



## RF Ultrasonic Sensor – Gen 2

Ultrasonic tank sensor with optional built-in LCD display for instant view of tank level measurement at the tank. Ideal for fuel distributors as no access to remote receiver required.

### Applications

- Fuel Tanks – Oil, Kerosene, AdBlue
- Commercial or Domestic Water 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 200m / 656 Feet
- Full detect LED flashes when the level is rising and within 20 cm / 7.9" of the top of the tank
- Mains powered receivers with display available with EU, USA, AUS/NZ plug formats
- RMS Compatible for longer distances (PTSN & GSM Modems)
- Float switch option for bunged tanks
- Separate ultrasonic transducer module attached by cable option for underground tanks
- Stilling tube connection adaptor accessory for tanks with internal stays/structures
- CE Conformance and ROHS Compliant
- Long lasting battery
- Minimum 1 year warranty



# Specification

Dimensions	70mm (W) x 40mm (L) x 142mm (H) ±1mm 2.75"(W) x 1.57(L) x 5.6" ±0.04"
Weight	93g/0.21lbs
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 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
Full detection LED	Red LED flashes when level is rising and within 20cm/7.9" of sensor
Ultrasonic Resolution	±1cm/±0.39"
Accuracy	Typically ±2cm from 12cm to 3m / ±0.787" 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) / 3.11"(W) x 2.75"(L) x 0.63"(H) - Optional
Gasket (included)	Material EPDM, 70mm (W) x 40mm (D) x 4mm (H) ±1mm / 2.75"(W) x 1.57(L) x 0.157" ±0.04" Distance between hole centres 50mm ±1mm / 2" ±0.04"
Screws (included)	No.8 X 19mm(0.75") 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 30cm2/11.8"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.

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