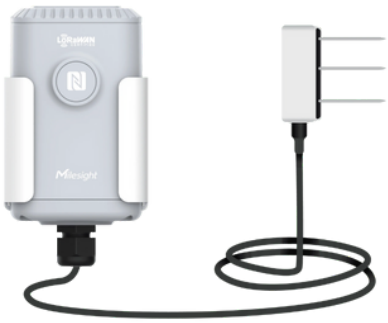
EM500-SMTC Soil Moisture, Temperature & Electrical Conductivity Sensor

APPLICATIONS



- IRRIGATION CONTROL
- SMART HORTICULTURE
- GREENHOUSE CONTROL
- SMART AGRICULTURE
- GOLF COURSE MAINTENANCE

FEATURES

- **HIGH ACCURACY & PRECISION**
  for multiple kinds of soil
- **EXCELLENT CORROSION RESISTANCE**
  and tough probe
- **IP67 WATERPROOF ENCLOSURE**
  for harsh environment applications
- **BUILT-IN REPLACEABLE BATTERY**
  19,000 mAh works for 10 years without replacement
- **ULTRA-WIDE-DISTANCE**
  wireless transmission
- **EQUIPPED WITH NFC**
  for easily configuration
- **COMPATIBLE WITH STANDARD**
  LoRaWAN gateways & network servers
- **MILESIGHT IOT CLOUD**
  compatibility

SPECIFICATIONS

Wireless Transmission

Technology	LoRaWAN ®
Frequency	CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923

EM500-SMTC Soil Moisture, Temperature & Electrical Conductivity Sensor

Tx Power	16dBm(868)/20dBm(915)/19dBm(470)
Sensitivity	-137dBm @300bps
Mode	OTAA/ABP Class A

Measurement

Moisture

Range	0% ~ 100% RH
Accuracy	±2%(0~50%), ±3%(50%~100%)
Resolution	0.01%

Temperature

Range	-40°C ~ 80°C
Accuracy	±0.5°C
Resolution	0.1°C

Conductivity

Range	0~20000 μs/cm
Accuracy	±3%(0~10000 μs/cm), ±5%(10000~20000 μs/cm)
Resolution	1 μs/cm

Others

Power On & Off	NFC, Power Button (Internal)
Configuration	Mobile App (via NFC) or PC Software (via USB Type-C)

Physical & Characteristics

Cable Length	2m
Power Supply	19000 mAh Li-SOCL2 battery (ER34615)
Battery Life	10 years (10 min interval)
Operating Temperature	-30°C to +70°C
Relative Humidity	0% to 100% (non-condensing)
Ingress Protection	111 × 62 × 33 mm (4.37 × 2.44 × 1.30 in)
Dimension	Transceiver: 105.4 × 71 × 69.5 mm (4.1 × 2.8 × 2.7 in) Soil Sensor: 88 × 68 × 26 mm (3.5 × 2.7 × 1.0 in) (Probe length: 50mm/1.97 in)
Installation	On the flat surfaces with screws

EM500-SMTC Soil Moisture, Temperature & Electrical Conductivity Sensor

Approvals

Regulatory	CE, FCC, RoHS

* Tested under laboratory conditions and for guideline purposes only

017 299 6500
C-8-2, Blok C, Setia Walk, Persiaran Wawasan, Pusat Bandar Puchong, 47160 Puchong, Selangor, Malaysia.
info@ipsec.com.my
https://www.ipsec.com.my