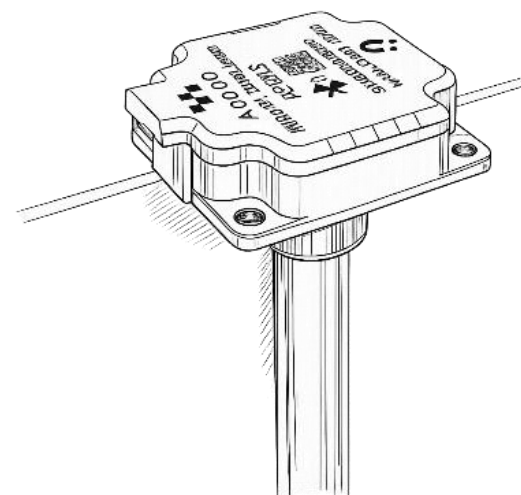
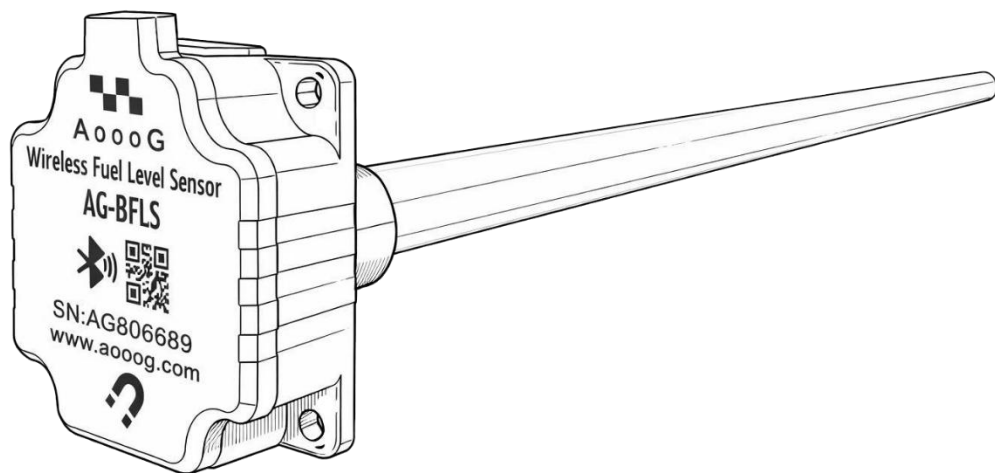


Wireless Bluetooth Sensor

Datasheet



Wireless Bluetooth Capacitive Level Sensor DATASHEET AG-BFLS



1. PRODUCT OVERVIEW

The AG-BFLS capacitive fuel level sensor is designed for accurate measurement of light oil levels in trucks, commercial vehicles, generator sets, construction machinery, and storage tanks. It is also suitable for industrial applications requiring liquid level monitoring of light oil media.

The sensor converts the measured fuel level into a digital signal and transmits the data via a low-power Bluetooth (BLE) wireless channel. It operates using the AoooG BLE protocol and is fully compatible with the Dominator BT communication protocol and Teltonika GPS devices.

This product is powered by a built-in, removable, maintenance-free lithium battery, providing reliable performance for mobile or off-grid applications without external power supply.

The sensor is intended for use exclusively with non-conductive liquids (such as diesel, gasoline, and other light oils). Do not use it for conductive liquids (such as water or dairy products), as this may cause malfunction or damage.

Do not disassemble the sensor. Unauthorized disassembly may affect protection performance or measurement accuracy.

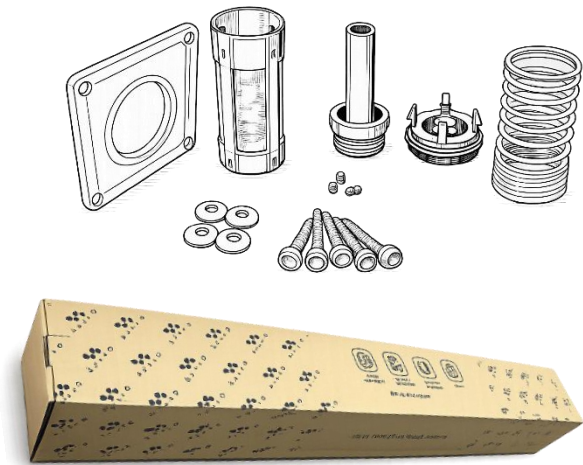
During installation and operation, ensure that the sensor body, components, and cables are protected from mechanical damage to maintain long-term reliability.

2. TECHNICAL CHARACTERISTICS

Parameter	Value / units
The measurement error in the workspace, no more	1%
Modes of operation	Digital
Digital Mode: interface the communication protocol	Bluetooth (BLE) AoooG BLE or Dominator BT
Range (under normal operating conditions in the absence of interference and obstacles when working with the base)	not less than 15 meters
The period of data exchange with the base, for firmware version	Version 8.0 - 5 sec.
The sensitivity of the receiver / transmitter power	-96 dBm / 4 dBm
Waterproof standard (Ingress protection rating, IP)	IP67
Supply voltage, no more V	7.5V
Operating frequency range	From 2.400 to 2.4835 GHz
Operating conditions: temperature, °C ambient temperature, °C Atmosphere pressure, kPa ambient atmosphere pressure, kPa	- 45 + 50 - 60 + 85 84 106.7 57 110
Dimensions, no more	90x80x(L + 38)mm, where L - sensor length in mm
Weight, no more	0.51kg

3. SCOPE

Name	Quantity
Sensor AG-BFLS	1
Mounting Kit:	1
Self-tapping screws m4.8*32mm with washer	4
Fuel Sediment Filter Screen(Protective cover)	1
Springs used to prevent sensor from shaking/vibrating	1
Gasket	1
Centralizer+Socket Head m4*5	1
Packaging	1



4. PRECAUTIONS

✓ Installation, Operation, and Maintenance

The installation, operation, and maintenance of the sensor must comply with the general safety regulations applicable to electrical equipment.

✓ WARRANTY, SERVICE, SHELF LIFE & PRODUCT LIFETIME

4.1 Warranty Period

The sensor is covered by a warranty for a period of one (1) year from the date of shipment from the manufacturer.

4.2 Design Lifetime

The sensor has a design lifetime of seven (7) years.

4.3 Warranty Conditions

The manufacturer guarantees that the sensor meets its published specifications, provided it is used in strict compliance with the prescribed operating, transport, and storage conditions.

4.4 Warranty Exclusions

The warranty does not cover defects or damage resulting from:
Improper use by the customer, or violation of the prescribed operating, storage, or transport conditions.
Unauthorized modification, disassembly, or repair.

4.5 Reporting Defects

If a defect is found, please contact the manufacturer or an authorized service provider immediately.

4.6 Manufacturer's Rights

The manufacturer reserves the right to make changes to the product design and configuration without prior notice.

4.7 Battery - Specific Terms

The integrated battery is considered a consumable item. The warranty period and product lifetime stated in clauses 5.1 and 5.2 do not apply to the battery.

Average Lifetime: The battery has an average service life of 3 to 5 years.

Key Influencing Factor: The actual battery life is highly dependent on the ambient temperature during operation and storage. Elevated temperatures will significantly reduce battery service life.

5. ACCEPTANCE REPORT

Sensor model AG-BFLS has been manufactured in accordance with current technical documentation, has passed all quality inspections, and is approved for use.

6. TRANSPORTATION AND STORAGE

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 destruction of parts and electrical insulation of sensor.

7. DISPOSAL

7.1 End-of-Life Handling

The end user (operator) is responsible for the final disposal of this product.

7.2 Environmental Statement

This instrument contains no substances harmful to the environment under normal use.

7.3 Material Composition Statement

This device does not contain precious metals (e.g., gold, silver, platinum) in quantities that necessitate commercial recovery.

7.4 Recommended Disposal Method

Please dispose of this product in accordance with all applicable local, regional, and national regulations for electronic waste (WEEE). Contact your local waste management authority for proper disposal guidelines.

8. INSTALLATION GUIDE

8.1 Sensor Length

The sensor working length (insertion depth) is as specified when ordering. Confirm the exact length on the label attached to the product packaging.

8.2 Measuring Tube Preparation (If Applicable)

If adjustment is required, cut the measuring tube using a hacksaw suitable for metal.

Method: Cut carefully to avoid generating metal shavings that could enter the tube.

Recommended Minimum Length: To ensure measurement accuracy, it is recommended that the remaining section of the measuring tube be no less than 150 mm. The sensor can still operate with a length below 150mm, but the output accuracy may be compromised. This condition is not recommended.

8.3 Optimal Installation Position

For optimal performance, install the sensor as close to the center point of the fuel tank as practically possible.

8.4 Sensor Configuration

Configure the sensor using the dedicated mobile application.

Platform: Install the app on an Android OS or iPhone iOS device.

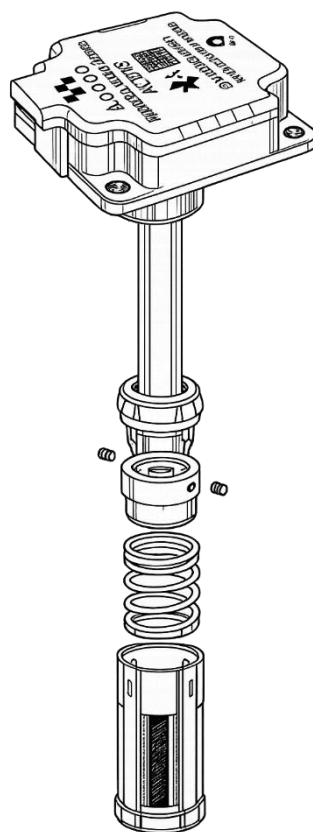
Details: Refer to the full user manual for specific configuration steps.

8.5 Mounting and Sealing

Place the provided sealing gasket between the sensor flange and the tank mounting surface.

Tighten the sensor securely according to specifications.

If an additional seal is required, apply an oil- and gasoline-resistant automotive sealant compatible with the tank and sensor materials.



9. CONTACTS

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