

L02S Sensor Quick Start Guide

MOKO SMART L02S Condition Sensor · BLE Cold-Chain & Environmental Monitoring

The **MOKO SMART L02S Condition Sensor** is an all-in-one Bluetooth Low Energy (BLE) device built primarily for cold-chain logistics, asset tracking, and environmental monitoring. It features an **IP67 waterproof casing**, a replaceable rotating battery, and logs environmental data including temperature, humidity, and door / hall-effect status.

Quick Start & Setup Steps

1 Device Power-Up

- The device does **not** feature an external switch on the housing.
- To power it on, unscrew or open the outer casing to access the internal power button / pull tab.

2 App Configuration

- Download the **BeaconX Pro** app (or the specific configuration app provided by MOKO) from the MOKO Smart APP Downloads page.
- Power on the sensor, open the app, and scan for nearby devices.
- Connect to your L02S sensor to configure parameters such as advertising intervals, data-logging frequency (up to **50,000 records**), and alert thresholds.
- The device supports standard protocol broadcasting such as **iBeacon** and **Eddystone**.

3 Installation & Placement

- Mount the device using stickers, zip ties, or screws.
- For cold chain and trailers, mount securely near the doors or goods to accurately log both environmental shifts and unauthorized openings.

Key Hardware Specs

Sensors	Integrated temperature, humidity, accelerometer, and door / hall-effect sensors (varies by model configuration).
Battery	Replaceable and rated for long-term use (up to 1000 mAh capacity).
Storage	Capable of storing up to 50,000 groups of sensor data.
Ingress Protection	IP67 (dustproof, waterproof).
Transmission Range	Up to 150 meters (in legacy mode).

Deployment Tips: Temperature Deviations & Unauthorized Openings

To get the most reliable cold-chain coverage and resolve excursions before they cause spoilage, follow these field-proven practices:

- **Pair door + temperature events.** The L02S combines a hall-effect (door) sensor with temperature logging, so it can correlate an unauthorized opening with the temperature spike it caused — set both alerts so each excursion can be traced to a cause.
- **Mount at the warmest risk point.** Place the sensor near the trailer or freezer doors and close to the goods, not against the cooling unit — this captures the real worst-case temperature the cargo experiences when doors open.
- **Set realistic thresholds with hysteresis.** Configure an upper/lower limit plus a short dwell time so brief, expected door openings don't trigger false alarms, while genuine excursions still alert.
- **Tune advertising vs. battery life.** Shorter advertising intervals give faster alerts but drain the battery quicker; for in-transit trailers a 1–3 second interval balances responsiveness and runtime.
- **Use local logging as a black box.** With storage for up to 50,000 records, the sensor keeps a continuous history even when out of gateway range — data backfills once a tracker or BLE gateway reconnects, so no excursion goes unrecorded.
- **Verify gateway/tracker coverage.** The BLE broadcast must be picked up by a tracker or gateway to reach the server. Confirm range (up to ~150 m line-of-sight) covers the full loading dock and vehicle interior.
- **Seal and check the casing after battery swaps.** Because power-up requires opening the housing, re-seat the gasket firmly to preserve the IP67 rating in wet/wash-down environments.

Need model-specific values? Temperature-deviation thresholds, door-open alert rules, and protocol details vary by L02S configuration. The official L02 Series Product Specification and MOKO's support team provide exact parameter ranges for your unit.

References

- [L02S Condition Monitoring Sensor — MOKOSmart](#)
- [L02S Multiple Sensor — Temp/Humidity Logger, Door Monitor](#)
- [MOKOSmart Cold Chain Solutions](#)
- [MOKO SMART L02 Series Bluetooth Beacon Instruction Manual](#)