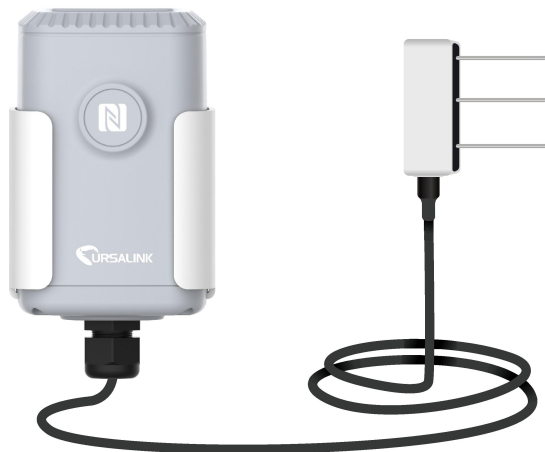


EM500-SMT

Soil Sensor



► Introduction

EM500-SMT series soil 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
- Uursalink Cloud and third-party platform compliant
- Low power consumption with 19000 mAh replaceable battery
- 1-Year Warranty Included

Applications

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

Specifications

Model		EM500-SMT-EC5	EM500-SMT-MT10	EM500-SMT-MEC20
Measurement				
Moisture	Range	0% to 100% RH		
	Accuracy	±2%	±2%(0~50%), ±3%(50%~100%)	
	Resolution	0.5%	0.03%(0~50%), 1%(50%~100%)	
Temperature	Range	—		
	Accuracy	—		
	Resolution	—		
Electrical Conductivity	Range	—	—	0~20000 $\mu\text{s/cm}$
	Accuracy	—	—	±3%(0~10000 $\mu\text{s/cm}$), ±5%(10000~20000 $\mu\text{s/cm}$)
	Resolution	—	—	10 $\mu\text{s/cm}$ (0~10000 $\mu\text{s/cm}$) 50 $\mu\text{s/cm}$ (10000~20000 $\mu\text{s/cm}$)
LoRaWAN				
Frequency	EU433/CN470/IN865/EU868/RU864/US915/AU915/KR920/AS923			
Tx Power	16dBm(868)/20dBm(915)/19dBm(470)			
Sensitivity	-147dBm @300bps			
Mode	OTAA/ABP Class A			
Antenna	Integrated ceramic antenna			

Physical Characteristics

Power Supply	19000 mAh Li-SOCL ₂ battery (ER34615)
Battery Life	5.5 years (10 min interval, SF12) >10 years (10 min interval, SF7)
Operating Temperature	-30°C to +60°C(EC5) -30°C to +70°C(MT10/MEC20)
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, USB Type-C

Order Information

Model	Measuring Content
EM500-SMT-EC5	Soil moisture, 5m cable
EM500-SMT-MT10	Soil moisture, temperature, 2m cable
EM500-SMT-MEC20	Soil moisture, temperature, electrical conductivity, 2m cable