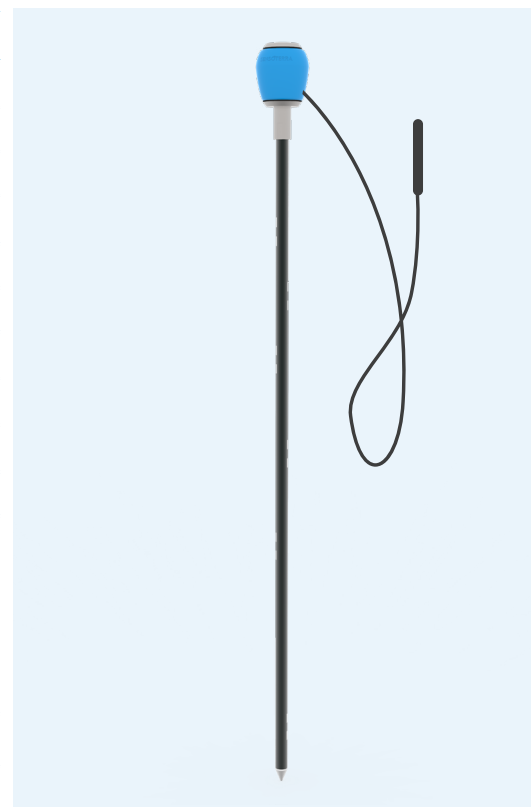


Multi Depth Soil Moisture Sensor

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	300 cm (9 ft 1") 600 cm (19 ft 7")
Weight	1.3 kg (2.9 lbs)
Power	Internal Lithium battery included (non-replaceable)
Operating voltage	3.6 V
Life expectancy	3 years
Operating environment	- 20 to + 60°C
Waterproof enclosure	Suitable for outdoor environments
Installation requirements	Recommended minimum 16V drilling machine (not included)
Package includes	2x Multi Depth sensor 2x Antenna + extension cable 2x Sensoterra flag 1x Installation drill bit: diameter 16mm (2/3 inch), length 1m (3 ft 4 inch) 1xMagnet Cable ties
Package Dimensions	115 x 13 x 11 cm (47 x 8 x 4 inch)
Certifications	LoRa Alliance



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
Default reading rate	One reading per hour per depth
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.
Accuracy	±1.5 moisture-% at pF≥2, when using a Sensoterra calibration curve that matches the soil type.
Soil compatibility	Sensoterra app is calibrated for 12+ common soil types, as well as a generic soil. Custom specified calibration on request.

COMMUNICATION	
Wireless protocol	LoRaWAN 1.0.3a ADR & OTAA enabled
Frequency	North America: 902-928 MHz Europe: 863-870 MHz Asia Pacific: 920-925 MHz Australia: 915-928 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	Excel download Open RESTful API SenML server push notifications GeoRSS feed
LoRaWAN provisioning	2 years connectivity, platform and cloud services included
Security	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