

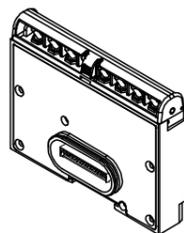


ORIGINAL INSTRUCTIONS

## Instruction Manual

## Fieldbus device – Signal Cut block

## EX9-SC1# / EX9-SC2#



The intended use of this product is to control pneumatic valves using a manual switch while connected between an SI unit and valve manifold.

## 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)<sup>1)</sup>, and other safety regulations.

- <sup>1)</sup> 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.

	<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.

## 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.

## Caution

- Provide grounding to assure the noise resistance of the Fieldbus system. Individual grounding should be provided close to the product using a short cable.
- Refer to the operation manual on the SMC website (URL: <https://www.smcworld.com>) for further Safety Instructions.
- Special products (-X) might have specifications different from those shown in the specifications section. Contact SMC for specific drawings.

## 2 Specifications

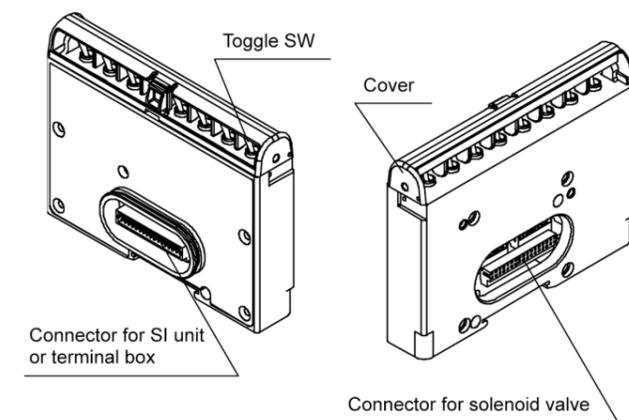
## 2.1 General specifications

Item	Specifications
Ambient temperature	-10 to +55 °C
Ambient humidity	35 to 85%RH (No condensate)
Storage temperature	-20 to +60 °C
Withstand voltage	1500 VAC applied for 1 minute
Insulation resistance	500 VDC, 10 MΩ or more
Operating atmosphere	No corrosive gas
Enclosure	IP67
Weight	250 g

## 2.2 Electrical specification

Item	Specifications	
Power current range	Insulation voltage	12, 24 VDC ±10% (compliant with solenoid specification)
	Insulation current	2 A or less in total (compliant with solenoid specification)
Solenoid valve connection	Insulation method	With mechanical toggle switch
	Connected Load	12 to 24 VDC and 2.1 W or less Solenoid valve with surge voltage protection (manufactured by SMC).

## 3 Name and function of parts



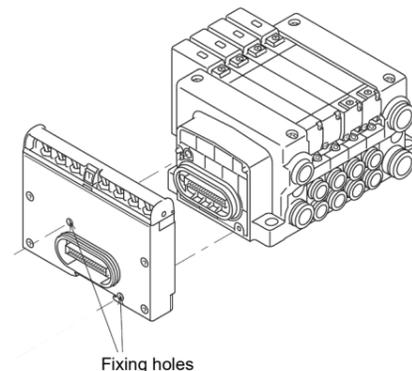
Part	Description
Connector for SI unit or terminal box	To be connected to the SI unit or terminal box.
Connector for solenoid valve	To be connected to the solenoid valve.
Toggle SW	Switch to cut the signal from the SI unit or terminal box.
Cover	Cover to protect the toggle switches and prevent operation failure.

## 4 Installation

## 4.1 Installation

## Warning

- Do not install the product unless the safety instructions have been read and understood.
- Be sure to turn OFF the power.
- Check there is no foreign matter inside the units.
- Check there is no damage and no foreign matter stuck to the gasket.
- Assemble the SI unit and Signal Cut block together with the valve manifold following the installation method for each SI unit and valve manifold.
- Tighten the tie rods to the specified tightening torque: 0.6 N•m.



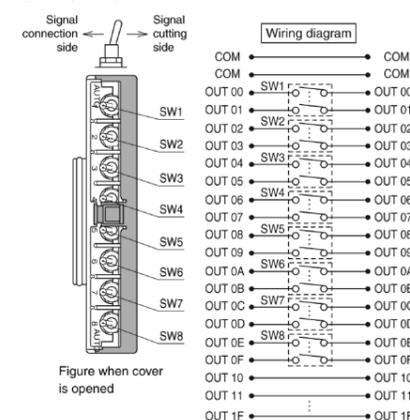
## 4.2 Environment

## Warning

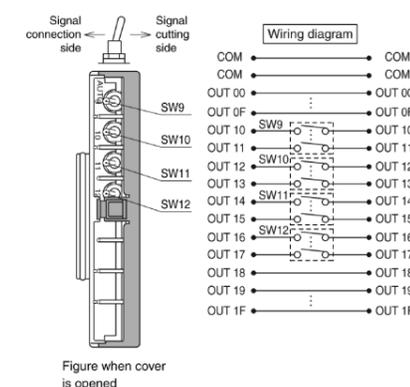
- Do not use in an environment where corrosive gases, chemicals, salt water or steam are present.
- Do not use in an explosive atmosphere.
- Do not expose to direct sunlight. Use a suitable protective cover.
- Do not install in a location subject to vibration or impact in excess of the product's specifications.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

## 5 Wiring

## EX9-SC1-8

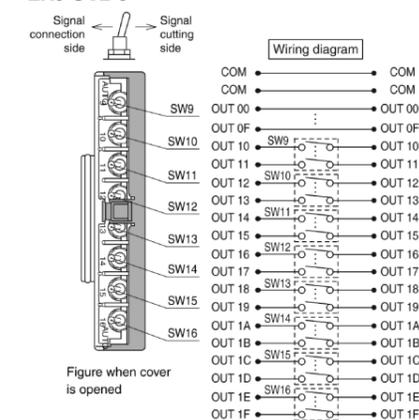


## EX9-SC2-4



## 5 Wiring (continued)

## EX9-SC2-8



## 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

- 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 shall 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](http://www.smcworld.com) or [www.smc.eu](http://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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