

# KF043U

## Ultrasonic Fuel Level Sensor

The KF043U is a wireless BLE ultrasonic fuel level sensor that provides precise and non-contact fuel measurement for a wide range of vehicle types (e.g., trucks, excavators) and works with various liquids (e.g., diesel, gasoline, water). It installs easily without drilling and provides up to 99.5% accuracy, ensuring dependable performance and no risk of tank damage. It also features an AI-based anti-theft alarm (when paired with a tracker/dashcam) and can be conveniently calibrated and configured via a dedicated mobile app. With IP68-rated protection, wide 9–80 V DC input range, and corrosion-resistant PPS enclosure, the KF043U delivers reliable performance – ideal for remote fleet fuel monitoring, theft prevention, and management.



Fleet Management & Telematics



Construction & Heavy Equipment



Anti-Theft Protection



### Non-Contact Measurement

Uses ultrasonic reflection technology to detect fuel levels without drilling, allowing quick installation and avoiding tank damage.



### High Precision

Offers up to 99.5% accuracy with 0.1mm resolution, providing dependable data for precise fuel inventory and consumption analysis.



### Multi-Interface Output

Supports BLE 5.0, RS232/RS485, and 0–5V analog outputs enabling seamless integration with various telematics platforms.



### AI Anti-Theft Alarm

An integrated AI algorithm filters out interference and detects abnormal drops in fuel level, indicating possible theft. The I/O output can trigger alerts or recording actions when linked to a compatible tracker/dashcam.



### Wide Compatibility

Works reliably with various liquids (diesel, gasoline, water, etc.) and tank materials (metal, plastic, etc.), adaptable to most vehicle or equipment types.



### Mobile App Calibration

Supports calibration and configuration via a dedicated mobile app, simplifying setup and allowing real-time fuel monitoring.



### Wide Voltage Input

Operates from 9V to 80 V DC, compatible with a wide range of vehicle electrical systems.

## Standard Configuration

### Measurement

<b>Product Type</b>	Wireless BLE type
<b>Measuring Medium</b>	Gasoline, Diesel, Lubricating oil, Coolant
<b>Measurement Range</b>	30mm – 1000mm
<b>Measurement Accuracy</b>	99,5% (tested with 0# diesel at 25°C)
<b>Response Time</b>	1 second
<b>Resolution</b>	0,1 mm

### Features

<b>Bluetooth</b>	BLE 5.0
<b>Output Interface</b>	RS485, ADC (0-5V analog)
<b>Transmission Distance</b>	Up to 50m (unobstructed, BLE)

### Power

<b>Battery</b>	N/A (externally powered)
<b>Input Voltage</b>	DC 9–80V

### Operating Environment

<b>Operating Temperature</b>	-40 C to 85 C
<b>Storage Temperature</b>	-40 C to 85 C
<b>Working humidity</b>	5% to 99% (non-condensing)
<b>IP Rating</b>	IP68

### Physical Specifications

<b>Structure</b>	Compact housing with integrated ultrasonic transducer
<b>Material</b>	PPS plastic
<b>Weight</b>	900g
<b>Installation</b>	Affixed with adhesive (no drilling required)
<b>Flange Size</b>	N/A
<b>Cable Length</b>	Standard 9 meters