SENSE IT
TECHNOLOGIES
MONITORING AND CONTROL SOLUTIONS



LoRaWAN Soil Moisture Logger

SKU: SI-CLR-SOIL-LOG-001

Monitor soil moisture and environmental conditions with a solar-powered LoRaWAN® data logger designed for precision agriculture and environmental monitoring. Supporting multiple sensor types, integrated solar charging and rechargeable battery backup, it delivers reliable long-term monitoring in remote locations without requiring mains power.

OVERVIEW

The LoRaWAN® Soil Moisture Logger is a solar-powered environmental monitoring station designed to collect and transmit soil moisture and other critical environmental measurements from remote locations. Built for agriculture, forestry, irrigation management and research applications, it provides reliable long-range monitoring without requiring mains power or cellular connectivity at every sensor location.

Powered by an integrated solar panel with rechargeable lithium battery backup, the logger is designed for continuous operation throughout the year while minimising maintenance requirements. Its rugged IP67-rated enclosure protects the electronics from rain, dust and harsh outdoor environments, making it suitable for permanent field installations.

The logger supports multiple sensor inputs, allowing simultaneous monitoring of soil moisture, soil temperature, rainfall, flow, dendrometers, weather sensors and other analogue or digital environmental sensors. Measurements are transmitted using LoRaWAN®, providing long-range wireless communication to the Sense It platform through a nearby LoRaWAN gateway.

Through the Sense It platform, users can view live sensor readings, historical trends, irrigation performance and environmental conditions from any web browser or mobile device. Configurable alerts notify users when irrigation thresholds, frost conditions or other critical events occur, enabling faster decision-making and improved resource management.

Designed to grow with your monitoring requirements, the logger provides a flexible platform for everything from single irrigation blocks to large-scale agricultural, environmental and water management projects.

KEY FEATURES

- Solar-powered operation
- Rechargeable lithium battery backup
- LoRaWAN® long-range wireless communication
- Multi-sensor environmental monitoring
- Supports soil moisture probes
- Supports soil temperature sensors
- Supports rainfall sensors
- Supports flow meters
- Supports dendrometers
- Supports analogue and digital sensors
- IP67 weatherproof enclosure

- Real-time cloud monitoring
- Historical data logging
- Configurable alerts
- Easy field installation
- Scalable multi-site deployments

TECHNICAL SPECIFICATIONS

General

- Wireless technology: LoRaWAN®
- Designed for remote environmental monitoring
- Supports multiple sensor inputs
- Long-range wireless communication
- Remote configuration and monitoring

Probe Options

- 200 mm multi-depth probe (100 mm & 200 mm)
- 400 mm multi-depth probe (100 mm, 200 mm, 300 mm & 400 mm)
- 600 mm multi-depth probe (100 mm, 200 mm, 400 mm & 600 mm)
- 800 mm multi-depth probe (100 mm, 200 mm, 300 mm, 400 mm, 600 mm & 800 mm)

Sensor Inputs

- Soil moisture sensors
- Soil temperature sensors
- Rain gauges
- Flow meters
- Dendrometers
- Analogue environmental sensors
- Digital environmental sensors

Power

- Integrated solar panel
- Rechargeable lithium battery
- Continuous autonomous operation

Environmental

- Ingress protection: IP67
- Designed for permanent outdoor installation
- Suitable for harsh agricultural environments

Installation

- Pole mounting
- Wall mounting
- Remote field installation

Applications

- Precision agriculture
- Irrigation management
- Soil moisture monitoring
- Crop monitoring
- Water management

- Environmental monitoring
- Forestry
- Research projects
- Weather monitoring

GALLERY



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