

# Omnicom LLD fuel volume indicator

Datasheet  
Version 1.16

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## 1 GENERAL INFORMATION

The Omnicomm LLD fuel volume indicator is designed to display the volume of fuel in the vehicle's fuel tanks, diesel generators or stationary containers. The Omnicomm LLD indicator provides an opportunity to display one of the additional parameters, i.e., volume of the fuel added during refueling operation, speed of the vehicle, volume of the fuel dispensed by a fuel tanker truck, and the value received from the Omnicomm Terminal's universal input. The Omnicomm LLD fuel volume indicator is only used together with the Omnicomm LLS fuel level sensors, which have the EIA-485 digital interface.

**While installing this device, you should observe the safety precautions and measures, as well as meet the requirements of the regulatory documentation for this type of works.**

## 2 SPECIFICATIONS

Table 1

Specification	Value
Supply voltage, V	from +8 to +45
Network interface	EIA-485
Data exchange rate via EIA-485 interface by default, bit/sec	19200
Calibration table, rows	56
Number of the connectable Omnicomm LLS sensors	2
Ambient operating temperature, °C	from -40 to +70
Overall dimensions, mm	137 x 61 x 23

## 3 SETTING UP

Connect the Omnicomm LLD indicator to the PC according to the scheme shown in Figure 1.

Omnicomm LLD Red UNU 220 V USB

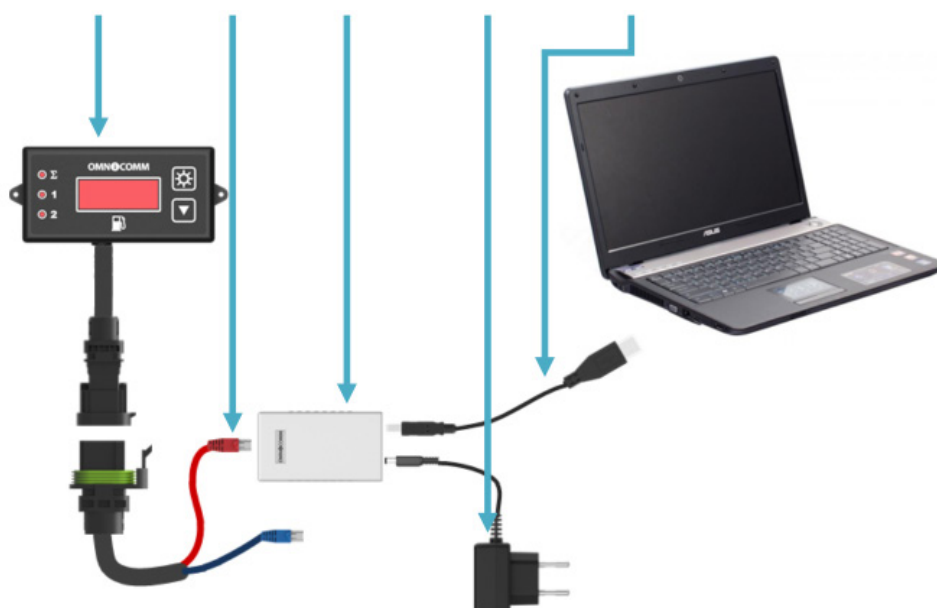


Figure 1. Scheme of connecting the Omnicomm LLD to the PC

Launch Omnicomm Configurator (Figure 2).

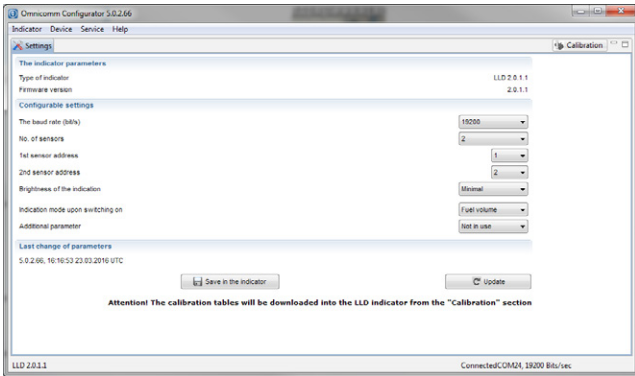


Figure 2. The “Settings” window of the Omnicomm Configurator

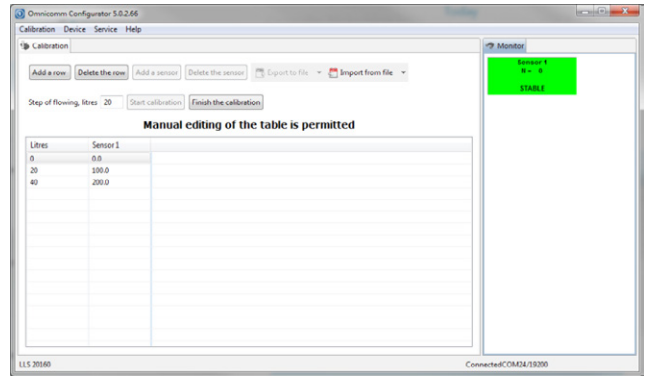


Figure 3. The “Calibration” window of the Omnicomm Configurator

In the menu, click «Tools» — «Settings» — «Connection» and specify the connection port and speed for the Omnicomm LLD indicator when connected via the UNU adjusting tool.

In the «Settings» section:

1. Specify the rate for data exchange via the EIA-485 interface. For firmware update, set the data exchange rate to the value of 19200 bit/sec.
2. Specify the number of sensors connected to the Omnicomm LLD indicator.
3. Specify the network addresses that are set in the Omnicomm LLS fuel level sensors.
4. Set the brightness level for the indicator at startup. The following options are available: maximum, minimum, off. The minimum brightness level is set by default.
5. If necessary, set one of the additional parameters (Section 7).
6. Click on the “Save in the indicator” button.

In the “Calibration” section, fill out the calibration table for each Omnicomm LLS fuel level sensor, or download it from the previously saved file by clicking «Import» and selecting the «From the calibration file (.ctb)» option (Figure 3). Click on the «Export» button and select the «Into the indicator» option.

To save the calibration table, click «Export» and select the «Into the calibration file (.ctb)» option.

#### 4 INSTALLATION AND CONNECTION

While installing the Omnicomm LLD fuel volume indicator with the help of screws, drill two 3.2 mm diameter fixation holes according to the installation dimensions (Figure 4). On the back side of a place of installation (e.g. dashboard, mounting plate etc.) install a washer and a nut, which are both included in the delivery set.

While installing the Omnicomm LLD fuel volume indicator with the help of self-tapping screws, drill two 2.5 mm diameter fixation holes according to the installation dimensions (Figure 4).

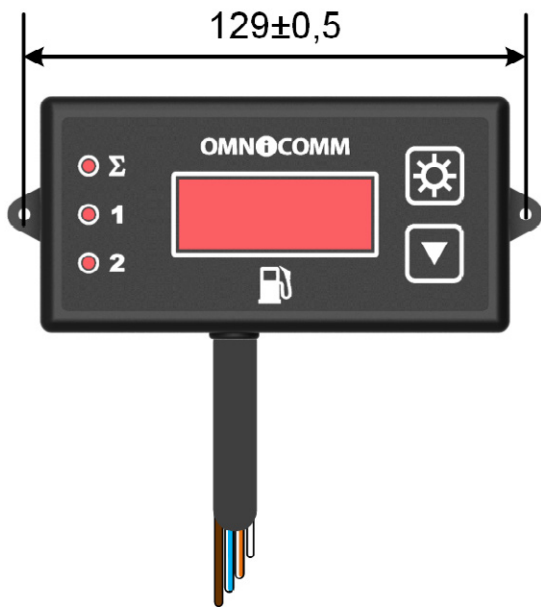


Figure 4. Scheme of connecting the Omnicomm LLD indicator without a connector

Table 2.

Purposes and colours of the wires in the cable of the Omnicomm LLD indicator when connecting without a connector


Name of signal	Colour of wire
EIA-485B	White-blue
EIA-485A	Orange-white
Positive supply	Brown
Ground (negative) supply	White

## 5 PURPOSE OF THE INDICATOR LIGHTS AND TOUCH BUTTONS


Blinking light when an additional parameter is being displayed



## 6 DISPLAYING FUEL VOLUME

The LLD indicator displays the value of fuel volume in the tank. Shortly pushing the  button will allow you to go to the next value viewed on the display: total volume read from both sensors (the S LED emits light); fuel volume read from the 1st LLS sensor (the LED emits light); fuel volume read from the 2nd LLS sensor (the LED emits light).

## 7 DISPLAYING AN ADDITIONAL PARAMETER

Displaying an additional parameter and returning to the default information is enabled by long-pushing (i.e. longer than 3 s) the  button.

If necessary, you can set up one of the additional parameters:

1. Displaying the volume of fuel added during the refuelling operation.

This parameter allows you to monitor both the total volume of fuel added to the tank, and the volume of fuel in each tank.

In Omnicomm Configurator, in the «Settings» section, in the «Additional parameter» field, select the «Volume of fuel added during the refueling operation» option.

Before starting the refuelling operation, please, switch to the mode of displaying the additional parameter by long-pushing the  button. Start the refuelling operation. The Omnicomm LLD indicator will display the volume of fuel being added to the tank.

Short-pushing the  button will allow you to go to the next value viewed on the display:

- total volume of fuel added (the S LED blinking light);
- volume of fuel added according to the 1st Omnicomm LLS sensor's readings (the LED blinking light);
- volume of fuel added according to the 2nd Omnicomm LLS sensor's readings (the , LED blinking light).

2. Displaying the value of vehicle speed transmitted from the Terminal.

This parameter allows you to monitor the vehicle speed.

In Omnicomm Configurator, in the «Settings» section, in the «Additional parameter» field, select the “Terminal's data» option.

Enable the feature of displaying the speed by long-pushing the  button.

3. Displaying the value read from the Terminal's universal input.

This parameter allows you to monitor the Terminal's universal input status or value, depending on the type of the connected auxiliary equipment.

In Omnicomm Configurator, in the «Settings» section, in the «Additional parameter» field, select the “Terminal's data» option.

Enable the feature of displaying the parameter by long-pushing the  button.

4. Displaying the volume of fuel dispensed from a fuel tanker truck.

This parameter is only available for the Omnicomm Profi 2.0 Terminal, which is provided with the connected signal pickup device (USS).

In Omnicomm Configurator, in the «Settings» section, in the «Additional parameter» field, select the “Terminal's data» option.

Before starting the fuel dispensing operation, please switch to the mode of displaying the additional parameter by long-pushing the  button. Start the fuel dispensing operation. The Omnicomm LLD indicator will display the volume of fuel being dispensed through the dispensing nozzle.

Short-pushing the  button resets the displayed value.

The additional parameter can be displayed by default upon switching the Omnicomm LLD indicator on. For this purpose, in Omnicomm Configurator, in the “Settings” section, in “The display mode at startup” field, select the “Additional parameter” option.

To display the vehicle speed, the values read from the universal input and the volume of fuel dispensed, it is necessary to edit the appropriate settings of the Omnicomm Terminal.

The Omnicomm LLD should be connected to the Omnicomm Terminal by means of an EIA-485 interface and according to the scheme shown in Figure 8.

## 8 CONNECTION SCHEMES

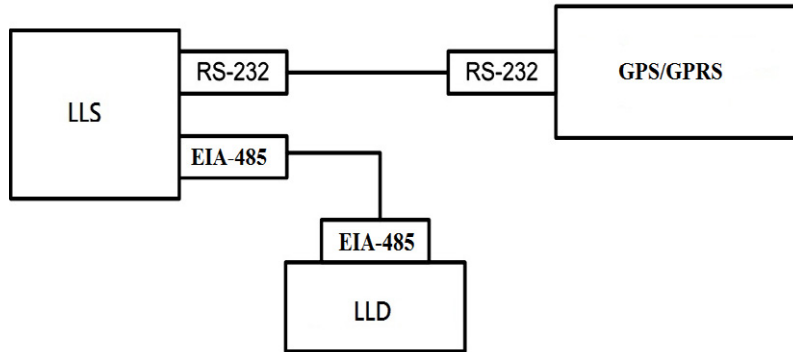


Figure 6. Connection scheme of LLD via RS-232 to GPS/GPRS

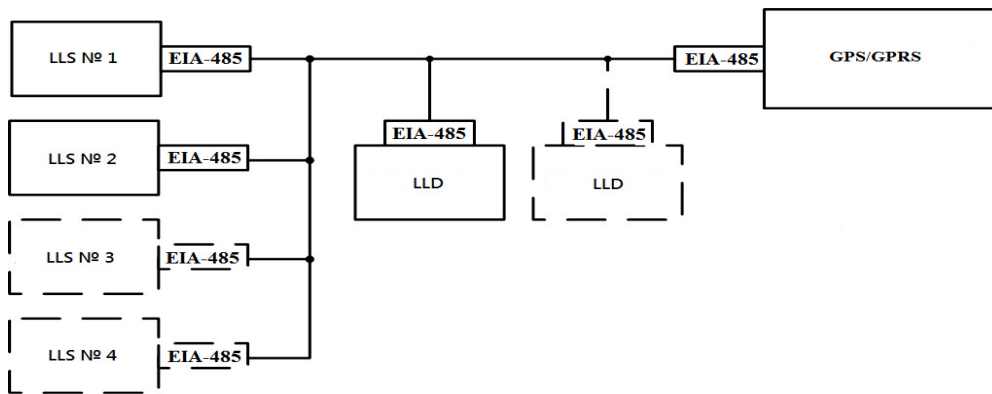


Figure 7. Connection scheme of one or more LLD via EIA-485 to two (or more) LLS sensors and GPS/GPRS

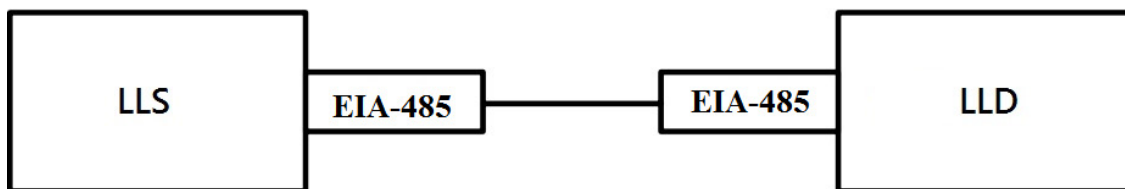


Figure 8. Connection scheme of LLS working outside of the monitoring system

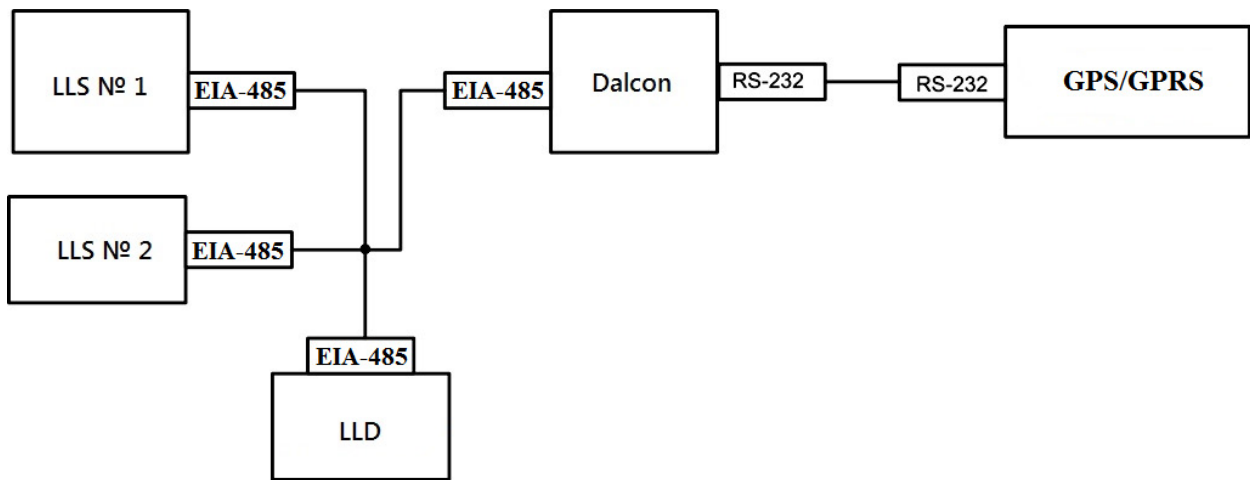


Figure 9. Connection scheme of LLD to two LLS sensors (30160, 20160 or 20230), connected to Dalcon

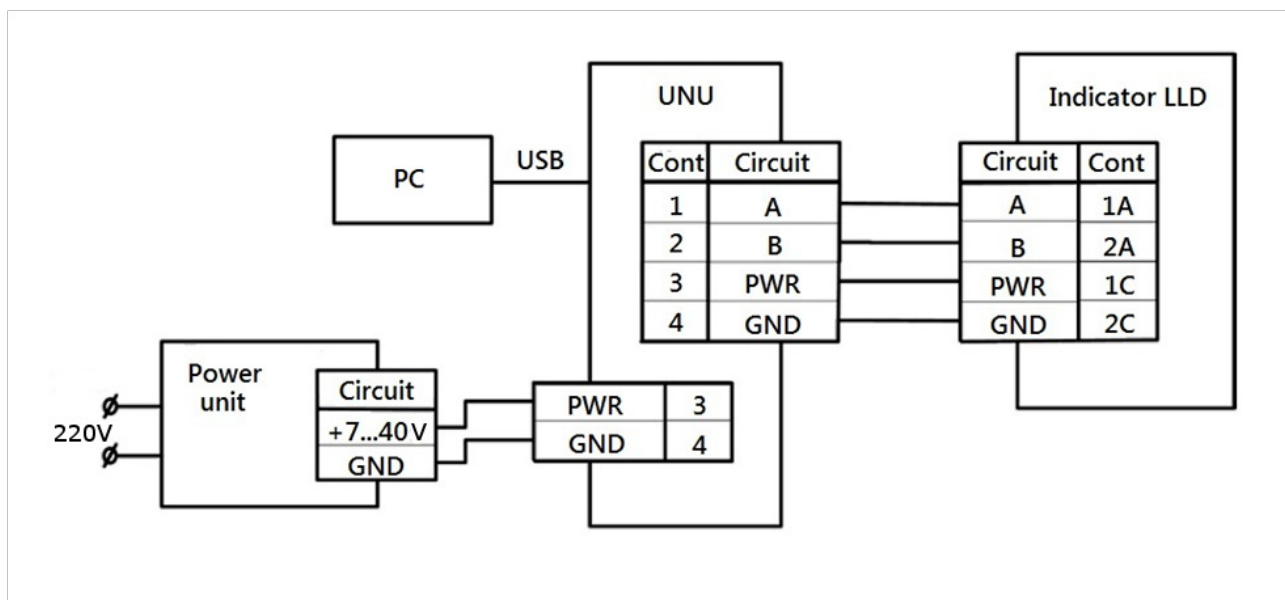


Figure 10. Connection scheme of connection to PC