

AquaSpy™ Probe

Technical Specifications

Specifications subject to change without prior notice



The AquaSpy Probe is an advanced soil moisture monitoring device that saves water and enhances water use efficiency. Available in 20", 40" and 60" lengths, with a sensor at every 4" depth, and as sub-surface or 'above ground' variants, the AquaSpy Probe is the ideal solution to accurately monitor moisture changes in the soil.

Soil Moisture Monitoring Device

- Uses capacitance (FDR) technology
- Digital RS-485 output facilitating multi-drop capability
- Choice of 3 protocol options:
 - RS-485 ASCII Simplified
 - RS-485 AO (for AquaSpy Telemetry only)
 - SDI-12
- Re-programmable re-addressability on 2 wire RS-485 bus
- In-situ firmware reprogrammable using boot-loader software
- Programmable averaging algorithm
- Programmable internal polling period
- O/P range/resolution 0 to 65535 (16 Bit)
- Scaled frequency output range 0-130 (ideal for heavy soils and those with high salt content).
- Measurement resolution 0.008% (Scaled Freq*100)
- Multiple sensors spaced every 4" down the length of the probe:
 - 20" (5 sensors)
 - 40" (10 sensors)
 - 60" (15 sensors)
- Operating range 23°F to 122°F
- Temperature affects $\pm 5\%$, 32°F to 104°F (without compensation applied)
- 7.5V-16V power requirement with low consumption
- Idle current 1.1mA. Avg current 1.64mA for a 10 sensor probe reading every 900 seconds
- Peak current of 65mA for 30ms per sensor read
- High impact rigid U-PVC construction (OD 2.17"), with low dielectric constant
- Standard cable 13ft extendable to 820ft on 2 pair twisted 'backbone cable'
- Metal insert in moulded end-cap for added protection and quick subsurface location
- Slurry installation technique required
- Rugged subsurface polyurethane (UV stabilised) communications cable with Switchcraft EN3C4M connector:
 - 24AWG wire
 - 4 core
 - 7 conductors (OD 0.008")
 - 0.012" insulation thickness
 - 80pF/m nominal wire to wire capacitance
 - 0.2" nominal outer sheath diameter
 - V-90 HT PVC insulation
 - Aluminium/polyester laminate with tinned copper drain wire screen
- Firmware parameters, inc. temperature coefficients, can be tailored using AquaSpy Field Utility software
- IP68
- One year warranty

