ST-SENSOR Product Information Guide

Battery-Powered Wireless Temperature Sensor (Sensor Box) - September 2026

Thank you for purchasing the ST-SENSOR. Please read this guide carefully before use and retain it for future reference. Operator and Admin User Manuals are available to view and download at www.safetemp.co.uk

⚠️ Environmental & Wetness Warnings

- **Intended Environment:** This device is specifically engineered for use inside domestic and commercial refrigerators and freezers.
- **Moisture Exposure:** The unit features a sealed, moisture-resistant enclosure designed to withstand heavy frost, continuous condensation, and incidental wetness. Do not submerge the unit in water or expose it to pressurized liquid washdown sprays. Clean by wiping with a cloth and standard sanitizing spray.

🔋 Mandatory Battery & Maintenance Instructions

- **Mandatory Battery Type:** To maintain calibration, prevent failure, and shield against damage in freezing conditions, you must exclusively use **Energizer Ultimate Lithium AAA (non-rechargeable) batteries**.
- **Prohibited Batteries:** Do NOT use standard Alkaline batteries. Alkaline chemistry loses major capacity in sub-zero environments, risks severe leakage, and drops voltage too quickly to sustain correct performance. Do NOT use rechargeable batteries (e.g., NiMH / Li-ion).
- **Desiccant Management:** The enclosure contains an internal 0.5g silica gel desiccant sachet to absorb trapped atmospheric humidity. **You must replace the silica gel sachet with a fresh, dry packet every single time the lid is removed and refitted** (e.g., during battery changes). Failure to replace the sachet will cause internal condensation to form, permanently shorting the sensor.
- **Orientation & Sealing:** Ensure batteries are inserted matching the correct polarity (+/-) markings. Tighten screws to seal the lid securely after battery replacement to restore moisture resistance. Never mix old and new batteries.

⚙️ Technical Specifications

- **Model Reference:** ST-SENSOR
- **Power Source:** 3V ⎓ (2 x Energizer Ultimate Lithium AAA Batteries)
- **Operating Range:** -40°C to +60°C
- **Sensor Type:** DS18B20 Digital Temperature Sensor
- **Enclosure Material:** Non-Porous Semi-Rigid Urethane Casting Resin
- **Wireless Connectivity:** Seeed Studio ESP32C3 Module

♻️ Environmental Disposal

Do not dispose of this product or its batteries in standard household waste. Please recycle the device at an authorized local WEEE collection point, and dispose of used lithium batteries at a designated battery recycling station.

UK Declaration of Conformity

Manufacturer: Matthew Griffiths, trading as SafeTemp

Address: Unit 172700, PO Box 7169, Poole, BH15 9EL, UK

Model: ST-SENSOR

The full UK Declaration of Conformity for this product is available to view and download at www.safetemp.co.uk