



ORIGINAL INSTRUCTIONS

Instruction Manual

Fieldbus device – End plate unit

56-EX600-ED2-X10, 56-EX600-ED3-X10

56-EX600-ED2
II 3G Ex ec IIC T4 Gc -10°C ≤ Ta ≤ 50°C
II 3D Ex tc IIIC T72°C Dc IP67

56-EX600-ED3
II 3G Ex ec IIC T4 Gc -10°C ≤ Ta ≤ 50°C
II 3D Ex tc IIIC T77°C Dc IP67

The intended use of the end plate unit is to provide power to an SI unit and I/O modules for the control of pneumatic valves.

1 Safety Instructions

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

- Refer to product catalogue, Operation Manual and Handling Precautions for SMC Products for additional information.
- Keep this manual in a safe place for future reference.

	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.

Warning

- Always ensure compliance with relevant safety laws and standards.
- All work must be carried out in a safe manner by a qualified person in compliance with applicable national regulations.

Ex Marking Description	
II 3G Ex ec IIC T4 Gc -10°C ≤ Ta ≤ 50°C II 3D Ex tc IIIC T72°C Dc IP67	
Equipment Group II	tc - protected by enclosure
Category 3	IIIC - for all types of dust
Gas (G) and Dust (D) environment	T72°C - Max. surface temperature
Ex - European standards apply	Gc/Dc - Equipment Protection Level
ec – Increased safety	Ta - ambient temperature
IIC - for all types of gas	IP67 - Protection structure
T4 - Temperature classification	

Based on the conformity assessment carried out by SMC Corporation.

Certificate Number: SMC 20.0009 X

1 Safety Instructions (continued)

If the Certificate number includes an X, special conditions for safe use apply as follows:-

- Protect the product from sources of heat which can generate surface temperatures greater than the temperature classification.
- Protect the product and cable connections against all impact or mechanical damage using a suitable Ex compliant enclosure.
- Protect the product from direct sunlight or UV light using a suitable protective cover.
- Do not disconnect the M12 connectors before first switching OFF the power supply.
- Use only Ex approved connectors and use shielded cable to provide grounding.
- Use only a damp cloth to clean the product to avoid an electrostatic charge.

2 Specifications

- General specifications

Item	Specifications
Ambient temperature	-10 to +50 °C
Ambient humidity	35 to 85%RH (No condensate)
Ambient storage temperature	-20 to +60 °C
Withstand voltage	500 VAC applied for 1 minute
Insulation resistance	500 VDC, 10 MΩ or more

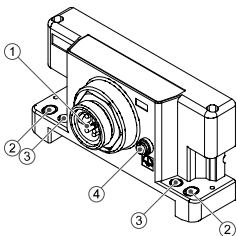
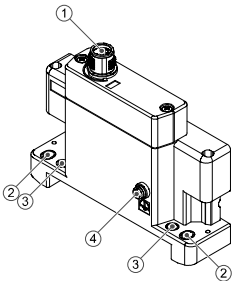
- Electrical specifications

Model	56-EX600-ED2	56-EX600-ED3
Power connector	M12 (5-pin) plug	7/8 inch (5-pin) plug
Power supply for control and input	24 VDC 2.0 A max.	24 VDC 8.0 A max.
Power supply for outputs	24 VDC 2.0 A max.	24 VDC 8.0 A max.

3 Name and function of Individual parts

56-EX600-ED2

56-EX600-ED3



No.	Part	Description
1	Power connector	Supply power to each unit and I/O device.
2	Mounting holes	Holes used for direct mounting.
3	DIN rail fixing hole	Holes used for DIN rail fixing.
4	F.E. terminal *	Functional Earth terminal, must be connected directly to the system earth (ground).

* Individual ground connection should be provided close to the product using a short cable.

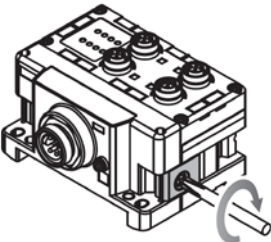
4 Assembly

4.1 Assembling the unit

Warning

Do not install the product unless the safety instructions have been read and understood.

- (1) Connect an I/O unit to the end plate.
Tighten the joint bracket to a torque of 1.5 to 1.6 N•m.



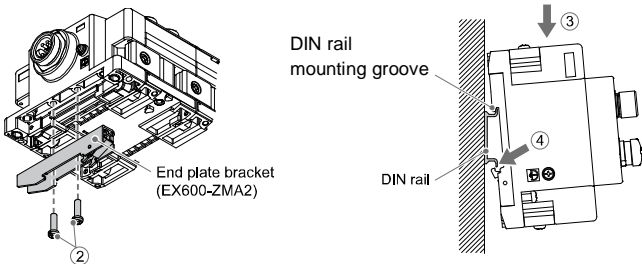
5 Installation

• Direct mounting

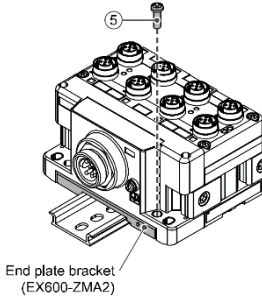
- (1) Mount and tighten the end plate at one end of the unit (M4 screws).
Tightening torque: 0.7 to 0.8 N•m.

• DIN rail mounting

- (1) Mount the end plate bracket (EX600-ZMA2) to the end plate using 2-M4 x 14 screws (Tightening torque: 0.7 to 0.8 N•m). For the SY series, use end plate bracket (EX600-ZMA3).



- (3) Hook the DIN rail mounting groove on to the DIN rail.
(4) Press the manifold using its side hooked to the DIN rail as a fulcrum until the manifold is locked onto the DIL rail.
(5) Fix the manifold by tightening the DIN rail fixing screws (M4 x 20) on the end plate bracket (Tightening torque: 0.7 to 0.8 N•m).



Refer to the valve series operation Manual on the SMC website (URL: <https://www.smcworld.com>) for the mounting method.

5.1 Wiring connections

• 56-EX600-ED2

Connector	Pin No.	Signal name
	1	24 V (output)
	2	0 V (output)
	3	24 V (control and input)
	4	0 V (control and input)
	5	FE

• 56-EX600-ED3

Connector	Pin No.	Signal name
	1	0 V (output)
	2	0 V (control and input)
	3	FE
	4	24 V (control and input)
	5	24 V (output)

Warning

- Be sure to fit a seal cap (EX9-AWTS) on any unused connectors. Proper use of the seal cap enables the enclosure to maintain IP67 specification.

5.2 Environment

Warning

- Do not use in an environment where corrosive gases, chemicals, salt water or steam are present.
- Do not install in a location subject to vibration or impact in excess of the product's specifications.
- Do not mount in a location exposed to radiant heat that would result in temperatures in excess of the product's specifications.

6 How to Order

Refer to the operation manual on the SMC website (URL: <https://www.smcworld.com>) for How to order information.

7 Outline Dimensions (mm)

Refer to the operation manual on the SMC website (URL: <https://www.smcworld.com>) for outline dimensions.

8 Maintenance

8.1 General Maintenance

Caution

- Not following proper maintenance procedures could cause the product to malfunction and lead to equipment damage.
- If handled improperly, compressed air can be dangerous.
- Maintenance of pneumatic systems should be performed only by qualified personnel.
- Before performing maintenance, turn off the power supply and be sure to cut off the supply pressure. Confirm that the air is released to atmosphere.
- After installation and maintenance, apply operating pressure and power to the equipment and perform appropriate functional and leakage tests to make sure the equipment is installed correctly.
- If any electrical connections are disturbed during maintenance, ensure they are reconnected correctly and safety checks are carried out as required to ensure continued compliance with applicable national regulations.
- Do not make any modification to the product.
- Do not disassemble the product, unless required by installation or maintenance instructions
- Stop operation if the product does not function correctly.

9 Limitations of Use

9.1 Limited warranty and Disclaimer/Compliance Requirements

Refer to Handling Precautions for SMC Products.

10 Product disposal

This product should not be disposed of as municipal waste. Check your local regulations and guidelines to dispose of this product correctly, in order to reduce the impact on human health and the environment.

11 Contacts

Refer to www.smcworld.com or www.smc.eu for your local distributor / importer.

SMC Corporation

URL: <https://www.smcworld.com> (Global) <https://www.smc.eu> (Europe)
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Specifications are subject to change without prior notice from the manufacturer.
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