



## Wi-Fi Ultrasonic Sensor

Our Wi-Fi Tank Sensor is a flexible and configurable battery operated liquid level sensor with an integrated Wi-Fi modem.

### Applications

- Liquid level monitoring
  - Fuel – Oil, Kerosene, Diesel
  - Lubricants
  - Additives
  - DEF / AdBlue
  - Coolants
  - Water
  - Waste Oil
  - Wastewater
  - Chemicals - *\*This product may not be suitable for monitoring of certain corrosive and hazardous chemicals. List of product compatible chemicals to be verified with Tekelek representative.*
- Ensure continued supply
- Optimise delivery or collections
- Spot and continuous inventory measurement
- 24/7 monitoring

### Benefits

- Accurate, reliable tank level monitoring
- Wi-Fi Communication
- Spot and continuous inventory management
- Programmable reporting interval
- Remote configurability
- Easy to install
- Minimum 1 year warranty
- CE Conformance and ROHS Compliant
- Increase efficiency
- Improve profitability
- Optimise logistics



2" threaded mounting adaptor – STANDARD



Multi Thread Adaptor Kit (1¼", 1½", 2") – Optional



2" extended threaded mounting adaptor – Optional



**WEEE Reg. 00232**  
Patents granted

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# Specification

Characteristic	Transmitter
Dimensions	109mm(W) x 109mm(L) x 108mm(H) ±1mm 4.3"(W) x 4.3"(L) x 4.25"(H) ±0.1"
Weight	227g (8oz) including battery
Housing material	UV Stabilized Polypropylene (compatible with Oil)
Operating temperature	-17°C to +50°C (0°F to +122°F) <b>Note 1</b>
Recommended storage temperature	+20°C to +25°C (+68°F to +77°F) clean, cool, dry and ventilated. <b>Note 1</b>
Humidity range	15% - 95%
Altitude range	<2Km (<6,000') above sea level
Environmental Protection	IP67 – Outdoors
Wi-Fi standard	Supports 802.11 b/g/n Wi-Fi
Frequency	2.412GHz to 2.462GHz
Output power	15dBm ±3dBm (as measured into the internal antenna on the PCB; internal antenna gain = -3dB)
Gauge Type	Ultrasonic
Ultrasonic Range	>12cm to <300cm (>5" to <115") <b>Note 2</b>
Ultrasonic Signal Diversion	30° ( <b>Note 3</b> )
Ultrasonic Resolution	±1cm (±0.5")
Accuracy	Typically ±2cm (±1")
Material compatibility	<b>(Note 4)</b>
Battery type	3.6V Li-SOCl <sub>2</sub> Size R14 (C) (such as Saft LSH14)
Expected battery life	Up to 7.5 Years from activation ( <b>Note 5</b> )
Enclosure colour	Olive green - Pantone 376C (adapter – Black)

## Accessories

Tank mounting options	Fits directly into female 1 ¼", 1 ½" or 2" BSP threads. 2" recommended.
Gasket (included)	Material EPDM 89mm(Ø) x 4mm(H) ±1mm (3.5"Ø x 0.16"(H) ±0.1" Distance between hole centres 50mm ±1mm (2" ±0.1")
Antenna (optional)	Available with an external Wi-Fi antenna SMA connector. Contact Tekelek for details ( <b>Note 6</b> )

## Conformity

Complies with current Directives for Electromagnetic compatibility and the Low voltage directive for product safety and the current R&TTE directive for radio. Compliance was demonstrated to the following specifications as listed in the official journal of the European Communities.

EN 55022,A1,A2	Limits and methods of measurement of radio disturbance characteristics of information technology equipment.
EN 61000-4-2/3	Electromagnetic compatibility
EN 301 489-1	ERM and EMC standard for radio equipment and services Part1
EN 301 489-7	Electro-magnetic Compatibility and Radio Spectrum Matters (ERM); Electro-magnetic Compatibility (EMC) Standard for Radio Equipment and Services; Part 7: Specific Conditions for Mobile and Portable Radio and Ancillary Equipment of Digital Cellular Radio Telecommunications Systems (GSM and DCS)
ETSI EN 301 489-17	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electromagnetic Compatibility (EMC)
FCC compliance	FCC ID: S6T750
RoHs Compliance	Yes

**Note 1:** Storage and operation above 25°C/77°F may reduce battery life. Shelf life recommended not to exceed 12 months

**Note 2:** Based on a measurement to a flat liquid target of size 30cm<sup>2</sup> / 4.7"<sup>2</sup>.

**Note 3:** The maximum spatial diversion of the ultrasonic signal will be < 30° from the central axis of the transducer.

**Note 4:** Suitable for use in tanks for the storage of water diesel fuel, kerosene, gas oil types A2,C1,C2 and D as defined by BS2869.

**Note 5:** Based on activation within 1 year of the manufacturing date of the product, and device configuration for 4 ultrasonic measurements per day, 1 Wi-Fi connection per day from a location where the Wi-Fi coverage does not require retries, and a normal distribution over the operating temperature range centered at +25°C (77°F).

**Note 6:** If used in an external environment, installer must apply self-amalgamating tape to the external antenna-SMA connector join to ensure it is weather proofed. The antenna gain characteristics should be < 6dBi to ensure FCC compliance.