Connection Instructions
FM-Pro4/Tco4 and LLS (RS232 Digital Fuel Level Sensor)

LLS configuration

It is very important to configure your LLS correctly before connecting it to the FM-Pro4/Tco4 Device. Key points for the configuration:

❖ The LLS Baud rate value has to be set to 19200.
❖ The LLS must be configured to send data only upon request from the FM-Pro4/Tco4 Device.
❖ LLS data output should be binary, 10 or 12 bits.

Connecting the LLS to FM-Pro4/Tco4

LLS (20160, RS232) should be connected to the FM-Pro4/Tco4 device 14 pin connection as follows (see the Picture 1 below):
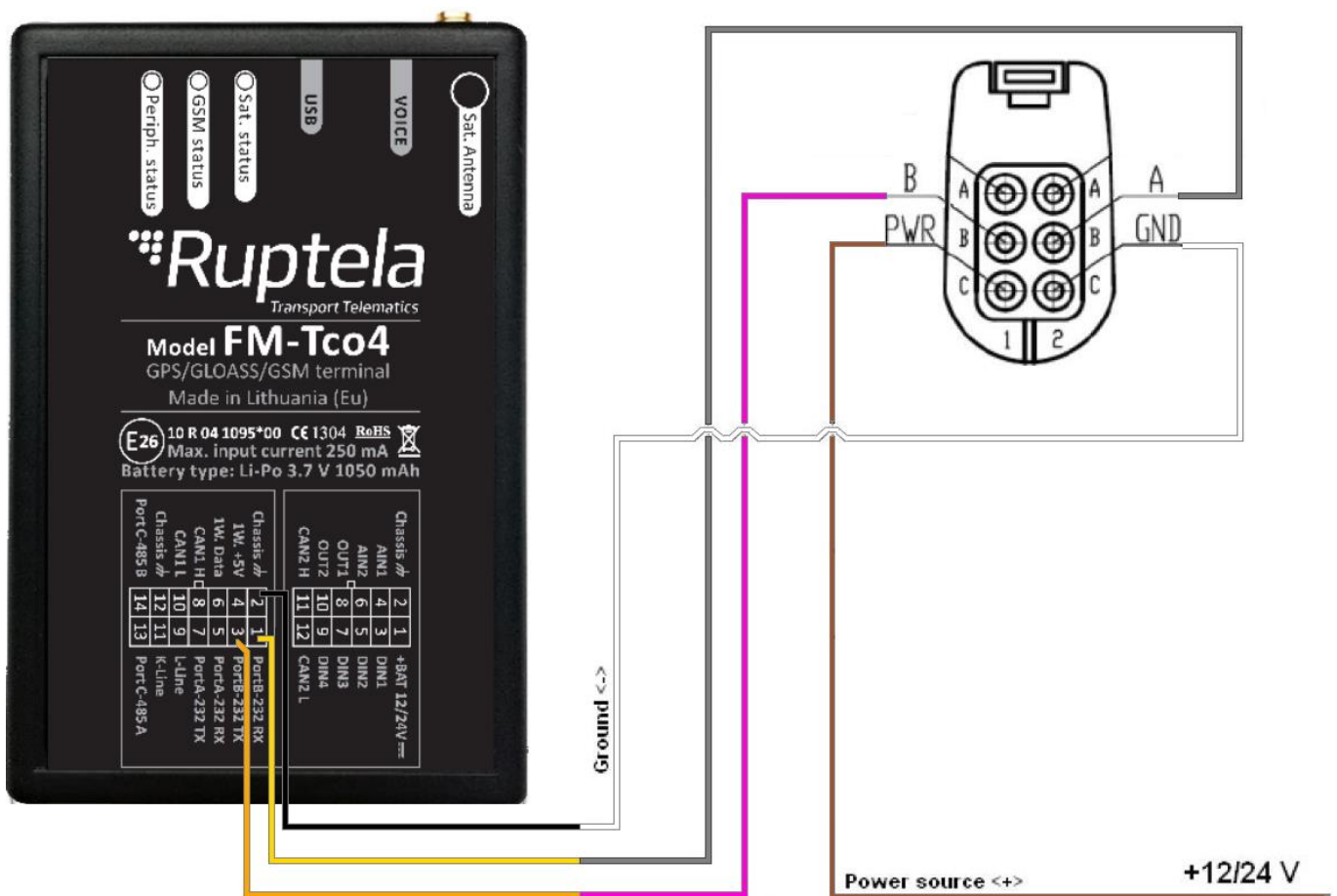
Picture 1. FM-Tco4 and LLS connection scheme (example given for the Omincomm LLS).

Wire colors

LLS output wires*	LLS output description*	FM-Pro4/Tco4
Brown (C1)	Power source «+»	Battery (+12/24V)
White (C2)	Ground «-»	Pin2 (CHASSIS)
Pink (B1)	RS-232 "Tx"	Pin3 (PORTB TX)/ Pin7 (PORTA TX)
Grey (B2)	RS-232 "Rx"	Pin1 (PORTB RX)/ Pin5 (PORTA RX)
Orange-White (A1)	EIA-485 "Line A"	
Blue-White (A2)	EIA-485 "Line B"	

Example given for the Omincomm LLS

LLS configuration settings in FM4 Configurator

❖ Open the FM4 Configurator

❖ Click on the "Options" button in the "IO events" section

❖ In the Options menu, there should be the following settings, as shown in the Picture 2 below
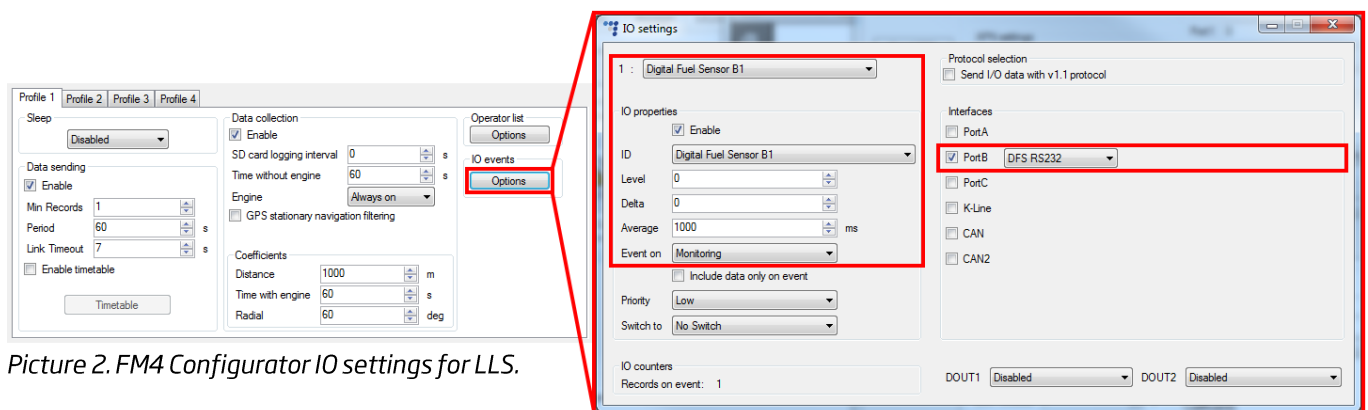
Picture 2. FM4 Configurator IO settings for LLS.

After a proper configuration and connection you will be able to get values for two parameters:

❖ Fuel level
❖ Fuel temperature

You can connect only one LLS to the RS232 Port. You can use both PortA and PortB.