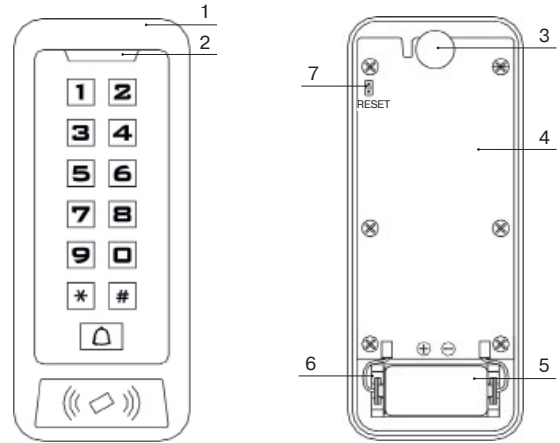# RiDom

Keypad «Ri-KB-1i»

Installation guide

Picture 1

1 GENERAL INFORMATION

1.1 The «Ri-KB-1i» keypad (hereinafter referred to as the Keypad) is designed for entering and exchanging information via a two-way radio channel in accordance with the «Ri-Contact-Ri» protocol.

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

1.3 The keypad does not require licensing or registration of a radio frequency device.

1.4 Two frequencies – the main and backup – are used to exchange radio signals between the keypad and the wireless control panel. The transition to the backup frequency is automatic.

1.5 The keypad generates and ensures transmission of notifications via radio channel:
- «Main battery discharge» when the battery voltage drops below $2.4_{-0,1}$ B;
- «Backup battery discharge» when the battery voltage drops below $2.3_{-0,1}$ B.

1.6 The keypad ensures that codes are transmitted when the (🔔) key is pressed. Resetting the entered codes on the keyboard is done by pressing the ✳ key.

1.7 The keypad is designed for continuous round-the-clock operation.

1.8 The keypad is resistant to electromagnetic interference.

2 TECHNICAL SPECIFICATIONS

Table 1

Parameter	Value
Frequency range	865...867 MHz
Radiation power	25 mW
Protection class	IP41
Battery type	CR123A, 1 pc.
Duration of operation of the keypad from a battery under normal climatic conditions and with an average frequency of use twice a day	12 months
Dimentions	146x60x25 mm
Weight	0.125 kg
Average service life	8 years
Operational conditions	
Operating temperature range	-20... +55 ºC
Permissible air humidity at a temperature of +25 °C, without moisture condensation	98 %

3 CONTENTS OF THE KIT

Table 2

Name	Qty.
Keypad «Ri-KB-1i»	1 pc.
Lithium battery CR123A	1 pc.*
Instructions for keypad «Ri-KB-1i»	1 copy
* Included	

4 DESIGN

The keypad consists of the following elements (Picture 1): front panel (1) with a printed circuit board installed in it (4), base (Picture 2). The indicator (2) is displayed on the front panel and can be turned on or off in accordance with the command received from the Hub.

The following components are installed on the printed circuit board: a piezo emitter (3), «RESET» contacts (7) for switching the keyboard to the «Linking» mode. The battery (5) with an insulator is installed in the battery compartment (6).

5 INDICATION

The keypad generates the following types of indication (2):
- indication of the «Linking» mode (see 6.4);
- «Communication Quality» indication;
- indication «Loss of connection»;
- «Low battery» indication.

The modes of indicators depending on the status of the keypad are presented in Table 3.

Table 3

Status	Indication	Notes
«Linking» mode	The indicator turns green periodically	Request to register a device in the Hub
Ending «Linking» Mode	Turns on the red indicator for 2 s	
Indication «Loss of connection»	The indicator turns red 4 times	If there is no connection
«Low Battery» Indication	The indicator turns red 1 time when you press any key	
«Battery OK» indication	The indicator turns green 1 time when you press any key	
Communication quality assessment	See section «Communication quality assessment»	

6 CONNECTING THE KEYPAD TO THE SYSTEM

6.1 Open the RiDom application. In the «My Devices» tab, click ➕ and then `Add device`. Select the «Ri-KB-1i» keypad from the list of devices and follow the application prompts.

6.2 Remove the cover by unscrewing the screw at the bottom of the case.

6.3 When prompted by the app, remove the battery isolator.

6.4 The keypad will periodically turn on the green indicator, which indicates that it is in the «Linking» mode.

6.5 If you successfully connect to the Hub, the indicator on the keypad in the application, as well as all the corresponding information about it. Linking mode time is limited to 100 seconds. To resume the «Linking» mode, it is necessary to briefly close the «RESET» contacts (pos. 7, Pic. 1) with a screwdriver.

6.6 Install the cover back.

7 COMMUNICATION QUALITY ASSESSMENT

To determine whether the keypad can be used in the selected location, you must press the (🔔) key, after which the keypad will display the quality of radio communication with the Hub on the indicator (pos. 2, Pic. 1) in accordance with Table 4.

Table 4 – Indication of communication quality control 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	Choose a different installation location or use a repeater
Red	Multiple blinks	No connection	

8 OPERATION SPECIFICS

To enter control codes, the keyboard has 13 keys, 12 of which are used to form codes; the ✱, (🔔), # keys are used in combination with numeric ones.
- key ✱ – reset the code combination;
- key (🔔) – sending a code combination;
- keys # и 9 – enable/disable sound indication, when pressed simultaneously and held for at least 3 seconds;
- keys ✱ и # – are used as a panic button, when pressed and held simultaneously.

The keypad remembers no more than 24 pressed keys in a buffer. The keypad transmits the codes of the keys pressed after pressing the (🔔) key. If the key is not pressed, then after 4 seconds the keypad turns on the red indicator light 3 times and gives 3 beeps lasting 0.5 seconds each. Then the keys buffer is cleared and the key backlight goes out.

The keypad has a periodic broadcast mode to confirm the presence of the keypad in the wireless network.

Installation dimensions (mm)
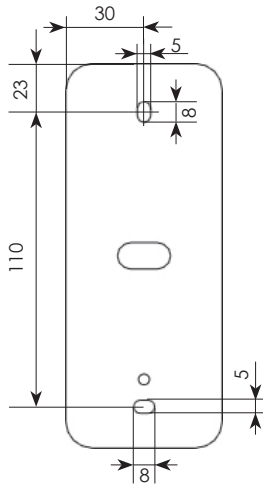
Picture 2

9 STORAGE AND TRANSPORTATION

9.1 The keypad in their original packaging are resistant to:
- transport jolting with the acceleration up to 30 m/sec^2 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.

9.2 The keypad 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.

9.3 After transportation under the conditions different to exploitation conditions the keypad shall be ready to operate after a maximum of two hours.

9.4 During storage period lithium batteries should be removed from the holders or isolators should be installed.

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

10 DISPOSAL INFORMATION

10.1 The keypad 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, health and the environment at the end of its service life.

10.2 In this regard, the keypad can be disposed of in accordance with the rules for the disposal of general industrial waste.

11 MANUFACTURER WARRANTY

11.1 LLC NPP RIELTA guarantees that the keypad meets the requirements of technical specifications within 39 months from the date of manufacture, subject to the conditions of transportation, storage, installation and operation.

11.2 Warranty period of operation of the keypad is 36 months from the date of commissioning within the warranty period of storage.

11.3 If during the warranty period the keypad, 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.

Note – Lithium batteries are not covered by the warranty.

12 DATE OF MANUFACTURE

_____.
month, year

ridom.ru

Made in Russia

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