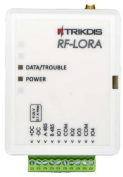

TRIKDIS RF-LORA Wireless Expander Receiver Instruction Manual

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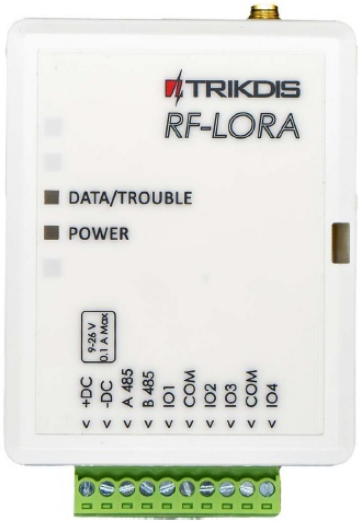
TRIKDIS RF-LORA Wireless Expander Receiver



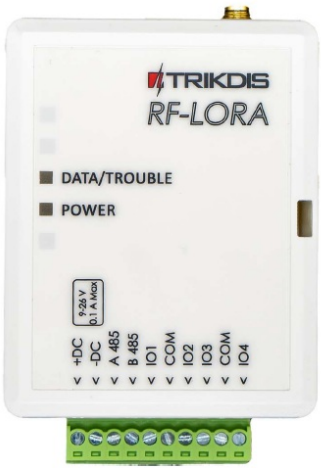
Safety precautions

Only qualified personnel may install and maintain the intrusion alarm module. 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.

Description

The RF-LORA transceiver with iO-LORA and iO-8-LORA wireless expanders increases the number of inputs and outputs of the “Flexi” SP3 control panel using two-way RF communication. Up to 8 LORA modules (iO-LORA, iO-8-LORA, PB-LORA) can be connected to the “FLEXi” SP3 control panel using the RF-LORA transceiver.

Features



Communication

- Line-of-sight wireless range up to 5000 m.
- One RF-LORA transceiver can be connected to the “FLEXi” SP3 control panel.
- The product comes with a standard antenna suitable for most applications. In cases where it is necessary to provide high-quality communication at the maximum possible distance, an antenna (AXANT- KIT – 433 MHz, AX-ANT01S_SF – 868 MHz) with a higher radio signal gain should be used.

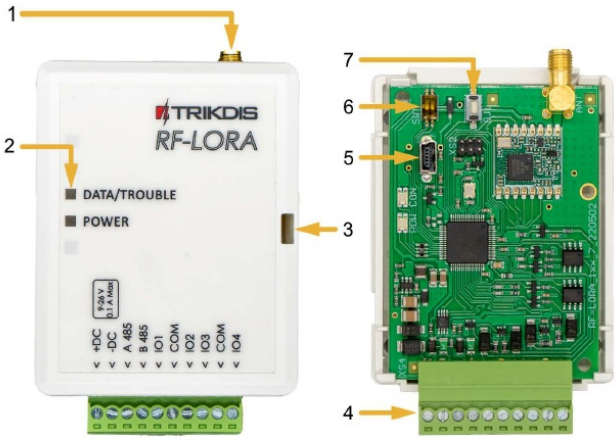
Connection

- The RF-LORA transceiver is connected to the “FLEXi” SP3 control panel via the RS485 bus.

Specifications

Parameter	Description
Transmission frequency	8F modification: 867-869 MHz 4F modification: 433,3-434,7 MHz
Modulation type	LORA
Power supply voltage	9-26 V DC
Current consumption	Up to 50 mA (stand-by) Up to 150 mA (short-term, while sending)
Report encryption	Yes
Range in open space	Up to 5000 m
Operating environment	Temperature from –20 °C to +50 °C, relative humidity – up to 80% at +20 °C
Dimensions	62 x 82 x 25 mm
Weight	80 g

Expander elements



1. SMA connector for RF antenna.
2. Light indicators.
3. Frontal case opening slot.
4. Terminal for external connections.
5. USB Mini-B connector is for firmware updates.
6. DIP switch “SW”.
7. “DJ1” button to enable/disable LORA module learning mode.

Note: DIP switch “SW” settings:

1. Radiofrequency (“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.
   NOTE: In RF-LORA and other LORA modules, switch positions “SW” must match! Otherwise, the radio communication will not work!

Purpose of terminals

Terminal	Description
+DC	Power terminal (9-26 V DC positive)
-DC	Power terminal (9-26 V DC negative)
A 485	*RS485* bus A contact
B 485	*RS485* bus B contact
IO1-IO4	Not used
COM	Not used

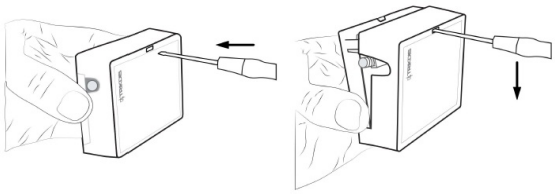
LED indication of operation

Indicator	Light status	Description
DATA/TROUBLE	Blinking/Lighting red	Communication with the module is broken
	Blinking green/red	LORA modules linking mode
	Green lights up for 3 seconds	Pre-bound LORA module (in learning mode)
POWER	Off	No supply voltage
	Green blinking	Normal supply voltage level

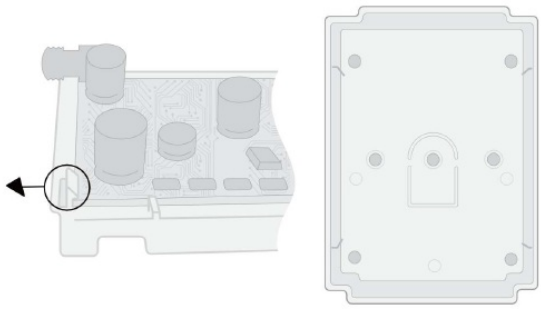
Indicator	Light status	Description
	Yellow blinking	Low supply voltage level (≤11.5 V)
	Yellow	No communication with ***“FLEXi” SP3*** control panel via RS485

Wiring schematics
Fastening

1. Remove the top lid.

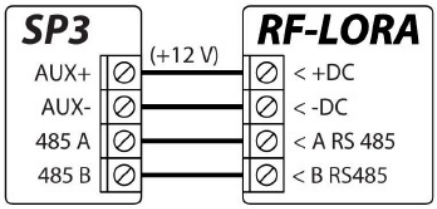


2. Remove the PCB board.

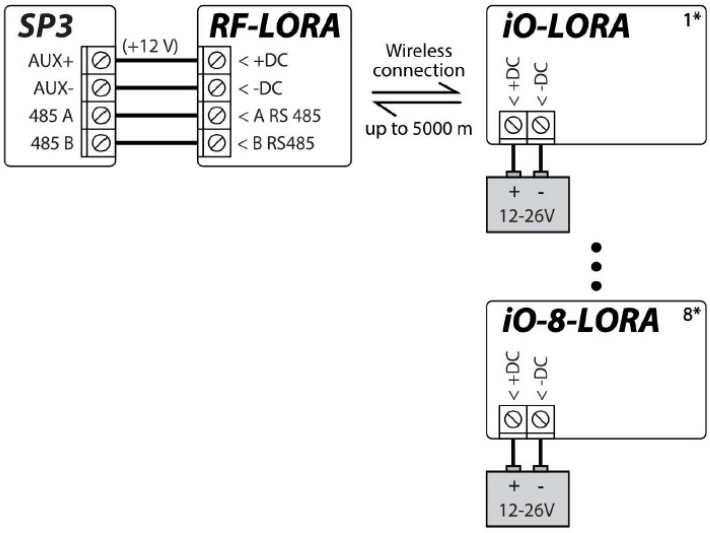


3. Fasten the base of the case in the desired place using screws.
4. Reinsert the PCB board.
5. Close the top lid.

Schematic of RF-LORA transceiver connection to “FLEXi” SP3 control panel



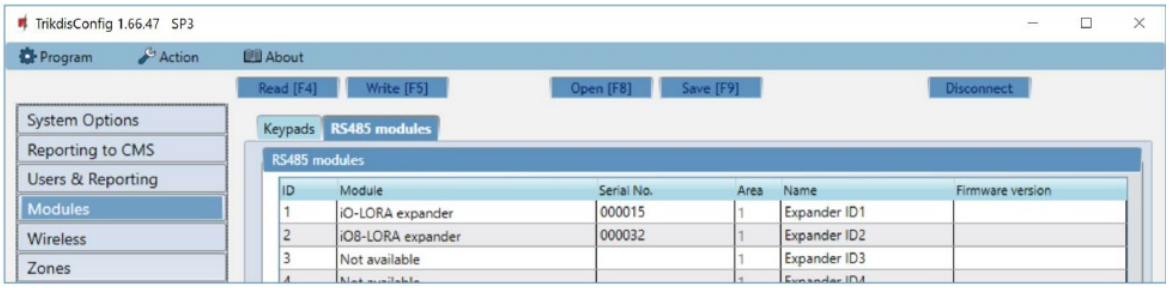
Schematics for connecting LORA modules



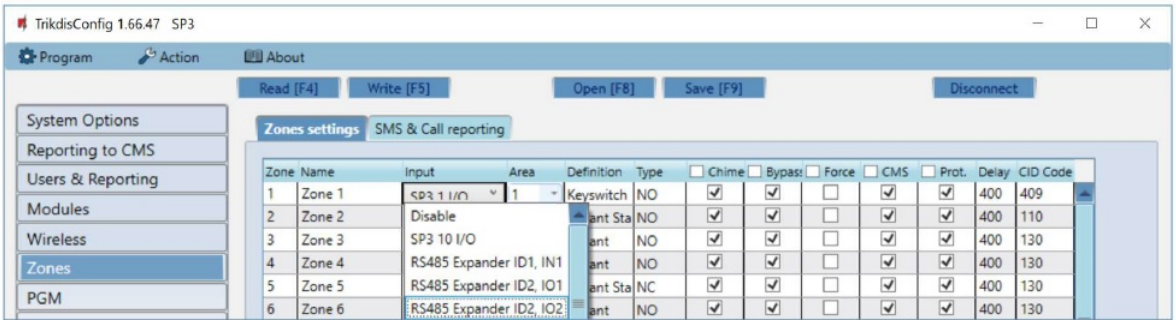
Registering the LORA wireless expander to the control panel “FLEXi” SP3

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. Turn on the power supply to the iO-LORA and/or iO-8-LORA wireless expanders.
4. Launch TrikdisConfig.

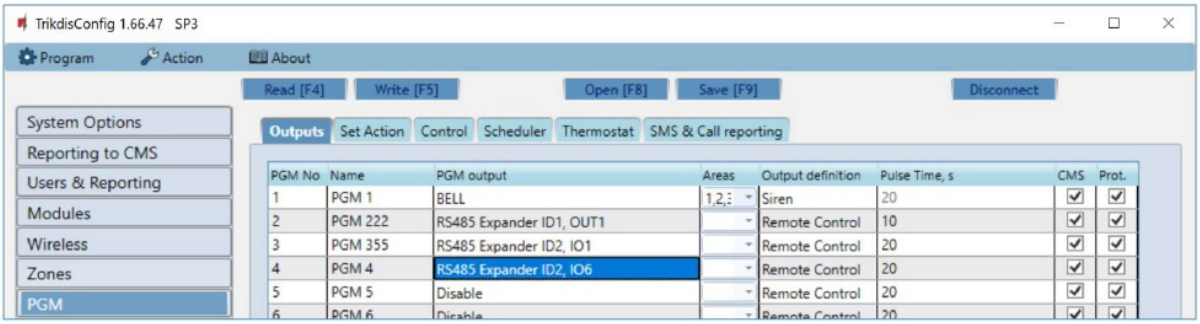
5. Connect the “FLEXi” SP3 to a computer using a USB Mini-B cable or connect to the “FLEXi” SP3 remotely.
6. Click the button Read [F4] for the program to read the parameters currently set for the “FLEXi” SP3 control panel. If a window for entering the Administrator code opens, enter the six-symbol administrator code.
7. In the “Modules” list, select “iO-LORA expander” (“iO-8-LORA expander”).
8. In the “Serial No.” field, enter the serial number of the module iO-LORA (iO-8-LORA).



9. In the “Zones” tab, make settings for the expander’s input.



10. In the “PGM” tab, configure the expander’s PGM output.



11. Once the configuration is complete, click the Write [F5] button.
12. Wait for the updates to finish.
13. Click the “Disconnect” button and disconnect the USB cable.
14. Trigger the inputs and switch outputs to test the device.

Documents / Resources

	TRIKDIS RF-LORA Wireless Expander Receiver [pdf] Instruction Manual RF-LORA, RF-LORA Wireless Expander Receiver, Wireless Expander Receiver, Expander Receiver, Receiver

References

- Home - Trikdis
- Pagrindinis - Trikdis

Manuals+.