

EM500 series

Environment Monitoring Sensors



► Introduction

EM500-SMT soil moisture sensor is a long range wireless sensor compatible with standard LoRaWAN protocol. Combining with the advanced LoRa technology and 19000mAh battery make it a low power consumption product with years-long use life. It is a portable, robust and waterproof solution to obtain critical information about tested soil.

► Features

- A portable, robust and waterproof solution for smart agricultural applications
- Up to 11km communication range
- Standard LoRaWAN protocol

- Easy Configuration via NFC
- Ursalink Cloud and third-party platform compliant
- Low power consumption with 19000 mAh replaceable battery

► Applications

- ✓ Irrigation Control
- ✓ Smart agriculture and horticulture
- ✓ Golf course maintenance

► Specifications

LoRaWAN	
Frequency	EU433/CN470/IN865/EU868/RU864/US915/AU915/KR920/AS923
Tx Power	20dBm
Sensitivity	-147dBm @300bps
Mode	OTAA/ABP Class A
Antenna	Integrated ceramic antenna
Moisture Measurement	
Range	0% to 100%
Accuracy	±2%
Physical Characteristics	
Probe Length	3m
Power Supply	19000 mAh Li-SOCL ₂ battery
Battery Life	5.5 years (10 min interval, SF12) >10 years (10 min interval, SF7)
Operating Temperature	-20°C to +70°C
Ingress Protection	IP66 (IP67 as required)
Dimension	105.4 × 71 × 69.5 mm (Waterproof connector and sensor are not included)
Mounting	Pole, wall, DIN rail
Operation	
Power On & Off	NFC, power button (Internal)
Configuration	Mobile APP or PC software via NFC: Configuration and Firmware Upgrade