

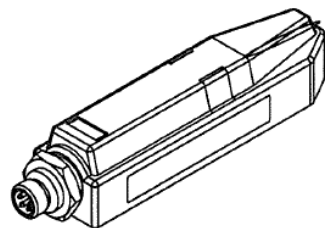


ORIGINAL INSTRUCTIONS

## Instruction Manual

### SMC Wireless Adaptor

#### Series EXW1-A11N-X1



The intended use of this product is to provide a wireless communication between wireless adaptors via a wired connection using Air Management Hub.

## 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.

## 2 Specifications

### 2.1 General specifications

Item	Specification
Enclosure rating	IP67
Ambient operating temperature	-10 to +50°C
Ambient storage temperature	-20 to +60°C
Ambient humidity	35 to 85% RH (no condensation)
Withstand voltage	500 VAC for 1 minute between external terminals (including the FE terminal) and enclosure screws
Insulation resistance	10 MΩ or more (500 VDC between external terminals (including the FE terminal) and enclosure screws)
Vibration resistance	EN61131-2 compliant: 5 ≤ f < 8.4 Hz 3.5 mm 8.4 ≤ f < 150 Hz 9.8 m/s <sup>2</sup>
Impact resistance	EN61131-2 compliant: 147 m/s <sup>2</sup> , 11 ms
Weight	30 g

## 2 Specifications (continued)

### 2.2 Electrical specifications

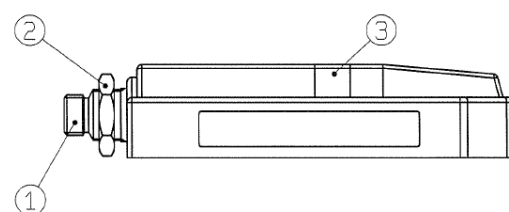
Item	Specification
Power supply voltage for control	12 VDC -10% to 24 VDC +10%
Current consumption	50 mA or less

### 2.3 Wireless Communication specifications

Item	Specifications
Protocol	SMC original protocol (SMC encryption)
Radio wave type (spread)	Frequency Hopping Spread Spectrum (FHSS)
Frequency band	2.4 GHz (2403 to 2481 MHz)
Frequency channels	79 ch (Bandwidth: 1.0 MHz)
Communication speed	1 Mbps
Communication distance	Up to 100 m line of sight (Depends on the environment)
Radio Law certificates	Refer to the operation manual.

## 3 Name and Function of parts

### • Wireless Adaptor



No.	Item	Description
1	Connector	M8 connector for cable to wireless base or remote.
2	Nut	For fixing to Air Management Hub.
3	LED display	Indicates the status of the adaptor.

## 4 Installation

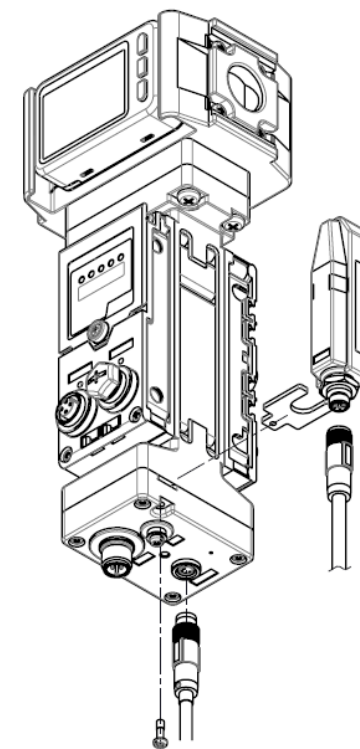
### 4.1 Installation

#### Warning

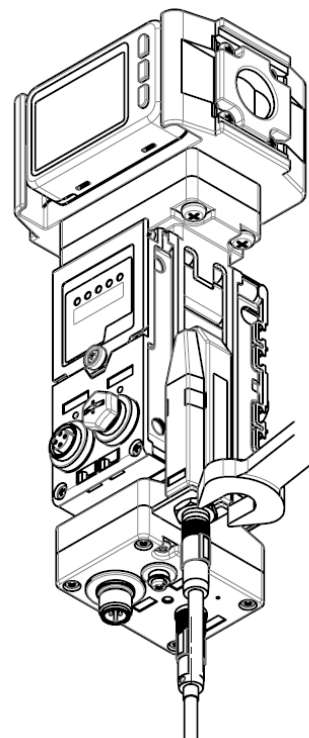
- Do not install the product unless the safety instructions have been read and understood.

### 4.2 Mounting

Mount the wireless adaptor bracket to the Air Management Hub using the screw attached to the Air Management Hub. (Recommended torque: 0.3 ±10% N·m). Then attach the cable EXW1-AC1-X1 to the wireless adaptor and Air Management Hub. (When inserting the cable into the Wireless adaptor, use an insertion force of 10 N or less).



Mount the adaptor to the bracket of the Air Management Hub using the M10 nut already installed to the wireless adaptor (Recommended torque: 0.9 ±10% N·m).



## 4 Installation (continued)

### 4.3 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

### 5.1 Wiring Connections

#### • Connector

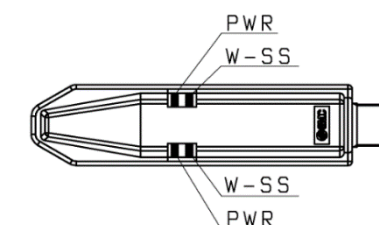
No.	Signal	M8, 4-pin, plug	
		A-coded	
1	24 V (US1)	2	4
2	Internal Bus B	1	3
3	0 V (US1)		
4	Internal Bus A		

#### Caution

- The EXW1-AC1-X1 is the cable which should be used for connection to the Air Management Hub. Radio laws require cables to be less than 3 m long, shielded and twisted pairs.

## 6 LED Display

- The LED indicators on the wireless adaptor indicate the power supply, communication and diagnostic status.



LED	LED Colour	Operation
PWR	Green LED ON	US1 (for control) power supply is ON
	Red LED ON	Unrecoverable error is detected.
	OFF	US1 (for control) power supply is OFF
W-SS	Green LED ON	The level of received radio wave power is 3.
	Green LED flashing (1 Hz)	The level of received radio wave power is 2.
	Green LED flashing (2 Hz)	The level of received radio wave power is 1.
	Red LED flashing	No Remotes are connected.
	OFF	Wireless Base or Remote is not registered.

## 7 How to Order

To obtain information about this product, please contact SMC.

## 8 Outline Dimensions (mm)

To obtain information about this product, please contact SMC.

## 9 Maintenance

### 9.1 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.

## 10 Limitations of Use

### 10.1 Limited warranty and Disclaimer/Compliance Requirements

Refer to Handling Precautions for SMC Products.

#### NOTE

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

#### • Influence of radio frequency on implantable medical devices:

The radio frequency generated by this product may give an adverse effect on implantable medical devices, such as implantable cardiac pacemakers and implantable cardioverter defibrillators. Please read catalogues or instruction manuals of the equipment and device which may be affected by radio frequencies for any instructions for use or contact their manufacturers.

## 11 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.

## 12 Contacts

Refer to [www.smcworld.com](https://www.smcworld.com) or [www.smc.eu](https://www.smc.eu) for your local distributor / importer.

## SMC Corporation

URL: <https://www.smcworld.com> (Global) <https://www.smceu.com> (Europe)  
 SMC Corporation, 4-14-1, Sotokanda, Chiyoda-ku, Tokyo 101-0021, Japan  
 Specifications are subject to change without prior notice from the manufacturer.  
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