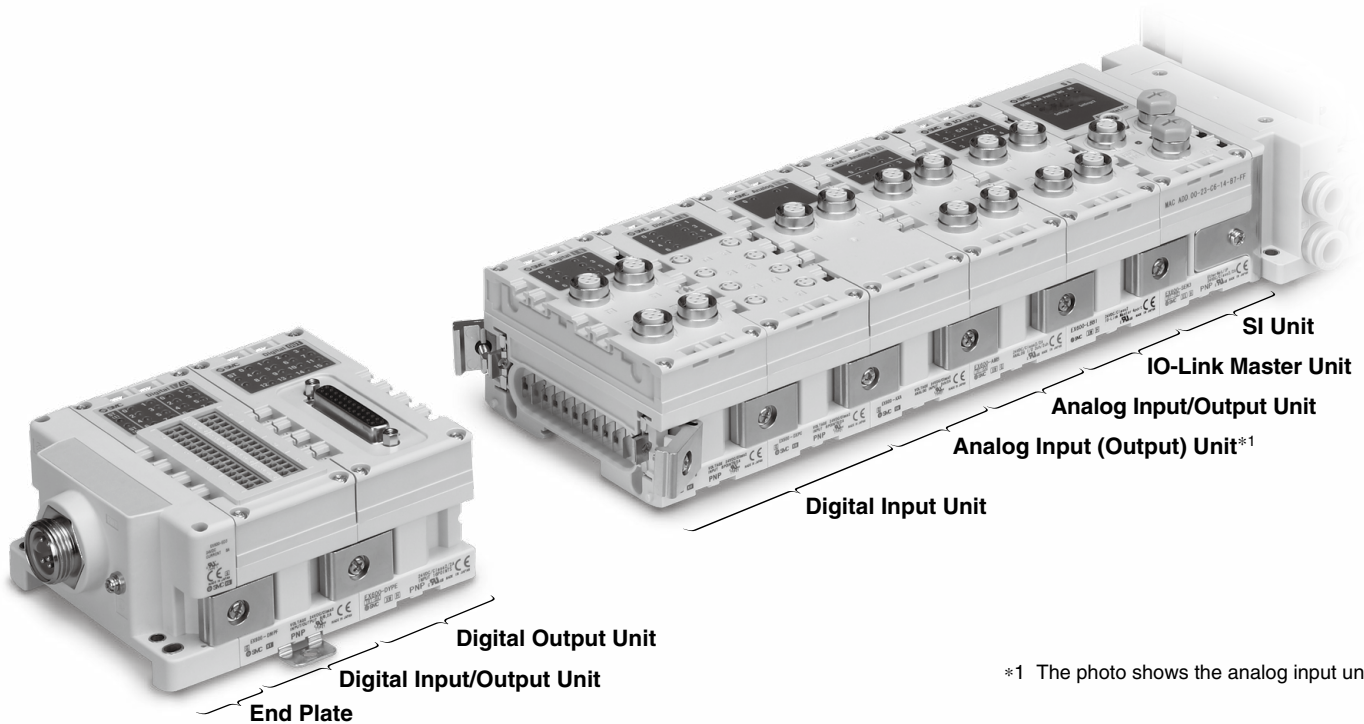


Fieldbus System For Input/Output

EX600 Series



Parts Structure



How to Order

SI Unit

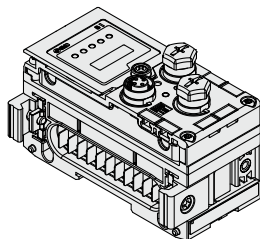
EX600-S PR1A-

Specifications

Symbol	Protocol	Output type	Note
PR1A	PROFIBUS DP	PNP (Negative common)	—
PR2A		NPN (Positive common)	—
DN1A	DeviceNet™	PNP (Negative common)	—
DN2A		NPN (Positive common)	—
MJ1	CC-Link	PNP (Negative common)	—
MJ2		NPN (Positive common)	—
CF1-X60	CC-Link IE Field	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		NPN(Positive common)	2 ports
EN3-X80		PNP (Negative common)	IO-Link master (Made to order)
EC1	EtherCAT	PNP (Negative common)	—
EC2		NPN (Positive common)	—
PN1	PROFINET	PNP (Negative common)	—
PN2		NPN (Positive common)	—
PN3		PNP (Negative common)	IO-Link master
PN4		NPN (Positive common)	IO-Link master

Made to order
(Refer to page 44.)

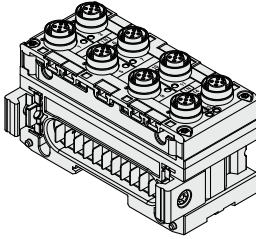
Ethernet POWERLINK
Modbus TCP
CC-Link IE Field
NPN (Positive common)



EX600 Series

How to Order

Digital Input Unit



EX600-DX P D

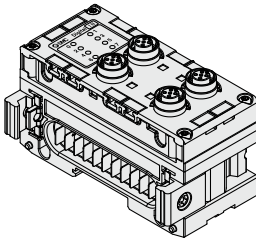
Input type

Symbol	Description
P	PNP
N	NPN

Number of inputs, open-circuit detection, and connector

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

Digital Output Unit



EX600-DY P B

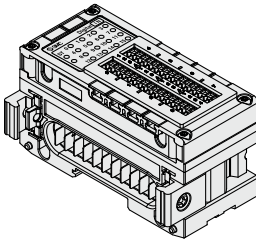
Output type

Symbol	Description
P	PNP
N	NPN

Number of outputs and connector

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

Digital Input/Output Unit



EX600-DM P F

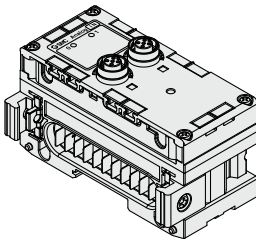
Input/Output type

Symbol	Description
P	PNP
N	NPN

Number of inputs/outputs and connector

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

Analog Input Unit



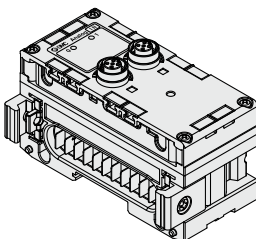
EX600-AX A

Analog input

Number of input channels and connector

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

Analog Output Unit



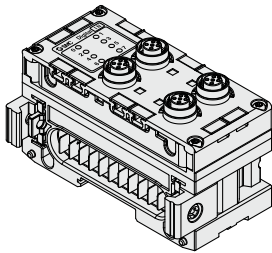
EX600-AY A

Analog output

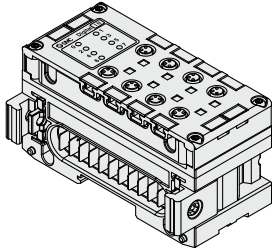
Number of output channels and connector

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

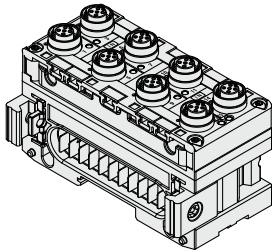
Specifications



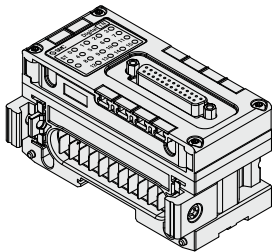
EX600-DX□B



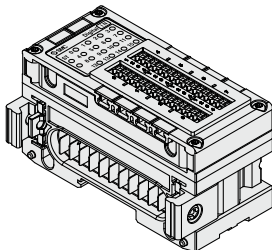
EX600-DX□C□



EX600-DX□D



EX600-DX□E



EX600-DX□F

Digital Input Unit

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

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

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

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

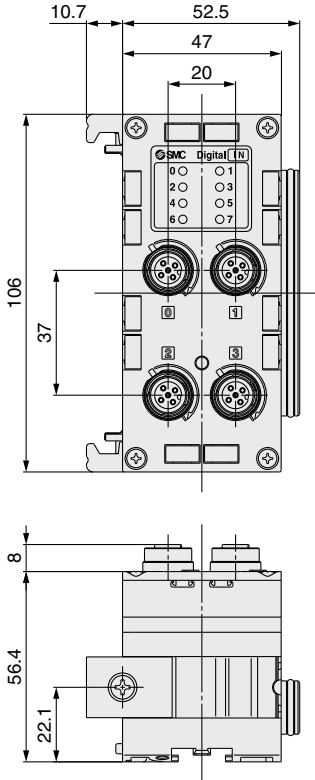
Model		EX600-DXPE	EX600-DXNE	EX600-DXPF	EX600-DXNF	
Input	Input type	PNP	NPN	PNP	NPN	
	Input connector	D-sub socket (25 pins) Lock screw: No.4-40 UNC		Spring type terminal block (32 pins)		
	Number of inputs	16 inputs		16 inputs (2 inputs x 8 blocks)		
	Supplied voltage	24 VDC				
	Max. supplied current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

EX600 Series

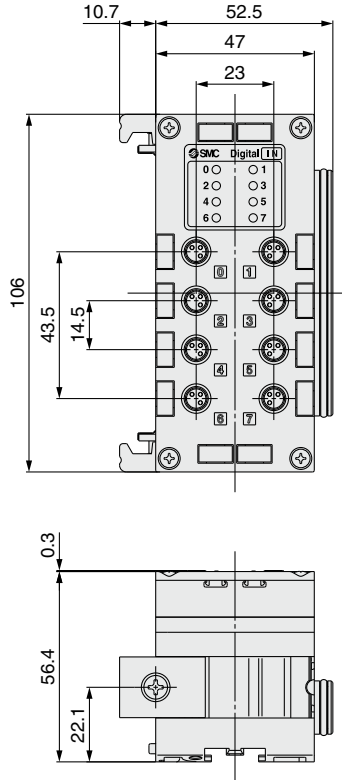
Dimensions

Digital Unit

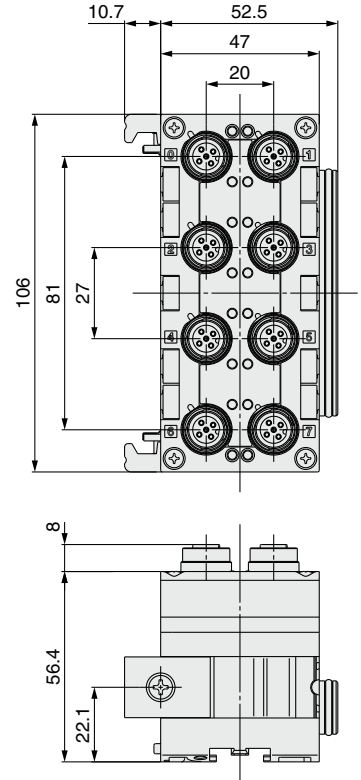
EX600-DX□B
EX600-DY□B



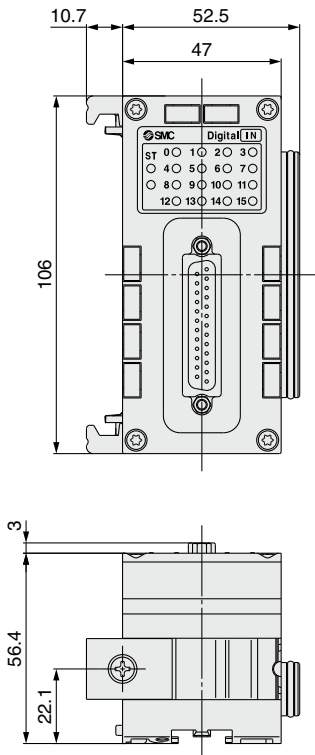
EX600-DX□C



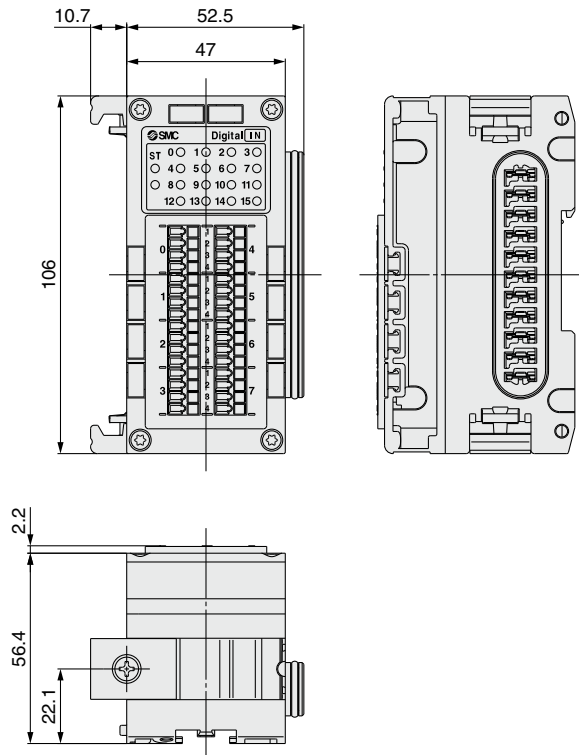
EX600-DX□D



EX600-DX□E
EX600-DY□E
EX600-DM□E



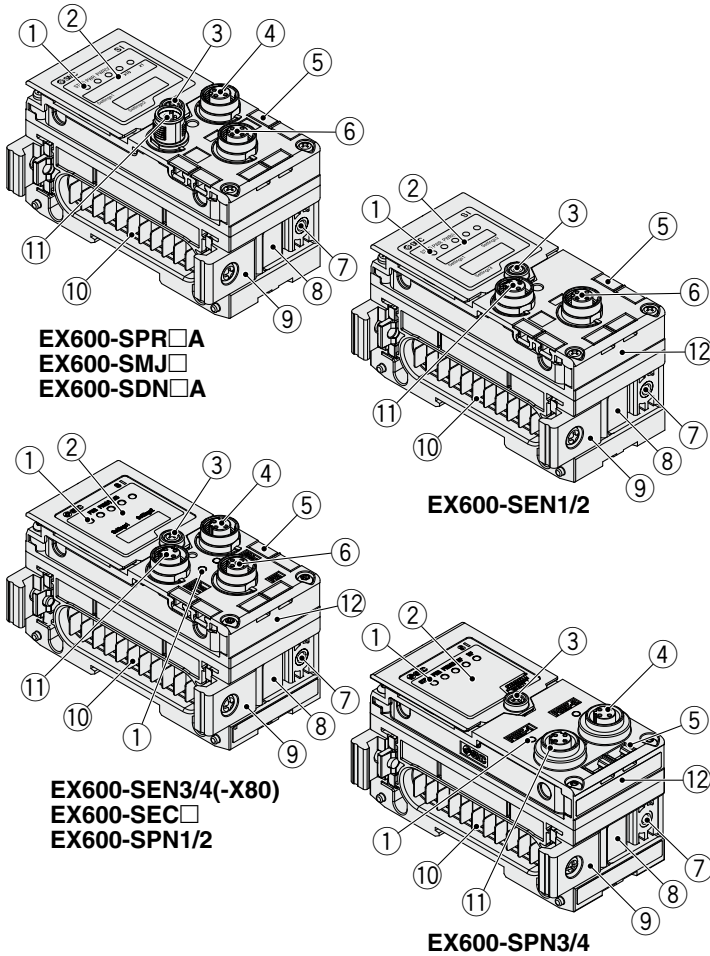
EX600-DX□F
EX600-DY□F
EX600-DM□F



EX600 Series

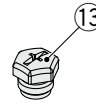
Parts Description

SI Unit

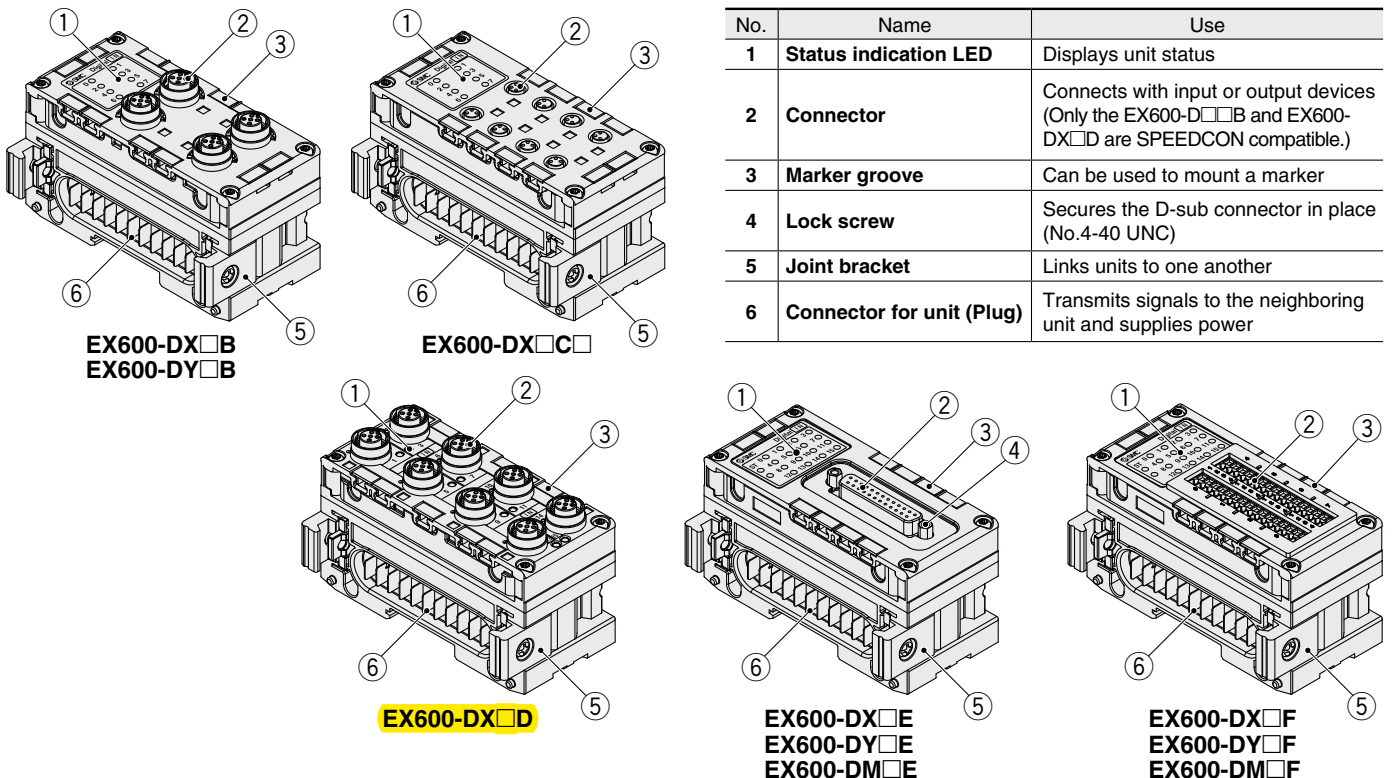


No.	Name	Use
1	Status indication LED	Displays unit status
2	Indication cover	Open for setting the switch.
3	Indication cover set screw	Loosen for opening the indication cover.
4	Connector (BUS OUT)	Connects to the fieldbus output cable (SPEEDCON)*1
5	Marker groove	Can be used to mount a marker
6	Connector (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 The EX600-SPN3/4 is not SPEEDCON compatible.
 *2 MAC address name plate is not provided on the EX600-SEC□.



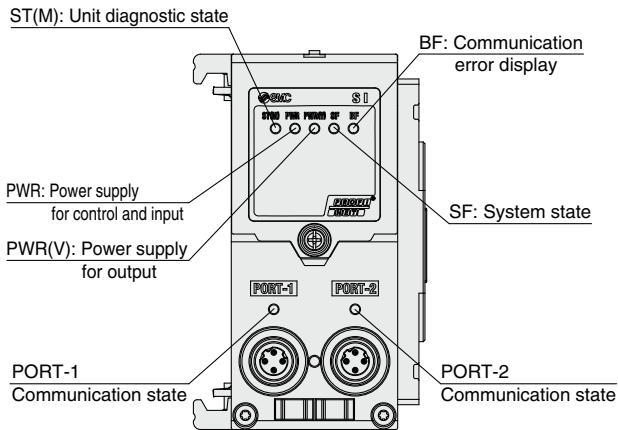
Digital Unit



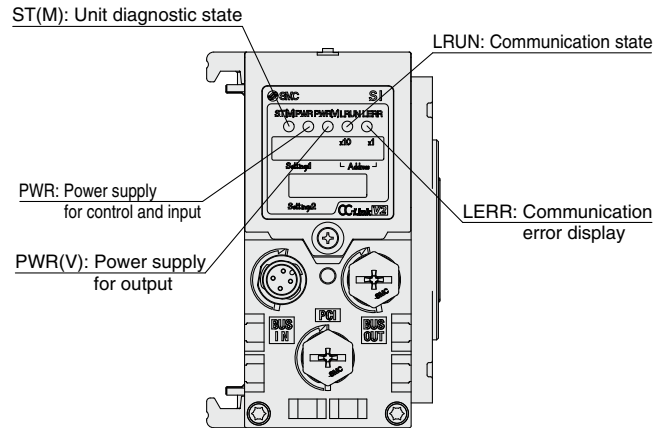
No.	Name	Use
1	Status indication LED	Displays unit status
2	Connector	Connects with input or output devices (Only the EX600-D□□B and EX600-DX□□ are SPEEDCON compatible.)
3	Marker groove	Can be used to mount a marker
4	Lock screw	Secures the D-sub connector in place (No.4-40 UNC)
5	Joint bracket	Links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

LED Indicator

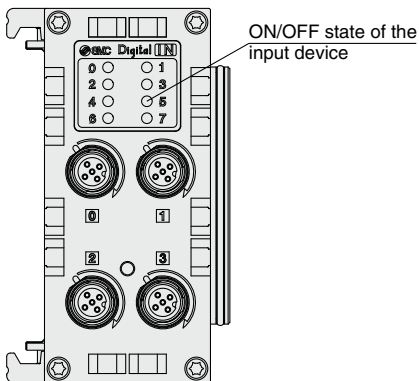
EX600-SPN3/SPN4



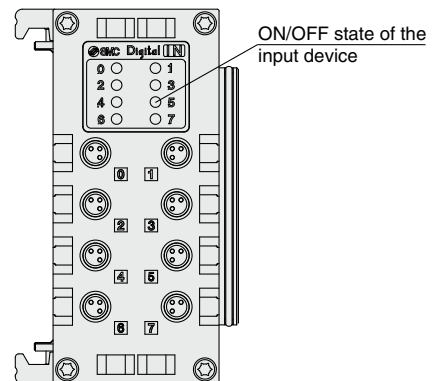
EX600-SMJ



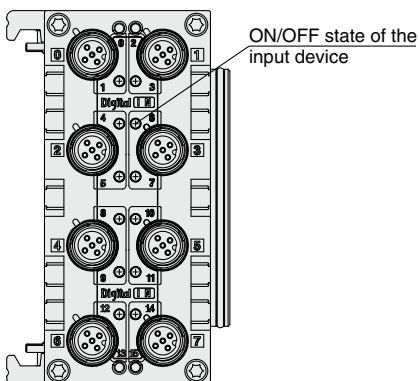
EX600-DX



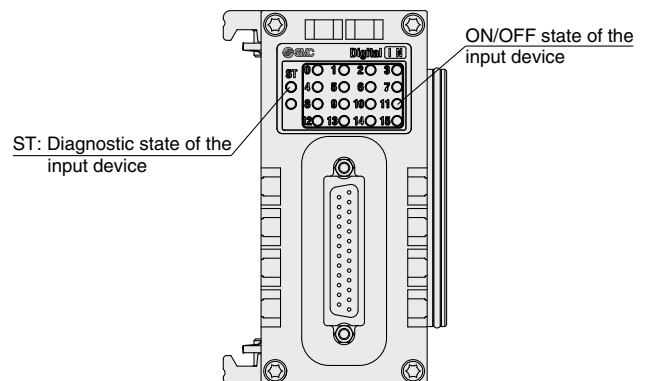
EX600-DX



EX600-DX



EX600-DX



EX600-DXPD Temporary Color Change

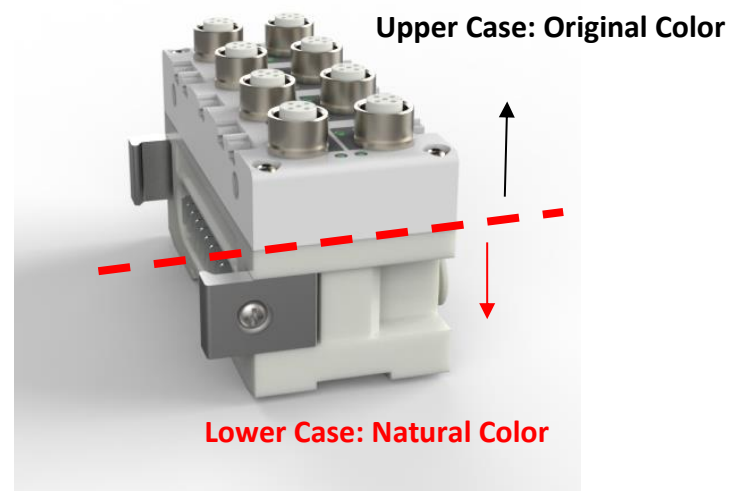
Dear valued partners,

Due to the shortage of coloring material, SMC will be implementing a temporary color change on the EX600-DXPD Digital Input Unit.

Applicable Product: EX600-DXPD

Details:

There has been a delay in supply of colorant used in the resin material of the EX600's case. To continue supply of the product, the color of the lower case will be temporarily changed to a natural tone. Please note that due to ongoing component shortages, the supply of this product is still limited. This change in color does not affect the quality, specification, and dimension of the product. Product part number and its UL/CE certification are not affected by the color change. Please refer to image below for details:



**This is a rendered image for illustration only. Color and material of actual product may differ from this image*

Period of change: Until the supply of original parts stabilizes.

Catalog: The catalog will not be modified as there is no change in the product except outer appearance. Please continue to order using the same part number. Other EX600 units are not affected by this color change at this time. Updated notice will be sent in the future when the situation changes.

Existing Order: Existing orders will be fulfilled with either color, whichever are available.

Please contact your SMC representative if you have any questions.
We appreciate your understanding and support, and we look forward to continuing our partnership.

SMC Corporation of America / SMC Automation Canada