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## **HOBO 10HS Soil Moisture Smart Sensor**

### **Product Images**





#### **Short Description**

Measure soil moisture over a large volume of soil with the affordably-priced 10HS Soil Moisture Smart Sensor.

### Description

# Measure soil moisture over a large volume of soil with the affordably-priced 10HS Soil Moisture Smart Sensor.

This sensor integrates the field-proven 10HS Sensor and a 12-bit A/D, providing  $\pm 3\%$  accuracy in most soil conditions, and  $\pm 2\%$  accuracy with soil-specific calibration. The 10cm probes measure soil moisture over a larger volume of soil which helps to average out any soil variability. Readings are provided directly in volumetric water content. This sensor's high frequency design gives it a low sensitivity to salinity and textural effects and a wide measurement range.

- Measures a large 1-litre volume of soil, providing a more accurate picture of average soil moisture
- Provides data directly in volumetric water content
- Sensor uses a high-frequency (70 MHz) circuit that provides good accuracy even in high-salinity and sandy soils.
- Compatible with Onset HOBO standalone and web-based weather stations.

Note: This product can be configured to work using the VIA option on the HOBO U30 data logging station. Please contact us for further information.

Also available in a wireless model for use with the HOBOnet Field Monitoring System.

## **Additional Information**

Country of Manufacture	United States
Explanation	The country of origin for this product is the United States. To see the full specifications for this product, please see the User Manual found under the Resources tab. Measurement range in soil: 0 to 0.570 m <sup>3</sup> /m <sup>3</sup> (volumetric water content) Accuracy: ±0.033 m <sup>3</sup> /m <sup>3</sup> (±3.3%) typical 0 to +50°C (+32° to +122°F) for mineral soils up to 10 dS/m ±0.020 m <sup>3</sup> /m <sup>3</sup> (±2%) with soil specific calibration Resolution: 0.0008 m <sup>3</sup> /m <sup>3</sup> (0.08%) Soil probe dimensions: 160 x 32 x 2 mm (6.5 x 1.25 x 0.08 in.) Weight: 190 grams (6.7 oz) Decagon probe part no.: 10HS Sensor operating temperature: 0° to +50°C (+32° to +122°F). Although the sensor probe and cable can safely operate at below-freezing temperatures (to -40°C/F) and the smart sensor tube (the white portion of the sensor cable that houses the electronics) can be exposed to temperatures up to +70°C (+158°F), the soil moisture data collected at these extreme temperatures is outside of the sensor's accurate measurement range. Extended temperatures above +50°C (+122°F) will decrease logger battery life when using for the S-SMD-M005 smart sensor. Volume of influence: 1 liter (33.8 oz) Sensor frequency: 70 MHz Bits per sample: 12 Number of data channels: 1 Measurement averaging option: No Cable length available: 5 m (16 ft) Length of Smart Sensor network cable: 0.5 m (1.6 ft) I The CE Marking identifies this product as complying with all relevant directives in the European Union (EU)
Ideal For	Professional
Brand	Onset HOBO
Housing	Cable
Typical applications	Environmental (Outdoor), Field Research
Measurements	Soil Moisture
Compatible With	RX3000, RX2100, RX2100-WL, U30, H21, H22