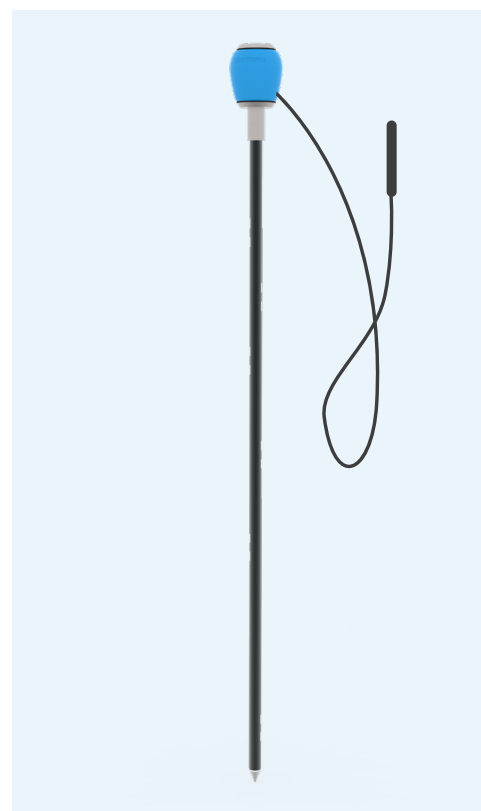


Multi Depth Soil Moisture Sensor

GENERAL	
Measurement	Soil moisture and temperature
Dimensions	110 x 9 x 9 cm (3 ft 7 inch x 3.5 inch x 3.5 inch)
Antenna extension cable	300 cm (9 ft 1") [OR] 600 cm (19 ft 7")
Weight	1.3 kg (2.9 lbs)
Power	Internal Lithium battery included (built-in)
Operating voltage	3.6 V
Life expectancy	5-8 years
Operating environment	- 20 to + 60°C
Waterproof enclosure	Suitable for outdoor environments
Installation requirements	Recommended minimum 16V drilling machine (not included)
Package Dimensions	115 x 13 x 11 cm (47 x 8 x 4 inch)
Certifications	LoRa Alliance / FCC / EC



MEASUREMENTS	
Soil moisture measurement depths	10, 20, 30, 45, 60 and 90 cm (4, 8, 12, 18, 24, 35 inch)
Soil moisture measurement protocol	Patented: Impedance (soil resistivity and capacitance)
Soil moisture measurement output	Volumetric Water Content (%) Sensoterra Index (SI)
Soil moisture resolution	Reported to the nearest 0.1%
Soil moisture measurement volume	6.2 cm ³ (2.44 inch ³)
Temperature measurement depth	25 cm (10 inch)
Temperature measurement	Accuracy: ± 2°C Resolution: 0.25°C for temp. between 0-31°C 0.5°C for temp. between -20-0°C and 31-75°C
Accuracy	±1.5 moisture-% at pF≥2, when using a Sensoterra calibration curve that matches the soil type.
Default reading rate	24 uploads per day
Memory	Last 2 measurements
Range	From 0% to the maximum water capacity of the soil by total volume - e.g. 53% for clay or 40% for sand.
Soil compatibility	Sensoterra app is calibrated for 20+ common soil types, as well as a generic soil. Custom specified calibration on request.

COMMUNICATION	
Wireless protocol	LoRaWAN 1.0.4 ADR & OTAA enabled
Frequency	EU: 868 MHz NA: 915 MHz AU: 915 MHz AS: 923 MHz IN: 865 MHz
Transmit power	North America and Australia: up to 20 dBm Other regions: up to 14 dBm
Transmission rate	24 uploads per day (default)
Data interface	Sensoterra App or Website (iOS, Android or browser)
Data storage	Sensoterra database
Export data	<ul style="list-style-type: none"> Excel download REST API, SenML HTTP Push notifications GeorSS feed
LoRaWAN provisioning	Annual fee for LoRa connectivity, ST cloud services and monitor app/API
Security	<ul style="list-style-type: none"> LoRa communication encrypted with AES 128 up to the network servers All API and application access encrypted with TLS/SSL Hosting provider is certified for ISO-27001 and SOC 1/2 Type II