



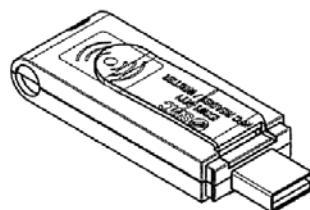
ORIGINAL INSTRUCTIONS

# Instruction Manual

## Wireless System

### NFC Reader / Writer

#### Series EXW1-NT1



The intended use of this product is to communicate with the SMC wireless system for configuration purposes using NFC communication.

## 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>(\*)</sup>, and other safety regulations.

<sup>(\*)</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: Robots and robotic devices - Safety requirements for industrial robots - Part 1: Robots.

- 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.
- This product communicates using radio waves, and the communication may stop instantaneously due to the ambient environment and operating methods. SMC will not be responsible for any secondary failure which may cause an accident or cause damage to other devices or equipment.
- Precaution for static electricity  
If the ambient air is dry a large amount of static electricity is generated in the human body, etc., and it will be applied to the product, which may cause malfunction or operation failure. Before using the product, discharge static electricity from the human body, IC card, etc.
- This device is class B information technology equipment. Although this device is for use in a home environment, using this device near a radio or television may cause poor reception. Follow the operation manual to handle the product correctly.
- This product is specified as a designated induction type read/write communication system based on the Radio Act. The frequency used is the 13.56 MHz band. Modifying and disassembling this product and erasing the model number on the back of this product are punishable by law. To use multiple NFC readers/writers close to one another, leave a one-meter space or more between them. In addition, make sure that there is no other wireless equipment around that uses the same frequency band before using this product.

## 2 Specifications

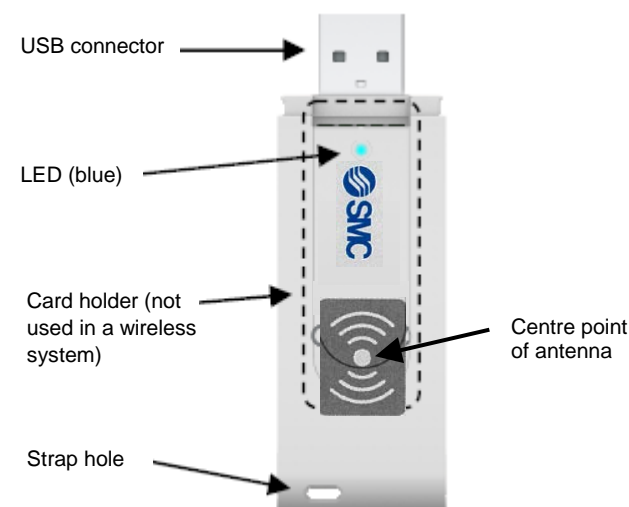
### 2.1 NFC Reader / Writer specifications

Model	EXW1-NT1
Applicable models	Wireless System EXW1 series Wireless System EX600-W series
Corresponding card	ISO 14443 compliant, Type B
Interface	USB2.0 Full speed (12 Mbps) * USB3.0, operable with 1.1
Power supply	USB bus power
Voltage	5 V
Power consumption	Maximum 250 mA
Dimensions [mm]	72 (L) × 24 (W) × 10 (H)
Weight	Approx. 12.5 g
Operating temperature	-10°C to 70°C
Operating humidity	95% R.H. (no condensation)
Accreditation body	RoHS, REACH
Compatible OS	Windows 8.1 / Windows 10 * Please visit the official SMC website for the latest compatible OS.

### Warning

Special products (-X) might have specifications different from those shown in this section. Contact SMC for specific drawings.

## 3 Name and function of parts



LED status	Definition
Flashing rapidly	- The wireless unit is recognized and the NFC reader / writer is communicating with the PC.
ON	- For several seconds after supplying power to the NFC reader/writer. - The wireless unit is recognized.
OFF	- The wireless unit is not recognized. - Connection failure of the USB connector. Malfunction of the NFC reader / writer. Abnormality is present.

## 4 Installation

### 4.1 Installation

#### Warning

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

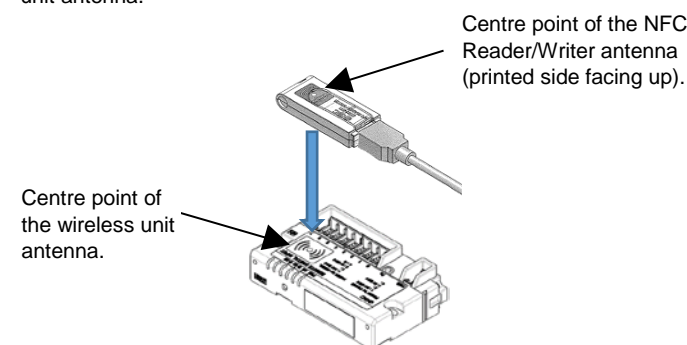
### 4.2 Environment

#### 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 use in a location exposed to radiant heat that would result in temperatures in excess of the product's specifications.

### 4.3 Installation

- Connect the USB connector of the NFC Reader / Writer to the female connector of the USB extension cable and then connect the male connector of the USB extension cable to the PC.
- Hold the NFC Reader / Writer near the wireless unit with the side on which the centre point of the antenna is printed facing up and then place it onto the wireless unit with the centre point of the NFC Reader/Writer antenna positioned at the centre point of the wireless unit antenna.



- Mounting bracket**

To fix the NFC Reader/Writer onto a wireless unit to perform the Read / Write operation, an optional mounting bracket is available. Refer to the operation manual on the SMC website (<https://www.smcworld.com>) for further details.

### 4.4 Handling precautions

- The read/write function may not function correctly depending on the operating environment. In that case, remove and then insert the USB cable.
- Use of scan targets (cards) for the NFC reader / writer is the responsibility of the user.
- The product may not function properly on a metal desk, such as iron.
- If multiple scan targets (cards) are set, this product will not function properly.
- Do not apply excessive shock to the product, such as dropping or hitting the product or pulling the cable with force.
- SMC accepts no responsibility whatsoever for any damage or loss resulting from data loss or corruption during the use of this product.

## 5 Settings

### 5.1 Upgrade of the firmware

The firmware of the EXW1-NT1 may need to be upgraded depending on the OS and IC card. Refer to the operation manual on the SMC website (<https://www.smcworld.com>) for further details.

### 5.2 Download and Installation of the Driver software

- Windows OS has a general-purpose NFC reader/writer driver software installed. However, for the use of the SMC NFC reader / writer, please install the driver software in accordance with the procedure described in this document and operation manual before use.
- Downloading the driver software

## 5 Settings (continued)

The driver software for the NFC reader / writer can be downloaded from the instruction manuals page for the EXW1-NT1 on the SMC website (<https://www.smcworld.com>).

- Windows 8.1 / Windows 10

When the PC is connected to the Internet, driver software is automatically installed.

Install the driver software again following the steps below.

The Windows OS starts installation of the driver by connecting the EXW1-NT1 to the USB port of the PC.

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

## 6 How to Order

Refer to catalogue or operation manual on the SMC website (<https://www.smcworld.com>) for 'How to Order'.

## 7 Outline Dimensions

Refer to catalogue or operation manual on the SMC website (<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.
- Disconnect the NFC reader / writer from the connection port before maintenance.
- Clean the product with a dry cloth.  
Do not use chemicals such as alcohol or glass cleaner. This may cause discoloration or change the properties.

## 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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