# Wireless linkable smoke alarm coordinator QR-NA12V



# SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE!

This manual contains important information for the correct installation and use of the product. Please read this information carefully and retain the instruction for future reference.

QR-NA12V coordinator to establish a connection between a network of ASD-10QR smoke alarms and an external device, powerd by 12V, such as a fire- or intruder control panel.

#### **BASIC FUNCTIONS**

- Compatible with all alarm control panels
- Connection to the control panel through a dry contact
- Creates a wireless network with up to 23 smoke alarms
- One button operation for all modes
- Compact size
- Self-healing feature
- LED indication
- · Ability to amplify the signal through an antenna
- Made in Europe

#### **SPECIFICATIONS**

Input voltage: 9V to 15V

RF frequency: 868.100 (<1% duty cycle)

RF power: +14 dBm max

RF range: Up to 120 m. open space With external antenna: Up to 300 m. open space

NO / NC contact:

with active load: 1A/30VDC; 0.5A/125VAC

Max. switching power: 30W (1A/30VDC), 62.5VA (0.3A/125VAC)

Max. switching voltage: 110VDC Max. switching current: 1A DC Operating temperature: 0°C to + 55°C



- 1. Antenna connector (ANT)
- Selection of NO/NC (normally open/normally closed) contact XP1
- 3. NO/NC contact (COM)
- 4. Test button (TEST)
- 5. Power supply terminal (12V)
- 6. Mode LED indication (HL1)

**Caution!** Never touch the PCB without using an antistatic wrist strap or antistatic gloves. By doing so you can damage the product due to electrostatic discharge.

#### **CONNECTION PROCEDURE**

Connect the QR-NA12V to the alarm control panel and power it. Upon successful joining, the QR-NA12V enters Standby mode, which is indicated by one blink of the LED indicator every 3-4 seconds. When powered and corret connected , upon receiving an event signal from one of the smoke alarms in the network, the QR-NA12V switches to "Fire" mode. The LED indicator blinks every 1 second. Depending on the type and requirements of the control panel, the coordinator allows connection through a normally open (NO) or normally closed (NC) contact.

## PROCEDURE OF JOINING THE QR-NA12V TO A SECURITY EXCHANGE:

- jumper XP1 (fig. 1, pos. 2) sets the use of a normally open (NO) or normally closed (NC) contact
- via the COM terminal (fig. 1, item 3) a free area of the control unit is connected
- via the 12V terminal (fig. 1, item 5) the supply voltage from the central unit with a nominal value of 12V is connected, observing the polarity

#### ATTENTION!

With a normally closed contact, if the wires are interchanged when connecting to the COM terminal and the 12V terminal, it is possible to damage the security unit's power supply.

## **SELF-RECOVERY MODE**

Resetting the "Fire" mode and switching back to the Standby mode (disengaging the relay) takes place in the following situations:

- After 16 seconds withourt receiving an alarmsignal
- By pressing the TEST button (fig. 1, pos. 4) for more than 2 seconds

#### PROCEDURE FOR CREATING OR JOINING THE NETWORK:

**METHOD 1;** Used when creating a new network

- 1. Press continuously the TEST button on the QR-NA12V for more than 4 seconds, until the LED indicator lights up continuously
- Remove all smoke alarms that will be part of the network from their base. On each of them, press the TEST button briefly once. In case of successful execution of this step, the LED indicators of the Coordinator and the connected smoek alarms will flash in sync.
- 3. To terminate the joining mode, it is necessary to briefly press the TEST button of the QR-NA12V.

#### **METHOD 2**; Used when a network already exists

- Press the TEST button shortly 5 times on the QR-NA12V.
   The QR-NA12V enters the network connection mode for a period of 120 seconds. During this time the LED indicator blinks 1 long and 1 short blik every 2-3 seconds.
- Remove one of the connected smoke alarms from the bottom plate and shortly press its test button. In doing so, the QR-NA12V accepts the existing network code and returns to Standby mode. It blinks the red LED to confirm this.
- 3. Turn the smoke alarm back on the bottom plate and test the operation. **Note:** If it is necessary to forcefully exit the joining mode, briefly press the TEST button of the QR-NA-12V coordinator.

#### TESTING THE OPERATION OF THE CIRCUIT FROM THE CONTROL PANEL

- 1. Press the TEST button shortly 7 times. The QR-NA12V goes into alarm mode for a period of 120 seconds
- 2. Alarm mode is reset by pressing and the TEST button for 2 seconds

# **DISCONNECTING THE QR-NA12V FROM THE NETWORK:**

- 1. Press the TEST button 10 times on the QR-NA12V while connected to the network.
- 2. The power to the QR-NA12V is turned off. After 3-4 seconds the power is restored
- Press and hold the TEST button for more than 4 seconds until the LED indicator lights continuously. (mode for creating a network).
- 4. Press the TEST button briefly to finalize the procedure.

#### SIGNAL AMPLIFICATION



Installing the QR-NA12V in a switchboard located in a metal box creates interference in the connection between the QR-NA12V and the smoke alarms.

In this case, it is recommended to strengthen the signal by connecting an external antenna. The antenna needs to be connected to the QR-NA12V via an RP SMA Male to RP SMA. Before using the external antenna, it is necessary to disconnect the internal antenna. To do this, you need to drill a hole on the PCB at the DP1 point with a drill with a diameter of 1.0-1.5 mm, as shown in the photo

#### ANTENNA SPECIFICATIONS:

Impedance:50 OHMFrequency Range:868MHZGain:3 - 6dbiSWR:≤ 1.5Connector:SMA male

**ATTENTION!** The manufacture is not responsible for disconnection or product performance degradation due to RF interference.

# **OPERATING PRECAUTIONS:**

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Parameter	Rating	Standard
ESD-Human Body	Class	ESDA/JEDEC
Model (HBM)	1A	JS-001-201
ESD-Changed Device	Class	JEDEC JESD22-
Model (CDM)	C1	C101F
MSL-Moisture	Level	IPC/JEDEC
Sensitivity level	3	J-STD-020



**Attention!** ESD-sensitive device

#### LED modes:

Mode:	LED
Standby mode	3 - 4 sec.
Alarm mode	1 sec.
Mode Network Connection Method 1	
Mode Network Connection Method 2	2-3 sec.

#### PRODUCT WARRANTY

If installed, used and maintained properly, the manufacturer guarantees this product, against material and/or manufacturing faults for a period of 5 years from the original date of purchase by the consumer. Exceptions include damage arising from accidents or misuse. If the product becomes defective within the stated period, then it will be repaired or replaced free of charge. Please do not attempt to repair the product yourself or tinker with it, which will invalidate the warranty.

#### INSTRUCTIONS FOR REMOVAL

Do not dispose of the QR-NA12V in the bin, but rather hand it in to a local collection point for small, domestic waste.





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