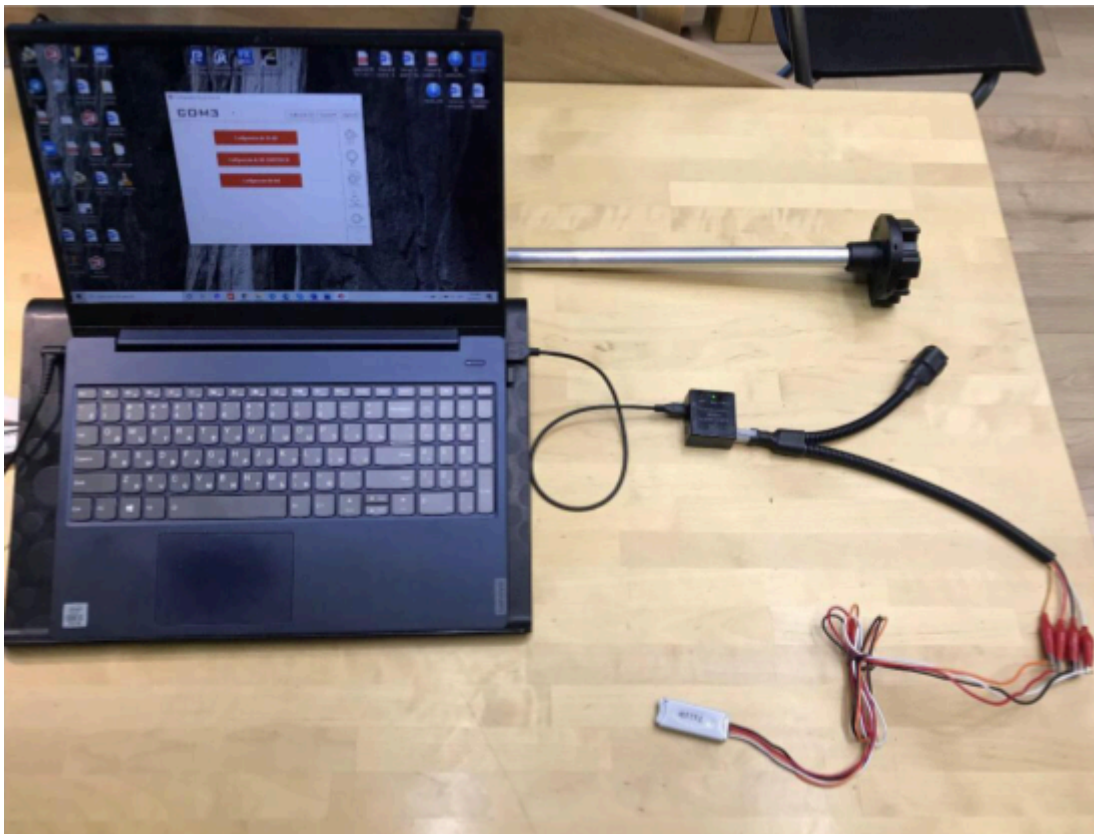




BLE RS-485 Base configuration

You can configure the TD-BLE BASE (also - BLE-RS485 Base or adapter) **only by connecting its wires to the converter:**



Install the Escort configurator **v1.0.2.38**

https://www.fmeter.ru/download/_ftp/all/dut/FLS_Configurator.zip?v=2105211434

Install **the converter's driver and files of system components and libraries**, if it's necessary. You can find it on our website www.fmeter.ru (the *Downloads* tab)
https://www.fmeter.ru/download/_ftp/escort_c-200m/Driver_for_Escort_C-200.zip?v=200320144623
https://www.fmeter.ru/download/_ftp/eng/other/Component_registration.zip?v=270519154439

- If you have **the Base with the early firmware version**, you will probably need to use the previous Escort configurator versions, e.g, the **v1.0.2.36**, **v1.0.0.85**

https://www.fmeter.ru/download/_ftp/eng/datchik-urovnja-topliva/eskort-td-ble/BL_E_Base_Conf%28Base_FW_233%29.zip?v=230721120353
https://drive.google.com/file/d/15x4jPc_Gu4ZKXDzMnTyRVyEXIXhx3sN_/view?usp=sharing

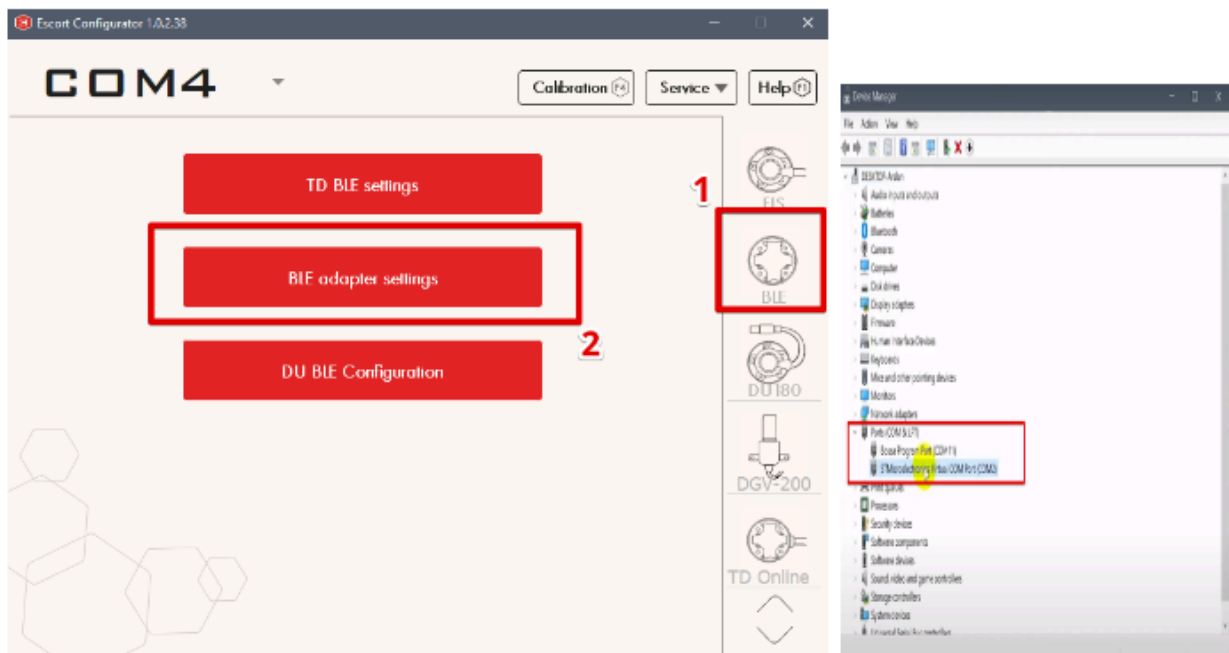
Make sure that your laptop is powered up and all two USB cables are connected to the converter (in case you use the Escort C200M).

Disconnect any other devices from your PC, as they can be detected as the COM ports, and interfere with the configuration of the base. Switch off the Bluetooth of your laptop too, if applicable. Connect the Base to the converter.

The Base must be connected only to the converter. There should be no other devices (such as a tracker or a sensor) connected to the Base or to the converter.

Launch the Escort configurator. Select the COM port that corresponds to the converter that you are using to connect the adapter (to find its number, check the Windows Device manager's COM and LPT ports section; C200M will be defined

there as *STMicroelectronics Virtual COM port* device). Then go to the *BLE* then click *BLE adapter settings*



You will see the 4 cells in the opened window. The network addresses are reserved for each cell by default the way it is represented below

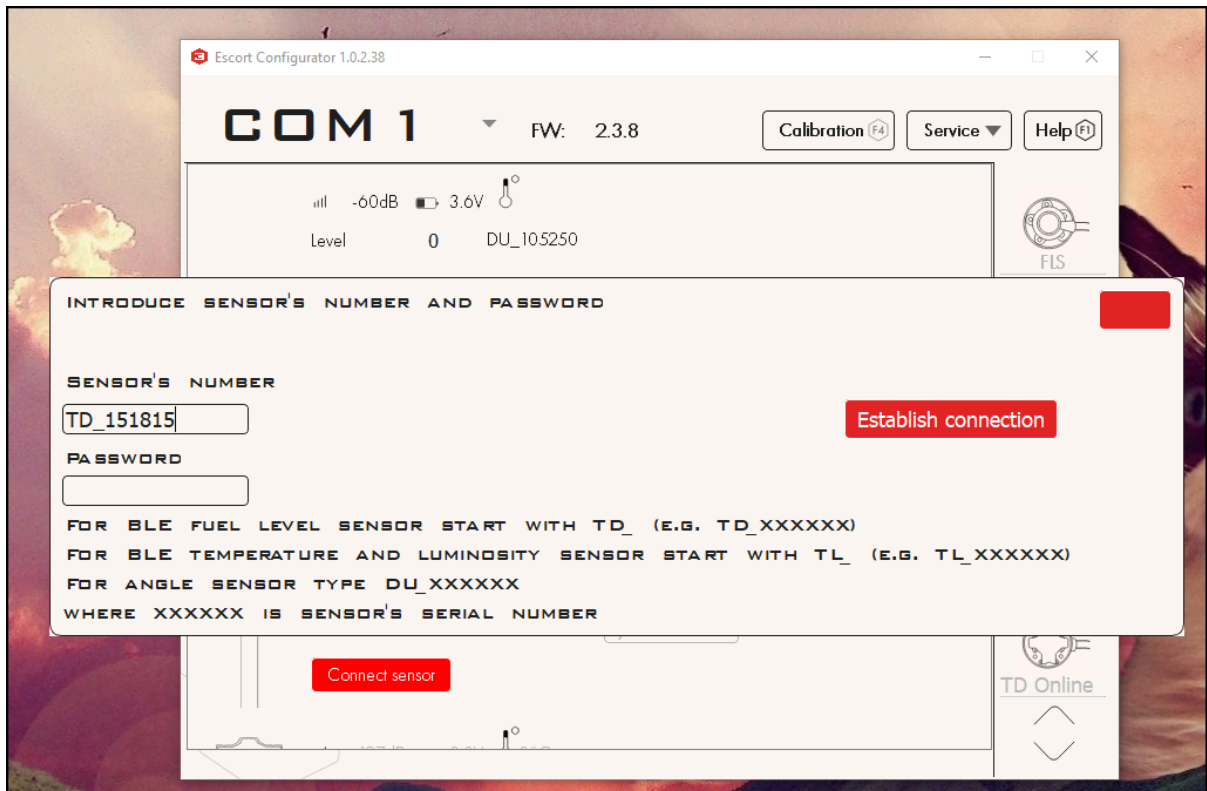
1st cell	1,2
2nd cell	3,4
3rd cell	5,6
4th cell	7,8

- 0 network address is used to configure the Base. So you are not able to assign it to any of the cells with a sensor connected to it, nor should you try and do that



E.g. if you want the sensor data to be transmitted via the 3rd network address, you should click on ***Connect sensor in the 2nd cell.***

Press the ***Connect sensor*** button, enter the **abbreviation (TD, DU, TH, TL)** and **the last 6 digits** of the sensor's serial number, then press the ***Establish connection*** button

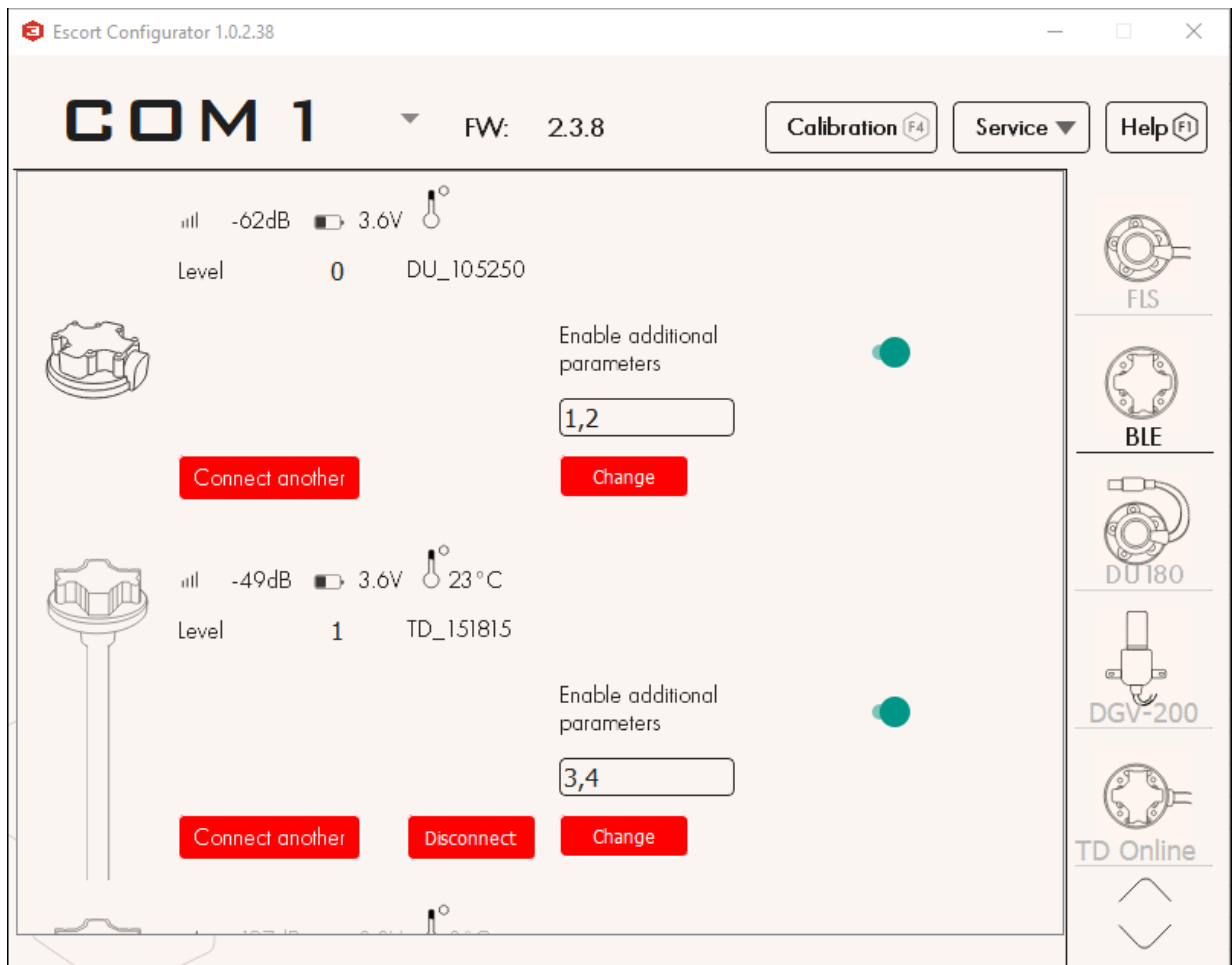


After you successfully connected the sensor, you can activate the ***Enable additional parameters*** option. If you activate this option, the sensor will be transmitting the data by two network addresses, e.g.

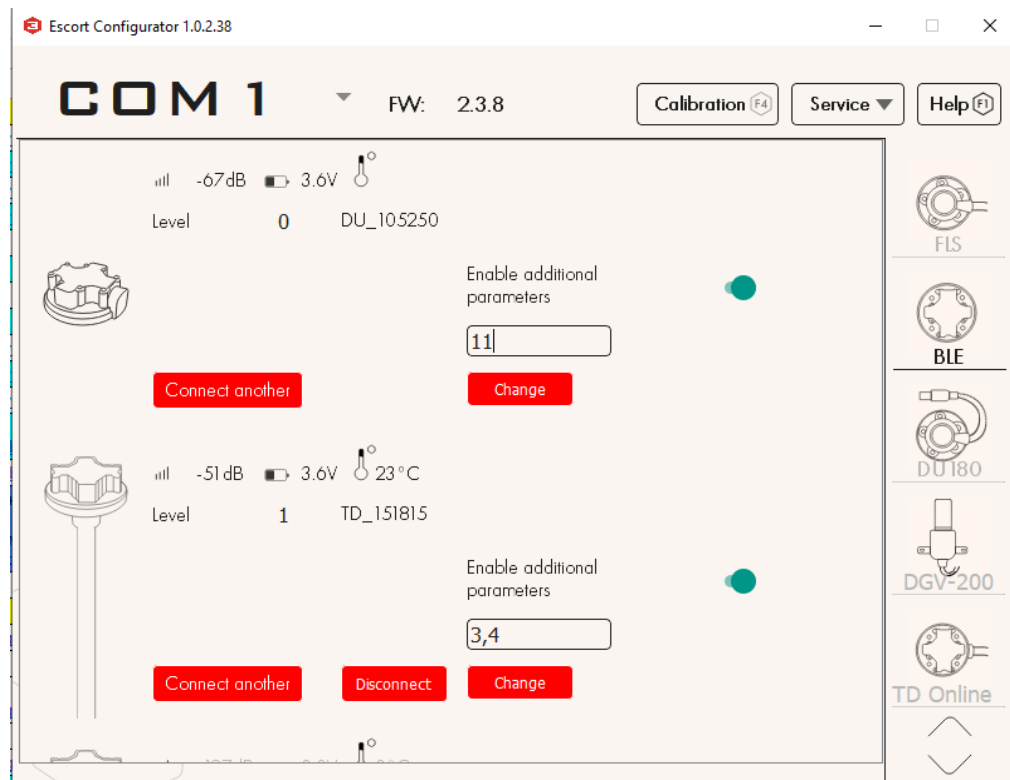
1st cell	1,2
2nd cell	3,4
3rd cell	5,6
4th cell	7,8

Network address configuration

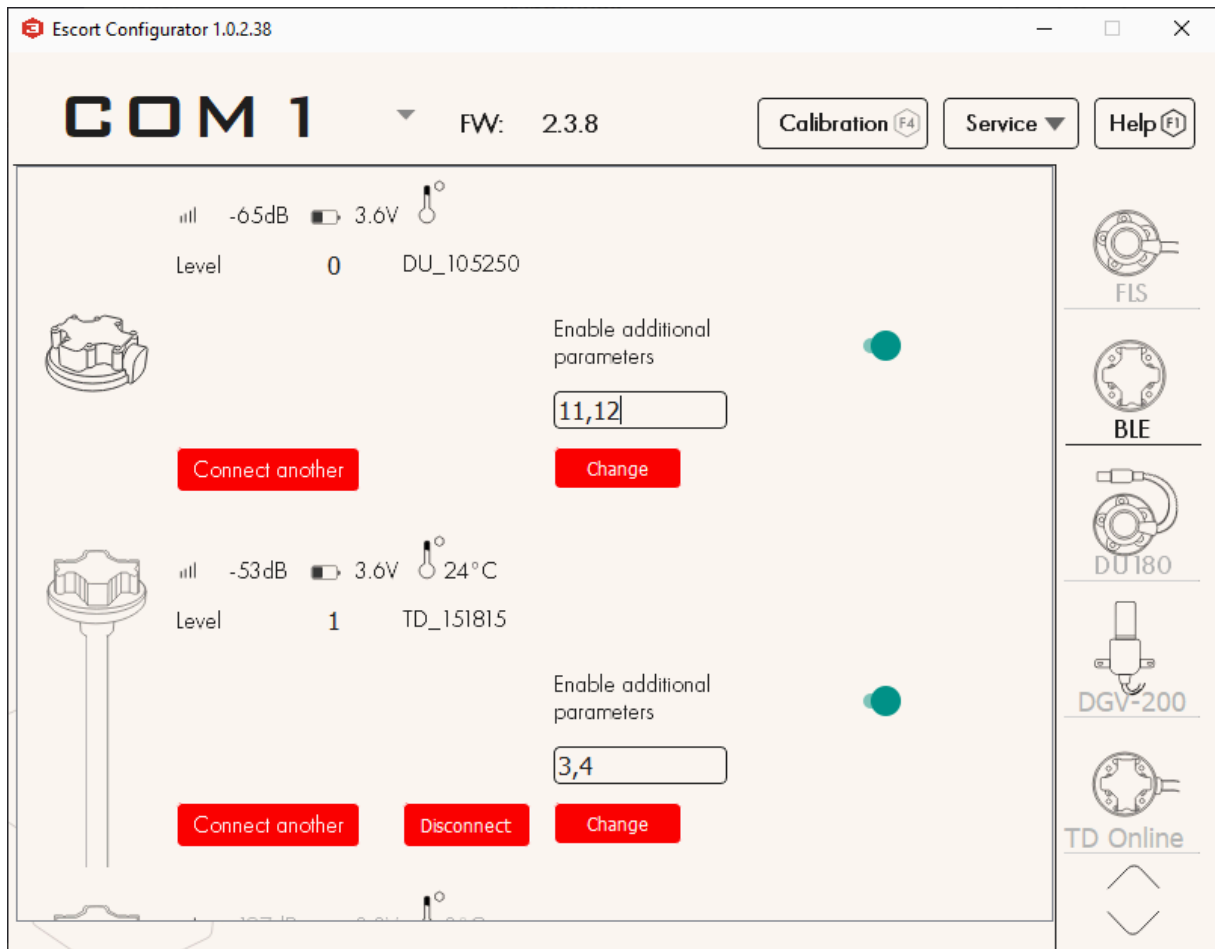
Also, you can change the network addresses. If you want to use 1-8 network addresses, first of all you should change the network address in the certain cell, e.g. change it to the address 11. You need to enter only the main network address, the additional one will be added automatically. Here's an example:



- Since there's a sensor connected to the first cell, we can change its addresses



- Enter the required address. You should enter only one number, the additional address will be added automatically. In this case, we only enter 11 and press ***Change***

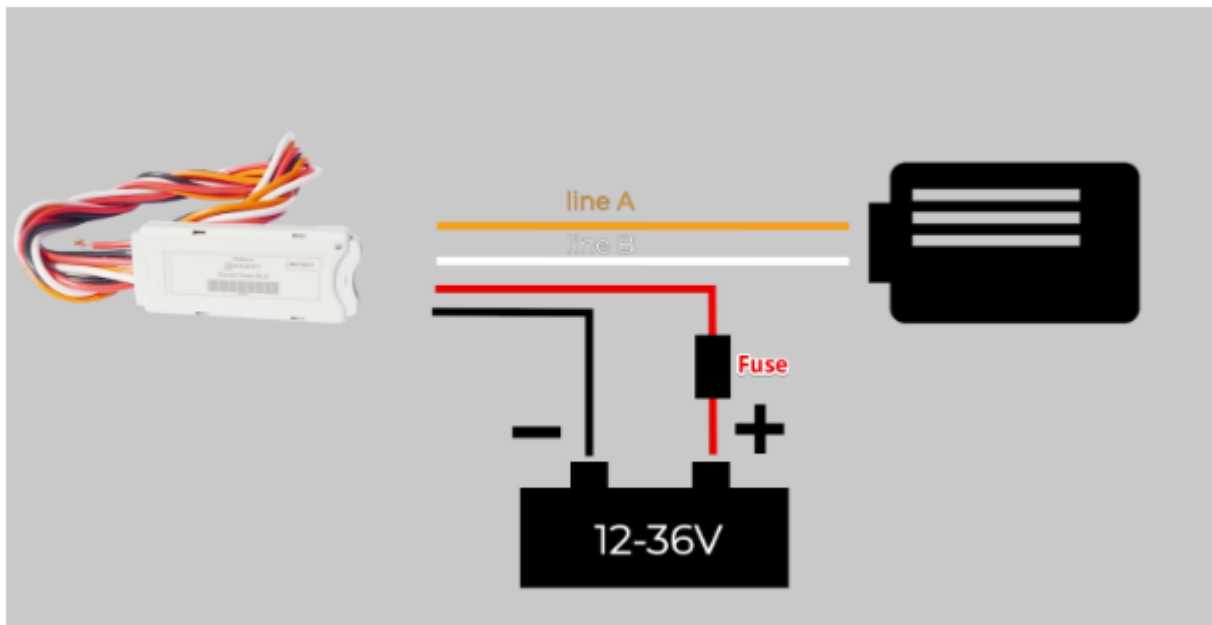


- The second address (12 in this case) will appear by itself

Now the sensor connected in the 1st cell will be transmitting the data to the GPS tracker via the addresses 11 and 12. As the addresses 1 and 2 are vacant, they can be used in another cell.

Wiring diagram of TD-BLE BASE and GPS Tracker

Disconnect the base from the C200M or other converter, connect it to the power supply (black and red wires, the fuse from the kit must be installed in the red wire between the adapter and the power supply) and the **orange to the line A RS485** of the tracker and **white to the line B RS485**:



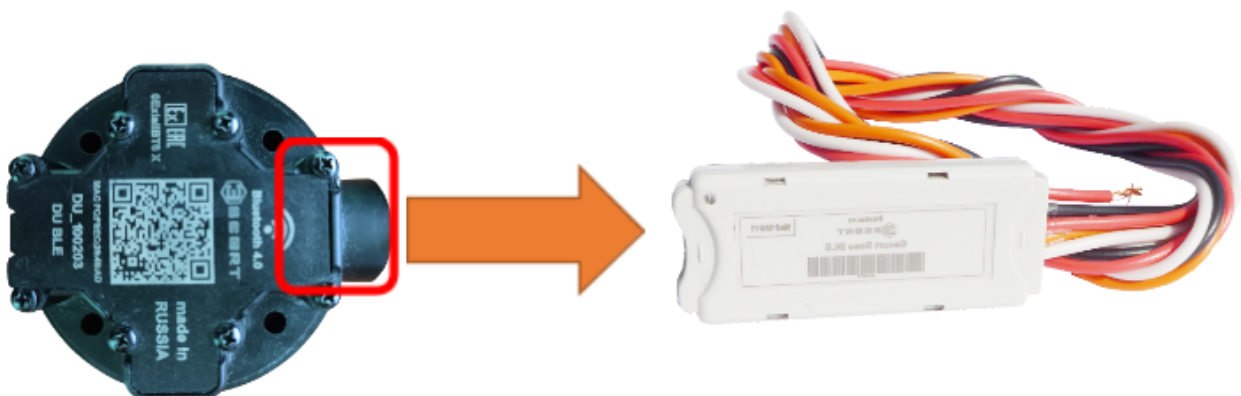
How to check connection stability between BLE sensors and BLE-RS485 BASE

When selecting the spot to install the BLE-RS485 Base adapter, be sure to assess its average **RSSI value** over the course of 2-3 minutes in the **Escort configurator**.

It must be falling into the range **from -45 to -85 dB**. If it doesn't try installing the base closer to the sensor.



It is also important to properly orient the Bluetooth antennas of the sensor and the adapter



Appendix 1: connecting Escort TH-BLE via BLE-RS485 BASE

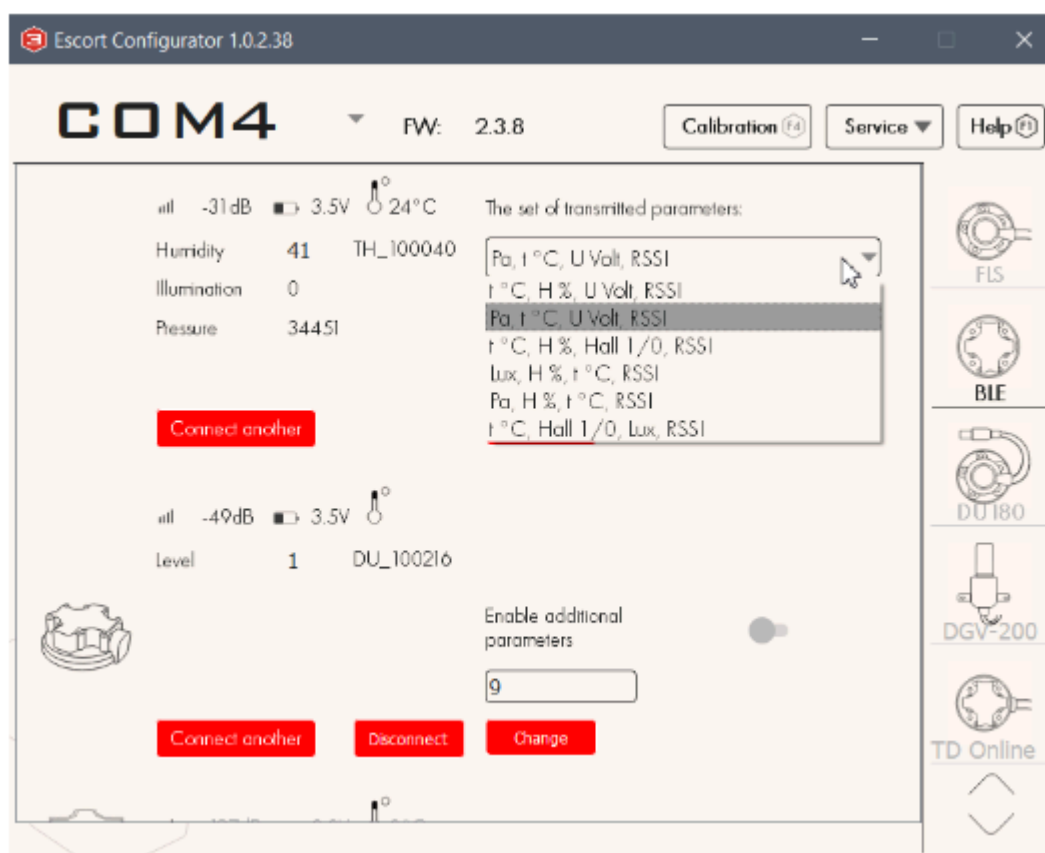
The Escort TH-BLE sensor transmits several parameters. Their list varies from one (earlier release) version to the other (newer release) version.

They are: **atmospheric pressure** (earlier release only), **temperature**, **humidity**, **luminosity** (newer release only), **battery charge**.

In case of a TH-BLE, the adapter/base also can use up to 2 addresses to channel the data that comes from the sensor:



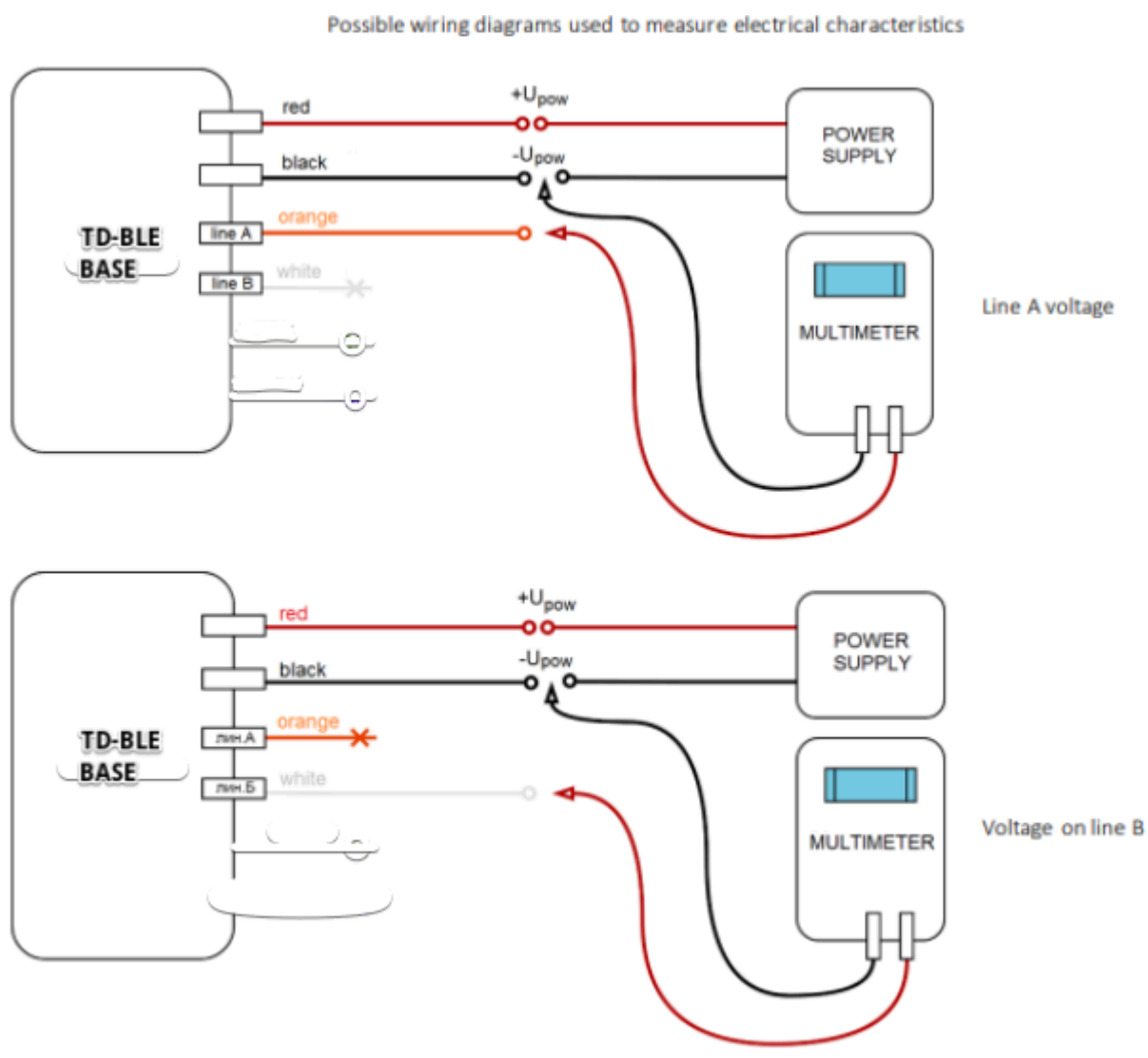
Depending on the **preset** (*The set of transmitted parameters*) you select the order in which the parameters are transmitted to the tracker:



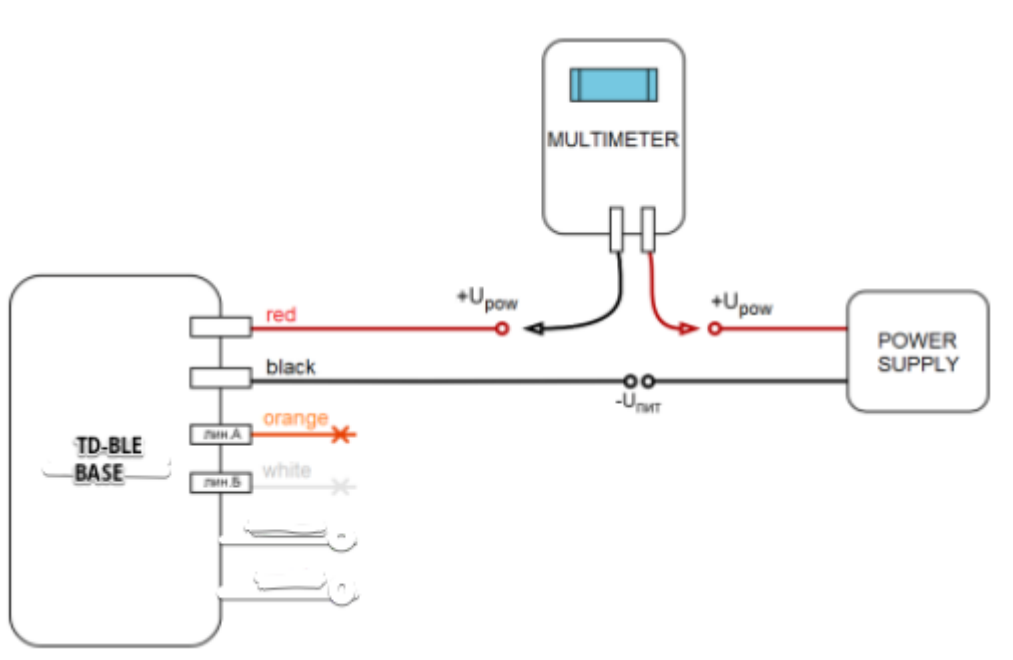
Appendix 2: TD-BLE BASE diagnostics

If you suspect that the Base itself has some technical issues, you can check its power consumption and the voltage on its A and B lines with the serviceable multimeter.

Measuring the voltage on the A and B lines:



Measuring the the device's power consumption:



We can consider the electrical characteristics are normal, if (in case you use a 12V power supply) the **voltage on the both A and B lines is about 1,4V** and the **Base's power consumption is approximately 18mA**