SENSE IT
TECHNOLOGIES
MONITORING AND CONTROL SOLUTIONS



LoRaWAN Temperature and Humidity Sensor - Internal - Magnetic

SKU: SI-LRW-TMHM-INT-002

Monitor temperature and humidity with a compact wireless LoRaWAN® sensor designed for cold chain, pharmaceutical, food storage and building monitoring. Featuring high-accuracy sensors, an IP67-rated enclosure, long battery life and real-time cloud connectivity, it provides reliable environmental monitoring for indoor and outdoor applications.

OVERVIEW

This compact wireless temperature and humidity sensor provides accurate environmental monitoring for applications where reliable climate data is essential. Using LoRaWAN® technology, it delivers long-range, low-power communication for remote monitoring without requiring local network infrastructure. It is ideal for cold chain monitoring, pharmaceutical storage, food processing, hospitals, warehouses, offices, laboratories and agricultural environments.

Designed for demanding environments, the sensor features an IP67-rated enclosure that protects against dust and water ingress, making it suitable for both indoor and outdoor installations. The food-grade housing allows safe installation in areas where the device may come into contact with food or pharmaceutical products, making it an excellent choice for refrigeration, freezers and cold rooms.

High-precision temperature and humidity sensors provide accurate measurements with excellent long-term stability, while built-in local data storage ensures measurements are retained during communication outages and automatically retransmitted once the connection is restored. NFC configuration allows quick commissioning using a smartphone, while replaceable lithium batteries provide up to 10 years of operation depending on reporting interval.

Integrated with the Sense It monitoring platform, the sensor provides live dashboards, historical trends, automated reporting and configurable alerts via email, WhatsApp, SMS or mobile notifications, helping organisations maintain product quality, regulatory compliance and operational efficiency.

KEY FEATURES

- High-accuracy temperature and humidity monitoring
- Long-range LoRaWAN® wireless connectivity
- Up to 10 years battery life
- IP67-rated waterproof enclosure
- Food-grade housing suitable for food and pharmaceutical environments
- Real-time cloud monitoring
- Local data storage with automatic retransmission
- Configurable threshold alarms
- NFC configuration using a smartphone
- Firmware updates over the air (FUOTA)
- Replaceable lithium batteries
- Wall, pole or magnetic mounting options
- Suitable for indoor and outdoor 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 20 dBm
- Receiver sensitivity: Up to -137 dBm

Temperature

- Measurement range: -30°C to 60°C
- Measurement accuracy: ±0.2°C (0°C to 60°C), ±0.3°C (-30°C to 0°C)
- Resolution: 0.1°C

Humidity

- Measurement range: 0–100% RH
- Measurement accuracy: ±2% RH (typical at 25°C)
- Resolution: 0.5% RH

Data & Alarms

- Stores up to 3,000 historical records
- Automatic data retransmission after communication recovery
- Configurable threshold alarms

Configuration

- NFC configuration
- Power on/off via NFC
- Firmware updates over the air (FUOTA)

Power

- 2 × 2,700 mAh replaceable Li-SOCl batteries
- Battery life: Up to 10 years depending on reporting interval

Environmental

- Operating temperature: -30°C to 60°C
- Operating humidity: Up to 95% RH (non-condensing)
- Ingress protection: IP67
- Food-grade enclosure suitable for food contact
- EN12830 compliant for cold chain applications

Physical

- Housing material: PC + ABS (food-grade)
- Dimensions: 85 × 58 × 18 mm
- Weight: 93.2 g (standard), 102 g (magnetic version)

Installation

- Wall mount
- Pole mount
- Magnetic mounting option

Applications

- Cold chain monitoring
- Refrigerators and freezers
- Pharmaceutical storage
- Food storage
- Hospitals
- Warehouses
- Office buildings
- Agricultural monitoring
- Indoor and outdoor environmental monitoring

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