



RF Ultrasonic Sensor - Gen 3

Ultrasonic tank sensor with increased ultrasonic range of 4m/13Ft.

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.*
- Commercial or Domestic Tanks
- Interior, Exterior & Underground Tanks
- Fuel Distribution Companies

Benefits

- Instant view of tank level measurement at the tank or in the home
- Easy to install
- Measurement resolution of 1cm / 0.39"
- Communication distance to receiver typically greater than 250m / 820 Feet
- Mains powered receivers with display available with EU, USA, AUS/NZ plug formats
- RMS Compatible (PTSN & GSM Modems)
- Float switch option for bunded tanks
- Non display option
- Separate ultrasonic transducer module attached by cable option for underground tanks
- Stilling tube connection adaptor accessory for tanks with internal stays/structures
- FCC, CE Conformance and ROHS Compliant
- Long lasting battery
- Minimum 1 year warranty



WEEE Reg. 00232
Patents granted

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Specification

Characteristic	
Dimensions	70mm (W) x 40mm (L) x 142mm (H) ±1mm / 2.75"(W) x 1.57(L) x 5.6" ±0.04"
Weight	93g/0.2lbs
Housing Material	UV Stabilized Polypropylene
Operating temperature	-20°C to 60°C / -4°F to +140°F (Note 1)
Storage Temperature	-20°C to 60°C / -4°F to +140°F (Note 1)
Altitude range	<2Km/1.25miles above sea level
Environmental Protection	IP67 – Outdoors
Radio frequency	EU/UK/NZ/AUS: 433.92 MHz FM, EU: 868.3 MHz FM, USA: 914.5 MHz FM
Radio output power	433MHz EU/UK/NZ/AUS: 5dBm ± 2dBm, 868MHz EU: 11dBm ± 2dBm, 914MHz USA: 0dBm +/-2dBm
Receiver Sensitivity	N/A
Ultrasonic range	>12cm to <4M / >4.7" to <157" (Note 2)
Ultrasonic signal diversion	30° (Note 3)
Material compatibility	(Note 4)
Power requirements	VARTA CR2450 3V Li-Manganese dioxide / Organic Electrolyte (fitted)
Battery life	> 5 Years
Humidity range	15% - 95%
LCD Display	10 level bar graph with refill/error icons
Alarm LED	Red LED flashes to indicate an alarm as required (consult factory) (Note 5)
Ultrasonic Resolution	1cm / 0.39"
Accuracy	Typically ±2cm from 12cm to 3m / ±0.8" from 4.7" to 118"

Accessories

Adapter	1½" BSP external thread adapter, 70mm (W) x 49mm (D) x 27mm (H) / 2.75"(W) x 1.9"(L) x 1.06"(H) – (Included with European versions) 2" NPSM external thread adapter, 79mm (W) x 70mm (D) x 16mm(H) / 3.1"(W) x 2.75"(L) x 0.62"(H) – Optional
Gasket (included)	Material EPDM, 70mm (W) x 40mm (D) x 4mm (H) ±1mm / 2.75"(W) x 1.57(D) x 0.16"(H) ±0.04" Distance between hole centres 50mm ±1mm / 1.96" ±0.39"
Screws (included)	No.8 X 19mm (.75") Panhead Pozi-drive Stainless steel

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.

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);
FCC	For 914.5MHz variant. Part 15 Low Power Communications Device Transmitter. Identifier: S6T687
RoHs Compliance	Yes

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 30cm² / 4.65"². Alarm functionality is disabled when the ullage is <24cm / 9.5". Accuracy above 3M / 118" decreases to ±5cm/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, gas oil types A2,C1,C2 and D as defined by BS2869.

Note 5: Alarm functionality only in the range 25cm / 9.8" to 300cm/118".

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