

TH300 "Big Stick" Soil Moisture Probe



HH2 Readout Specifications

Soil Moisture Range: Zero to saturation, 0 to 1500 mV

Measurement Accuracy: $\pm$ (0.13% of mV reading + 1.0 mV)

Resolution: 1 mV

Memory: Up to 1,100 readings

Battery: 9 V Alkaline Cell (included)

Sealing/Environment: IP52 Protected from deposit of dust and water drops falling at an angle of 15 degrees from the vertical on the front face only.

Operating Temperature Range: 0 - 40° C.

Size/Weight: 150 x 80 x 40 mm, 450 g.

Display Panel: 16 x 2 character LCD with 7 button keypad

Connector: 1 x male 25 pin D connector for RS-232 link to PC and also for connecting sensors. Complete with push-on protective cap.

PC Communications: Windows PC retrieval software supplied with RS-232 cable

Features

- Simple to use
- Completely portable
- Durable and rugged
- Plug and read
- Soil moisture display
- Monitoring
 - Soils • Media • Sand • Clay • Peat
- Accurate and reliable
- Records and averages
- Power Efficient, 9 Volt Battery

Simple to use

The "TH300 - Big Stick" portable soil moisture probe is fast, accurate, easy to use, and works well in a wide variety of soils, including artificial potting medias. TH300 is the perfect tool for golf course and sports turf applications. In just a few seconds, soil water content can be measured, stored in memory, and later output to a PC. Irrigation requirements can now be determined based on fast and accurate soil moisture data.

The "Big Stick" combines the HH2 hand held readout with the SM150 soil moisture sensor, which is based on the TH₂O and ML2 Theta probe technology. Volumetric water content, $\pm$ 3 % is measured with little or no temperature or salinity effects and up to 1100 time-stamped readings can be stored in memory in the HH2. Data is output using an RS-232 cable supplied.

SM150 Sensor Specifications

Accuracy [1]	3.0% ($\pm$ 0.03m ³ .m ⁻³)	Note [2]
Measurement range	Full accuracy over 0 to 70%	Measures full range up to 100% with reduced accuracy
Salinity range	100 to 1000mS.m ⁻¹	Salinity errors < 5% from 0 to 60%
Temperature range	Full accuracy over 0 to 60°C	Moisture content readings in frozen soil are not meaningful
Output	0 to 1.5V differential	Corresponding to ~ 0 to 100% nominal
Sample volume	~55 x 70mm diameter	Sample volume extends to ~1 litre, but is weighted towards soil immediately surrounding the rods
Power requirement	5 to 14V, ~18mA for 1s	
Environmental	IP68	-20 to +60°C operating range
Dimensions	143 x 40mm diameter	
Weight	0.1kg	Excluding cables
Sensor calibration	Sensors are fully interchangeable	Individual sensor calibrations not required
Logger / Meter compatibility	GP1, DL6, DL2e, HH150 and HH2	Note [3]

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