SENSE IT
TECHNOLOGIES
MONITORING AND CONTROL SOLUTIONS



LoRaWAN Temperature and Humidity Sensor - External Probe

SKU: SI-LRW-TMHM-EXT-003

Monitor temperature accurately with a compact wireless LoRaWAN® temperature sensor featuring a detachable food-grade probe, IP67 protection and up to 9 years of battery life. Ideal for cold chain, pharmaceutical storage, food processing, refrigeration, laboratories and industrial temperature monitoring.

OVERVIEW

This compact wireless temperature sensor is designed for reliable temperature monitoring in cold chain, pharmaceutical, food processing and industrial environments. Featuring a detachable stainless steel temperature probe and long-range LoRaWAN® connectivity, it provides accurate remote monitoring while eliminating the need for communication or power cabling.

The sensor measures temperatures from -40°C to 125°C, making it suitable for refrigerators, freezers, cold rooms, food production facilities, laboratories and temperature-controlled storage. The detachable probe simplifies replacement and calibration, reducing maintenance costs while ensuring measurement accuracy over time.

An IP67-rated enclosure protects the device against dust and water ingress, while integrated local data storage retains up to 4,000 readings during communication interruptions and automatically uploads them once connectivity is restored. Configurable threshold and abrupt temperature change alarms provide early warning of environmental deviations, helping maintain product quality and regulatory compliance.

The sensor integrates seamlessly with the Sense It monitoring platform, providing live dashboards, historical trends, automated reports and multi-channel alerts. Long battery life of up to nine years and NFC configuration make installation and maintenance quick and straightforward for both single-site and multi-site deployments.

KEY FEATURES

- High-accuracy temperature monitoring
- Temperature range from -40°C to 125°C
- Detachable stainless steel temperature probe
- Long-range LoRaWAN® connectivity
- Up to 9 years battery life
- IP67-rated enclosure
- Local data logging with automatic retransmission
- Configurable high, low and abrupt temperature change alarms
- NFC configuration using a smartphone
- Firmware updates over the air (FUOTA)
- EN12830 compliant
- Suitable for food, pharmaceutical and industrial applications

TECHNICAL SPECIFICATIONS

General

- Wireless technology: LoRaWAN®
- LoRaWAN Class A
- Activation: OTAA / ABP
- Frequency bands: EU868, US915, AU915, AS923, KR920, IN865, RU864, CN470 (region dependent)
- RF output power: Up to 22 dBm (region dependent)
- Receiver sensitivity: Up to -137 dBm

Temperature

- Sensor type: Digital temperature probe
- Measurement range: -40°C to 125°C
- Measurement accuracy: ±0.5°C (-10°C to 85°C), ±2°C (-40°C to -10°C and 85°C to 125°C)
- Resolution: 0.1°C
- Long-term drift: <0.2°C

Probe

- Probe material: FDA-compliant stainless steel
- Cable material: TPE
- Cable length: 1.5 m
- Probe length: 50 mm
- Detachable probe for simplified calibration and replacement

Data & Alarms

- Stores up to 4,000 historical records
- Automatic data retransmission after communication recovery
- High and low temperature alarms
- Abrupt temperature change alarms

Configuration

- NFC configuration
- Remote downlink configuration
- Firmware updates over the air (FUOTA)

Power

- 1 × 2,700 mAh replaceable Li-SOCl battery
- Battery life: Up to 9 years depending on reporting interval

Environmental

- Operating temperature (device): -30°C to 55°C
- Probe operating temperature: -40°C to 125°C
- Operating humidity: 0–95% RH (non-condensing)
- Ingress protection: IP67

Physical

- Housing material: ABS + PC
- Dimensions: 58 × 65 × 25 mm
- Weight: 70 g (device)

Installation

- Wall mount
- Cable-tie mount
- Optional magnetic mount

Compliance

- EN12830 certified
- CE
- FCC
- RoHS

Applications

- Cold chain monitoring
- Refrigerators and freezers
- Pharmaceutical storage
- Food processing
- Cold rooms
- Laboratories
- Industrial temperature monitoring

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