



## RF Ultrasonic Sensor - Gen 1

Tekelek's ultrasonic tank monitor provides accurate and reliable liquid level measurement.

### Applications

- Fuel Tanks – Oil, Kerosene, AdBlue
- Commercial or Domestic Water Tanks
- Interior, Exterior & Underground Tanks
- Double Skinned/Bunded Tanks

### Benefits

- Monitor tank levels from comfort of your own home
- Easy to install
- Measurement resolution of 1cm/0.39"
- Communication distance to receiver typically greater than 200m (150 ft USA variant)
- Mains powered receivers with display available with EU, UK, USA, AUS/NZ plug formats
- RMS Compatible for longer distances (PTSN & GSM Modems)
- CE Conformance and ROHS Compliant
- Replaceable long lasting battery.
- 1 year warranty



# Specification

Characteristic	Transmitter
Dimensions	70mm(W) x 40mm(L) x 138mm(H) ±1mm / 2.75"(W) x 1.57"(L) x 54.4"(H) ±0.04"
Weight	78g / 0.17lb
Housing Material	UV Stabilized Polypropylene
Operating temperature	-10°C to 60°C / 14°F to 140°F <b>(Note 1)</b>
Storage Temperature	-20°C to 60°C / -4°F to 140°F <b>(Note 1)</b>
Altitude range	<2Km/1.25miles above sea level
Environmental Protection	IP67 - Outdoors
Radio frequency	EU/UK/NZ/AUS: 433.92 MHz FM USA: 914.5 MHz FM
Radio output power	EU/UK/NZ/AUS: 5dBm +/- 2dBm USA: 0dBm +/- 2dBm
Receiver Sensitivity	N/A
Ultrasonic range	>12cm to <3M / >4.7" to <118" <b>(Note 2)</b>
Ultrasonic signal diversion	30° <b>(Note 3)</b>
Material compatibility	<b>(Note 4)</b>
Power requirements	VARTA CR2430 3V Li-Manganese dioxide / Organic Electrolyte (fitted)
Battery life	> 5 Years
Humidity range	15% - 95%
LCD Display	N/A
Ultrasonic Resolution	±1cm / ±0.39"
Accuracy	Typically ±2cm from 12cm to 3m / ±0.79" from 4.72" to 118"

## Accessories

Adapter	1½" BSP external thread adapter, 70mm(2.75")(W) x 49mm(1.92")(D) x 27mm(1.06")(H) – (Included with European versions) 2" NPSM external thread adapter, 79mm(3.11")(W) x 70mm(2.75")(D) x 16mm(0.63") (H) - Optional
Gasket (included)	Material EPDM, 70mm(2.75")(W) x 40mm(1.57") (D) x 4mm(0.157")(H)±1mm(0.039") Distance between hole centres 50mm(1.96") ±1mm(0.039")
Screws (included)	No.8 X 19mm(0.74") Panhead Pozi-drive Stainless steel
Bund switch option	Can be supplied with Bund switch for double skinned tanks — 3m/118" cable

**Note 1:** Storage and operation above 20°C/68°F may reduce battery life.

**Note 2:** Based on a measurement to a flat liquid target of size 30cm/1.2".

**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, AdBlue, gas oil types A2,C1,C2 and D as defined by BS2869.

## Specification (contd.)

### Conformity

EU/UK/NZ/AUS variants meet the intent of Directive 89/336/EEC for Electromagnetic compatibility and the Low voltage directive 73/23/EEC for product safety and the R&TTE directive 1999/5/EC for radio. Compliance was demonstrated to the following specifications as listed in the official journal of the European Communities. The transmitter has additionally been designed to meet the requirements of the ATEX directive 94/9/EC for potentially explosive atmospheres (note that the product is not certified as ATEX approved unless specifically required and ordered as such). USA variants compliant to FCC part 15 in UL approved test facility.

EN 55022,A1,A2	Limits and methods of measurement of radio disturbance characteristics of information technology equipment.
EN 61000	Electromagnetic compatibility
EN 55011	Industrial, scientific and medical (ISM) radio-frequency equipment
EN 60335-1	Safety of household and similar appliances
EN 300 220-3	Electromagnetic compatibility and Radio spectrum Matters (ERM) - Short Range Devices (SRD);
ETSI EN 301 489-3	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electromagnetic Compatibility (EMC)
RoHs Compliance	Yes
FCC part 15 compliance	USA variant