



HOBO 10HS Soil Moisture Smart Sensor

Product Images



Short Description

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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	<p>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.</p> <p>Measurement range in soil: 0 to 0.570 m³/m³ (volumetric water content)</p> <p>Accuracy: ±0.033 m³/m³ (±3.3%) typical 0 to +50°C (+32° to +122°F) for mineral soils up to 10 dS/m ±0.020 m³/m³ (±2%) with soil specific calibration</p> <p>Resolution: 0.0008 m³/m³ (0.08%)</p> <p>Soil probe dimensions: 160 x 32 x 2 mm (6.5 x 1.25 x 0.08 in.)</p> <p>Weight: 190 grams (6.7 oz)</p> <p>Decagon probe part no.: 10HS</p> <p>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.</p> <p>Volume of influence: 1 liter (33.8 oz)</p> <p>Sensor frequency: 70 MHz</p> <p>Bits per sample: 12</p> <p>Number of data channels: 1</p> <p>Measurement averaging option: No</p> <p>Cable length available: 5 m (16 ft)</p> <p>Length of Smart Sensor network cable: 0.5 m (1.6 ft)</p> <p> - The CE Marking identifies this product as complying with all relevant directives in the European Union (EU)</p>
Ideal For	Professional
Brand	HOBO
Housing	Cable
Typical applications	Environmental (Outdoor), Field Research
Measurements	Soil Moisture
Compatible With	RX3000, RX2100, RX2100-WL, U30, H21, H22