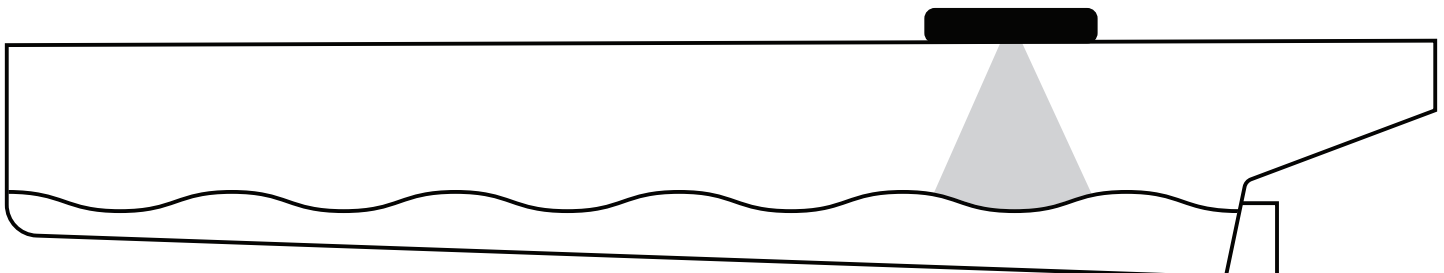


Water tank level measurement sensor

This small, rugged radar device mounts externally to the top of an RV water tank and provides reliable and accurate tank level measurements for fresh water, grey water, and black water plastic tanks. This innovative technology will reduce warranty and maintenance costs for RV manufacturers, improve manufacturing time, and provide a superior experience to the end customer.



- Installed on exterior of tank
- Same technology as sensors for industrial liquid storage tanks
- Gradual level measurements from empty to full
- 0.25 cm accuracy
- Integrates with RV-C based control panels
- Native RV-C interface to each device—no additional hardware needed
- Rugged enclosure
- Thin profile
- Robust radar technology
- Works on all plastic holding tanks
- Simple installation with industrial adhesive



RV Tank Level Radar Sensor technical specifications

Physical properties

- Weight: 2.2 oz (0.062 kg)
- Dimensions: 2.2 in. x 3.0 in. x 0.5 in. (5.6 cm x 7.6 cm x 1.3 cm)
- Enclosure:
 - Copolymer polyamide molding
 - Resistant to corrosion, fungus, and moisture deterioration
 - Connector: IP65 seal rating
- Integrated cable stress relief

Radar design

- Frequency modulated continuous wave (FMCW) radar
- Broadband printed circuit board antennas
- Detection range: 1 in. to 3 ft. (2.5 cm to 91.4 cm)
- Detections closer than 1 in. register as full
- Designed for optimal performance on RV tanks
- Accurate to 0.1 in. (0.25 cm)

Communication

- RV-C/CAN (see www.rvia.org/rv-c)
- Firmware upgradability over CAN

Electrical

- Power consumption: 0.5 W (at 12 V)
- Operating voltage: 6 V to 16 V (12 V typical)
- Four-wire connector for power and RV-C

Configuration

- Configurable tank types (instances):
fresh 1–3, gray 1–3, black 1–3
- Configurable tank depth: 5 in. to 36 in. (12.7 cm to 91.4 cm)
- Configurable tank regions with variable geometry: 5
- Tank instance and tank geometry configurable over RV-C
- Can be purchased preconfigured for a specific tank
- One-click configuration for single-region tanks

Installation

- Industrial peel and stick adhesive: 3M 300 LSE
- Mechanical stress relief for secure cable installation

Manufacturing

- Manufactured in the USA
- Surface mount assembly

For purchasing information, visit:

www.fathomradar.com/where-to-buy

- Operational testing:
 - Sub-assembly test
 - 48-hour unit level burn-in
 - On-tank spot test
- IPC-A-610C Class 2–compliant

Operating conditions

- Ambient operating temperature: -29.2°F to 165°F (-34°C to 74°C)
- Accurate performance in changing temperature

Maintenance

- No cleaning or adjustment necessary
- No battery replacement necessary
- No recalibration necessary
- Mean time between failures: 10 years (estimated based on manufacturing techniques)