PB-LORA Wireless Panic button

Installation manual

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Safety precautions

The ***PB-LORA*** wireless panic button should only be installed and maintained by qualified personnel.

Please read this manual carefully prior to installation in order to avoid mistakes that can lead to malfunction or even damage to the equipment.

Always disconnect the power supply before making any electrical connections.

Any changes, modifications or repairs not authorized by the manufacturer shall render the warranty void.

Please adhere to your local waste sorting regulations and do not dispose of this equipment or its components with other household waste.

1 Description

The product ***PB-LORA*** is designed to transmit the emergency call message wirelessly. The call for help is initiated by pressing the button. The ***RF-LORA*** module is used as a message receiving device, which is connected to the control panel ***"FLEXi" SP3***.

8 ***PB-LORA*** panic buttons can be assigned to the control panel if the firmware version 1.17 or higher is used (eg: SP3_xxxx_0117.fw). When the control panel is loaded release 2 firmware with version 1.16 or higher (eg: SP3_xxx2_0116.fw), 250 ***PB-LORA*** panic buttons can be assigned to the control panel.

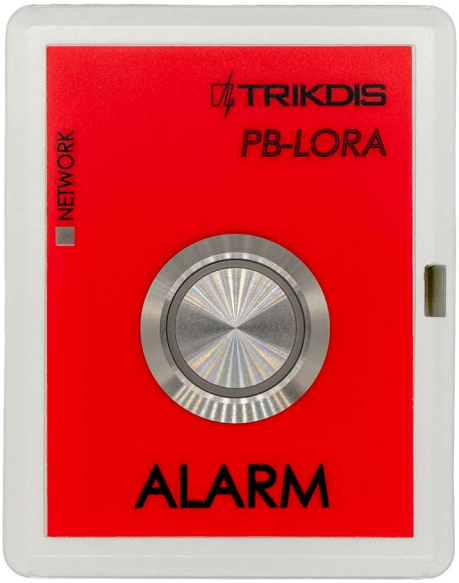
Features

Communication:

- Line-of-sight wireless range up to 5000 m.

Connection:

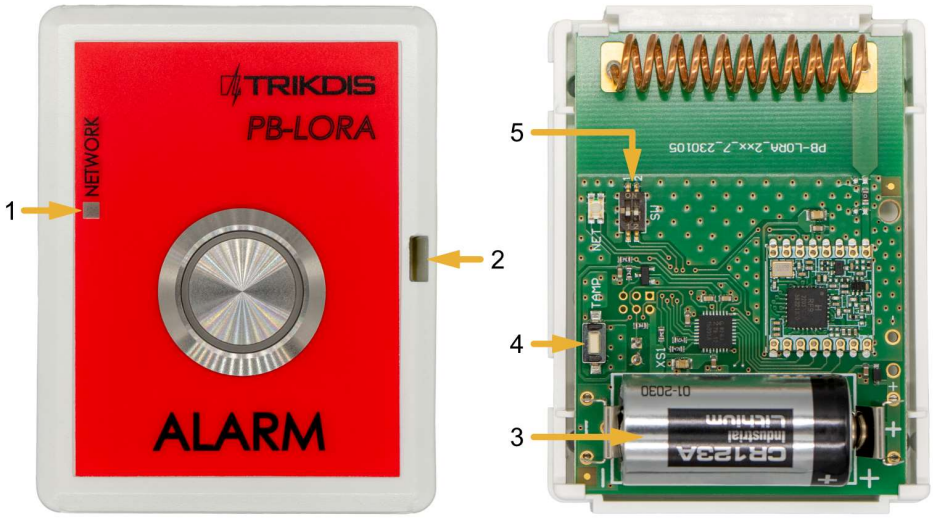
- The ***PB-LORA*** wireless panic button is connected to the ***"FLEXi" SP3*** control panel via the ***RF-LORA*** transceiver.



1.1 Specifications

Parameter	Description
Transmission frequency	433,3-434,7 MHz
Modulation type	LORA
Power supply voltage	3 V, battery CR123A
Battery life	At least 3 years
Current consumption	Up to 0,008 mA (stand-by) Up to 50 mA (short-term, while sending)
Report encryption	Yes
Operating distance in open space	Up to 5000 m
Operating environment	Temperature from –10 °C to +50 °C, relative humidity – up to 80% at +20 °C
Dimensions	62 x 77 x 25 mm
Weight	80 g

1.2 Wireless Panic button elements



1. Light indicator.
2. Frontal case opening slot.
3. Battery 3 V (CR123A).
4. "TAMP" button for linking the device and checking the connection.
5. DIP switch „SW“.

Note: DIP switch "SW" settings:

1 - Radio frequency ("**OFF**" - RF1; "**ON**" - RF2). Intended for changing the radio channel if the current channel is heavily loaded.

2 - Modulation type ("**OFF**" - fast; "**ON**" - slow). The "**ON**" position allows you to increase the communication distance by about 2 times (depending on the environmental conditions). But if a quality connection is ensured using the "**Off**" position, it is recommended to use it. In the "**On**" position, battery consumption increases and system performance decreases.

NOTE: In PB-LORA and RF-LORA devices, the positions of the "SW" switch must match! Otherwise, the radio communication will not work!

1.3 LED indication of operation

Indicator	Action	Description
NETWORK	After pressing the "Alarm" button	First blink green - message sent, battery voltage is good.
		First blink red - sending message, battery voltage is low.
		The second red blink - confirmation of message reception from the ***RF-LORA*** module has been received.
	After pressing the "TAMP" button	First blink green - message sent, battery voltage is good.
		First blink red - sending message, battery voltage is low.
		The second red blink - confirmation of message reception from the ***RF-LORA*** module has been received.
		Third to twelfth blinks - radio signal level. *

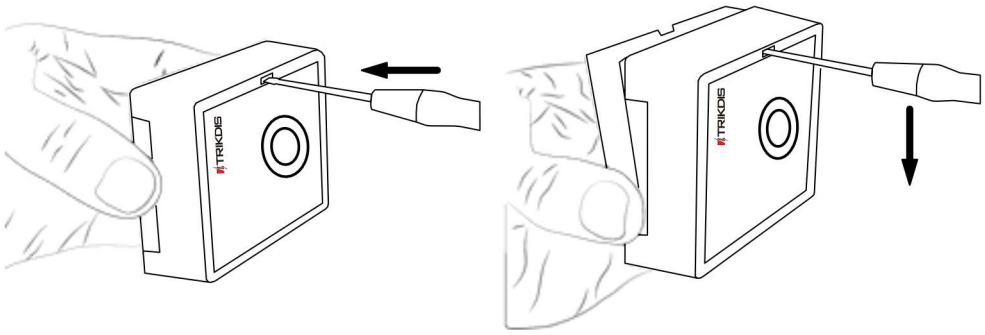
* recommended to use when there are at least four flashes.

NOTE: after installing the battery, it is recommended to wait at least 10 seconds before using the device.

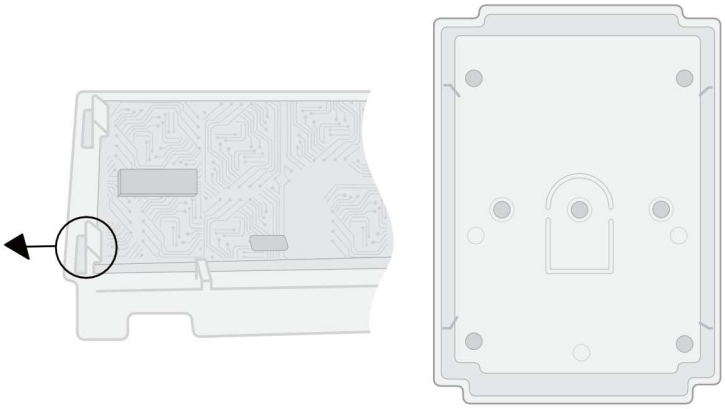
2 Wiring schematics

2.1 Fastening

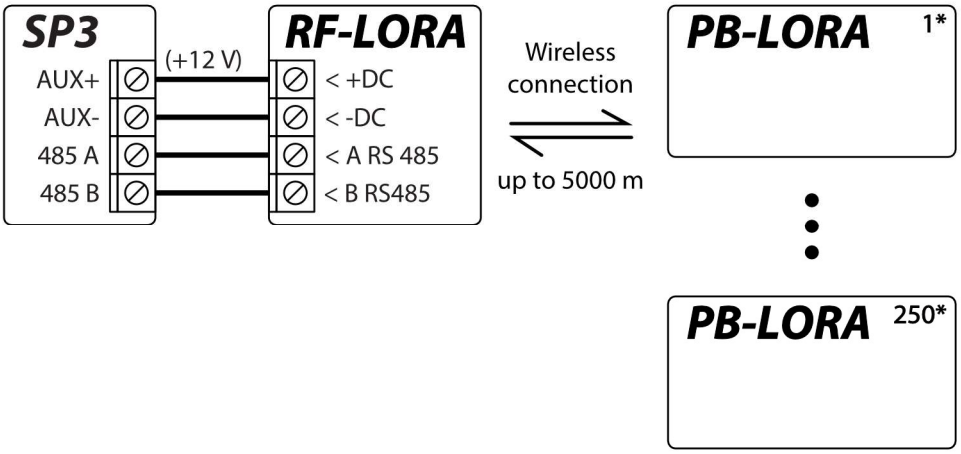
1. Remove the top lid.



2. Remove the PCB board.
3. Fasten the base of the case in the desired place using screws.
4. Reinsert the PCB board.
5. Insert the battery into the module.
6. Close the top lid.



2.2 Schematic for connecting of the wireless PB-LORA panic button

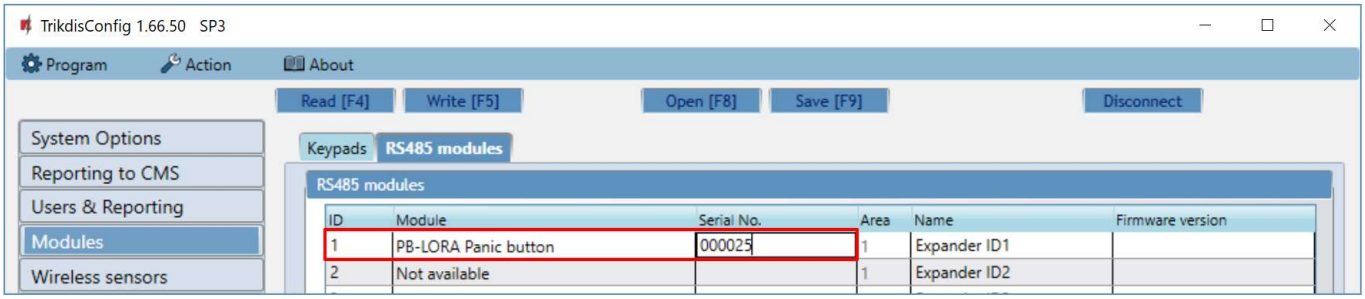


Note:	The ***RF-LORA*** transceiver must be connected to the "***FLEXi***" ***SP3*** control panel, and up to 8 ***PB-LORA*** wireless panic buttons (control panel firmware version 1.17 or higher. Example: SP3_xxxx_0117.fw) or up to 250 pcs. ***PB-LORA*** wireless panic buttons (control panel release 2 firmware with version 1.16 or higher. Example: SP3_xxx2_0116.fw).

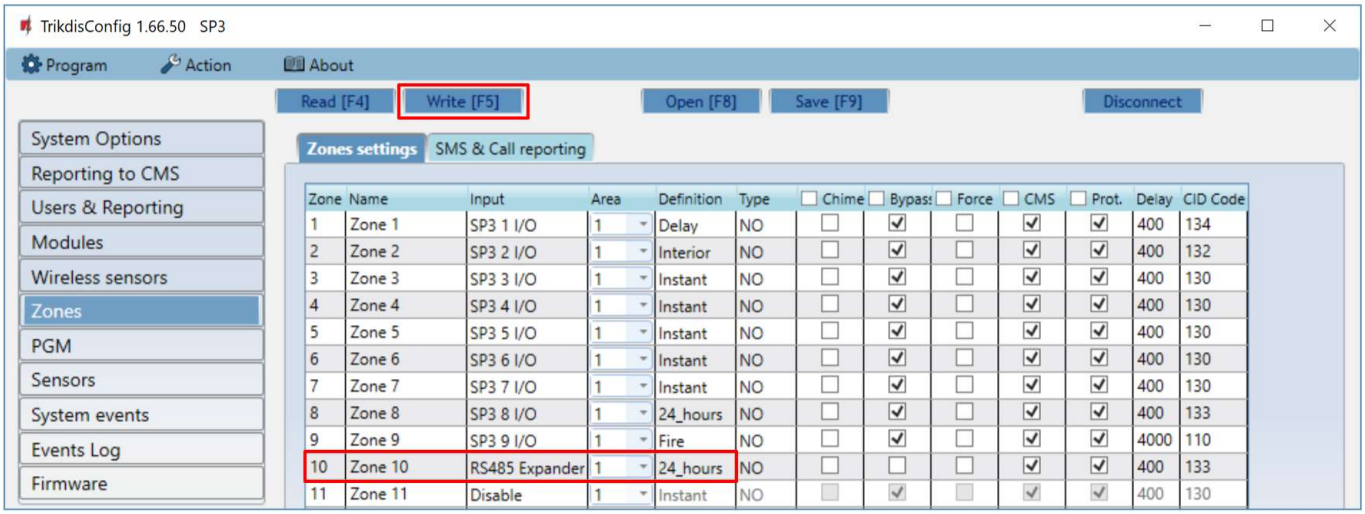
3 Registration of 8 wireless PB-LORA panic buttons to the control panel "FLEXi" SP3

"*FLEXi*" *SP3* control panel must have firmware with version 1.17 or higher (for example, SP3_xxxx_0117.fw).

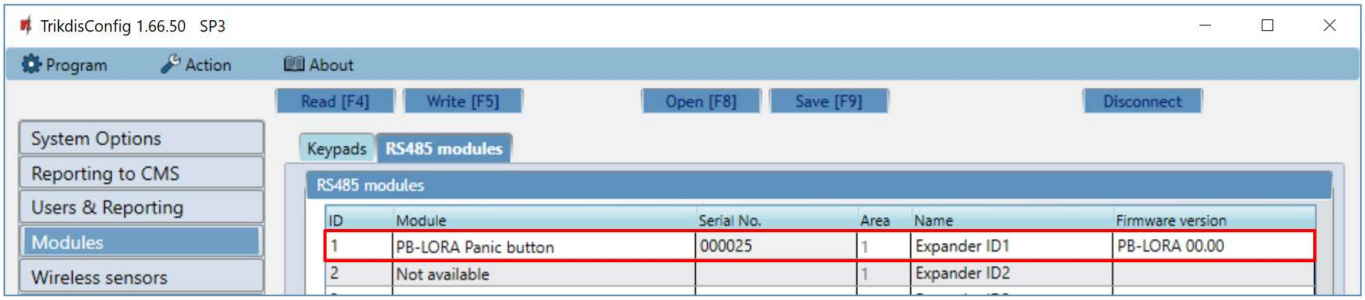
1. An ***RF-LORA*** transceiver must be connected to the ***"FLEXi" SP3*** control panel.
2. Turn on the power supply of the ***"FLEXi" SP3*** control panel.
3. The ***PB-LORA*** wireless panic button must have a battery installed.
4. Launch ***TrikdisConfig***.
5. Connect the ***"FLEXi" SP3*** to a computer using a USB Mini-B cable or connect to the ***"FLEXi" SP3*** remotely.
6. Click the button **Read [F4]** for the program to read the parameters currently set for the ***"FLEXi" SP3*** control panel. If a window for entering the Administrator code opens, enter the six-symbol administrator code.
7. In the "**Modules**" list, select "**PB-LORA Panic button**".
8. In the "**Serial No.**" field, enter the serial number of the ***PB-LORA***.



9. In the "**Zones**" tab, make settings for the panic button.



10. Once configuration is complete, click the **Write [F5]** button.
11. Wait for the updates to finish.
12. Click the "**Disconnect**" button and disconnect the USB cable.
13. Wait 1 minute. Press the "Alarm" button on the ***PB-LORA*** module.
14. Connect the USB Mini-B cable to "***FLEXi***" ***SP3***.
15. Click the button **Read [F4].**
16. The firmware version of the ***PB-LORA*** will appear in the "**Modules**" window.



17. Click the "**Disconnect**" button and disconnect the USB cable.

Note: Deleting ***PB-LORA*** wireless panic buttons from "***FLEXi***" ***SP3***'s memory:

1. Launch ***TrikdisConfig***.
2. Connect the ***„FLEXi" SP3*** to a computer using a USB Mini-B cable or connect to the ***„FLEXi" SP3*** remotely. Click the **Read [F4]** button.
3. In the ***TrikdisConfig*** window "**Modules**", in the column "**Module**", select "**Not available**" instead of the "**PB-LORA Panic button**" that you wish to delete and click **Write [F5]**. The wireless panic button is now removed from the "***FLEXi***" ***SP3***'s memory.

4 Registration of 250 wireless PB-LORA panic buttons to the control panel "FLEXi" SP3

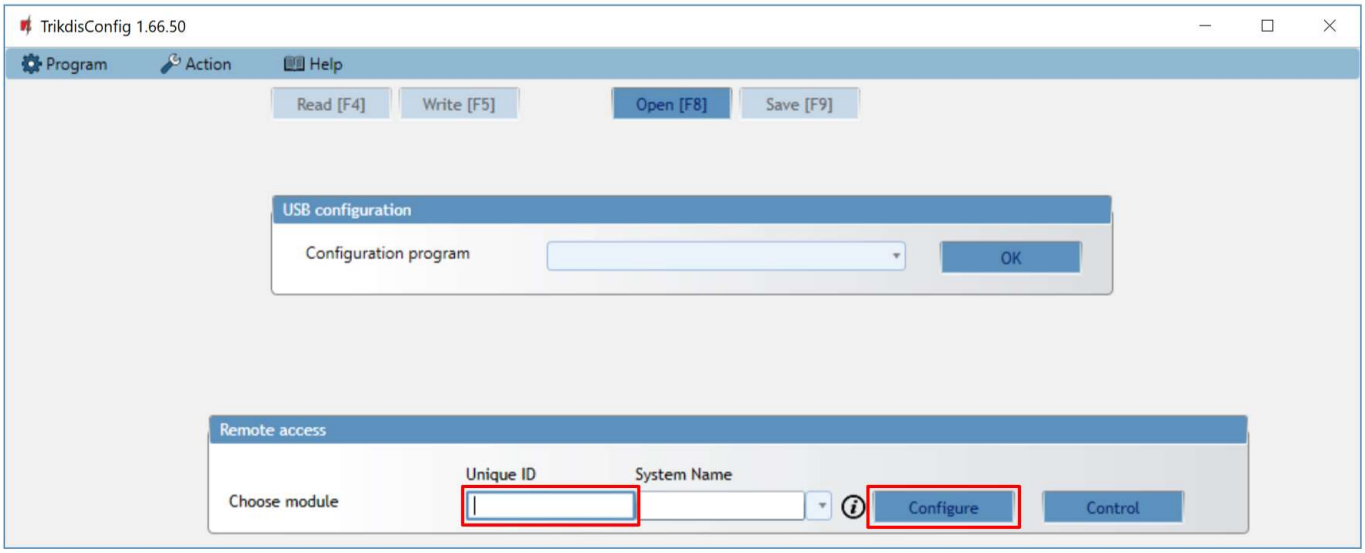
"*FLEXi*" *SP3* control panel must have release 2 firmware with version 1.16 or higher (for example, SP3_xxx2_0116.fw).

2. An ***RF-LORA*** transceiver must be connected to the ***"FLEXi" SP3*** control panel.
3. Turn on the power supply of the ***"FLEXi" SP3*** control panel***.***
4. The ***PB-LORA*** wireless panic button must have a battery installed.
5. Launch ***TrikdisConfig***.
6. Remotely connect to "***FLEXi***" ***SP3***.

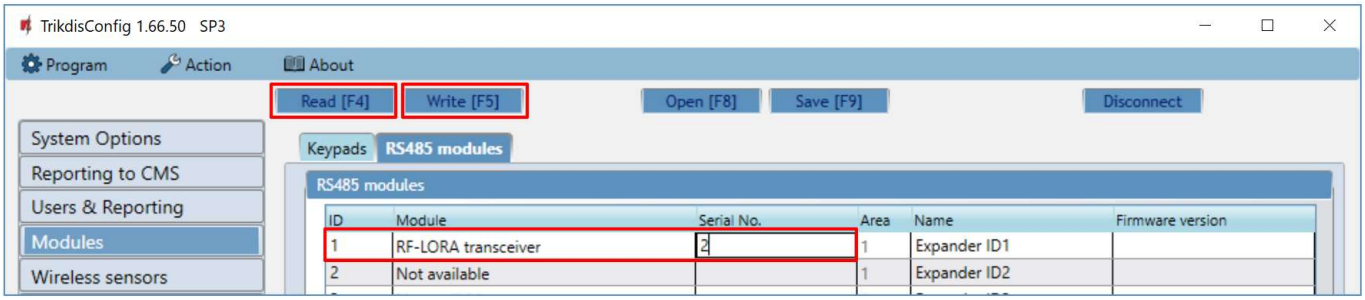
IMPORTANT: Remote configuration will only work when "***FLEXi***" ***SP3***:

1. The WiFi/LAN communication channel is configured or an activated SIM card is inserted and the PIN code is entered or disabled.
2. Mobile internet is activated on the SIM card.
3. Protegus cloud service must be enabled.
4. The power must be switched on ("**PWR**" LED must be green blinking).
5. Must be connected to network ("**NET**" LED must be green solid and yellow blinking).

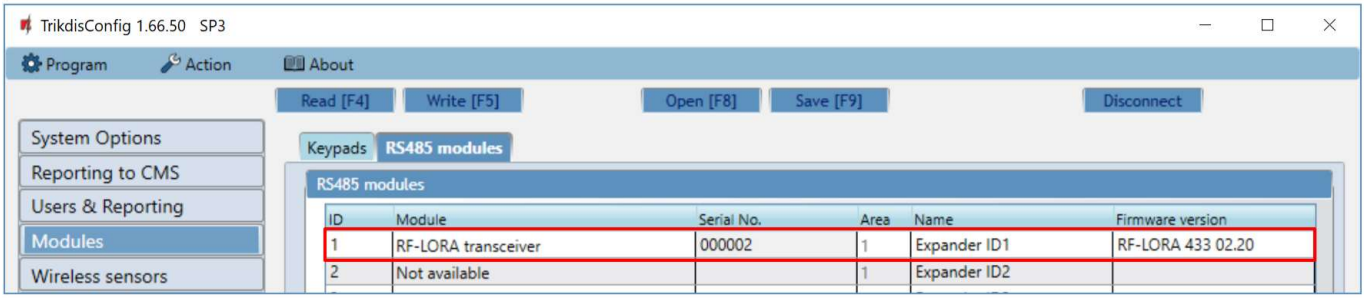
7. Launch the configuration program ***TrikdisConfig*** and in the field "**Unique ID"** of the "**Remote access**" section enter the IMEI number of ***„FLEXi" SP3.*** The IMEI number is given on the stickers that can be found on the control panel and on the packaging.



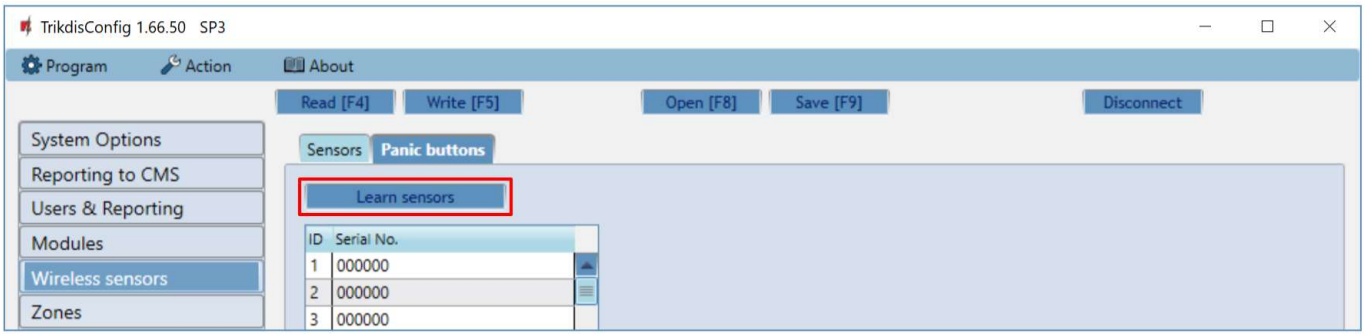
8. Click „**Configure"**.
9. Click the button **Read [F4]** for the program to read the parameters currently set for the ***"FLEXi" SP3***. If a window for entering the Administrator code opens, enter the six-symbol administrator code.
10. In the "**Modules**" list, select "**RF-LORA transceiver".**
11. In the "**Serial No.**" field, enter the serial number of the ***RF-LORA***.
12. Click the **Write [F5]** button.
13. Wait for the updates to finish.



14. Wait 1 minute.
15. Click **Read [F4]**.
16. The firmware version of the "**RF-LORA transceiver**" will appear in the "**Modules**" window**.**



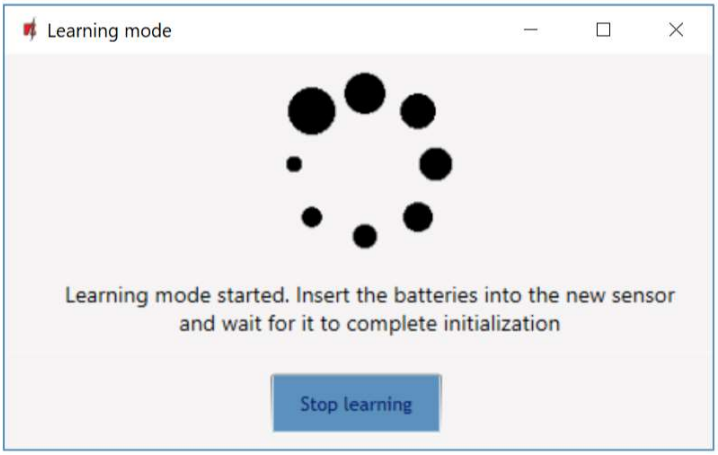
17. Go to the "**Wireless sensor**" window.
18. Click the "**Learn sensors**" button.



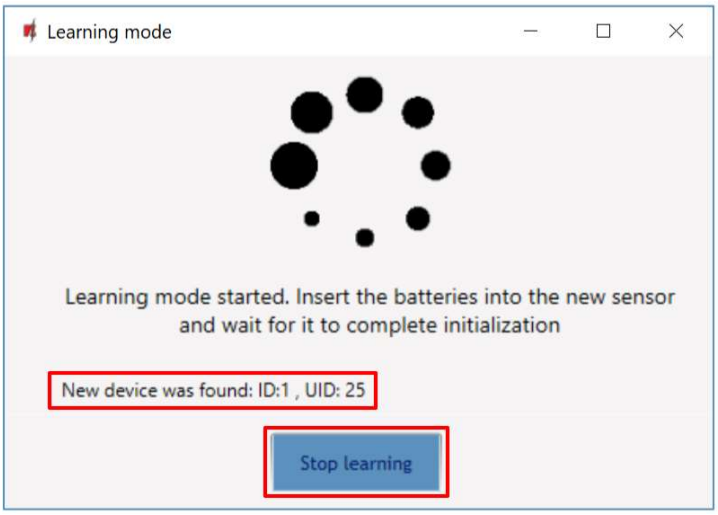
All wireless panic buttons can be linked simultaneously.

When enrolling PB-LORA panic buttons, the *RF-LORA* module must be at least 1 m from the buttons.

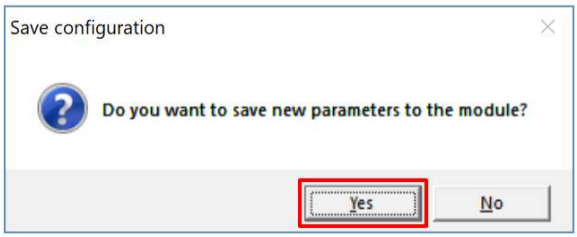
19. The "**DATA/TROUBLE**" LED indicator will start flashing red/green in the ***RF-LORA*** module.
20. ***RF-LORA*** module switches to learning mode. ***TrikdisConfig*** will open the panic button binding window.
21. Briefly press the "**TAMP**" button on the ***PB-LORA*** board.
22. The "**DATA/TROUBLE**" LED on the ***RF-LORA*** module will turn green for a few seconds. After that, the "**DATA/TROUBLE**" LED on the ***RF-LORA*** module will continue flashing red/green.



23. After a few seconds, the ***PB-LORA*** panic button will be added to the list of sensors.
24. The "**UID**" number must match the serial number of the ***PB-LORA*** shown on the sticker on the button.
25. If you need to add the next panic button, you need to press the "**TAMP**" button on the board for a short time.
26. Click "**Stop learning**" to complete the registration of wireless panic buttons.

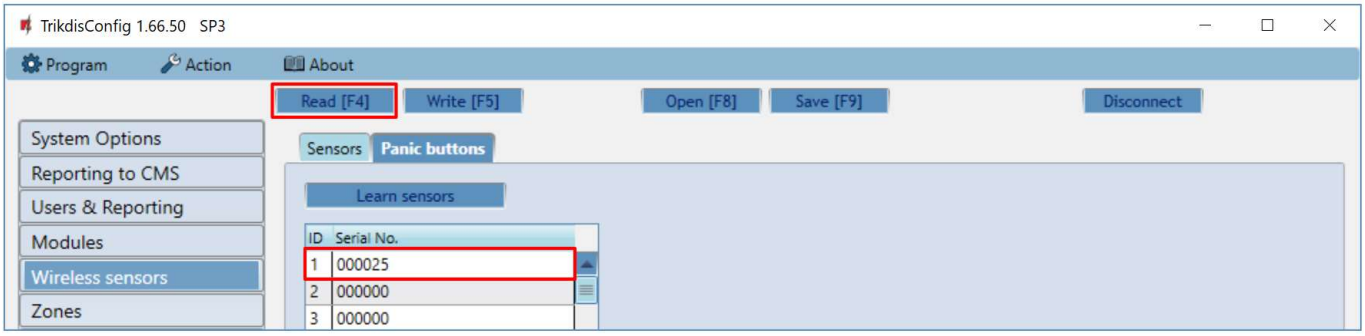


27. Click "**Yes**" for the sensors to be written to the "***FLEXi***" ***SP3*** control panel.



Wait a few minutes. Click **Read [F4].**

TrikdisConfig will display a list of registered wireless panic buttons in the "**Wireless**" window. The "**Serial No.**" field will list the serial number that must match the ***PB-LORA*** panic button serial number written on the back of the case.



Note: To delete wireless ***PB-LORA*** panic buttons from the ***"FLEXi" SP3's*** memory:

1. Launch ***TrikdisConfig***.
2. Connect the ***„FLEXi" SP3*** to a computer using a USB Mini-B cable or connect to the ***„FLEXi" SP3*** remotely. Click the **Read [F4]** button.
3. In ***TrikdisConfig***, in the "**Wireless sensors**" window, enter "**0**" in the "**Serial No.**" field and press **Write [F5]**. ***PB-LORA*** wireless panic button is deleted from ***"FLEXi" SP3*** memory.