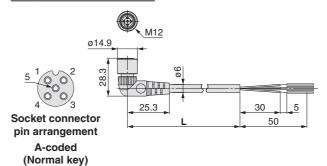


Straight connector type



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

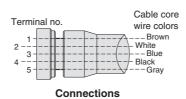
Angled connector type



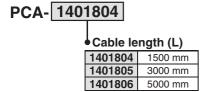
Specifications Item Cable O.D. ø6 mm Nominal cross section 0.3 mm²/AWG22 Wire diameter 1.5 mm (Including insulator)

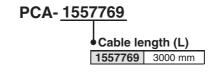
Min. bending radius

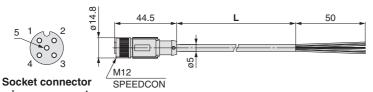
40 mm (Fixed)



SPEEDCON

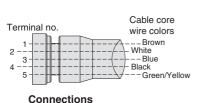






pin arrangement A-coded (Normal key)

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



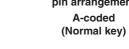
M12 M12 SPEEDCON SPEEDCON



Socket connector Connections pin arrangement

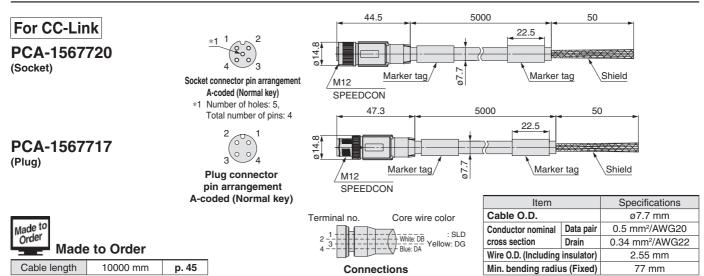
A-coded (Normal key)

Plug connector pin arrangement A-coded

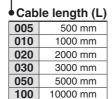




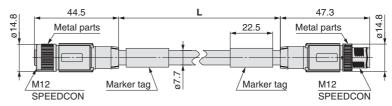
Communication Cable

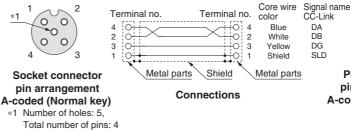


EX9-AC 005 MJ-SSPS (With connector on both sides (Socket/Plug))



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



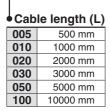


Plug connector pin arrangement A-coded (Normal key)

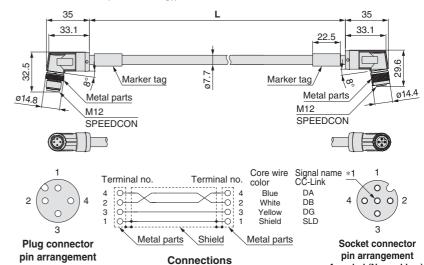
A-coded (Normal key)

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

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



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



A-coded (Normal key)

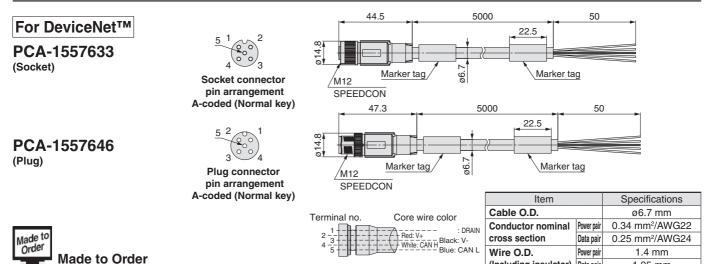
(Including insulator) Data pair

Min. bending radius (Fixed)

1.95 mm

67 mm

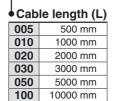
Communication Cable



Connections

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

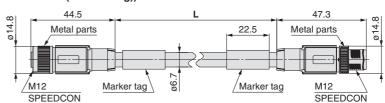
p. 45

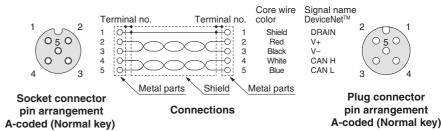


10000 mm

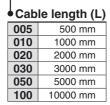
Cable length

Item		Specifications	
Cable O.D.		ø6.7 mm	
Conductor nominal	Power pair	0.34 mm ² /AWG22	
cross section Data pair		0.25 mm ² /AWG24	
Wire O.D.	Power pair	1.4 mm	
(Including insulator) Data pair		1.95 mm	
Min. bending radius (Fixed)		67 mm	

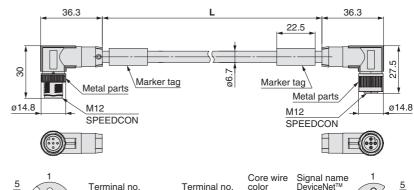


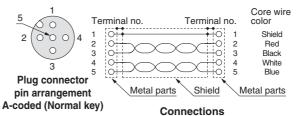


EX9-AC 005 DN-SAPA (With angled connector on both sides (Socket/Plug))



Item		Specifications	
Cable O.D.		ø6.7 mm	
Conductor nominal	Power pair	0.34 mm ² /AWG22	
cross section Data pair		0.25 mm ² /AWG24	
Wire O.D.	Power pair	1.4 mm	
(Including insulator)	Data pair	1.95 mm	
Min. bending radius (Fixed)		67 mm	





0

0

Socket connector

pin arrangement

A-coded (Normal key)

0 00

DRAIN

CAN H

V+

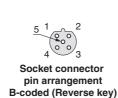
① Communication Cable



PCA-1557688

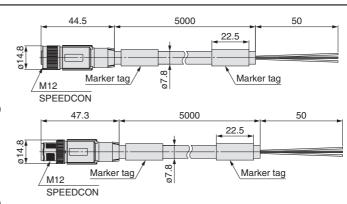
(Socket)

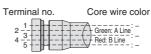
PCA-1557691 (Plug)





Plug connector pin arrangement B-coded (Reverse key)





Shield line is connected to the knurl. Connections

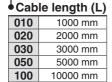
Item	Specifications		
Cable O.D. ø7.8 mm			
Conductor nominal cross section	0.34 mm ² /AWG22		
Wire O.D. (Including insulator)	2.55 mm		
Min. bending radius (Fixed)	78 mm		

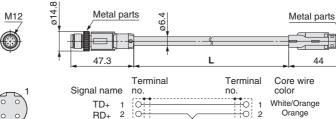
RJ-45

Plug connector

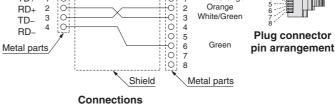
For EtherCAT[®] For PROFINET For EtherNet/IP™

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





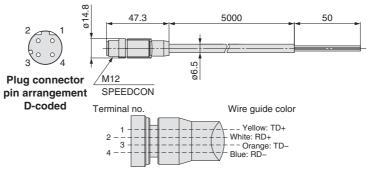
Plug connector pin arrangement D-coded



(Straight cable)

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

PCA-1446566 (Plug)



Connections

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



Wire O.D. (Including insulator)

Min. bending radius (Fixed)

Conductor nominal cross section

Wire O.D. (Including insulator)

Min. bending radius (Fixed)

1.55 mm

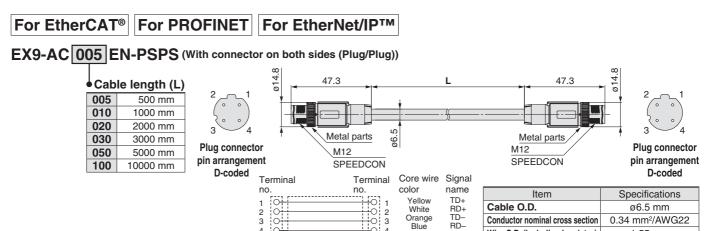
19.5 mm

0.34 mm²/AWG22

1.55 mm

19.5 mm

Communication Cable

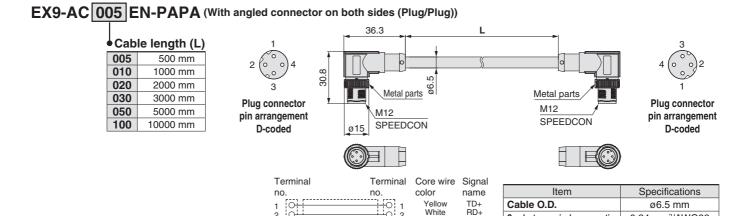


Connections (Straight cable)

Shield

Metal parts

Metal parts



₩

Shield

Orange Blue

Metal parts

TD-

Connections (Straight cable)

Metal parts

2

1 Communication Cable

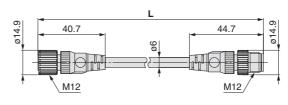
For IO-Link Master Unit

EX9-AC 005 -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



Socket connector pin arrangement A-coded (Normal key)





Plug connector pin arrangement A-coded (Normal key)

erminal no.		С	ore wire color
1 O		1 2 3 4 5	Brown White Blue Black Gray
Connections	s		

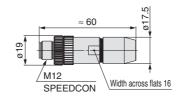
Item	Specifications	
Cable O.D.	ø6 mm	
Conductor nominal cross section	0.3 mm ² /AWG22	
Wire O.D. (Including conductor)	1.5 mm	
Min. bending radius (Fixed)	40 mm	

Prield-wireable Communication Connector

Plug

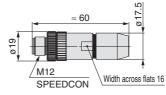
For CC-Link | For DeviceNet™ PCA-1075526 PCA-1075528





For PROFIBUS DP PCA-1075530





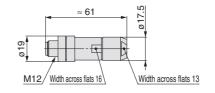
Applicable Cable Specifications Item Cable O.D. 4.0 to 8.0 mm 0.14 to 0.75 mm²/AWG26 to 18 Wire gauge (Solid cable/Flexible cable) (Stranded wire 0.08 to 0.5 mm²/AWG28 to 20 cross section) (With ferrule)

For EtherCAT® For PROFINET For EtherNet/IP™

PCA-1446553







Applicable Cable

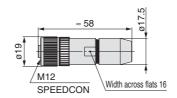
Item	Specifications
Cable O.D.	4.0 to 8.0 mm
Wire gauge (Stranded wire cross section)	0.14 to 0.34 mm ² /AWG26 to 22

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

Socket

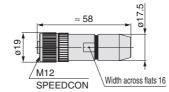
For CC-Link For DeviceNet™ PCA-1075527 PCA-1075529





For PROFIBUS DP PCA-1075531





Applicable Cable

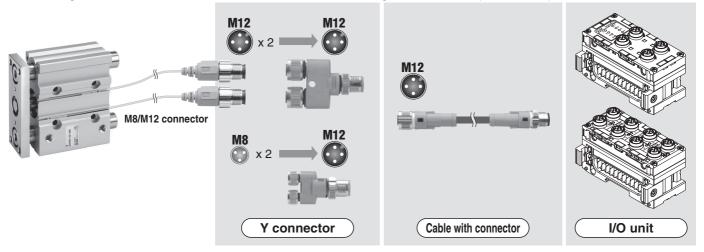
Item	Specifications	
Cable O.D.	4.0 to 8.0 mm	
Wire gauge (Stranded wire cross section)	0.14 to 0.75 mm²/AWG26 to 18 (Solid cable/Flexible cable) 0.08 to 0.5 mm²/AWG28 to 20 (With ferrule)	

1/O Cable with Connector, I/O Connector

For details, refer to the Web Catalog.

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	For concer	PCA-1557785	Y connector (2 x M12 (5 pins)-M12 (5 pins)/SPEEDCON)
	PCA-1557798	Y connector (2 x M8 (3 pins)-M12 (4 pins)/SPEEDCON)	

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



Made to Order

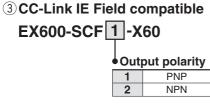
Please contact SMC for detailed specifications and lead times.

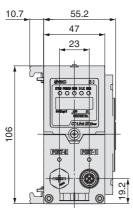


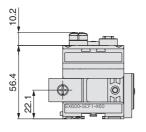
SI Unit

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

- 1 Ethernet POWERLINK compatible EX600-SPL1-X26
 - Dimensions are the same as those of the EX600-SEN3.







② Modbus/TCP compatible EX600-SMT1-X25

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

Communication Cable

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

For CC-Link For DeviceNet™

EX9-AC100 MJ -X12

Applicable protocol

MJ CC-Link

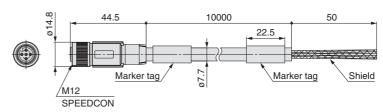
DN DeviceNet™



Socket connector pin arrangement A-coded (Normal key)

For CC-Link

Dimensions



Connections

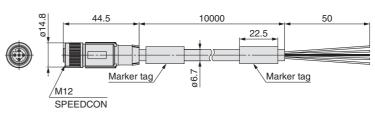
Terminal no.	Core wire color: Signal name (CC-Link)		
1	Shield: SLD		
2	White: DB		
3	Yellow: DG		
4	Blue: DA		
	4 = =		

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

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

For DeviceNet™

Dimensions





Socket connector pin arrangement A-coded (Normal key)

Connections

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

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



EX600 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.smcworld.com

Mounting

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

Operating Environment

∧ Caution

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

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

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

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

When the enclosure is IP 4 0 , do not use in an operating environment or atmosphere where it may come in contact with corrosive gas, chemical agents, seawater, water, or water vapor. When connected to the EX 6 0 0 -D \Box E or EX 6 0 0 -D \Box F, manifold enclosure is IP40.

Also, the handheld terminal conforms to IP 2 0 , so prevent foreign matter from entering inside, and water, solvent or oil from coming in direct contact with it.

Adjustment / Operation

Marning

<Handheld Terminal>

1. Do not apply pressure to the LCD.

There is a possibility of the crack of LCD and injuring.

The forced input/output function is used to change the signal status forcibly. When operating this function, be sure to check the safety of the surroundings and installation.

This may cause injuries or equipment damage.

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

This may cause injuries or equipment damage.

⚠ Caution

<Handheld Terminal>

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

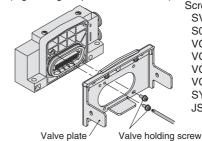
This may cause damage or equipment failure.

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

This may cause damage, equipment failure or malfunction.

When the order does not include the SI unit, a valve plate which connects the manifold and SI unit, is not mounted. Use attached valve holding screws and mount the valve plate.

(Tightening torque: 0.6 to 0.7 N·m)



Screw tightened parts SV series: 2 places S0700 series: 2 places VQC1000 series: 2 places VQC2000 series: 3 places VQC4000 series: 4 places VQC5000 series: 4 places SY series: 2 places JSY series: 2 places

■Trademark

DeviceNet[™] is a trademark of ODVA.

EtherNet/IP[™] is a trademark of ODVA.

EtherCAT[®] is registered trademark and patented technology, licensed by Beckhoff Automation GmbH, Germany. Modbus[®] is a registered trademark of Schneider Electric, licensed to the Modbus Organization, Inc. QuickConnect[™] is a trademark of ODVA.



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

Caution: Caution indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.

Warning: Warning indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.

⚠ Danger : Danger indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.

*1) ISO 4414: Pneumatic fluid power - General rules relating to systems. ISO 4413: Hydraulic fluid power – General rules relating to systems.

IEC 60204-1: Safety of machinery – Electrical equipment of machines. (Part 1: General requirements)

ISO 10218-1: Manipulating industrial robots - Safety.

⚠ 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 catalog information, with a view to giving due consideration to any possibility of equipment failure when configuring the equipment.

2. Only personnel with appropriate training should operate machinery and equipment.

The product specified here may become unsafe if handled incorrectly. The assembly, operation and maintenance of machines or equipment including our products must be performed by an operator who is appropriately trained and experienced.

- 3. Do not service or attempt to remove product and machinery/ equipment until safety is confirmed.
 - 1. The inspection and maintenance of machinery/equipment should only be performed after measures to prevent falling or runaway of the driven objects have been confirmed.
 - 2. When the product is to be removed, confirm that the safety measures as mentioned above are implemented and the power from any appropriate source is cut, and read and understand the specific product precautions of all relevant products carefully.
 - 3. Before machinery/equipment is restarted, take measures to prevent unexpected operation and malfunction.
- 4. Contact SMC beforehand and take special consideration of safety measures if the product is to be used in any of the following conditions.
 - 1. Conditions and environments outside of the given specifications, or use outdoors or in a place exposed to direct sunlight.
 - 2. Installation on equipment in conjunction with atomic energy, railways, air navigation, space, shipping, vehicles, military, medical treatment, combustion and recreation, or equipment in contact with food and beverages, emergency stop circuits, clutch and brake circuits in press applications, safety equipment or other applications unsuitable for the standard specifications described in the product catalog.
 - 3. An application which could have negative effects on people, property, or animals requiring special safety analysis.
 - 4. Use in an interlock circuit, which requires the provision of double interlock for possible failure by using a mechanical protective function, and periodical checks to confirm proper operation.

⚠ Caution

1. The product is provided for use in manufacturing industries.

The product herein described is basically provided for peaceful use in manufacturing industries.

If considering using the product in other industries, consult SMC beforehand and exchange specifications or a contract if necessary. If anything is unclear, contact your nearest sales branch.

Limited warranty and Disclaimer/ **Compliance Requirements**

The product used is subject to the following "Limited warranty and Disclaimer" and "Compliance Requirements".

Read and accept them before using the product.

Limited warranty and Disclaimer

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

A vacuum pad is a consumable part, so it is warranted for a year after it is delivered.

Also, even within the warranty period, the wear of a product due to the use of the vacuum pad or failure due to the deterioration of rubber material are not covered by the limited warranty.

Compliance Requirements

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

⚠ Caution

SMC products are not intended for use as instruments for legal metrology.

Measurement instruments that SMC manufactures or sells have not been qualified by type approval tests relevant to the metrology (measurement) laws of each country. Therefore, SMC products cannot be used for business or certification ordained by the metrology (measurement) laws of each country.

Revision History

OW

PX

RS

- Edition B * The EtherNet/IP™ communication protocol has been added.
 - * An analog output unit and an input/output unit have been added
 - A D-sub connector and a spring type terminal block have been added. * SY3000/5000 series valves have been added as applicable solenoid valves.
 - Number of pages has been decreased from 64 to 60.
 - * The EtherCAT® communication protocol has been added
- Edition D * The PROFINET communication protocol has been added. Edition E ∗ A dual port EtherNet/IP™ product has been added.

Edition F * The IO-Link master unit has been added.

- * SY7000 series valves have been added as applicable solenoid valves.
- JSY series valves have been added as connectable valves.
- * The "How to Order" and "Dimensions" pages of the connectable valves have been deleted.
- * An end plate (D side) and M12 (4/5 pins) A-coded power supply connectors have been added. Number of pages has been decreased from 68 to 48.

Edition G * An IO-Link master compatible SI unit has been added (PROFINET). ZR

A Safety Instructions Be sure to read the "Handling Precautions for SMC Products" (M-E03-3) and "Operation Manual" before use.

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