control solutions
TERACOM

Locky-BP-v2 RFID Access Controller

Revision 1.0 / February 2024

USER MANUAL

Short description

The RFID -BP-v2 controller is an electronic device designed to control access to various premises, including elevators, vehicles, information systems, and more. It operates seamlessly with contactless identifiers such as cards and key fobs.

Shaped like a button, the controller features a built-in reading antenna for efficient operation. Users can register RFID tags into the device's memory. These registered tags can then be selectively permitted or restricted multiple times as needed.

Features

- possibility to add and group delete RFID tag with service tag;
- programming with LockyMonitor 3 software;

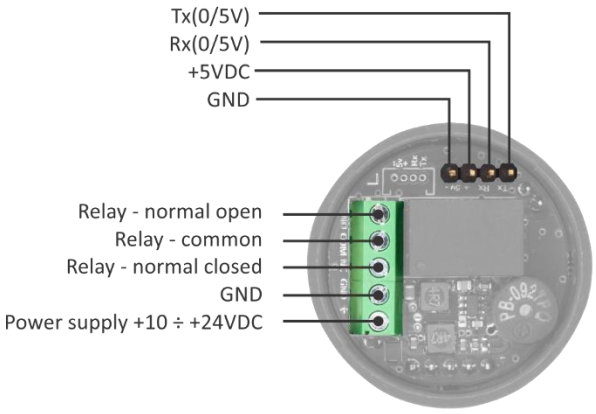
Specifications

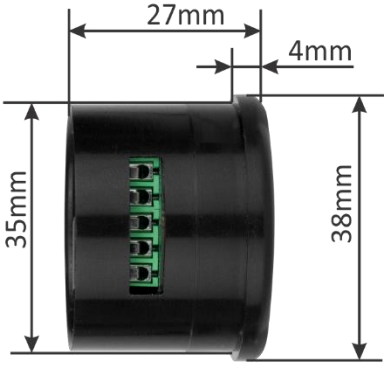
- Dimensions	Ø 38mm x 27mm;
- Mounting hole	Ø 35mm;
- Operating temperature range	-10 to +40°C;
- Operating voltage range	10 ÷ 24VDC +10%/-15%;
- Current consumption (with relay ON)	180mA @ 12VDC;
- Maximum switchable voltage/current	24VDC / 1A;
- Reading range	≤ 3cm;
- RFID tags	125kHz, EM4102 compatible;
- Nonvolatile memory for up to	1000 tags;
- Relay activation time	1 ÷ 240 s. (3s. by default);
- Connector	Screw terminals.

⚠ **Caution!** The device does not contain any internal overcurrent protection facilities on the relays' contact lines. External fuses or short circuit current limiting circuit breakers, rated to 0.63 Amps, are to be used for overcurrent protection of the connecting lines.

⚠ **Caution!** In case of switching an inductive load, an RC or diode snubber are to be used for relay contact protection (arc suppression).

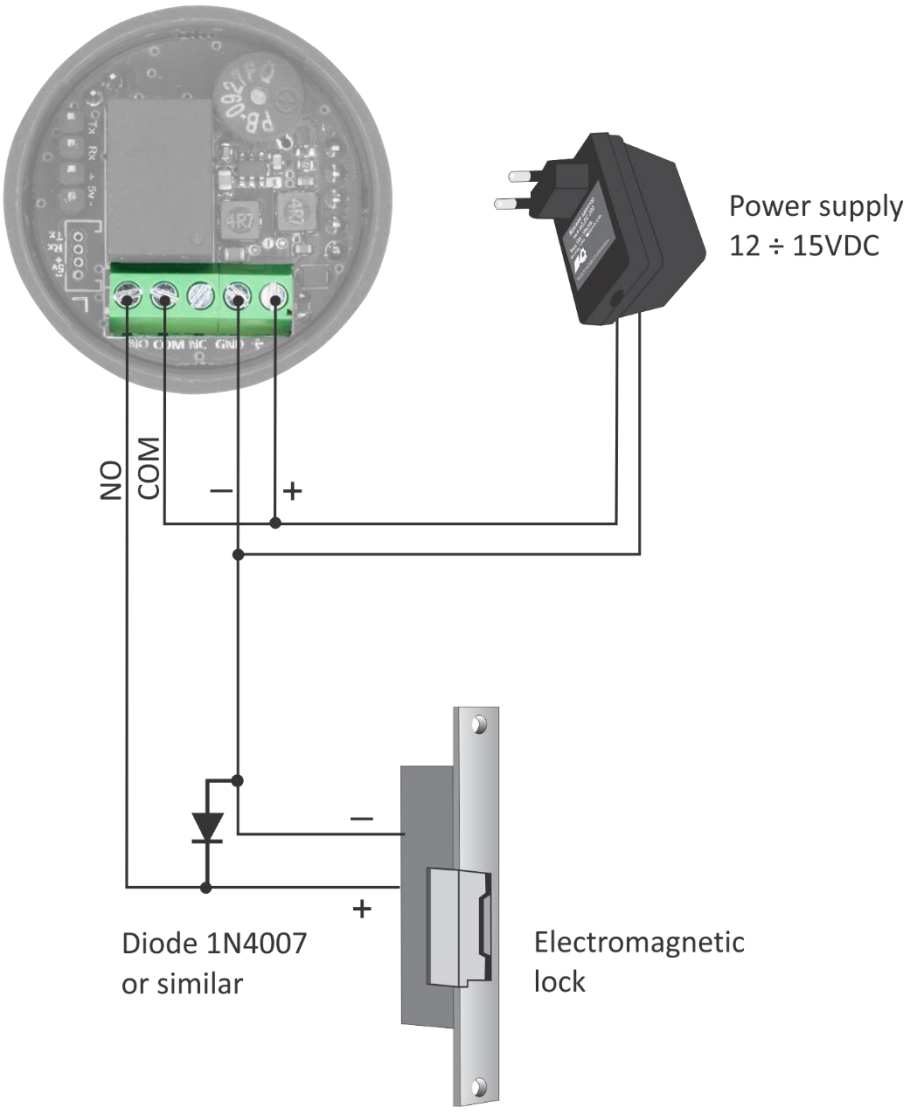
Dimensions and pinout



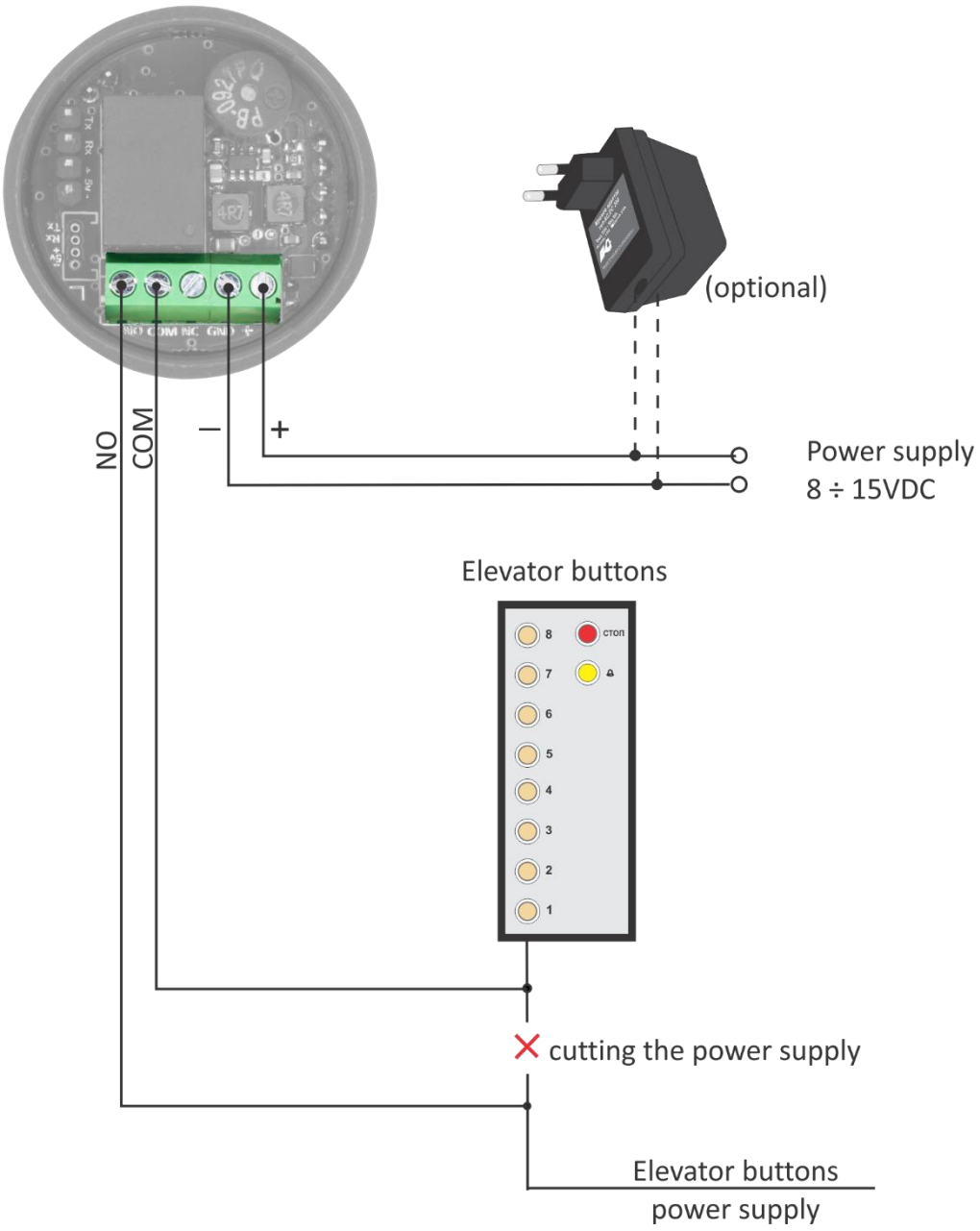


Connecting the Locky-BP-v2 to an electromagnetic lock

A 1N4007 or similar diode is added to the connection to suppress radiated radio interference and protect the relay contacts from rapid wear. The power adapter must be compatible with the required current for the counter.



Connecting the Locky-BP-v2 to the elevator electrical installation



Operating modes

Normal operating mode

In this mode, the device expects a valid RFID tag to activate its relay. The red LED blinks once per second.

If an invalid tag is placed within the range of the antenna, the red LED flashes 6 times. The relay is not activated.

If a valid tag is placed within the range of the antenna, the relay is activated and Normal open and Common contacts are connected. The activation (pulse) period is between 1 and 240 seconds (by default 3 seconds), programmable by LockyMonitor-3 software. For the time the relay is activated, the green LED illuminates continuously.

If the valid tag is left within the range of the antenna, the relay stays activated until the tag is removed.

Adding new identifiers

The controller enters into this mode when the service tag is put in the range of the antenna for a short time (less than 5 seconds). The LED turns yellow and the controller beeps once. In this mode, each new tag that is placed in the range of the antenna will be added as a valid one in the memory of the controller. On every added tag the controller will beep twice and the LED will blink once.

If the tag is already in the memory or the memory is full, the red LED blinks 3 times.

To return to the normal operating mode, the service tag should be placed again for a short time. The device will return automatically to the normal operation mode if there is no activity for 60 seconds.

Deleting all identifiers

Locky-BP-v2 enters in this mode when the service tag is put and hold within range of the antenna for more than 10 seconds. After this time the controller will start deleting all identifiers from its memory. During the deleting the yellow LEDs blink fast.

After erasing the memory, the device returns to normal operating mode. The service tag will not be deleted from the controller's memory.

Package content

- Locky-BP-v2 controller
- Snap ring
- Service tag
- Quick start guide