



METER
ENVIRONMENT



TEROS 11

TEROS 11: WITH YOU FOR THE LONG HAUL

The culmination of our new TEROS water content line, the TEROS 11 makes your life easier with a large volume of influence, reduced sensor-to-sensor variability, and a near-bulletproof form factor—which lasts up to 10 years in the field. These innovations, along with our well-published capacitance technology, an accuracy verification standard, and a blazing fast installation tool have combined to generate our most accurate, easy-to-use, highly durable—yet still economical—soil moisture sensor. In fact, we're so confident about the long life of our TEROS sensor line, we've increased our standard warranty from one to three years.

FEATURES

- Increased volume of influence (1010 mL)
- Easy installation (minimizes air gaps for cleaner readings)
- Dependable, long-life sensor
- Reduced sensor-to-sensor variability
- Repeatability can be checked with an accuracy verification standard
- Robust, epoxy body for tough field conditions
- Minimizes salinity and textural effects by using 70 MHz frequency capacitance technology
- Steel needles cut through the soil for better soil-sensor contact
- Easy-to-read voltage output for various data loggers
- Ferrite core eliminates cable noise

SPECIFICATIONS

VOLUMETRIC WATER CONTENT (VMC)

RANGE Mineral soil calibration: 0.00–0.70 m³/m³
Soilless media calibration: 0.0–1.0 m³/m³
Apparent dielectric permittivity (ϵ_a): 1 (air) to 80 (water)

RESOLUTION 0.001 m³/m³

ACCURACY Generic calibration: ± 0.03 m³/m³ ($\pm 3.00\%$ VWC) typical in mineral soils that have solution EC <8 dS/m
Medium specific calibration: ± 0.01 – 0.02 m³/m³ (± 1 – 2% VWC) in any porous medium
Apparent dielectric permittivity (ϵ_a): 1–40 (soil range), $\pm 1 \epsilon_a$ (unitless) 40–80, 15% of measurement

DIELECTRIC MEASUREMENT FREQUENCY 70 MHz

TEMPERATURE Range: –40 to 60 °C
Resolution: 0.1 °C
Accuracy: ± 0.5 °C from –40 to 0 °C
 ± 0.3 °C from 0 to +60 °C

DIMENSIONS Length: 9.4 cm (3.70 in)
Width: 2.4 cm (0.95 in)
Height: 7.5 cm (2.95 in)