TWM-1887

Wireless Input / Output Module
Installation & User Manual

teknim®
Fire and Security Technologies

Release Date: 13/12/2021
Rev:02

Warnings

General

- ✓ Read this manual with care before operating the device and keep it for further reference.
- ✓ Comply with all warnings and measures provided in the manual. Follow all respective operation and usage instructions.
- ✓ Keep the devices away from water and moisture.

Environmental Conditions

Do not operate the device in extremely hot and cold environments other than the following conditions.
Temperature: Between -10°C and +55°C
Relative Humidity: Max. 95% RH

Service

Do not attempt to repair the device on your own, you may be exposed to electric shock in case you open the device enclosure.
Contact your dealer or authorized service provider in case of a malfunction. Technical interventions to the device must be carried out by a qualified technician from an authorized service provider.

Warning: Do not attempt to take the board out of its enclosure protection. It is sealed for your safety. Users must avoid intervention.

Failures That Require Service Intervention

Contact your authorized service provider or installer in case of a failure or in following cases.

- ✓ If the power line or power plug is damaged,
- ✓ Any liquid leaking or a foreign substance entering the device,
- ✓ Any exposure to water or rain,
- ✓ Dropping the device or damaging the enclosure,
- ✓ If there is significant performance change in the device,
- ✓ If the device is not operating normally according to the operating instructions in this user manual

Please call your service provider as incorrect operations may cause further malfunctions.

What You Can Do On Your Own

Do not attempt to repair the device on your own, you may be exposed to electric shock in case you open the device enclosure. Contact your dealer or authorized service provider in case of a malfunction. Technical interventions to the device must be carried out by trained technical personnel of authorized service. The device must be cleaned with a dry cloth. No chemical substances must be used for cleaning purposes.

Handling and Transportation

The device should be handled carefully so that it is not exposed to shocks and liquid ingress. Damages that may occur during incorrect transportation are not covered by the warranty.

Human and Environment Health

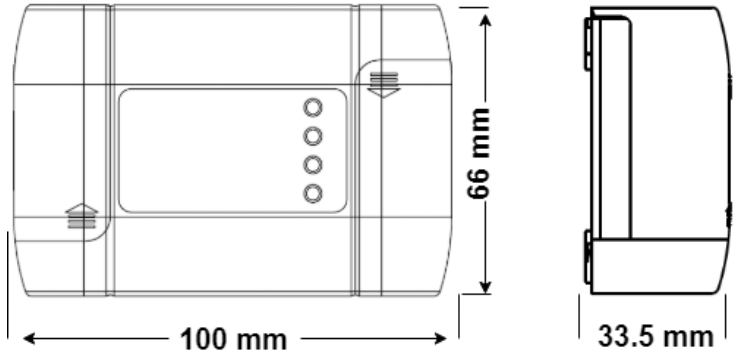
This device does not contain any chemical or biological substance that may harm human health.

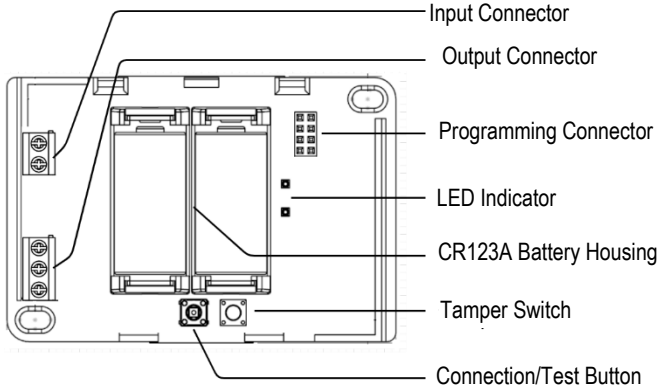
General Features

- ✓ TLPWAN low power consumption, two-way safe and stable wireless communication protocol
- ✓ Standard, low cost lithium battery
- ✓ Up to 10 years battery life
- ✓ Support 1x dry contact output, can be programmable from the panel
- ✓ Support 1x dry contact input
- ✓ EN54-18, EN54-25 Certified

Technical Specifications

Communication Distance (via Coordinator or Router)	Up to 500 m (open area)
Operating Frequency	868 MHz
Operating Frequency Channels	10
Output Power	14 dBm (25 mW)
Average Consumption	15uA (@3V)
Battery	2xCR123A (3 Vdc)
Battery Life	Up to 5 years (20s Ping Time) Up to 10 years (120s Ping Time)
Input Line EOL Resistance	33K
Input Alarm Resistance	10K
Operating Temperature Range	-10°C ~ 55°C (14°F ~ 131°F)
Humidity	95% RH (max.)
Size (mm)	100x66x33.5mm
Housing Material	White Color, ABS Plastic
Weight	90gr





Indicator LEDs

Condition	LED Signal Pattern
Any error situation (Open Circuit, Tamper etc.)	Green LED blinks once in every 10 seconds
Device in normal operation mode	Green LED blinks once in every 20 seconds
Alarm mode	Red LED blinks once in every 2 seconds
Low battery warning	Orange LED blinks once in every 20 seconds
Network connection-disconnection Result of operation	Green LED blinks twice in every 2 seconds Affirmative, green LED lights for 3 seconds Not Affirmative, red LED lights for 3 seconds
Connection quality	Connection Quality is Good; Green LED blinks 3 times Connection Quality is Medium; Green LED blinks 2 times Connection Quality is Poor; Green LED blinks once No Connection; Red LED blinks once

Network Connection Procedure

In order for a device to join the network, that device must not have been included in any network before. Whether the device has joined any network or not can be determined by the link test. Follow the steps below for connecting the device to a network.

1. The connection permission on the coordinator or on the router must be on before the device is connected to a network. Turn on the connection permission on the coordinator or on the router.
2. Press long (for 5 seconds) on the "Connection/Test" button located under the device.
3. The device will start the connection procedure automatically. This procedure takes about 20 to 60 seconds. The green LED will blink twice every 2 seconds during the procedure.
4. At the end of the procedure, the green LED will light for 3 seconds if the connection procedure is successful, and the red LED will light for 3 seconds if the connection procedure is not successful.

Warning: After adding the device to the network, proceed the link test at the location of the device will work. If there is no connection in the link test, the system will not work properly. In this case, change the location of the device.

Disconnection Procedure

Disconnection of the device from the network can be done both on the coordinator and on the device. Follow the steps below for disconnecting the device from a network.

1. Press long (for 5 seconds) on the "Connection/Test" button located under the device.
2. The device will start the disconnection procedure automatically. The green LED will light for 3 seconds at the end of the procedure.

Link Test

It is possible to measure the link quality between the device and the connected coordinator or router. For this, press shortly on the "Connection/Test" button located under the device. If the device is connected to a network, the LEDs will light as noted below at the end of the procedure

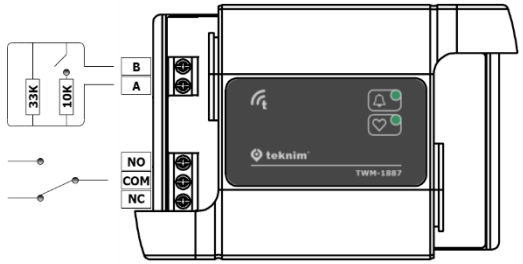
Link Kalitesi (RSSI)	LED Signal Pattern
RSSI > -60 dBm	Connection Quality is Good; Green LED blinks 3 times
-60 dBm > RSSI > -75 dBm	Connection Quality is Medium; Green LED blinks 2 times
-75 dBm > RSSI > -90 dBm	Connection Quality is Poor; Green LED blinks once
-90 dBm > RSSI	No Connection; Red LED blinks once

Warning: If no LED lights at the end of the Link Test, this means the device is not connected to any coordinator or router.

Input Output Connections

Device can be used both for Dry Input Monitoring and Output Controlling.
(R_s) 33K is being used for EOL resistance and (R_{alarm}) 10K is being used for alarm resistance.
Relay contacts are 30Vdc 2A Form C.

Terminal	Description
NO	Normally open
NC	Normally closed
COM	Common
A	Input
B	Input



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EN 54-18:2005, EN 54-18:2005/AC:2007
Fire Detection And Fire Alarm Systems (Input/Output Devices)
EN 54-25:2008, EN 54-25:2008/AC:2010, EN 54-25:2008/AC:2012
Components Using Radio Links
TWM-1887

Manufacturer

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RoHS

*In compliance with AEEE regulations. This product is manufactured with recyclable and reusable high quality parts and materials. Do not dispose of the product together with domestic or other wastes at the end of its service lifetime. Take it to a drop-off point for the recycling of electrical and electronic devices.