



RiDom

Relay AC «Ri-RC-1»



Installation guide

1 GENERAL INFORMATION

1.1 Relay AC «Ri-RC-1» (hereinafter – Relay) is designed to control the connection of external devices to the 230V AC power grid.

1.2 Relay works as part of the RiDom smart home security system, communicating with the «Ri-HUB-1» control center (hereinafter referred to as the Hub) via the «Ri-Contact-R» radio channel protocol.

1.3 The Relay does not require licensing or registration as a radio frequency product.

1.4 The Relay is powered by AC mains with a nominal voltage of 110/230 V and a frequency of 50/60 Hz.

1.5 The Relay generates and provides transmission of the following notifications over the air:

- Normal status;
- Case opening.

1.6 The Relay is designed for continuous 24/7 operation

1.7 The Relay is EMI resistant.

2 SPECIFICATIONS

Table 1

Parameter	Value
Frequency range	868,7...869,2 MHz
Radiation power, no more	25 mW
Power supply	85–305 V, 50/60 Hz
Maximum power consumption	1,5 VA
Maximum switching load current (with resistive load)	7 A
AC-1 active load AC-3 electric motor AC-15 contactor coils	1750 VA 400 W 315 VA
Protection class	IP20
Dimensions	65x66x28 mm
Weight	0,2 kg
Average service life	8 years
Operational conditions	
Operating temperature range	-30... +55 °C
Permissible air humidity at a temperature of +40 °C, without moisture condensation	Up to 93 %

3 SCOPE OF SUPPLY

Table 2

Name	Qty.
Relay AC «Ri-RC-1»	1 pc.
Screw 3-3x30.016	2 pcs.
Dowel NAT 5x25 SORMAT	2 pcs.
Installation guide for the «Ri-RC-1»	1 copy

ATTENTION! Only persons with at least 3rd safety qualification group and those who have a permit to work with voltages up to 1000 V are allowed to perform the installation and maintenance of the Relay.

4 SAFETY MEASURES

4.1 When installing and operating the Relay, the provisions of the «Safety Rules for the Operation of Consumer Electrical Installations» should be followed.

4.2 All installation work must be carried out only with the external power of.

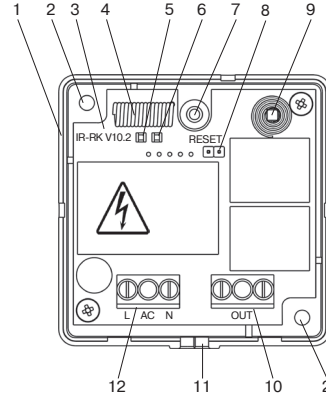
5 VIEW AND DESIGN

The Relay with the removed case cover is shown in Picture 1. At the base of the case (1) the following elements are shown:

- Hole (7) for attaching the case cover;
- Two holes (2) for fastening the Relay to the mounting surface;
- Place (11) for laying the network wire.

On the following elements are shown on the printed circuit board (3):

- Antenna (4);
- Green indicator (5);
- Red indicator (6);
- Reset contacts (8);
- Tamper switch (9);
- Terminal block for connecting of the switched device (10);
- Terminal block **L AC N** for connecting of power (12).



Picture 1 – «Ri-RC-1», front view with removed case

6 INDICATION

Table 3

The Relay status	Indication
Linking mode	Intermittent green LED light
Linking accomplished	Turning on the red LED for 2 seconds
Identification indication	Alternating green and red LEDs activation
Turned on	Turning on the red LED for 2 seconds
Connection quality assessment	See Table 4

7 CHOOSING THE PLACE OF INSTALLATION

The Relay should be mounted indoors only.

Do not install the Relay in the following places:

1. On massive metal structures and closer than 1 m to them;
2. Closer than 1m to metal water pipes;
3. Near sources of radio interference;
4. Inside metal structures.
5. Outdoors.
6. In rooms with temperature and humidity outside the allowable.

8 CONNECTING THE RELAY TO THE SYSTEM

8.1 Open the case cover.

8.2 Apply 230V to the contacts **L AC N**.

8.3 Close the RESET contacts on the Relay board with a conductive object for a few seconds.

8.4 Make sure that the indicator turns green intermittently («Linking» mode).

8.5 Open the RiDom application. In the My Devices tab, click **+** and then **Add device**. Select «Ri-RC-1» relay from the list of devices and follow the prompts of the application.

8.6 When successfully connected to the Hub, the Relay's indicator will turn red for 2-3 seconds, then you can see the Relay in the application, as well as all the corresponding information about the Relay.

Link mode time is limited to 100 seconds. To resume the «Linking» mode, briefly close the «RESET» contacts with a screwdriver for 2-3 seconds.

8.7 Install the case cover back.

9 RADIO CONNECTION QUALITY EVALUATION

9.1 Place the configured Relay in the intended place of installation.

9.2 Click on the tamper switch and hold it for at least 3 seconds.

9.3 Release the tamper switch.

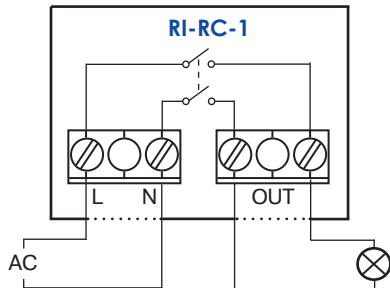
9.4 Control the quality of the Relay communication with the Hub by LED indicators according to the Table 4.

Note – A delay for up to 4 seconds is possible before any indication.

Table 4 – Indication of the connection quality assessment results

Indication		Connection quality	Recommendations
Color	Mode		
Green	Three blinks	Perfect	Installation in this location is allowed
Green	Two blinks	Good	
Green	One blink	Weak	
Red	Multiple blinks	No connection	Choose a different installation location or use a repeater

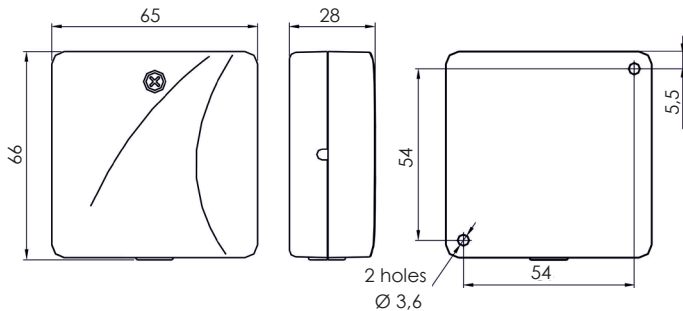
10 EXTERNAL CONNECTION



Picture 2

11 DIMENSIONS

(All sizes are shown in mm)



Picture 3

12 OPERATION PRINCIPLES

12.1 The Relay supports the following load connection modes:

- turned on;
- turned off;
- turned on with a frequency of 1 Hz;
- turned on with a frequency of 0.5 Hz.

All modes can be turned on permanently or for a period of 1 to 2500 seconds.

When the Relay power supply is turned off, the external device is disconnected from the mains (the relay opens) until a corresponding command is received.

13 STORAGE AND TRANSPORTATION

13.1 The Relay in their original packaging are resistant to:

- transport jolting with the acceleration up to 30 m/sec² at impact frequency range from 10 to 120 per minute or 15 000 strikes;
- ambient temperature range minus 50 ... +55 °C;
- relative air humidity (95 ± 3) % at a temperature +35 °C.

13.2 The Relay in original package may be transported by any means of transportation in closed vehicles over any distances in compliance with the existing shipping rules concerning the respective means of transportation.

13.3 After transportation under the conditions different to exploitation conditions the Relay shall be ready to operate after a maximum of six hours.

Note – The storage premises should not contain any current conducting dust, acid and alkali fumes, or corrosive or destroying insulation gases.

14 DISPOSAL INFORMATION

14.1 The Relay does not contain precious metals, hazardous or toxic substances that can harm human health or the environment, and does not pose a danger to life, human health and the environment at the end of its service life.

14.2 In this regard, the disposal of the Relay can be carried out according to the rules for the disposal of general industrial waste.

15 MANUFACTURER WARRANTY

15.1 LLC NPP RIELTA guarantees that the Relay meets the requirements of technical specifications within 27 months from the date of manufacture, subject to the conditions of transportation, storage, installation and operation.

15.2 Warranty period of operation of the Relay is 24 months from the date of commissioning within the warranty period of storage.

15.3 If during the warranty period the Detector, which is subject to the rules of transportation, installation and operation, is found to be inconsistent with the requirements of the technical specifications, it is to be replaced or repaired by the manufacturer.

16 DATE OF MANUFACTURE

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month, year



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