

ATEX Compliant

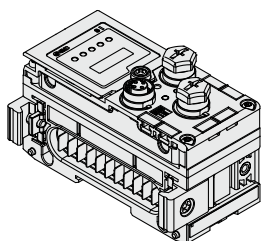
Fieldbus System

56-EX600 Series



How to Order

SI Unit



56-EX600-S **EN1** - X10

Protocol

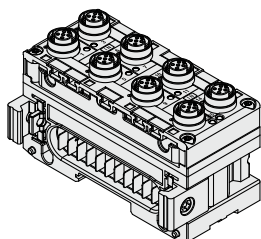
Symbol	Description
PR1A	PROFIBUS DP
EN1	EtherNet/IP™
PN1	PROFINET

CE II 3G Ex nA IIC T4 Gc -10°C ≤ Ta ≤ 50°C
II 3D Ex tc IIIC T82°C Dc IP67 (56-EX600-SPR1A-X10)

CE II 3G Ex nA IIC T4 Gc -10°C ≤ Ta ≤ 50°C
II 3D Ex tc IIIC T77°C Dc IP67 (56-EX600-SEN1-X10)

CE II 3G Ex nA IIC T4 Gc -10°C ≤ Ta ≤ 50°C
II 3D Ex tc IIIC T82°C Dc IP67 (56-EX600-SPN1-X10)

Digital Input Unit



56-EX600 **DXP D** X10

Input type PNP

Number of Inputs, Open circuit detection, and Connector

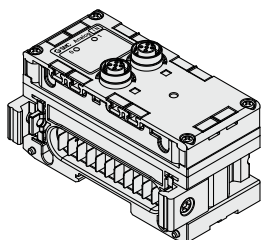
Symbol	Number of inputs	Open circuit detection	Connector
B	8 inputs	No	M12 connector (5 pins) 4 pcs.
C	8 inputs	No	M8 connector (3 pins) 8 pcs.
D	16 inputs	No	M12 connector (5 pins) 8 pcs.

CE II 3G Ex nA IIC T4 Gc -10°C ≤ Ta ≤ 50°C
II 3D Ex tc IIIC T82°C Dc IP67 (56-EX600-DXPB-X10)

CE II 3G Ex nA IIC T4 Gc -10°C ≤ Ta ≤ 50°C
II 3D Ex tc IIIC T82°C Dc IP67 (56-EX600-DXPC-X10)

CE II 3G Ex nA IIC T4 Gc -10°C ≤ Ta ≤ 50°C
II 3D Ex tc IIIC T86°C Dc IP67 (56-EX600-DXPD-X10)

Analog Input Unit



56-EX600-**AXA** - X10

Analog input

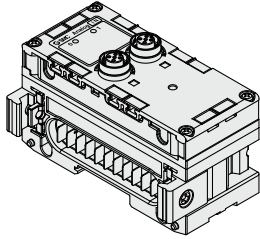
Number of Input channels and Connector

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

CE II 3G Ex nA IIC T4 Gc -10°C ≤ Ta ≤ 50°C
II 3D Ex tc IIIC T66°C Dc IP67

How to Order

Analog Output Unit 56-EX600-AY A-X10



Analog output

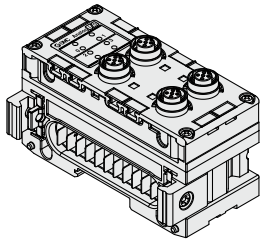
Number of Output channels and Connector

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

CE Ex II 3G Ex nA IIC T4 Gc -10°C ≤ Ta ≤ 50°C
II 3D Ex tc IIIC T67°C Dc IP67

Type 1
EX260
EX123/124/126

Analog Input/Output Unit 56-EX600-AM B-X10



Analog input/output

Number of Input/Output channels and Connector

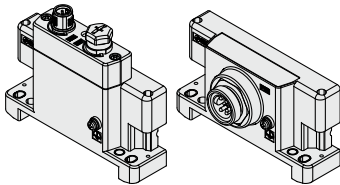
Symbol	Number of input channels	Number of output channels	Connector
B	2 channels	2 channels	M12 connector (5 pins) 4 pcs.

CE Ex II 3G Ex nA IIC T4 Gc -10°C ≤ Ta ≤ 50°C
II 3D Ex tc IIIC T76°C Dc IP67

Type 2
EX500
EX600

Type 3
EX245
EX250

End Plate 56-EX600-ED 2-2-X10



For M12

For 7/8 inch

End plate

End plate mounting position: D side

Power supply connector

Symbol	Power supply connector	Specifications
2	M12 (5 pins) B-coded	IN
3	7/8 inch (5 pins)	IN

Mounting method

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

Type 1
EX120/121/122

Type 1
EX140

Type 1
EX180

Type 2
EX510

M8/M12

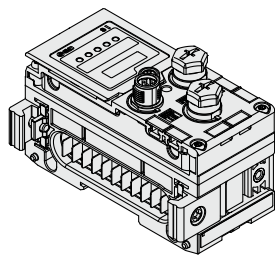
ATEX

Specifications

All Units Common Specifications

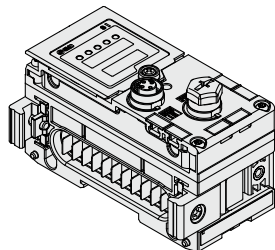
Environmental resistance	Operating temperature range	-10 to 50°C
	Storage temperature range	-20 to 60°C
	Operating humidity range	35 to 85%RH (No condensation)
	Withstand voltage	500 VAC for 1 minute between external terminals and FE
	Insulation resistance	500 VDC, 10 MΩ or more between external terminals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

SI Unit



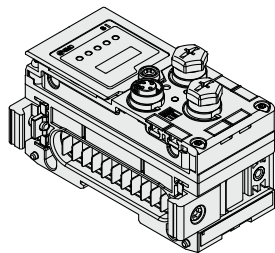
Model		56-EX600-SPR1A-X10
Communication	Protocol	PROFIBUS DP (DP-V0)
	Device type	PROFIBUS DP Slave
	Communication speed	9.6/19.2/45.45/93.75/187.5/500 kbps 1.5/3/6/12 Mbps
	Configuration file	GSD file
	Occupation area (Number of inputs/outputs)	Max. (512 inputs/512 outputs)
Terminating resistor		Internally implemented
Internal current consumption (Power supply for Control/Input)		80 mA or less
Output	Output type	Source/PNP (Negative common)
	Number of outputs	32 outputs (8/16/24/32 outputs selectable)
	Load	Solenoid valve with surge voltage suppressor 24 VDC, 1.5 W or less (SMC)
	Power supply	24 VDC, 2 A
	Fail safe	HOLD/CLEAR/Forced power ON
	Protection	Short-circuit protection
Enclosure		IP67 (Manifold assembly)
Weight		300 g

SI Unit



Model		56-EX600-SEN1-X10
Communication	Number of communication ports	1 port
	Protocol	EtherNet/IP™ (Conformance version: Composite 6)
	Communication speed	10/100 Mbps
	Communication method	Full duplex/Half duplex
	Configuration file	EDS file
	Occupation area (Number of inputs/outputs)	Max. (512 inputs/512 outputs)
	IP address setting range	SI unit switch settings: 192.168.0 or 1.1 to 254 Through DHCP server: Optional address
	Device information	Vendor ID: 7 (SMC Corporation) Device type: 12 (Communication Adapter) Product code: 126
Internal current consumption (Power supply for Control/Input)		120 mA or less
Output	Output type	Source/PNP (Negative common)
	Number of outputs	32 outputs (8/16/24/32 outputs selectable)
	Load	Solenoid valve with surge voltage suppressor 24 VDC, 1.5 W or less (SMC)
	Power supply	24 VDC, 2 A
	Fail safe	HOLD/CLEAR/Forced power ON
	Protection	Short-circuit protection
Enclosure		IP67 (Manifold assembly)
Weight		300 g

SI Unit



Model		56-EX600-SPN1-X10
Communication	Protocol	PROFINET IO (PROFINET RT)
	Communication speed	100 Mbps
	Configuration file	GSDML file
	Occupation area (Number of inputs/outputs)	Max. (512 inputs/512 outputs)
Internal current consumption (Power supply for Control/Input)		120 mA or less
Output	Output type	Source/PNP (Negative common)
	Number of outputs	32 outputs
	Load	Solenoid valve with surge voltage suppressor 24 VDC, 1.0 W or less (SMC)
	Power supply	24 VDC, 2 A
	Fail safe	HOLD/CLEAR/Forced power ON
	Protection	Short-circuit protection
Enclosure		IP67 (Manifold assembly)
Weight		300 g

Type 1

EX260
EX123/124/126

Type 2

EX500

Type 3

EX600

EX245

EX250

EX120/121/122

EX140

EX180

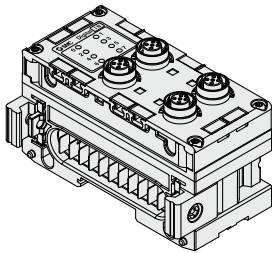
EX510

M8/M12

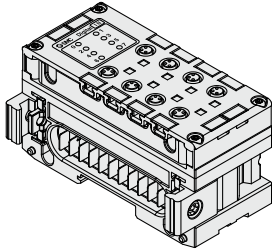
ATEX

56-EX600 Series

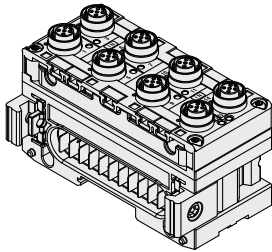
Specifications



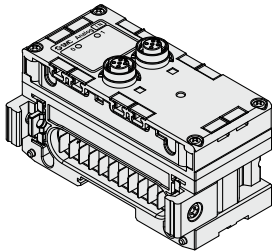
56-EX600-DXPB-X10



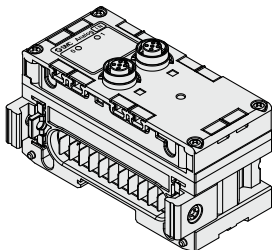
56-EX600-DXPC-X10



56-EX600-DXPD-X10



56-EX600-AXA-X10



56-EX600-AYA-X10

Digital Input Unit

Model		56-EX600-DXPB-X10	56-EX600-DXPC-X10	56-EX600-DXPD-X10
Input	Input type	PNP		
	Input connector	M12 (5-pin) socket*1	M8 (3-pin) socket*2	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)		
	Current consumption	50 mA or less	55 mA or less	70 mA or less
Enclosure	IP67 (Manifold assembly)			
Weight	300 g	275 g	340 g	

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

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

Analog Input Unit

Model		56-EX600-AXA-X10		
Input	Input type	Voltage input	Current input	
	Input connector	M12 (5-pin) socket*1		
	Input channel	2 channels (1 channel/Connector)		
	Supplied voltage	24 VDC		
	Max. supplied current	0.5 A/Connector		
	Protection	Short-circuit protection		
	Input signal range	12 bit resolution	0 to 10 V, 1 to 5 V, 0 to 5 V	0 to 20 mA, 4 to 20 mA
		16 bit resolution	-10 to 10 V, -5 to 5 V	-20 to 20 mA
	Max. rated input signal	\pm 15 V	\pm 22 mA*2	
	Input impedance	100 k Ω	50 Ω	
	Linearity (25°C)	\pm 0.05% F.S.		
	Repeatability (25°C)	\pm 0.15% F.S.		
	Absolute accuracy (25°C)	\pm 0.5% F.S.	\pm 0.6% F.S.	
	Current consumption	70 mA or less		
Enclosure	IP67 (Manifold assembly)			
Weight	290 g			

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

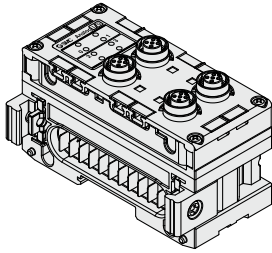
*2 When input signal exceeds 22 mA, the protection function activates and the input signal is interrupted.

Analog Output Unit

Model		56-EX600-AYA-X10		
Output	Output type	Voltage output	Current output	
	Output connector	M12 (5-pin) socket*1		
	Output channel	2 channels (1 channel/Connector)		
	Supplied voltage	24 VDC		
	Max. load current	0.5 A/Connector		
	Protection	Short-circuit protection		
	Output signal range	12 bit resolution	0 to 10 V, 1 to 5 V, 0 to 5 V	0 to 20 mA, 4 to 20 mA
		Load impedance	1 k Ω or more	600 Ω or less
	Linearity (25°C)	\pm 0.05% F.S.		
	Repeatability (25°C)	\pm 0.15% F.S.		
	Absolute accuracy (25°C)	\pm 0.5% F.S.	\pm 0.6% F.S.	
	Current consumption	70 mA or less		
	Enclosure	IP67 (Manifold assembly)		
	Weight	290 g		

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

Specifications



56-EX600-AMB-X10

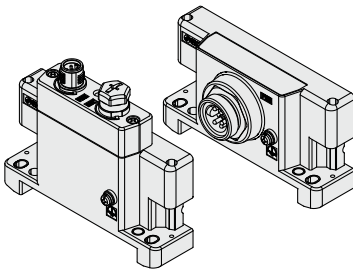
Analog Input/Output Unit

Model		56-EX600-AMB-X10	
Input	Input type	Voltage input	Current input
	Input connector	M12 (5-pin) socket*1	
	Input channel	2 channels (1 channel/Connector)	
	Supplied voltage	24 VDC	
	Max. supplied current	0.5 A/Connector	
	Protection	Short-circuit protection	
	Input signal range	12 bit resolution 0 to 10 V, 1 to 5 V, 0 to 5 V	0 to 20 mA, 4 to 20 mA
	Max. rated input signal	15 V	22 mA*2
	Input impedance	100 kΩ	250 Ω
	Linearity (25°C)	±0.05% F.S.	
	Repeatability (25°C)	±0.15% F.S.	
	Absolute accuracy (25°C)	±0.5% F.S.	±0.6% F.S.
	Output	Output type	Voltage output
Output connector		M12 (5-pin) socket*1	
Output channel		2 channels (1 channel/Connector)	
Supplied voltage		24 VDC	
Max. load current		0.5 A/Connector	
Protection		Short-circuit protection	
Output signal range		12 bit resolution 0 to 10 V, 1 to 5 V, 0 to 5 V	0 to 20 mA, 4 to 20 mA
Load impedance		1 kΩ or more	600 Ω or less
Linearity (25°C)		±0.05% F.S.	
Repeatability (25°C)		±0.15% F.S.	
Absolute accuracy (25°C)		±0.5% F.S.	±0.6% F.S.
Current consumption		100 mA or less	
Enclosure		IP67 (Manifold assembly)	
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.

56-EX600-ED3-□-X10



56-EX600-ED2-□-X10

End Plate

Model		56-EX600-ED2-□-X10	56-EX600-ED3-□-X10
Power specifications	Power supply connector	PWR IN M12 (5-pin) plug	PWR OUT 7/8 inch (5-pin) plug
	Rated voltage	Power supply for control/input	24 VDC ±10%
		Power supply for output	24 VDC +10/-5%
	Rated current	Power supply for control/input	Max. 2 A
Power supply for output			
Enclosure	IP67 (Manifold assembly)		
Weight	170 g	175 g	

Type 1
EX260
EX123/124/126Type 2
EX500Type 3
EX600

EX245

EX250

EX120/121/122

Type 1
EX140

EX180

Type 2
EX510

M8/M12

ATEX