FOUR CHANNEL TRANSMITTER RNM-24

OPERATION MANUAL

exta life

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DESCRIPTION

The RNM-24 transmitter enables wireless control of EXTA LIFE system receivers. It is designed to implement such functions as turning on/off the lighting, adjusting illumination, closing/opening roller shutters and garage doors. For installing in switchgears using TH35 bar. The transmitter has four inputs triggered with 230 V AC voltage. It is triggered by a short-term closing of a specific input using phase voltage or neutral cable voltage. The transmitter enables independent control of up to four circuits / channels. With built-in LEDS indicating the transmission and operation status of different inputs. The RF transmission is encrypted for increased control security.

FEATURES

- Radio transmitter for installation in switchgears using TH35 bar.
- remote control for EXTA LIFE system receivers;
- capable of independent control of up to four circuits (channels);
- encrypted RF transmission
- 230 V AC power supply;
- long operating range (up to 350 m in open areas),
- Removable antenna, enabling the connection of an external antenna.

TECHNICAL DATA

	RNM-24
Rated supply voltage:	230 V AC
Supply voltage tolerance:	-15 ÷ +10 %
Rated mains frequency:	50 / 60 Hz
Rated power consumption:	0.4 W
Operating range:	max. 350 m in open areas
Transmission:	RF, ISM 868 MHz (868.50 MHz)
Method of transmission with system components:	one-way, 9600 bps
Encryption:	128-bit key algorithm
Channels:	4
Optical signalling of transmission:	green LED
Optical indication of input activity:	4 × red LED
Compatible connectors:	monostable (buttons) / bistable (switches)*
Number of termination points:	8
Connecting cable cross-section:	Up to 2.5 mm^2
Operating temperature range:	-10 to +55 °C
Enclosure protection rating:	IP20
Dimensions:	90 × 35 × 66 mm (two module housing)
Weight:	0.09 kg
Reference standards:	PN-ETSI EN 300 220-1, PN-ETSI EN 300 220-2, PN-EN 60669, PN-EN 60950, PN-EN 61000

* typically, IN1 ÷ IN4 inputs are designed to work with monostable connectors (normally open) — the transmitter sends information upon short triggering of any input. The transmitter inputs are suitable for working with bistable connectors (long-lasting application of phase voltage or neutral cable to the transmitter input is possible). However, it is necessary to consider the operation of the transmitter with this kind of connectors (if possible, the transmitter should be programmed with the receiver in the so-called monostable mode). In this mode, the receiver is turned on as long as the given input is triggered.

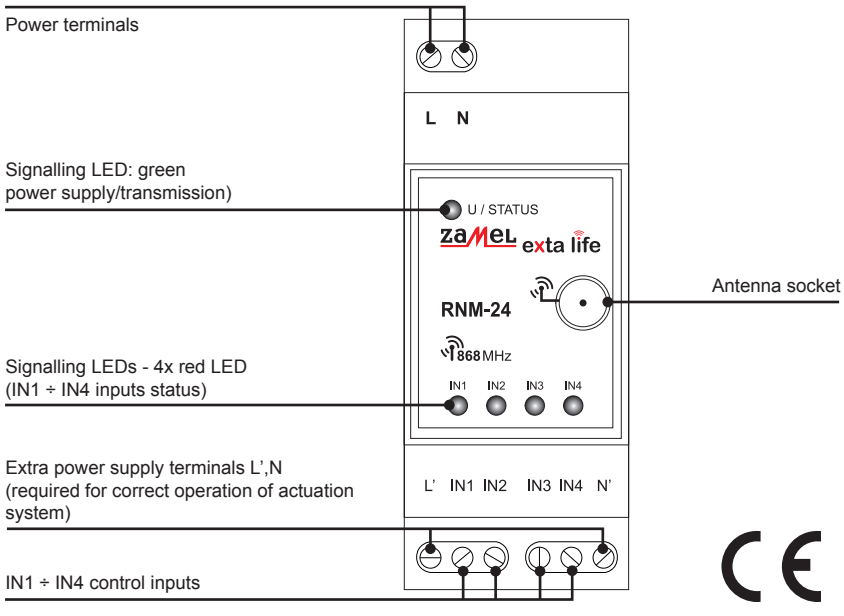
CAUTION! The transmission range is specified to open areas, which are perfect transmission conditions without obstacles. If there are the following obstacle types between the transmitter and the receiver, expect the transmission range to be reduced by 10 to 40% for brickwork, 5 to 10% for wood and drywall, 40 to 80% for reinforced concrete, 90 to 100% by metal, and 10 to 20% by glass. The transmission range is also adversely affected by overhead and underground high-voltage power lines and GSM transmitter bases located near the devices.

CAUTION

Connect the device to single-phase mains, according to applicable standards. The connection method is shown in this manual. The activities related to the installation, connection and adjustment should be performed by qualified electricians, familiar with the user manual and functions of the device. Removing the housing leads to the loss of guarantee and creates the risk of electric shock. Before starting installation, ensure connection lines are not supplied with voltage. For installation, use a Philips screwdriver with a diameter of up to 3.5 mm. The correct operation of the device can be affected by transport, storage and operation. Installing the device is not recommended in the following cases: no components, damage to the equipment or deformities. In the event of malfunctioning, contact the manufacturer.

The symbol means selective collecting of electrical and electronic equipment. It is forbidden to put the used equipment together with other waste.

APPEARANCE



CE

OPERATION

A short press of the button connected to the given transmitter's input results in the transmitter sending an RF command to the EXTA LIFE system components. It is indicated with the green LED flashing on the transmitter. Input function is indicated by the activation of the red LED assigned to this input. To interpret properly the signal from the given transmitter input, the transmitter must first be paired with it. See the applicable EXTA LIFE receiver user manuals for pairing instructions (programming specific receiver inputs in the receiver memory). The transmitter will only transmit when a button connected to the given input is pressed and then released. No RF signal is transmitted as long as a button is held down. The presented mode of operation translates to transmitter functionality with bistable connectors connected to inputs IN1… IN4. For example, if the connector connected to input IN1 is to work with a receiver in the "bistable" mode, the connector must be closed to activate the receiver. However, to re-activate the receiver, first open and then close the connector again.

INSTALLATION CONSIDERATIONS

1. During the installation make sure that the transmitter is not exposed to direct water impact or operation in increased humidity environment. The temperature at the installation site should be from -10 to +55°C.
2. The RNM-24 transmitter is designed for indoor installation. In case of outdoor installation, place the transmitter in a sealed switchgear and efficiently seal the connection against water penetration.
3. Connect control connectors to inputs IN1 to IN4 of the RNM-24 transmitter. Typically, inputs are designed to work with monostable connectors. The design of inputs does not exclude using bistable connectors. Due to the input operation method, it is best to program inputs with a receiver in the monostable mode (the receiver is activated as long as the given input is triggered). The transmitter is not designed for use with lighted switches.
4. After switching on the power supply the green LED blinks for approx. 5 s. After that period, the LED turns off and the device is ready to use. The activation of an input is indicated is by the activation of the relevant red LED IN1 - IN4.
5. To use the specific functionality with EXTA LIFE receiver(s), pair applicable transmitter inputs with the selected elements of the system. The pairing procedure is described in detail in the operating instructions of the selected receiver. When working with the controller, the transmitter must be properly paired with the controller (see Transmitter registration in the EXTA LIFE system).

OPERATING CONSIDERATIONS

Standard functionality (without EXTA LIFE controller):

- enables wireless operation of EXTA LIFE system receivers;
- the function of each transmitter input depends on the type of receiver it has been paired with (example: if paired to an ROP-22 receiver, the inputs can be used to turn lights on and off; if paired to an SRP-22 controller, the buttons can open and close roller shutters);
- each transmitter input (channel) can be assigned to multiple EXTA LIFE system receivers;
- if one input is to control more than one receiver of the system, then the recommended mode of operation is the "on/off" mode (example: a button wired to input "IN1" turns on power supply and another button wired to input "IN2" turns power off or the other way round),
- you can assign the transmitter inputs to receivers with different operating modes, the range of which depends on the receiver type (for details see the applicable EXTA LIFE receiver user manuals);
- If transmitter inputs are assigned to a receiver in the time mode, each button can be assigned with a custom time value from 1 s to 18 hours;
- you can delete specific transmitter input assignments from the receiver memory.

CAUTION: In the RNM-24 inputs are not blocked. If the given input is triggered continuously, then other inputs can be controlled in the normal way.

Functional compatibility with EXTA LIFE controller and app

Functionalities enabled with the EXTA LIFE controller and app:

- remotely (without access to the receiver) bind specific transmitter inputs to the selected EXTA LIFE system receiver(s):
- assign transmitter inputs to certain scenes to playback them,
- assign transmitter inputs as a condition to execute a logical function.

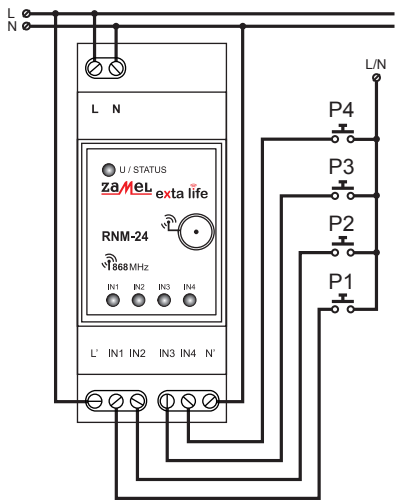
These functions are enabled only on a transmitter paired with a controller.

INSTALLATION

An RNM-24 transmitter is designed for installing in switch cabinets using a TH35 bar. The receiver's body takes up two modules. It is required to connect an antenna for correct operation. If you need to install the antenna outside the switch cabinet (applies mainly to metal switchboards), you can use external antenna ANT-01 with a 3 m cable. The antenna has an SMA type connection.

1. Disconnect the supply circuit with a fuse, an overcurrent circuit breaker or an isolator connected to the corresponding circuit.
2. Check the voltage-free status of the power cords with a suitable instrument.
3. Connect the wires to the terminals according to the connection diagram. You can use up to four transmitter inputs (from IN1 to IN4). During installation, it is important to "flip" voltages L and N to additional terminals L' and N' (required for the correct operation of the actuation system).
4. Install the device on a TH bar in the switchgear.
5. Turn on the supply circuit and check for proper operation (when an input is triggered, the red LED assigned to that input light up for a short time).

CONNECTION



RNM-24 TRANSMITTER REGISTRATION (PAIRING)

You need to register the transmitter in the EXTA LIFE system to:

- remotely bind transmitter inputs to specific EXTA LIFE receivers (without physical access to the receivers);
- bind specific input to playback scene(s);
- use a button connected to a transmitter input as a condition to execute a logical function.

To register the transmitter in the system it is necessary to connect an EXTA LIFE controller and install EXTA LIFE mobile app. The transmitters are saved as registered in the EXTA LIFE system only if they have been successfully paired with the EXTA LIFE controller. Procedure:

1. Launch the EXTA LIFE mobile app and open the DEVICES screen.
2. Select the TRANSMITTERS tab and press the "+" button ❶ to start discovering the remote controls. The discovery takes up to 60 s. You can terminate it earlier by pressing Stop. To find the transmitter, trigger any of its inputs during the discovery. If the transmitter is within the range of the EXTA LIFE controller, it will appear on the on-screen list with its default icon and name, which is the transmitter model (RNM-24) + it's six-digit ID ❷. You do not need to stop the discovery to register more than one transmitter.
3. Once the discovery has been completed or stopped manually, check the selection boxes next to the discovered transmitters on the list to choose those you want to pair with the EXTA LIFE controller ❸. You can check more than one transmitter with the selection boxes. You can use the pop-up menu to modify transmitter's name before pairing.
4. Press PAIR to pair the selected transmitters. The selected transmitters will be paired with the EXTA LIFE system after a short moment and appear in the TRANSMITTERS tab ❹.
5. A default icon is assigned to each paired transmitter.
6. You can pair one transmitter at a time; once PAIR has been pressed, you can assign a new name to the transmitter. When pairing more than one transmitter at the same time, they will be saved under their default names.
7. You can also modify the default names of the RNM-24 transmitters once they have been paired.
8. Only when paired can the transmitter be used to set up the EXTA LIFE system configuration (remote assignment of receivers, scenes or logical functions).