

Spectrum[®]
Technologies, Inc.

 **NUTURF**[®]
SPECIALISTS PROVIDING SOLUTIONS

TURF MANAGEMENT TECHNOLOGY

TRUFIRM
Turf Firmness Meter

TDR 350
Soil Moisture Meter



FIELDSCOUT TDR 350 SOIL MOISTURE METER

Achieve consistent playing conditions by measuring turf soil moisture. The Fieldscout TDR 350 Soil Moisture Meter helps turf professionals optimise irrigation, manage water more efficiently, and reduce operating expenses.



Provides increased accuracy of soil moisture (Volumetric Water Content - VWC) across standard, high-clay and sand-based soils.



Measures electrical conductivity (EC) - a function of the moisture and salt in the soil to increase the accuracy of VWC measurements.



Measures turf canopy temperature with the optional infrared sensor to detect stress related to emerging disease or nutrient problems.



Integrated Bluetooth and GPS allows for use with the SpecConnect and FieldScout App. The TDR350 offers cloud connectivity for instant data collection and analysis of geo-referenced measurements.

Send data to the  SpecConnect Cloud

DATA LOGGER

Stores up to 61,000 internal measurements



BACKLIT DISPLAY

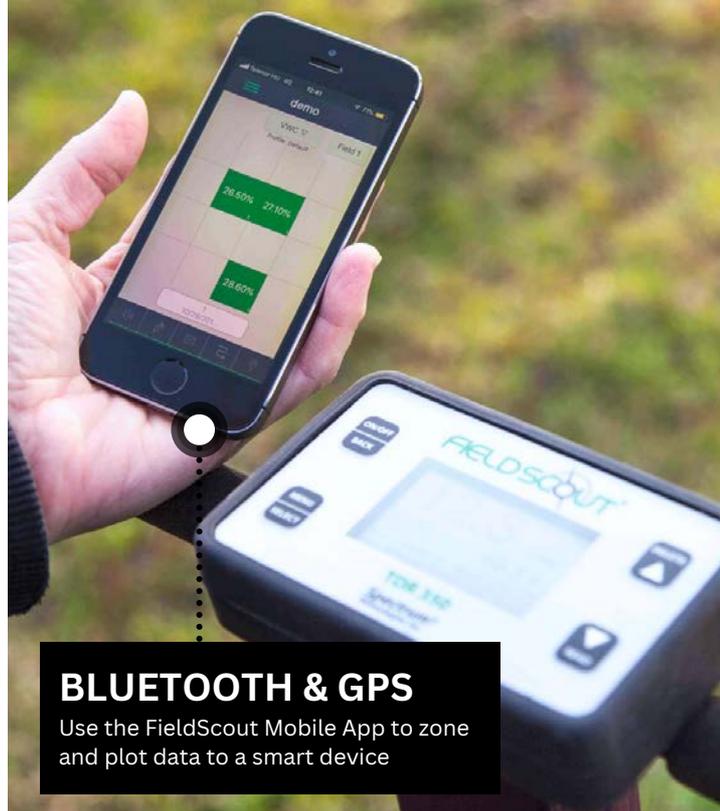
High-contrast backlit display for easy viewing

Carry case included



ERGONOMIC

Water-resistant, ergonomic shaft-mounted probe and telescoping tubular frame



BLUETOOTH & GPS

Use the FieldScout Mobile App to zone and plot data to a smart device

TDR 350 SOIL MOISTURE METER SPECIFICATIONS

Measurement Principle Time-domain measurement methods

Range up to 98.3% depending on soil type

Resolution 0.1% volumetric water content

Accuracy $\pm 3\%$ for volumetric water content
<2mS/cm electrical conductivity

Electrical Conductivity $\pm 0.1\text{mS/cm}$
Resolution 0.01mS/cm

Power 4 x AA Batteries (included)

Data Logger 45,000 - 61,000 measurements

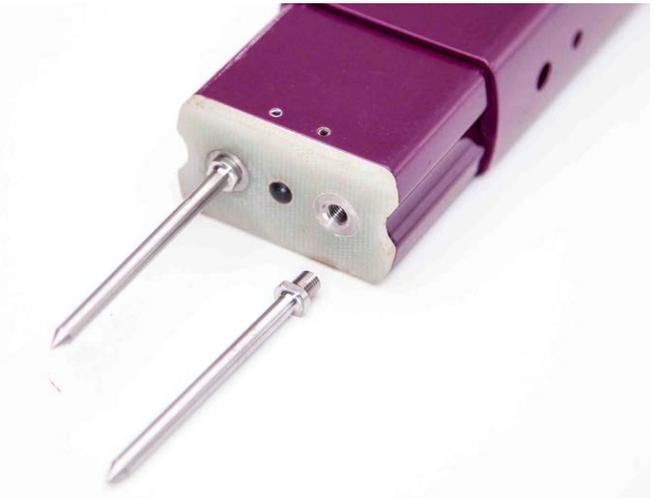
Temperature Range -30°C to 60°C



TDR 350 ACCESSORIES

The TDR 350 Soil Moisture Meter requires additional soil probes/rods that allow users to take measurements at different soil and root zone depths.

These rods are interchangeable and come in a range of lengths to cater to the unique requirements of different surfaces and environments.



REQUIRED ACCESSORY

TDR RODS

Interchangeable rods / probes are available as a pair in a range of lengths to suit different usage environments and surfaces. The rods are required for the TDR 350 to function properly.

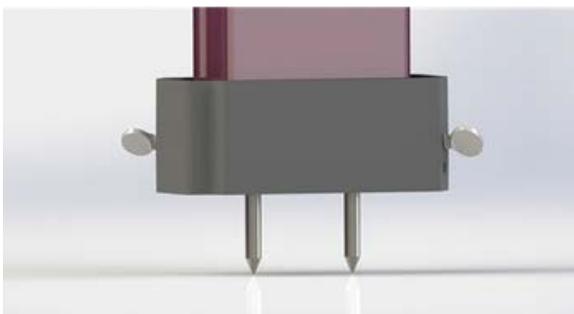
- 3.8cm (1.5 inch)
- 7.6cm (3 inch)
- 12.2cm (4.8 inch)
- 20.3cm (8 inch)



OPTIONAL ACCESSORY

TDR ROD SPACER

The TDR Spacer is used to measure depths of 0.5" (1.3cm) and 1" (2.5cm) with a TDR Moisture Meter equipped with 1.5" (3.8cm) turf rods. The spacer is not compatible with other rod sizes.



OPTIONAL ACCESSORY

TDR350 INFRARED SENSOR

The Infrared Temperature Sensor provides instant, non-contact, real-time surface temperature data so you can predict wilt with higher accuracy. Quickly and accurately monitor your canopy temperatures.



FIELDSCOUT SPECCONNECT

Capture and analyse measurements on your turf or other surfaces using Bluetooth wireless technology on our FieldScout TDR350 or TruFirm tools.

Wireless data can be sent via Bluetooth to your device and saved to the Cloud. Pull together soil moisture and EC data from your TDR meter and firmness data from your TruFirm to fine-tune agronomic and cultural practices for specific greens or other surfaces.

What is SpecConnect?

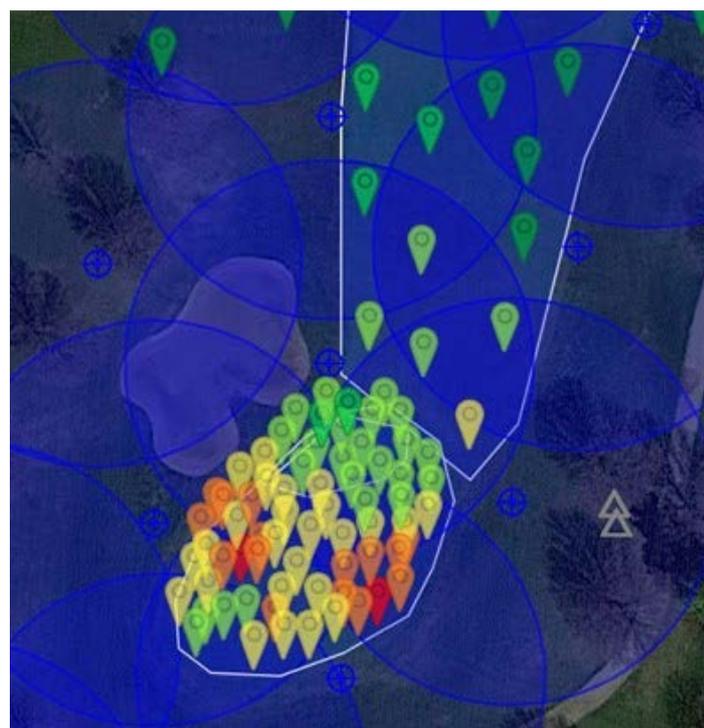
- Cloud-based data management web portal, specific to your property
- Real-time data on your computer, smart phone, or tablet
- Simple and customisable dashboard
- Send custom threshold alerts via text message and/or email
- Configure your network from your computer or mobile device

PRO SUBSCRIPTION

FieldScout Pro Mode requires the purchase of a SpecConnect FieldScout 1-yr subscription

Pro Mobile App capabilities include:

- Handsfree data collection
- Google Maps satellite image shows readings data overlaid on your property on mobile device and web portal
- Freeform Mode plots a point for each reading, and stores data independently
- Automatic wireless upload to SpecConnect for further analysis from your web portal
- SpecConnect provides complete data overview overlaid on a satellite map
- Color Gradient Mapping of data points within custom selected areas or groups
- Map irrigation, pin locations and more
- Trend reporting



FIELDSCOUT TRUFIRM TURF FIRMNESS METER

Keep your greens firm, fast, and consistent! The TruFirm offers a quick and easy method to measure the firmness of turf and bunker sands. Data acquired from the tool informs turf managers so you can take action to reach the desired firmness of playing surfaces and minimise damage to greens.



Measure golf course turf conditions for consistent playability so you can cultivate greens that are both firm and fast whilst minimising ball marks. By measuring the relationship between the firmness of the playing surface and the moisture level, you can ensure healthy, aesthetically-pleasing greens that offer exceptional playability.



Objective data measurements allow turf management professionals to balance the fine line between soil moisture and firmness, which can challenge experienced experts. The data also allows you to evaluate trends and monitor sections of turf relative to one another



Integrated Bluetooth allows for use with the SpecConnect and FieldScout App so logged data can be sent to your mobile device for plotting specific areas

Send data to the  SpecConnect Cloud



INSTANT MEASUREMENTS

Quick, lightweight and easy to use design provides instant measurements



SIMULATES GOLF BALL IMPACT

Hemisphere-shaped impact hammer simulates golf ball impact to determine the turf penetration value



BLUETOOTH

Use the FieldScout Mobile App to zone and plot data to a smart device

COMMON APPLICATIONS

- Golf course greens for better playing conditions and fewer ball marks
- Fairway landing areas for longer drives
- Green approach areas for chip and run play
- Bunker sands for surface firmness
- Ensure consistency for tournament play

TRUFIRM SPECIFICATIONS

Measurement Unit Depth of travel (cm or inches)

Range 0.1 in - 1.5 in

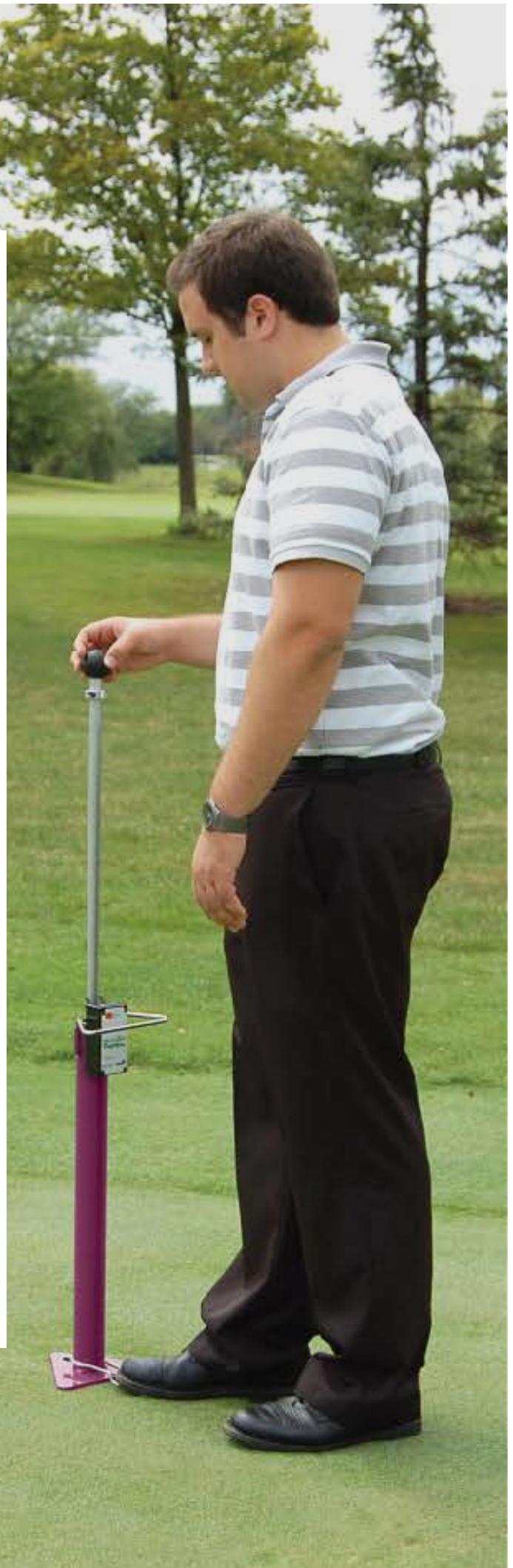
Resolution

- 0.01 in at 0.25 mm at 25.4 mm - 38.1 mm
- 0.003 in at 0.076 mm at 0 mm - 25.4 mm

Weight and Height 1.95kg at 69cm

Diameter of Hammer 4.45 cm (1.68 inch)

Power 2 x AA Batteries (included)



Spectrum Technologies, Inc. is an innovator in quality plant measurement technology for agricultural, horticultural, environmental and turf markets across the world. Spectrum provides solutions for weather and environmental monitoring, nutrient management tools, integrated pest management tools, and soil moisture and quality measurement.

The Spectrum Technologies, Inc. range of turf management tools is available through Nuturf. Contact your Nuturf representative for more information or visit nuturf.com.au

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