

Connecting an analog fuel level sensor to the Teltonika tracker

Connection diagram of an analog fuel level sensor to the Teltonika tracker, in accordance with Figure 1.

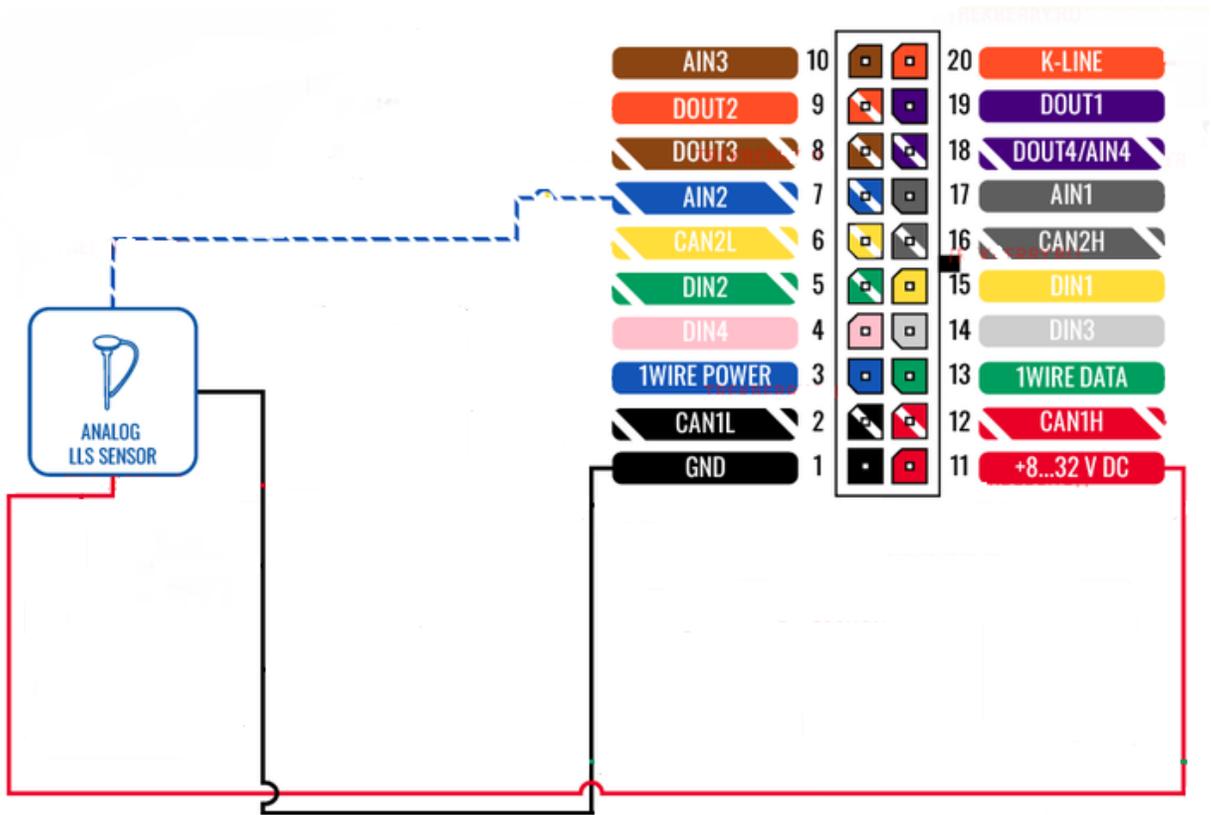


Figure 1 – Connecting an analog fuel level sensor to the Teltonika tracker

In this example, we use the Teltonika FMB640 tracker; in similar Teltonika trackers, the analog fuel level sensor is connected in the same way. Plus is connected to the power pin on the tracker, minus to GND, the third wire to the analog input AIN1, AIN2, AIN3 ...

After connecting the sensor and tracker, as well as supplying 12 volts, connect the Teltonika tracker to the laptop via a USB cable and open the Teltonika.Configurator application on the laptop. In Figure 2, you can see the application loading and searching for connected devices.

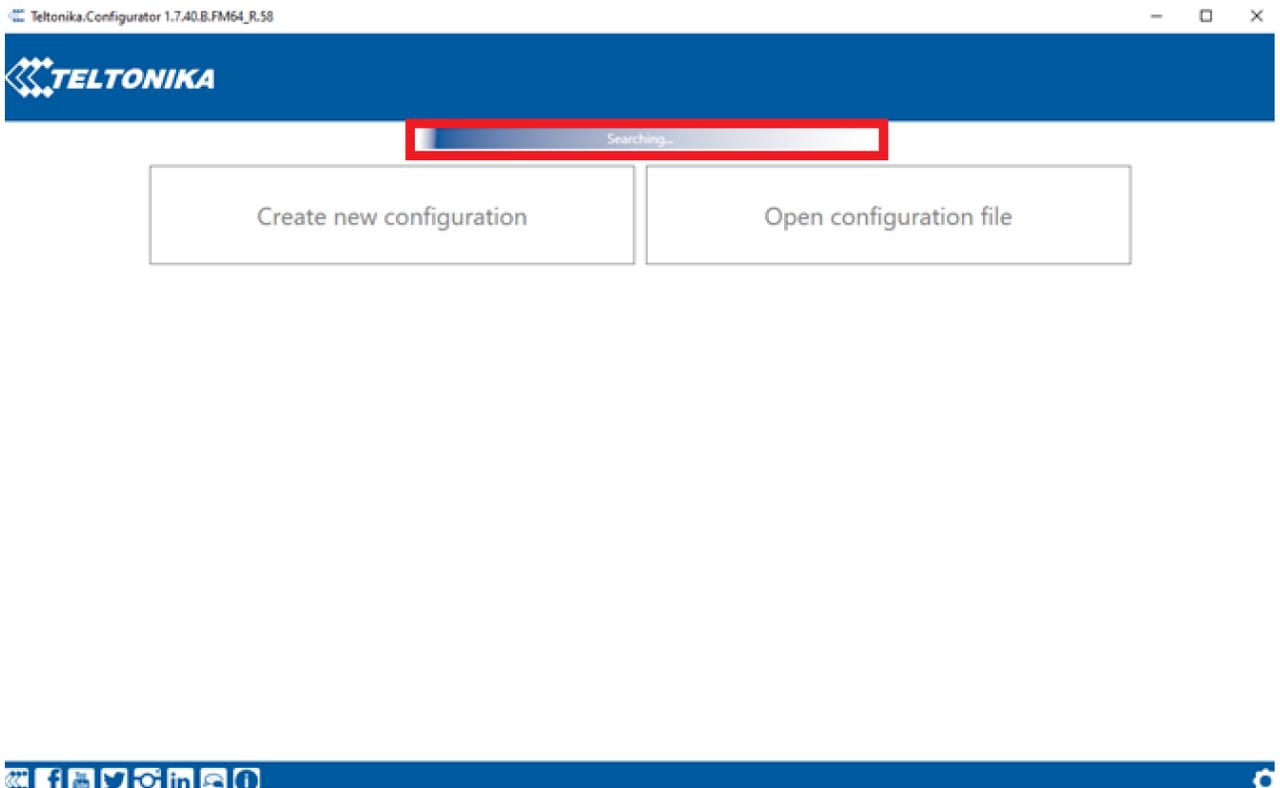


Figure 2 – Loading and searching for connected devices

If the tracker is correctly connected to the laptop and there is power supply, then the software will display this tracker, in accordance with Figure 3.

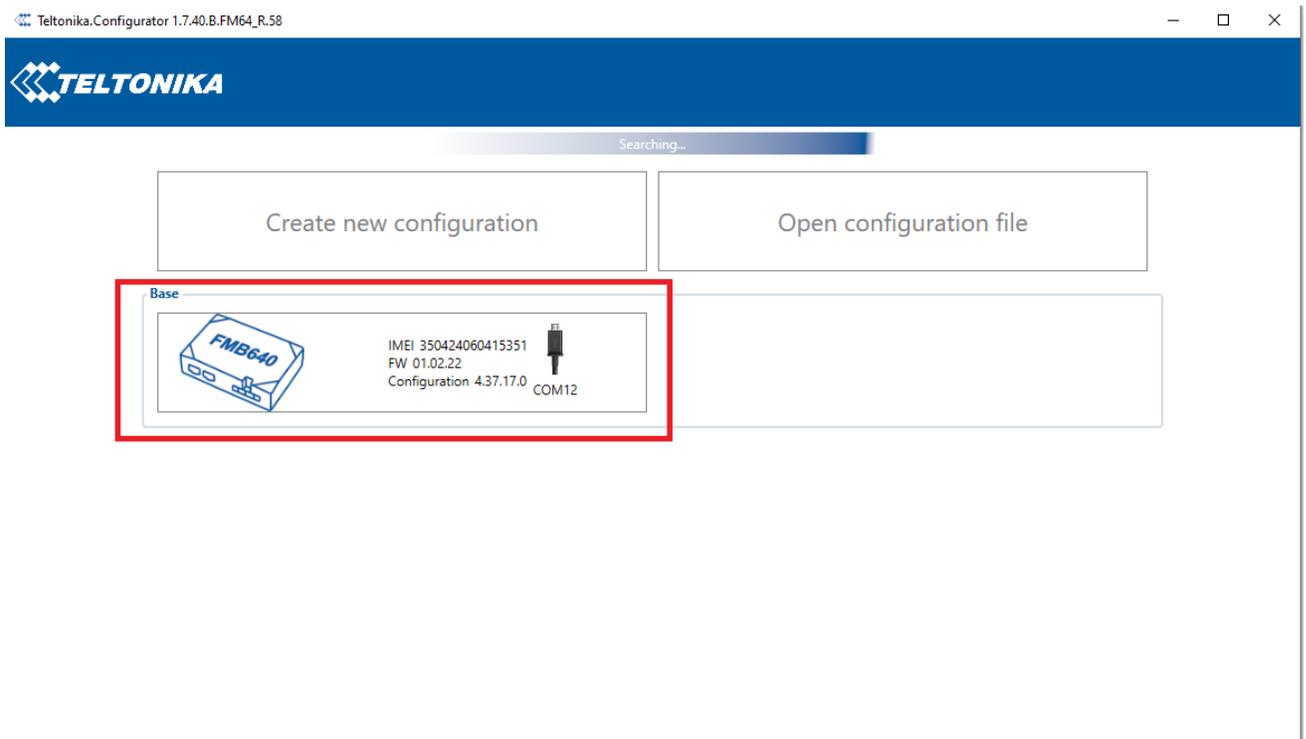


Figure 3 – Detecting trackers connected to a laptop

After we have found our tracker, we click on it. The start window opens, as shown in Figure 4.

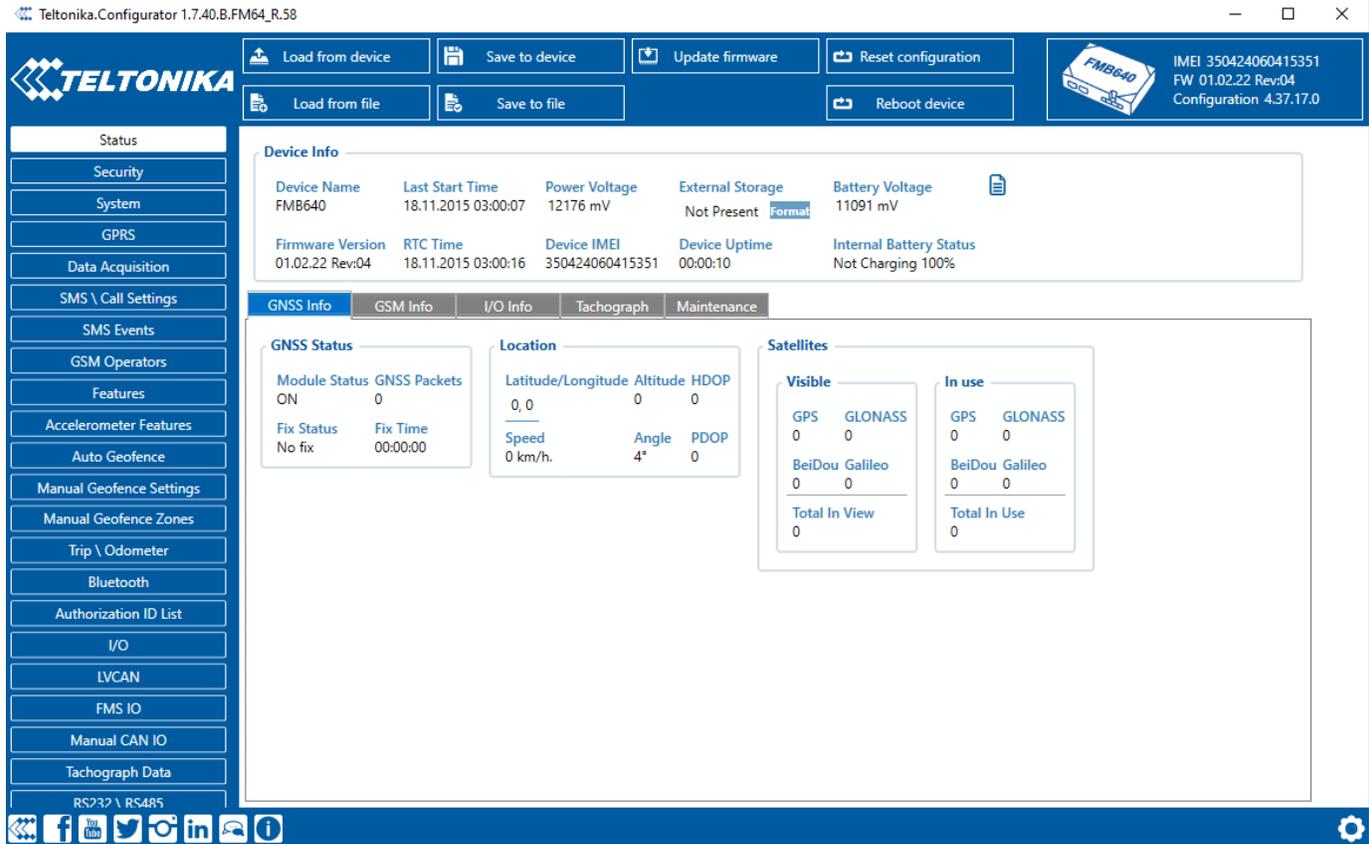


Figure 4 – Application start window

Next, click on the “I/O” tab, as shown in Figure 5.

Teltonika.Configurator 1.7.40.B.FM64_R.58

TELTONIKA

Load from device Save to device Update firmware Reset configuration Reboot device

IMEI 350424060415351
FW 01.02.22 Rev04
Configuration 4.37.17.0

Load from file Save to file

Status Security System GPRS Data Acquisition SMS \ Call Settings SMS Events GSM Operators Features Accelerometer Features Auto Geofence Manual Geofence Settings Manual Geofence Zones Trip \ Odometer Bluetooth Authorization ID List **I/O** LVCAN FMS IO Manual CAN IO Tachograph Data RS232 \ RS485

I/O

Input Name	Current Value	Units	Priority	Low Level	High Level	Event Only	Operand
Ignition	0		None Low High Panic	0	0	Yes No	On Change
Movement	0		None Low High Panic	0	0	Yes No	On Change
Data Mode	4		None Low High Panic	0	0	Yes No	Monitoring
GSM Signal	3		None Low High Panic	0	0	Yes No	Monitoring
Sleep Mode	0		None Low High Panic	0	0	Yes No	Monitoring
GNSS Status	1		None Low High Panic	0	0	Yes No	Monitoring
GNSS PDOP	0		None Low High Panic	0	0	Yes No	Monitoring
GNSS HDOP	0		None Low High Panic	0	0	Yes No	Monitoring
External Voltage	12195	mV	None Low High Panic	0	0	Yes No	Monitoring
Speed	0	km/h	None Low High Panic	0	0	Yes No	Monitoring
GSM Cell ID	0		None Low High Panic	0	0	Yes No	Monitoring
GSM Area Code	0		None Low High Panic	0	0	Yes No	Monitoring
Battery Voltage	0	mV	None Low High Panic	0	0	Yes No	Monitoring
Battery Current	0	mA	None Low High Panic	0	0	Yes No	Monitoring
Active GSM Operator	0		None Low High Panic	0	0	Yes No	Monitoring
Trip Odometer	0	m	None Low High Panic	0	0	Yes No	Monitoring

RS232 \ RS485

Figure 5 – I/O tab

In this tab, we go down a little lower and find the line “Analog Input 2”, in accordance with Figure 6. Our sensor is connected to this input; if we had connected the sensor to the tracker input “AIN 1”, we would have looked for the line “Analog Input 1” accordingly.

Input Name	Current Value	Units	Priority				Low Level	High Level	Event Only		Operand	Avg Const
			None	Low	High	Panic			Yes	No		
Battery Voltage	0	mV	None	Low	High	Panic	0	0	Yes	No	Monitoring	10
Battery Current	0	mA	None	Low	High	Panic	0	0	Yes	No	Monitoring	10
Active GSM Operator	0		None	Low	High	Panic	0	0	Yes	No	Monitoring	
Trip Odometer	0	m	None	Low	High	Panic	0	0	Yes	No	Monitoring	
Total Odometer	1659	m	None	Low	High	Panic	0	4	Yes	No	Monitoring	
Digital Input 1	0		None	Low	High	Panic	0	0	Yes	No	Monitoring	1
Digital Input 2	0		None	Low	High	Panic	0	0	Yes	No	Monitoring	1
Digital Input 3	0		None	Low	High	Panic	0	1	Yes	No	Monitoring	1
Digital Input 4	0		None	Low	High	Panic	0	0	Yes	No	Monitoring	1
Analog Input 1	0	mV	None	Low	High	Panic	0	0	Yes	No	Monitoring	10
Analog Input 2	1992	mV	None	Low	High	Panic	0	0	Yes	No	Monitoring	10
Analog Input 3	7	mV	None	Low	High	Panic	0	0	Yes	No	Monitoring	10
Analog Input 4	0	mV	None	Low	High	Panic	0	0	Yes	No	Monitoring	10
Digital Output 1	0		None	Low	High	Panic	0	0	Yes	No	Monitoring	1
Digital Output 2	0		None	Low	High	Panic	0	0	Yes	No	Monitoring	1
Digital Output 3	0		None	Low	High	Panic	0	0	Yes	No	Monitoring	1
Digital Output 4	0		None	Low	High	Panic	0	0	Yes	No	Monitoring	1
Axis X	0	mG	None	Low	High	Panic	0	0	Yes	No	Monitoring	1
Axis Y	-7	mG	None	Low	High	Panic	0	0	Yes	No	Monitoring	1
Axis Z	980	mG	None	Low	High	Panic	0	0	Yes	No	Monitoring	1
IMSI	-		None	Low	High	Panic			Yes	No	Monitoring	

Figure 6 – Input of the connected sensor

Then we set up our input, for this we set “High” in the “Priority” column, and set “Monitoring” in the “Operand” column, in accordance with Figure 7.

Input Name	Current Value	Units	Priority				Low Level	High Level	Event Only		Operand	Avg Const
			None	Low	High	Panic			Yes	No		
Battery Voltage	0	mV	None	Low	High	Panic	0	0	Yes	No	Monitoring	10
Battery Current	0	mA	None	Low	High	Panic	0	0	Yes	No	Monitoring	10
Active GSM Operator	0		None	Low	High	Panic	0	0	Yes	No	Monitoring	
Trip Odometer	0	m	None	Low	High	Panic	0	0	Yes	No	Monitoring	
Total Odometer	1659	m	None	Low	High	Panic	0	4	Yes	No	Monitoring	
Digital Input 1	0		None	Low	High	Panic	0	0	Yes	No	Monitoring	1
Digital Input 2	0		None	Low	High	Panic	0	0	Yes	No	Monitoring	1
Digital Input 3	0		None	Low	High	Panic	0	1	Yes	No	Monitoring	1
Digital Input 4	0		None	Low	High	Panic	0	0	Yes	No	Monitoring	1
Analog Input 1	131	mV	None	Low	High	Panic	0	0	Yes	No	Monitoring	10
Analog Input 2	58	mV	None	Low	High	Panic	0	0	Yes	No	Monitoring	10
Analog Input 3	0	mV	None	Low	High	Panic	0	0	Yes	No	On Exit	10
Analog Input 4	0	mV	None	Low	High	Panic	0	0	Yes	No	On Entrance	10
Digital Output 1	0		None	Low	High	Panic	0	0	Yes	No	On Both	1
Digital Output 2	0		None	Low	High	Panic	0	0	Yes	No	On Hysteresis	1
Digital Output 3	0		None	Low	High	Panic	0	0	Yes	No	On Change	1
Digital Output 4	0		None	Low	High	Panic	0	0	Yes	No	On Delta Change	1
Axis X	0	mG	None	Low	High	Panic	0	0	Yes	No	Monitoring	1
Axis Y	0	mG	None	Low	High	Panic	0	0	Yes	No	Monitoring	1
Axis Z	976	mG	None	Low	High	Panic	0	0	Yes	No	Monitoring	1

Figure 7 – Login settings

Then click “Save to device” to save the changes to the tracker, in accordance with Figure 8.

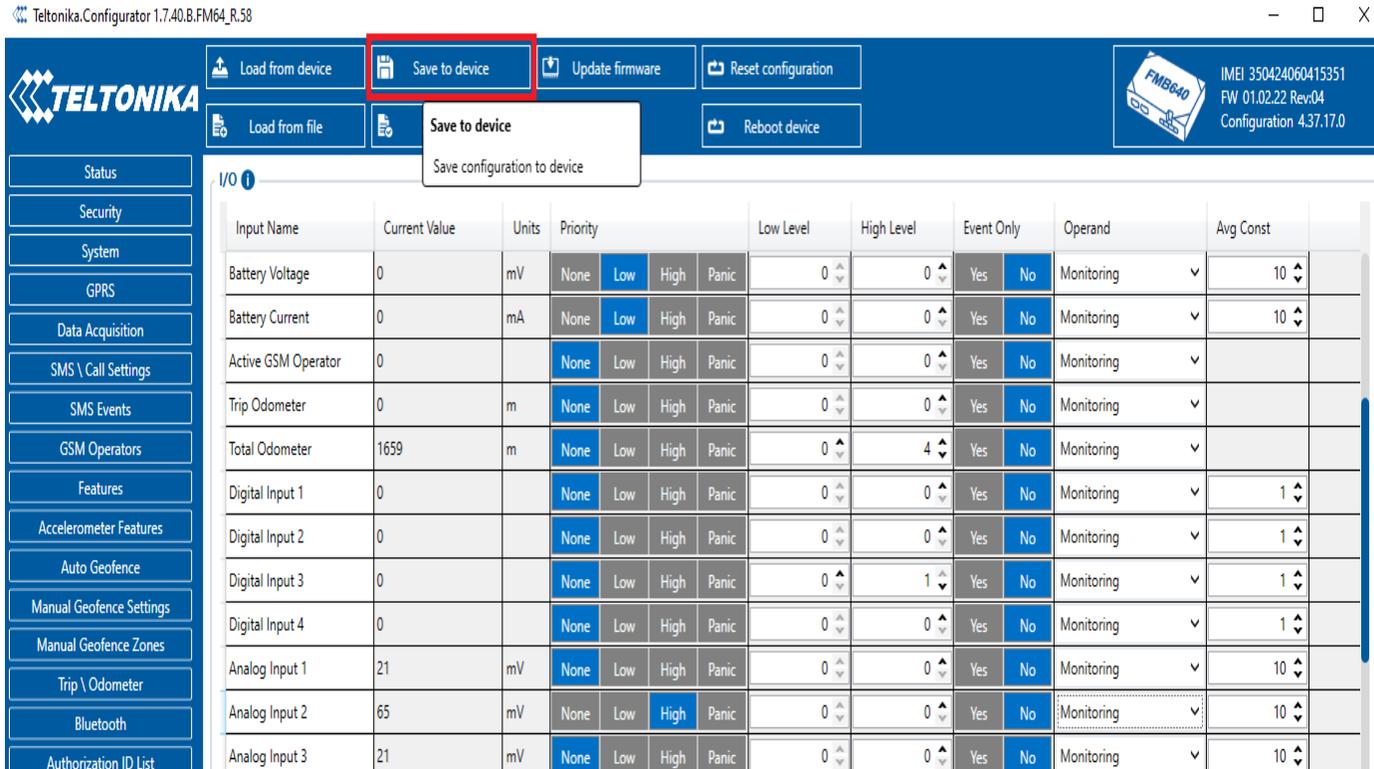


Figure 8 – Saving tracker settings

A window will appear informing you that the settings have been saved, click “OK” and disconnect from the tracker, in accordance with Figure 9.

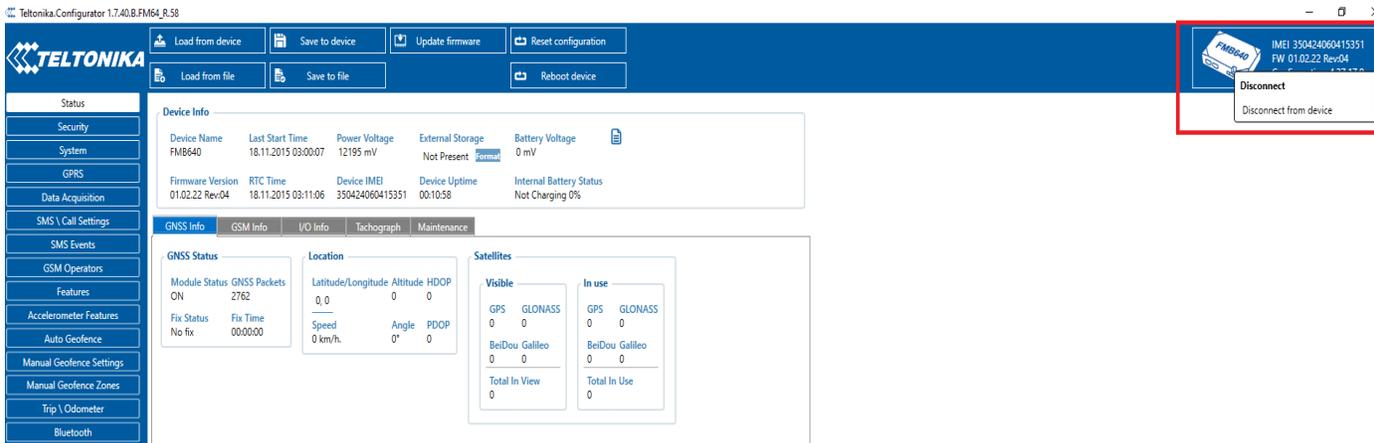


Figure 9 – Disconnecting from the tracker

At the end, we close the application, and perform further calibration and configuration through the monitoring platform.