Converter RS-BL (light) Manual

CONTENT

1. General information about the product

1.1. Purpose of the product

1.1.1. The converter RS-BL (light) (hereinafter referred to as the converter) is intended for tuning the communication interfaces of the detector and control panel when adjusting and testing the detector's operability.

The converter is designed for interoperability with the FMC series detectors devices and Tribo-S fence protection system.

An Android based device may be used as the control panel.

1.1.2. The RS-BL (light) converts RS-485 signal into "Bluetooth" signal, assuring the connection with "Android" device wirelessly.

1.1.3. The RS-BL (light) power supply is being provided by AA-type batteries or by external DC power source (8… 30V).

1.2. Technical characteristics

1.2.1 The technical characteristics of the RS-BL (light) are stated in Table 1.2

Table 1.2

No.	Characteristic	Meaning
1	Power supply voltage	3.6 (AA type battery)
		8…30 V (external source)
2	Consumption current, no more than	20 mA
3	The time of operation of the transformer from fully charged battery, no less than	10 hrs
4	Data transmission speed	57600 bit/s
5	Network topology RS-485	Point-to-point
6	The length of the communication line RS-485, no more than	1000 m
7	Bluetooth interface specification	2.1 + EDR
8	Bluetooth receiver sensitivity	-80 dBm
9	Bluetooth transmitter capacity	0,25 – 2,5 dBm (Class 1)
10	Bluetooth operating distance	10 m

11	Operating temperature range	From -20 to +50°C

1.3. Completeness

1.3.1. The full set of delivery of the transformer is provided in Table 2

Table 2

Name	Quantity	Note
Transformer RS-BL	1	
Connection cable FMC - RS	1	0.5 m
AA-type battery	2	
Package	1	
Technical certificate	1	

1.4. Installation and operation

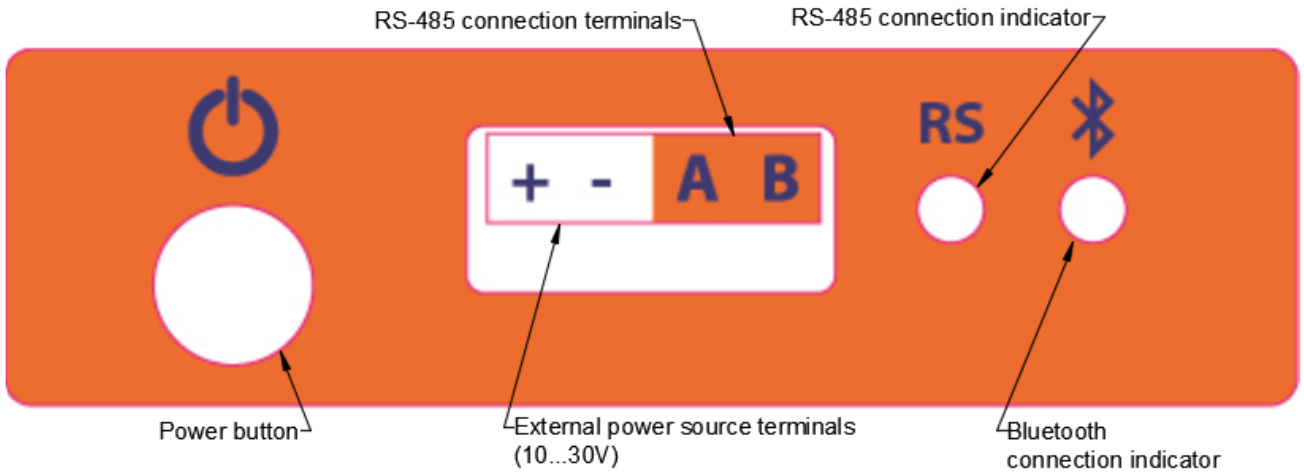
1.4.1. The converter's operation principle

The converter transforms the electrical and time-based characteristics of the RS-485 interface into signals of the Bluetooth wireless personal network.

2. Operating instructions

2.1. Structure

2.1.1. The view of the transformer's front and back panels is shown on the figure below.



2.1 p.

2.1.4. The light indicators of converter RS-BL show the following information:

– RS – shows the exchange of data along the line of interface RS-485 (rare flashing indicates the absence of connection to the RS-485, constant lighting means the proper connection to the RS-485):

–  - shows the exchange of data along the Bluetooth line interface (rare flashing indicates the absence of connection to “Bluetooth” , constant lighting means the proper connection to “Bluetooth”).

In order to turn the converter on, it is needed to press and hold the Power button for few seconds and release it after the indicator lights up.
In order to turn the converter off, it is needed to press and hold the Power button for few seconds and release it after the indicator lights up.
When there are no signal between the system and the converter for more than 60 seconds, and there are no external AC power source connected – the converter automatically turns off.

2.2. The converter’s operation

2.2.1. For wireless connection of the Android control panel to the detector it is necessary to do the following:

- Connect the FMC – RS cable (it is applied in a set) to the “A-B” terminals of the converter (a red wire – A, black – B);

- Connect the plug of the FMC – RS cable to the signalling device’s RS-485 socket:

- Power up the converter by pushing the power button;

- Turn on the Android application, search for the RS 485-BL*** (serial number on the product case) device and establish the connection. The BL indicator must turn on.

2.2.2. While the battery is being discharged, the indicators RS and BL will light in succession.

When the batteries will start to discharge, then RS and BL indicators will light up alternately.

In order to continue the work it is needed to replace the batteries or to provide power supply (8…30V) to the clamps “+” “-“ according to 2.1 p.

3. The manufacturer's guarantee certificate

The manufacturer guarantees the conformity of the converter RS-BL No _____ to the conditions, provided in this manual and is considered suitable for operation.

Date of issue _____ 201

The guarantee operation period is 12 months as of the date of dispatch by the manufacturer.

The guarantee does not cover the converter if:

- The product is mechanically or thermally damaged or filled with water;

- The failures caused by operational parameters set out in this manual, failure to comply.

Send complaints to the following address:

Silutes pl. 2, Ofc 525, Klaipeda, 91111, Lithuania
Tel. +370 46 411353, E-mail: forteza@forteza.com