

KL100

Positioning Fuel Level Sensor

The KL100 is specifically designed for fleet management scenarios featuring global 4G LTE connectivity, a built-in Bluetooth module for local configuration, and integrating real-time positioning, precise fuel level monitoring, and advanced anti-theft alarm functions. It enables fleet managers to significantly improve operational efficiency and asset security. When paired with a telematics platform, the KL100 supports remote configuration, Over-the-Air (OTA) firmware updates, and multiple alarm notification methods making it suitable for a wide range of applications including logistics, transportation, and construction machinery.



Fleet Management



Integrated Design

Combines the positioning module and fuel level sensor into one unit, simplifying wiring and enabling easy installation.



Adjustable Length

Probe length is customizable to fit various fuel tank sizes.



Long-Haul Freight Fuel Monitoring



High-Precision Fuel Measurement

Capacitive sensing technology with $\leq \pm 1\%$ error.



Tamper-Proof Security

Dual detection (light sensor + G-sensor) triggers instant alerts upon unauthorized removal.



Vehicle Leasing Platform



Harsh Environment Resilience

IP67 protection and wide-temperature design (-20°C to +85°C), built to withstand extreme conditions.

Standard Configuration

Positioning & Location

Technology	GPS, BDS
Accuracy	<2,5m CEP
Tracking sensitivity	-165dBm
Acquisition sensitivity	-148dBm
TTF (open sky)	Avg. hot start ≤ 2s; Avg. cold start ≤ 38s

Power

Battery	270mAh Li-Po with NTC
Input voltage	9V to 30VDC
Power consumption	Active < 40 mA Standby < 4 mA

Cellular

Technology	LTE Cat 1/GSM KL100_S_LA01: LTE-FDD: B1/B2/B3/B4/B5/B7/B8/B28 GSM: B2/B3/B5/B8
Frequency	KL100_S_EM01: LTE-FDD: B1/B3/B7/B8/B20/B28 LTE-TDD: B34/B38/B39/B40/B41 GSM: B2/B3/B5/B8

Physical specification

Flange size	Outer diameter 82mm Inner diameter 20mm
Weight	749g

Interface

SIM	Nano SIM
Bluetooth antenna	Internal
Serial ports	1* TTL

Feature

Sensors	Light sensor, Accelerometer, Fuel level sensor
Driving behavior analysis (DBA)	Harsh acceleration, Harsh braking, Harsh cornering, Collision
Bluetooth	BLE 5.0
Configuration support	Tracksolid Pro & SMS
Certification	CE/FCC

Sensor

Operating principle	Capacitive
Probe length	1000mm
Max probe cutting	750mm
Measurement inaccuracy	<1% FS

Operating environment

Discharge temperature range	-20°C to +85°C
Charging temperature range	0°C to +45°C
Operating humidity	5% to 95%, non-condensing
IP rating	IP67