# Leaf Temperature & Wetness Sensor

**Model: LTH0002**

## Product Overview

The LTH0002 is a dual-parameter sensor designed to measure leaf surface temperature and wetness. The sensor mimics the thermal and physical properties of a plant leaf, providing accurate data on canopy microclimate conditions via RS485 Modbus. The IP68-rated housing is designed for mounting within plant canopy structures.

## Applications

- Disease prediction and fungal infection risk assessment
- Irrigation timing based on canopy wetness duration
- Frost monitoring and protection systems
- Transpiration and plant stress monitoring
- Greenhouse climate control
- Vineyard and orchard microclimate analysis
- Research applications in plant physiology

| Measurement Specifications | | Electrical Specifications | |
|---|---|---|---|
| Leaf Temperature Range | -40 to 80°C | Power Supply (Input) | 9 - 24V DC |
| Leaf Wetness Range | 0 - 100% RH (surface humidity) | Signal Output | RS485 |

| Environmental Specifications | | Measurement Accuracy | |
|---|---|---|---|
| Operating Temperature | -40°C to +80°C | Temperature Accuracy | ±1°C |
| Operating Humidity | 0% to 100% RH | Moisture Accuracy | ±3% RH |

| Physical Specifications | | Cable & Connection | |
|---|---|---|---|
| Housing Material | ABS | Cable Length | 3 meters |
| Housing Dimensions | 147mm × 61mm | Connector Type | M12, 4 Pin Male A Code (PG9) |
| Ingress Protection | IP68 | | |

## Installation Notes

- Mount the sensor to represent typical leaf conditions for your monitoring objective
- For disease predictions models, position where dew formation is most likely (typically lower to mid-canopy)
- For general canopy monitoring or frost detection, position at representative canopy height
- Orient the sensing surface at a similar angle to surrounding leaves
- Avoid shaded locations unless monitoring shaded canopy conditions
- Ensure the sensor is not obstructed by branches or other structures
- Secure cable to prevent movement that could dislodge the sensor

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**Certifications & Compliance**
CE | UKCA | RoHS

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