

# LM11 Level Monitor

HW-LM11 DATASHEET | Model 060-00010




## Overview

The LM11 Level Monitor is a compact and ruggedized radar based sensor designed to measure the level of liquids contained in a wide range of vessels such as tanks, vessels and containers. It features a waterproof and chemical resistant enclosure, near real-time location updates via the Samsara Network, and flexible mounting options.

The Level Monitor enables improved inventory management, throughput tracking, asset utilization reporting, and alerting of critical levels.

## Highlights

- **Contactless Level Sensing:** Measure liquid levels without exposure to harmful materials or other safety risks
- **Samsara Network:** Approximate location updates via Samsara's proprietary BLE gateway network
- **Inventory and throughput reporting:** Prevent service interruptions by maintaining clear visibility of asset inventory with detailed reports
- **Mobile-first tools:** Locate vessels and check levels in the field directly in Samsara's Fleet app
- **Easy installation:** Flexible mounting options for quick installation and various tanks and containers
- **Unified platform:** Unlocks a wide array of customizable reports, alerts, and workflows for workers and admins as part of Samsara's Connected Operations Platform
- **Hazardous Location Capable:** Certified to be used in hazardous locations  
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# Technical Specifications

## Connectivity

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**Data Communications:** 2.4GHz ISM Band

**ISM Band Output power:** 20dBm (US), 13dBm (EU)

**Radar output power:** <20dBm EIRP, 57-64GHz operating band

**Operating area:** United States, Canada, UK, Mexico, Europe

**Secure Communications:** All communications are anonymized and authenticated using AES encryption

## Loaction

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Approximate geolocation is based on the GPS location of nearby gateways in the Samsara network that detect the Level Monitor 2.4 GHz advertisements.

## Power

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The Level Monitor is powered by 2 high capacity Lithium CR-AG batteries that are designed to last 7 years under nominal conditions and are not replaceable. Actual battery life may be reduced by extreme temperatures. For questions about the safe use of Lithium battery powered devices, please consult your company's safety department.

**Rating 6 V, 0.125 A max**

## Enclosure

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- Material: PVDF
- Dimensions: 88.0 × 88.0 × 30.0mm
- Weight: 200g
- Operating Temperature -40°C to 70°C
- IP Rating
  - IP67 (weatherproof and water resistant up to 1m submerged)
  - IP69K (highest grade resistance to high pressure and high temperature washdown)

## Samsara Cloud Software Features

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- Inventory Report
- Throughput Report
- Critical Level Alerts
- Approximate GPS based location tracking
- Developer APIs
- Geofence

## Install Accessories

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### What's Included

1x Double Sided VHB mounting tape

### Optional Accessories

2-inch NPT adapter

Flat plate adapter

## Regulatory Information

### IC Statement

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This device complies with Industry Canada's license-exempt RSSs. Operation is subject to the following two conditions: (1) This device may not cause interference; and (2) This device must accept any interference, including interference that may cause undesired operation of the device.

This equipment complies with Innovation, Science and Economic Development Canada RF exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated to ensure a minimum of 20 cm spacing to any person at all times. CAN ICES-3(A)/NMB-3(A)

IC Radiation Exposure Statement: This equipment complies with Canada radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator and your body

### Federal Communication Commission Interference Statement

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This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. FCC Radiation Exposure Statement: This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance 20cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

For detailed product specifications and important safety information, please refer to the product's installation guide, available at <http://samsara.com/lm11-install>.