RIOT EDGE SOLUTIONS

...Where data begins ™

Intrinsic Safe
Tank Level Monitoring Solution
TLM108-02

Plug-and-play tank level monitor delivers the ultimate return on your investment by combining tank level, temperature, and tilt sensor capabilities, with wireless communications modems and a replaceable battery enabling local and global visibility of multiple tank types in any environment to improve scalability, efficiency, and sustainability.

Maximum simplicity

The TLM108-02 is designed for maximum simplicity. The contactless ultrasonic tank level monitor takes 2 minutes to install, screw it in, and once activated, the device will begin broadcasting based on a user-defined reporting schedule.

Rugged

Designed to operate reliably in hazardous and harsh operating environments, the TLM108-02 has HAZMAT, UL913, C1D1, Intrinsic Safe, and is proven for use in monitoring tanks in extreme environments of Alberta, Canada to Bakersfield, California.

The TLM108-02 has an embedded LoRa or Cellular modem or can be wirelessly paired with an ultra-ruggedized satellite communications device, providing local or global coverage using Bluetooth Low Energy (BLE).

With a uniquely low price-point and a negligible installation cost, any fleet of fixed or mobile tanks can benefit from the TLM108-02

True Plug & Play

- No programming
- No calibration
- No wires
- No external antenna
- No custom integration
- Automated activation

Features

- Installs in 2 minutes
- Self-Contained-fully integrated
- Multiple Communication Options
- Screws into standard tank 1” NTP fitting
- LoRa Radio
- BLE, with mobile app
- Battery life: up to 30,000 LoRa messages (3+/5+ years)
- UL913, C1D1 Intrinsic safe
- Automated temperature compensation, and tank profiling.
- Preconfigured for customer’s network and security requirements.
- User definable data buffers
- Software upgrades using BLE.

Simplified Installation

The TLM108-02 can be easily installed on multiple tank types including tanks that contain caustic, acidic, reactive and petroleum. RIOT Edge Solutions' mobile app makes it easy for installers and account managers to checks both tank and sensor status in the field.

Specifications

Dimensions	4.5" w x 2.7" h (11.4 x 6.9 cm)
Weight	Weight: 1lb 7 oz. (w/battery)
Accuracy	+/- 0.08" (0.2 cm), higher if required Resolution of 0.2" (0.5 cm), per chemical
Power	1 Replaceable C-cell battery, up to 5 years
Environmental	Operating Temperature: -40 C to +60 C (-40 to +140 F) IP67 rated
Internal Sensors	Tilt Temperature Ultrasonic Tank Level Up to 10 feet (3m)
Connectivity	Internal LoRa antenna - Up to 5 miles range Optional Satellite connectivity available - Wireless connection via BLE Internal Cellular (Pending)
Bluetooth Low Energy (BLE)	Wireless local connection to mobile app Wireless connection to satellite device
Interface	1" NPT thread (others available)
Product Configurations	TLM108-02 - Intrinsic Safe-C1D1

RIOT Edge Solutions, Inc. "RIOT" develops and deploys wireless IoT Edge Devices for large scale specialty applications. RIOT invested in building a wireless, fully integrated, single package IOT Edge Device platform. This greatly reduces the cost while improving the performance of the solution set, thus changing the business case dramatically. RIOT devices are suitable for HAZMAT, explosive, caustic, and acidic environments (UL 913 C1D1). RIOT has designed its products so that they are supported by various wireless backbones including LoRa, cellular (NB-IoT), satellite and BLE.