

**Wireless capacitive
level sensor TD BLE
DATASHEET**

REG 2019-03-14 RU-EN

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1. PRODUCT OVERVIEW

1.1. Meter (sensor) TD BLE determines the fill level of light oil in reservoirs (storage tanks). It is used as a fuel level sensor in tractor type vehicles, as a level sensor for any light oil in the industry.

1.2. The sensor converts the calculated fuel level in the digital code. Sensor transmits the obtained values by Escort BLE protocol via Bluetooth LE radio channel - (Bluetooth low energy).

1.3. Sensor is battery-powered device with a removable, yet maintenance free, lithium battery.

1.4. DO NOT USE THE SENSOR FOR MEASURING OF CONDUCTIVE LIQUIDS (WATER, DAIRY PRODUCTS).

1.5. DO NOT DISASSEMBLE THE SENSOR!

1.6. DO NOT EXCEED THE PERFORMANCE CHARACTERISTICS SPECIFIED IN THE PASS-PORT!

1.7. PREVENT MECHANICAL DAMAGE OF THE SENSOR COMPONENTS, CONNECTING WIRES AND CABLES DURING INSTALLATION AND OPERATION.

2. TECHNICAL CHARACTERISTICS

	Parameter	Value / units
2.1	The measurement error in the work-space, no more	1%
2.2	Modes of operation	digital
2.3	Digital Mode: - interface - the communication protocol	Bluetooth LE (BLE) Escort BLE
2.4	Range (under normal operating conditions in the absence of interference and obstacles when working with the base)	not less than 10 meters
2.5	The period of data exchange with the base	10 seconds
2.6	The sensitivity of the receiver / transmitter power	-96 dBm / 0 dBm
2.7	The degree of protection according to GOST 14254	IP67
2.8	Protection against electrocution by GOST 12.2.007.0	class III
2.9	Operating conditions: - temperature, °C - ambient temperature, °C - Atmosphere pressure, kPa - ambient atmosphere pressure, kPa	-40...+50 -60...+85 84 ... 106.7 57 ... 110
2.10	Dimensions, no more	90x90x(L + 38)mm, where L - sensor length in mm
2.11	Conditional sensor length	Indicated on the label (pasted in the passport)
2.12	Weight, no more	0,35+0,4xL, where L - is the sensor length in meters

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3. SCOPE

Name	Quantity	Ser. number	Notes
Sensor TD BLE	1		
Mounting Kit:	1		
Self-tapping screws 5.5 x 51 with washer	4		
Number Seal FAST-330	1		
Gasket	1		
Centralizer	1		
Protective cover	1		
Passport	1		
Packaging	1		

4. PRECAUTIONS

4.1. The installation, operation and maintenance of the sensor comply with the general safety rules for working with electrical appliances.

5. RESOURCES, SERVICE AND SHELF LIFE, GUARANTY

5.1. Warranty service life - 3 years from the date of shipment from the manufacturer's company.

5.2. Life time- 7 years.

5.3. The manufacturer guarantees the sensor specifications if used in compliance with the prescribed operating, transport and storage conditions.

5.4. If damage is found request the manufacturer.

5.5. The product with defects caused by the fault of the consumer as a result of violation of conditions of operation, storage or transportation is not covered by warranty.

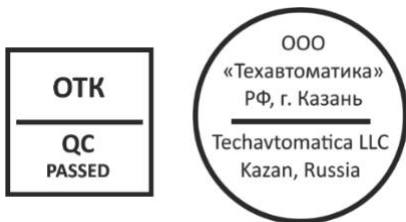
5.6. The manufacturer reserves the right to make changes in design and complete product without prior notice to the customer.

6. ACCEPTANCE REPORT

Sensor TD BLE is made in accordance with the current technical documentation and is fit for use.

7. CERTIFICATE OF PACKING

Sensor TD BLE is packaged in accordance with the current technical documentation.

**8. INSTALLATION CERTIFICATE**

Sensor TD BLE Serial number _____ is installed in accordance with the current technical documentation on the equipment:

_____ name _____ identification number / state number

_____ / _____ / _____
signature Full Name day, month, year

_____ remarks

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9. TRANSPORTATION AND STORAGE

9.1. The product is transported in the original packaging in closed vehicles. Stored in dry conditions with a humidity of not more than 75% at a temperature from -20 to + 30 °C. Presence of conductive dust, corrosive substances and their pairs causing corrosive de-struction of parts and electrical insulation of sensor.

10. DISPOSAL

10.1. Disposal of the product is produced by the operator and carried out according to the rules and regulations applicable in the territory of the Russian Federation.

10.2. This instrument does not include environmentally harmful elements.

10.3. The device does not contain precious metals in an amount to be counted.

11. INSTALLATION GUIDE (For further details see Technical description or Manual)

11.1. Sensor Length specified when ordering.

11.2. If necessary, the measuring tube is cut with a hacksaw trim for metal, avoiding shaving to get inside. Minimal residual length of measuring tube should be at least 150 mm.

11.3. Install the centralizer from the installation kit (see Appendix).

11.4. Perform sensor settings: by setting the upper and lower level via USB-RS485 inter-face converter connected to the base and the ESCORT software or using the configura-tor, installed on a mobile phone with Android OS. For details see the manual.

11.5. For the installation out of the conventional installation place, see details in Appen-dix.

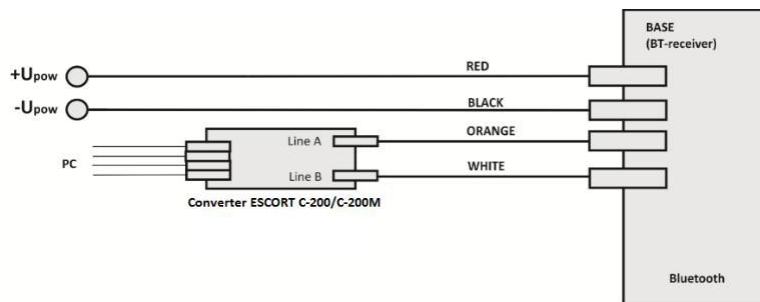
11.6. Mount a sensor putting a sealing gasket between the flange of the sensor and the surface of the tank. If necessary, use oil and gasoline resistant automobile sealant.

11.7. Plug and install the radio receiver (Escort TD BLE-B base) inside the cabin.

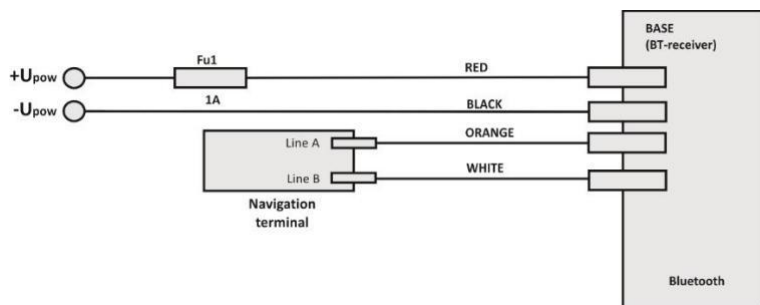
11.8. Additional information can be found in the Appendix.

ATTENTION! Upper level calibration should be carried out from the drain hole (10 mm from the sensor housing).

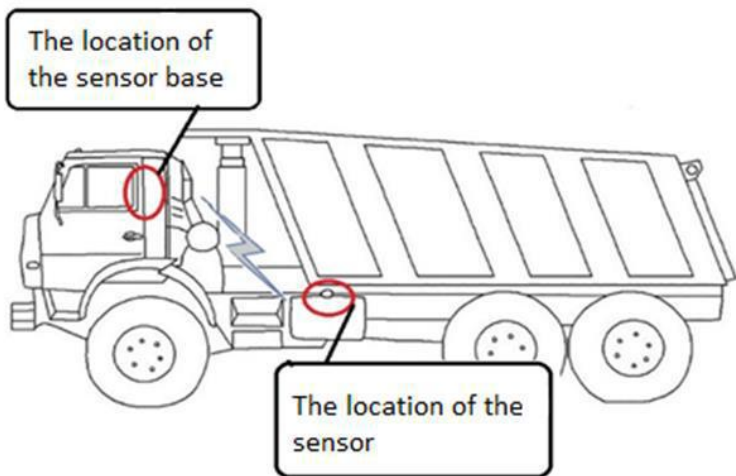
ANNEX 1. Wiring diagram of sensor base connection in the programming mode



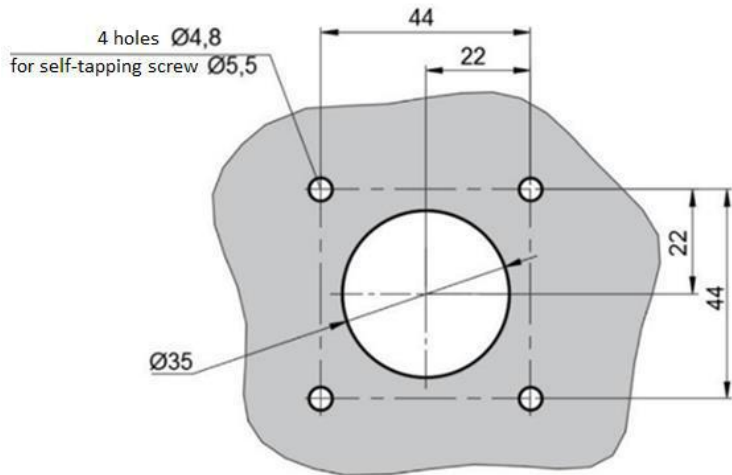
ANNEX 2. Wiring diagram of sensor base connection in RS-485 mode



ANNEX 3. Approximate scheme of placing the sensor and the base in an automobile.

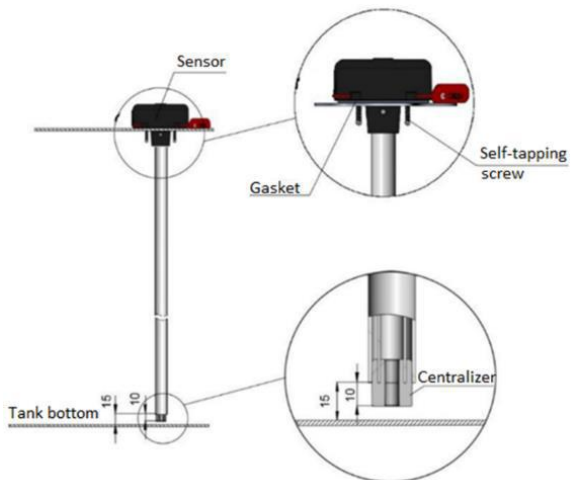


ANNEX 4. Dimensions for mounting the sensor out of nominal installation site

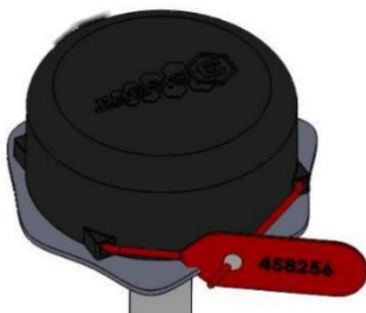


* The diameters of the holes are given for self-tapping screws, if necessary, mark places for another fastening according to the centers of specified holes.

ANNEX 5. Installing the sensor on the tank



ANNEX 6. Methods of sealing of sensor head and cable connection



Identification sticker

Идентификационный стикер



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FOR NOTES

