



# Odyssey® Xtream Multi-Profile Soil Moisture Logger and Sensor Datasheet

The Xtream multi-profile soil moisture logger system measures the moisture ( by capacitance ) and temperature of the soil at up to five depth levels. The logger itself also measures the ambient temperature. The readings are stored in the internal non-volatile memory along with the ambient temperature (measured inside the logger) and a timestamp. When in range, the logger wirelessly communicates to the Odyssey® Xtract software application ( download free from Play Store or App Store ) on your android phone or tablet and stores the readings on your device. When the Xtract application detects a network connection, it sends the data to the cloud database servers. Using any standard internet browser, connect to our Odyssey® Xpert Web portal to analyse your data.

## Features

- Soil Moisture Measurement at 5 depth levels
- Temperature Measurement at 5 depth levels
- Percentage saturation or Volumetric.
- Internal Ambient temperature reading.
- Calibrated temperature (traceable to NIST standards)
- Easily removed in the field for winter if necessary
- Wireless
- Variable logging Interval



**Specification:** ( typical conditions, Battery voltage 3V, Temperature 22°C )

|                                                                   |                                                                                                            |
|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Moisture Range                                                    | 0.00 to 100.00% of Saturation or Volumetric.                                                               |
| Moisture Stability ( constant temperature )                       | ±0.01%                                                                                                     |
| Moisture Resolution                                               | 0.01%                                                                                                      |
| Moisture Detection Radius                                         | 8.5cm                                                                                                      |
| Soil salinity sensitivity                                         | Less than 0.25% per 1000uS/cm.                                                                             |
| Temperature Accuracy (factory calibrated)                         | ±0.15°C (sensors in Probe), ±0.2°C ( in Logger)                                                            |
| Temperature Resolution                                            | 0.01°C                                                                                                     |
| Calculated Battery Life – (Extended / Standard)<br>– (Industrial) | 2+ Years. Based on 15min recording interval for 5 sensors<br>5+ Years ( Dependent on average temperature ) |
| Memory Capacity                                                   | ~17,800 For 5 level soil moisture sensor including temperatures                                            |
| Water Proof                                                       | IP68 ( 30 mins @ 1m)                                                                                       |
| Dimensions – Logger<br>– Sensor / with access tube                | 46mm OD, 160mm Length<br>17.5mm OD, 1.25m long (max) / 21.5mm OD, 1.4m long (max)                          |
| Operating Temperature - (Standard)<br>– (Extended / Industrial)   | -20 to 55°C ( Standard battery with reduced life below 0°C )<br>-20 to 60°C / -30 to 85°C                  |
| Wireless Communications                                           | <b>Bluetooth® LE</b>                                                                                       |
| Supported Phone/Tablet                                            | <b>Android™</b> V8.0 or greater.<br><b>Apple IOS®</b> V9.3.6 or greater.                                   |
| Battery ( 2 per logger ) (standard)                               | Alkaline AA 1.5V ( Energizer Max® E91 )                                                                    |
| Approvals                                                         | FCC, CE, RCM, ISED, MIC, KC, NCC, SRRC, WPC                                                                |