



## Installation & Maintenance Manual

### Fieldbus system - End plate

#### Type 56-EX600-ED2 / 56-EX600-ED3

56-EX600-ED2

CE II 3G Ex nA IIC T4 Gc X -10°C ≤ Ta ≤ 50°C  
II 3D Ex tc IIIC T72°C Dc X IP67

56-EX600-ED3

CE II 3G Ex nA IIC T4 Gc X -10°C ≤ Ta ≤ 50°C  
II 3D Ex tc IIIC T77°C Dc X IP67

### 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), Japan Industrial Standards (JIS) and other safety regulations.

	<b>Caution</b>	CAUTION indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.
	<b>Warning</b>	WARNING indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.
	<b>Danger</b>	DANGER indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.

This product is class A equipment that is intended for use in an industrial environment.

There may be potential difficulties in ensuring electromagnetic compatibility in other environments due to conducted as well as radiated disturbances.

### Warning

- **Do not disassemble, modify (including changing the printed circuit board) or repair.**  
An injury or failure can result.
- **Do not operate the product outside of the specifications.**  
Do not use for flammable or harmful fluids.  
Fire, malfunction, or damage to the product can result.  
Verify the specifications before use.
- **Do not operate in an atmosphere containing flammable or explosive gases.**  
Fire or an explosion can result.  
This product is suitable for ATEX category 3 only.
- **If using the product in an interlocking circuit:**  
• Provide a double interlocking system, for example a mechanical system.  
• Check the product regularly for proper operation.  
Otherwise malfunction can result, causing an accident.
- **The following instructions must be followed during maintenance:**  
• Turn off the power supply.  
• Stop the air supply, exhaust the residual pressure and verify that the air is released before performing maintenance.  
Otherwise an injury can result.

### Caution

- **When handling, assembling or replacing the unit:**  
• Avoid touching any sharp metal parts of the connectors for connecting units.  
• When assembling units, take care not to get any fingers caught between units. Injury can result.  
• When disassembling units, take care to avoid excessive force.  
The connection parts of the unit are firmly joined with seals and injury can result.

### Safety Instructions (Continued)

#### Caution (Continued)

- **After maintenance is complete, perform appropriate functional inspections.**  
Stop operation if the equipment does not function properly.  
Safety cannot be assured in the case of unexpected malfunction.
- **Provide grounding to assure the safety and noise resistance of the Fieldbus system.**  
Individual grounding should be provided close to the product with a short cable.

#### ATEX Marking Description

II 3G Ex nA IIC T4 Gc X -10°C ≤ Ta ≤ 50°C  
II 3D Ex tc IIIC T72°C Dc X 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
nA - Non-sparking apparatus	X - special conditions, see instructions
IIC - for all types of gas	Ta - ambient temperature
T4 - Temperature classification	IP67 - Protection structure

#### Special Conditions Notes

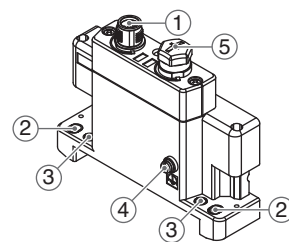
The product should be used within the range of specifications given below and in the product catalogue.

If labelled with X special conditions apply:

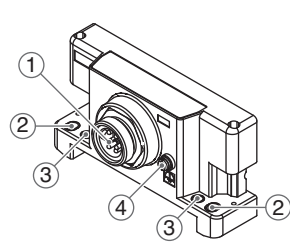
1. Protect the product from sources of heat which can generate surface temperatures higher than the temperature classification.
2. Protect the product and cables against all impact or mechanical damage using a suitable ATEX compliant enclosure.
3. Protect the product from direct sunlight or UV light using a suitable protective cover.
4. Do not disconnect the connectors before first switching off the power supply.
5. Use only ATEX approved connectors and use only shielded cable to provide grounding.
6. Use only a damp cloth to clean the product body, to avoid an electrostatic charge.

### Summary of Product parts

•56-EX600-ED2



•56-EX600-ED3

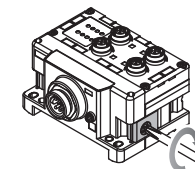


No.	Description	Function
1	Power connector	Connector for power supply to SI unit and I/O units.
2	Fixing hole for direct mounting	Holes for direct mounting.
3	DIN rail fixing hole	Holes for DIN rail mounting.
4	FE terminal	Terminal for ground connection.
5	Connector (Not used)	Unused connector. Do not remove seal cap.

### Assembly

#### Assembling the unit as a manifold

- Connect a unit to the end plate.  
Tighten the joint brackets to a torque of 1.5 to 1.6 Nm.



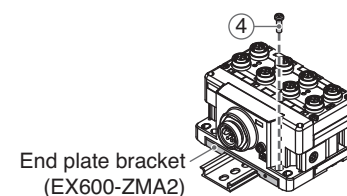
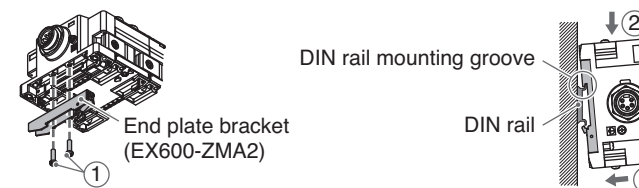
### Mounting and Installation

#### Installation

- **Direct mounting**  
Mount and tighten the end plate at one end of the unit. (M4)  
Tightening torque: 0.7 to 0.8 Nm.

- **DIN rail mounting**  
(Not available for SY series valves. Refer to the SY catalogue.)

- (1) Mount the end plate bracket (EX600-ZMA2) to the end plate at the opposite end to the valves, using 2-M4x14 screws.  
Tightening torque: 0.7 to 0.8 Nm.
- (2) Hook the DIN rail mounting groove on to the DIN rail.
- (3) Press the manifold using its side hooked to the DIN rail as a fulcrum until the manifold is locked.
- (4) Fix the manifold by tightening the DIN rail fixing screws of the EX600-ZMA2. (M4x20)  
Tightening torque: 0.7 to 0.8 Nm.



#### Wiring

- Connect M12 connector or 7/8 inch connector cable. M12 connector is applicable for SPEEDCON connector.

- Connector pin assignment

•56-EX600-ED2

Configuration	Pin number	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

Configuration	Pin number	Signal name
	1	0 V (Output)
	2	0 V (Control and input)
	3	FE
	4	24 V (Control and input)
	5	24 V (Output)

Refer to the SMC website (URL <http://www.smcworld.com>) to obtain more detailed information about mounting and installation.

### Specification

Model	56-EX600-ED2	56-EX600-ED3
Power supply (Control and input)	24 VDC, 2 A	24 VDC, 8A
Power supply (Output)	24 VDC, 2 A	24 VDC, 8A
Operating temperature range	-10 to 50 °C (Max. surrounding air temperature rating: 50 °C)	
Storage temperature range	-20 to 60 °C	
ATEX Classification	56-EX600-ED2 II 3G Ex nA IIC T4 Gc X -10°C ≤ Ta ≤ 50°C II 3D Ex tc IIIC T72°C Dc X IP67 56-EX600-ED3 II 3G Ex nA IIC T4 Gc X -10°C ≤ Ta ≤ 50°C II 3D Ex tc IIIC T77°C Dc X IP67	
Pollution degree	For use in Pollution Degree 3 Environment	

Refer to the product catalogue or SMC website (URL <http://www.smcworld.com>) to obtain more detailed information about product specifications.

### Maintenance

- Maintenance should be performed according to the Safety Instructions.
- Perform regular maintenance and inspections.  
There is a risk of unexpected malfunction.
- Do not use solvents such as benzene, thinner etc. to clean each unit.  
They could damage the surface of the body and erase the markings on the body.  
Use a soft cloth to remove stains.  
For heavy stains, use a cloth soaked with diluted neutral detergent and fully squeezed, then wipe up the stains again with a dry cloth.

Refer to the SMC website (URL <http://www.smcworld.com>) to obtain more detailed information about maintenance.

### Outline with Dimensions

Refer to the product catalogue or SMC website (URL <http://www.smcworld.com>) to obtain more detailed information about outline dimensions.

### Contacts

AUSTRIA	(43) 2262 62280-0	LATVIA	(371) 781 77 00
BELGIUM	(32) 3 355 1464	LITHUANIA	(370) 5 264 8126
BULGARIA	(359) 2 974 4492	NETHERLANDS	(31) 20 531 8888
CZECH REP.	(420) 541 424 611	NORWAY	(47) 67 12 90 20
DENMARK	(45) 7025 2900	POLAND	(48) 22 211 9600
ESTONIA	(372) 651 0370	PORTUGAL	(351) 21 471 1880
FINLAND	(358) 207 513513	ROMANIA	(40) 21 320 5111
FRANCE	(33) 1 6476 1000	SLOVAKIA	(421) 2 444 56725
GERMANY	(49) 6103 4020	SLOVENIA	(386) 73 885 412
GREECE	(30) 210 271 7265	SPAIN	(34) 945 184 100
HUNGARY	(36) 23 511 390	SWEDEN	(46) 8 603 1200
IRELAND	(353) 1 403 9000	SWITZERLAND	(41) 52 396 3131
ITALY	(39) 02 92711	UNITED KINGDOM	(44) 1908 563888

## SMC Corporation

URL <http://www.smcworld.com> (Global) <http://www.smceu.com> (Europe)

Specifications are subject to change without prior notice from the manufacturer.  
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