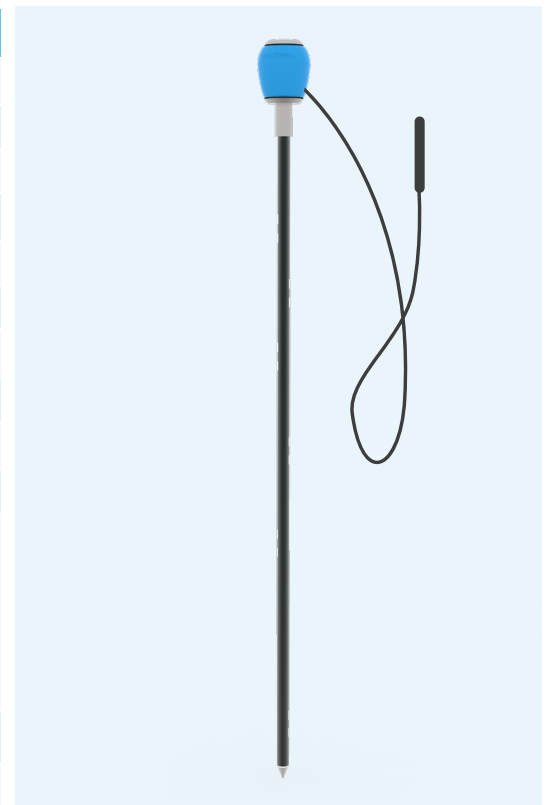


# Multi Depth Soil Moisture Sensor

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



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

COMMUNICATION	
<b>Wireless protocol</b>	LoRaWAN 1.0.3a ADR & OTAA enabled
<b>Frequency</b>	North America: 902-928 MHz Europe: 863-870 MHz Asia Pacific: 920-925 MHz Australia: 915-928 MHz
<b>Transmit power</b>	North America and Australia: up to 20 dBm Other regions: up to 14 dBm
<b>Transmission rate</b>	24 uploads per day (default)
<b>Data interface</b>	Sensoterra App or Website (iOS, Android or browser)
<b>Data storage</b>	Sensoterra database
<b>Export data</b>	Excel download Open RESTful API SenML server push notifications GeoRSS feed
<b>LoRaWAN provisioning</b>	3 years included
<b>Security</b>	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