

Soil Moisture & Temperature Probe Model SM-105

P/N: SM-105



The SM-105 Soil Moisture & Temperature Probe uses an onboard thermistor for temperature and volumetric water content readings. This SDI-12 sensor is engineered with one main goal in mind: Accuracy. The small footprint and durability factor of this sensor are impressive to say the least, but the accuracy of the sensor sets it apart from all other soil probes.

Specifications

Volumetric Water Content (VWC):

Range:

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

Resolution: 0.0008 m³/m³ from 0%–50% VWC

Accuracy:

- Generic calibration: ± 0.03 m³/m³ typical
- Medium-specific calibration: ± 0.02 m³/m³
- Apparent dielectric permittivity (ϵ_a): 1–40 (soil range), $\pm 1 \epsilon_a$ (unitless)
- 40–80, 15% measurement

Temperature:

Range: –40 to +60 °C

Resolution: 0.1 °C

Accuracy: ± 1 °C

Measurement Volume:

Maximum: 715 mL

Physical:

Dimensions: 4.3" x 3.4" x 0.4"

Prong Length: 1.9"

Operating Temperature: -40 to 60 °C