

MSFS1-W Field Scout Digital Moisture Sensor (TDR 300)



The Field Scout Digital Moisture Sensor allows you to monitor and record soil moisture quickly and accurately with **TDR technology (time-domain measurement technology)**. When precision irrigation decisions count, the Field Scout Digital Moisture Sensor offers turf grass managers a tool to eliminate the guesswork. Based on proven time-domain measurement technology, this portable unit accurately measure soil moisture across the full range of soil moisture conditions. Unit comes standard with a 12 cm (4.8 inch) probe rods. The Field Scout Digital Moisture Sensor has two volumetric water content modes; one for standard soils and one for higher clay soils. In volumetric water content (VWC) mode, the meter converts a measured electrical signal into percent soil moisture content using an equation valid over a wide range of mineral soils. In irrigation mode, the meter displays relative water content (RWC) on a scale of 0 to 100 corresponding to a user-defined upper and lower soil moisture reference level. Water deficit, the amount of water needed to bring the soil moisture content up to the upper reference level, is also calculated and displayed. The reference levels are easily programmed into the meter with the accompanying software. Create up to 2 management sites based on your soil types and turf grass variety needs. Use the raw reading mode (measurement period in microseconds) to do soil-specific calibrations. An internal data logger and RS-232 port allow for use with a DGPS for geo-referenced soil moisture measurements. Unit includes software and PC cable

The data logger's LCD screen will display the data in one of three modes

- 1. Volumetric water content - in Standard or High Clay mode**
- 2. Relative water content - up to 2 RWC modes can be established**
- 3. Measurement period - in microseconds**

Specifications

Measurement Units - Percent volumetric water content
Resolution 0.1%
Accuracy $\pm 3.0\%$ volumetric water content with electrical conductivity $< 2 \text{ dS m}^{-1}$
Range 0% to saturation (Saturation is typically around 50% volumetric water.)
Power 4 AAA alkaline batteries, Approximately 12 month life
Logger Capacity 2700 readings without GPS, 1250 readings with GPS/DGPS
Display 16 character, 2 line LCD
Weight 3 lbs. (1.4 kg)
Probe Head Dimensions - 3.1" x 3" x 1" (7.8cm x 7.5cm x 2.5cm)

Accessories available

MSFS1-USB-Cable - Digital Moisture Sensor Serial to USB Cable. Digital Moisture sensor comes with a Serial cable to connect to your computer to download the data from the last 100 readings. If your computers Serial port is occupied or if your computer does not have a serial port (shown below - click to expand), you will need this cable to plug the unit into a USB port. (Shown Below- click to expand)



Digital Moisture Sensor Replaceable Probe Rod Lengths:

- MSFSP01** - Replacement Spikes 1.5 inch (3.8cm) - (set of 2)
- MSFSP03** - Replacement Spikes 3 inch (7.5cm) - (set of 2)
- MSFSP04** - Replacement Spikes 4.8 inch (12 cm) - (set of 2)
- MSFSP05** - Replacement Spikes 8.0 inch (20 cm) - (set of 2)



MSFS1-Case - Digital Moisture Sensor Soft Carrying Case

Case is designed to protect Digital Moisture Sensor while unit remains fully assembled. (Note spikes protrude through bottom of carrying case if they are not removed in transit.)



MSFS1-GPS-Bracket - GPS Unit Mounting Bracket - **GPS not included**



MSFS1-Cable - Field Scout GPS/DGPS Cable*

(*GPS not included, Turf-Tec recommends Garmin brand
Garmin 72H Waterproof Handheld GPS with High-Sensitivity
(model GPS 72 Handheld GPS Navigator **AND** Garmin Cable No # 010-10141-00)



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