

TEROS-10

soil volumetric water content sensor

overview

- Calibrated, robust, and reliable water content sensor
- Ideal for soils or substrates in the field, glasshouse, pots, or laboratory
- Analog output to connect to most data loggers
- Or portable measurements with the Procheck handheld meter
- Replaces the older models of GS1 and EC-5 sensors

The TEROS-10 is a low cost, ruggedized sensor for the measure of soil volumetric water content. The TEROS-10 can accurately measure the moisture content in soil or soilless media.

The TEROS-10 is ideal for scientific researchers, growers, nurseries, and glasshouses with pots or artificial substrates. The robust sensor design, plus flexible output to connect to most data loggers or systems, makes the TEROS-10 ideal for monitoring water content.

The TEROS-10 is sensitive across the entire water content range. It can be installed in dry desert soils or in very wet peat. Sensitive to small changes in water content anywhere from 0 – 100% VWC.

Install the TEROS-10, [plug it in to the ZL6 data logger](#), set the measurement intervals, and start logging data. No programming required. The scientists and engineers at Edaphic Scientific can assist in connecting the TEROS-10 to your existing system. The TEROS-10 has a voltage output and is compatible with most data logging systems.

Alternatively, the TEROS-10 can be used as a portable sensor with the [Procheck](#).

[handheld meter.](#)

sensor measurement zone dimensions

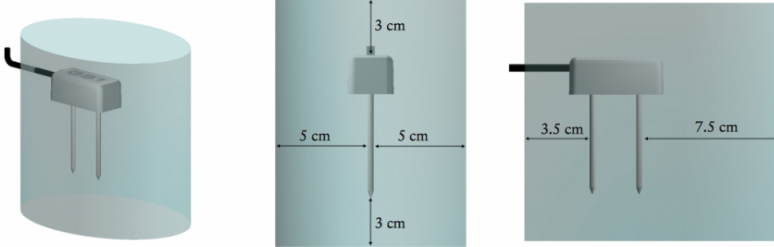


Figure 5: Idealized Measurement Volume of Decagon GS1 Sensor

the grape monitor

In 2017, the New South Wales Department of Primary Industries commissioned Edaphic Scientific to install a phyto-monitoring system on various varieties of grapevines.

Known as The Grape Monitor, the phyto-systems are measuring stem growth (dendrometers), sap flow, soil moisture, canopy temperature, and more parameters.

Data is uploaded to the internet via the Edaphic Scientific telemetry system. These data can be viewed at anytime.

For more information, [visit The Grape Monitor.](#)

whole system monitoring solutions



Edaphic Scientific is a one-stop shop for a whole system monitoring solution. We provide plant and soil monitoring systems

for researchers and growers.

Our systems not only support dendrometers, but related sensors such as sap flow, soil moisture, weather parameters, and more.

At Edaphic Scientific we want to work with you from the start of your project through to its completion. We can provide:

- Assistance with project and experimental design
- Procurement of all monitoring equipment, including sensors, data loggers and data management software. Edaphic Scientific is a one-stop shop where we can source and find any necessary equipment for your project from our preferred suppliers or third party suppliers
- Installation and training
- On-going assistance with data interpretation and equipment maintenance
- Data correction and analysis, including statistical analysis with the R-package
- Report and publication preparation including tables, figures, graphs, and manuscript writing

advanced data collection and management solutions



Edaphic Scientific recognises the need for flexible and adaptable sensor and [data logging solutions](#) for experimental or environmental monitoring projects.

Data can be downloaded directly in the field from data loggers. A direct connection between the data loggers and your computer, via a USB cable, can be used for manual downloading of data.

Alternatively, data can be [downloaded over the internet](#) on your iPhone, iPad or desktop computer with the Eagle.io cloud-based, data management software solutions. Through this remote based downloading capabilities, you can download, view and manage your data, and system, anywhere in the world and at anytime.

specifications

| feature | specification |
|-----------------------|---|
| Measurement Principle | Capacitance |
| Measurement Range | 0% VWC to saturation |
| Resolution | 0.001 m ³ /m ³ VWC in mineral soils |
| Accuracy | ± 3% VWC with manufacturer's calibration ± 1% VWC with custom calibration |
| Power Requirements | 3.0 VDC to 15 VDC (absolute maximum) @ 15 mA |
| Output | Analog voltage: 1,000 to 2,500 mV |
| Cable Length | 5 m (standard) 75 m (maximum) |
| Sensing Area | 5.1 cm x 2.4 cm x 2.1 cm |

manual & docs

- [TEROS-10 User Manual](#)
- [How to calibrate soil moisture sensors](#)
- [What is a capacitance sensor?](#)
- [5 common mistakes when measuring soil moisture](#)
- [The Soil Water Compendium](#)

related products

- [Data loggers for TEROS-10 sensor](#)
- [PROCHECK portable, handheld meter](#)
- [Soil moisture sensors, probes and meters](#)
- [Soil CO2 concentration](#)
- [Soil EC sensors & meter](#)
- [Sap flow sensors](#)
- [Weather stations](#)