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INDUSTRIAL PRODUCT DATASHEET

SenseCAP Wireless Soil Moisture and Temperature Sensor - LoRaWAN US915

SenseCAP Wireless Soil Moisture and Temperature Sensor (LoRaWAN US915) with ≥6-year battery life and 10 km range for smart agriculture and environmental monitoring.

SKU	UPDATED	PRICE
101990565	2026-04-15 10:30:04	$219.00(Excl. VAT)



Overview



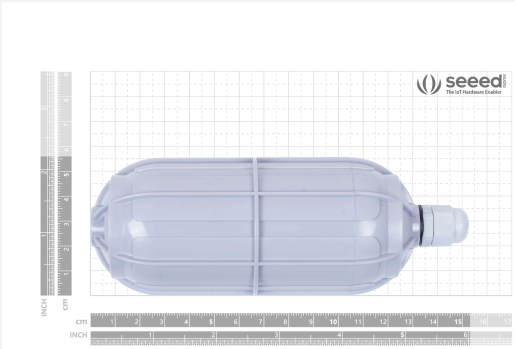
The SenseCAP Wireless Soil Moisture and Temperature Sensor supports LoRaWAN Class A protocol with high reliability, ultra-wide-distance transmission up to 10 km line-of-sight and 2 km in urban scenes, and a battery life of at least 6 years. It is suitable for smart agriculture, smart building and industrial control, environmental monitoring, and other wireless sensing applications.

Key Features

- Support LoRaWAN protocol Class A
- High reliability and stability
- Ultra-wide-distance transmission: 10km in line of sight scene, 2 km in urban scenes
- Battery life ≥ 6 years
- Rapid installation and deployment (see the video below)

Product Gallery







Specification

Soil Temperature	
Range	-30 ℃ to +70 ℃
Accuracy	±0.5 ℃
Resolution	0.1 ℃
Soil Moisture	
Range	From completely dry to fully saturated (from 0% to 100% of saturation)
Accuracy	±2% (0 to 50 %); ±3% (50 to 100 %)
Resolution	0.03 %(0 to 50%); 1%(50 to 100%)
General Parameters	
Product Model	Long Range -S-915-Soil MT-01
Microcontroller	Ultra-low-power MCU
Support Protocol	Based on LoRaWAN v1.0.2 protocol
Long Range Channel Plan	US915
Long Range Power Output	16 dBm (EIRP)
Sensitivity	-136.5dBm(SF12, BW125KHz)

Current Consumption	5 μA (sleep mode) 120 mA max(active mode)
Communication Distance	2 to 10 km (depending on different antennas and environments)
Measuring Area	A cylinder area (with the probe as the center, diameter: 7cm, height: 7cm)
IP Rating	IP66
UV Resistance	anti-aging (from rain/sun exposure): UL746C F1
Enclosure Material	PC
Operating Temperature	-30 ℃ to +70 ℃
Operating Humidity	0 to 100 %RH (non-condensing)
Device Weight	415g
Certification	CE, FCC, RoHS
Battery (Contained in equipment)	
Battery Life	≥ 3 years (upload data once per hour)
Battery Voltage	3.6V
Battery Capacity	19Ah (non-rechargeable)

Applications

- **Smart Agriculture**
- **Smart Building and Industrial Control**
- **Environmental Monitoring**
- **Other Wireless Sensing Applications**

Part List

Part List		
1	Sensor	x1
2	Bracket	x1
3	M4 Self-drilling Screw	x4
4	M3 Self-drilling Screw	x2

ECCN/HTS	
HSCODE	9025800000
USHSCODE	8517709000

Compliance & Logistics



HSCODE	9025800000
USHSCODE	9025801000
UPC	
EUHSCODE	9013101000
COO	CHINA

Resource Links

- https://www.seeedstudio.com/LoRaWAN-Soil-Moisture-and-Temperature-Sensor-US915-p-4315.html
- LoRaWAN Gateway and Wireless Sensor Catalog V1.7
- SenseCAP LoRaWAN Sensor User Manual V1.1
- SenseCAP Product User Guide(LoRaWAN Series) V1.3
- SenseCAP Document Center

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