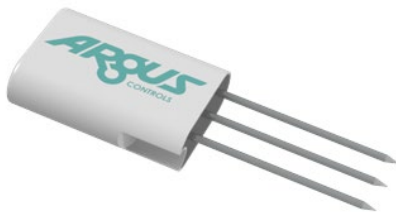


Argus SOLA Substrate Sensor

Ensure your plants get the right amount of water and nutrients using the Argus SOLA substrate sensor to monitor soil moisture, electroconductivity (EC), and temperature.



Applications



The Argus SOLA substrate sensor is ideal for top mount scenarios and when looking to easily move sensors around.

The sensor is battery operated and able to reach a line-of-sight range of 300 meters.

It is compatible with a SOLA charger (SEN-SOLA-MS-CHRG), base station (SEN-SOLA-BASE), and repeater (SEN-SOLA-RPTR).

Features

- **Volumetric Water Content (VWC)** – able to measure water content of the soil for a range of 0 to 100%.
- **Electroconductivity** – measures the soil bulk electroconductivity (EC) from 0 – 20dS/m.
- **Soil Temperature** – the temperature of the soil can be measured from -40C to 60C.
- **Measurement Frequency** – frequency is normally 5 minutes but can be increased as needed. This impacts battery life.
- **Connect to TITAN** – it connects to TITAN using MODbus RTU from the base station and is input as 3 different sensor data streams.

Specifications

Dimensions	79 x 20 x 50 mm
Substrate Probe Dimensions	70 x 35 mm (metal probes can be shortened)
Measurements	Volumetric Water Content, Substrate EC, Substrate Temperature.
Output Format	Connects to TITAN.
Sampling Time	15'
Required Components	SOLA Base Station for each 250 devices. A single base station is connected to TITAN using repeaters to bridge sensors to it.
Maximum Radio Range	300 meters
Battery Life	~6 months when using the wireless charger.
Enclosure Rating	IP65
Measurement Variables	<p>Volumetric Water Content: Accuracy – SEE NEXT PAGE Resolution – 0.1% Unit – %</p> <p>Substrate EC: Accuracy – 5% Resolution – 1 Unit – mS/cm</p> <p>Substrate Temperature: Accuracy – 5% Resolution – 0.01 Unit – °C</p>
Recommended Calibration Period	Substrate: 48 months or when the medium or container is changed.

Substrate Type Recommendations	<p>Peat: Works Coco: Works Coco husk: Under-estimates, calibration recommended. More than 50% bark: Not recommended. Perlite grade 2, grade 3: Under-estimates, calibration recommended. Rockwool: EC<3mS/cm – Works EC>3mS/cm – Under-estimates, calibration recommended. EC>15mS/cm – Not recommended. Clay: Over-estimates, calibration recommended.</p>
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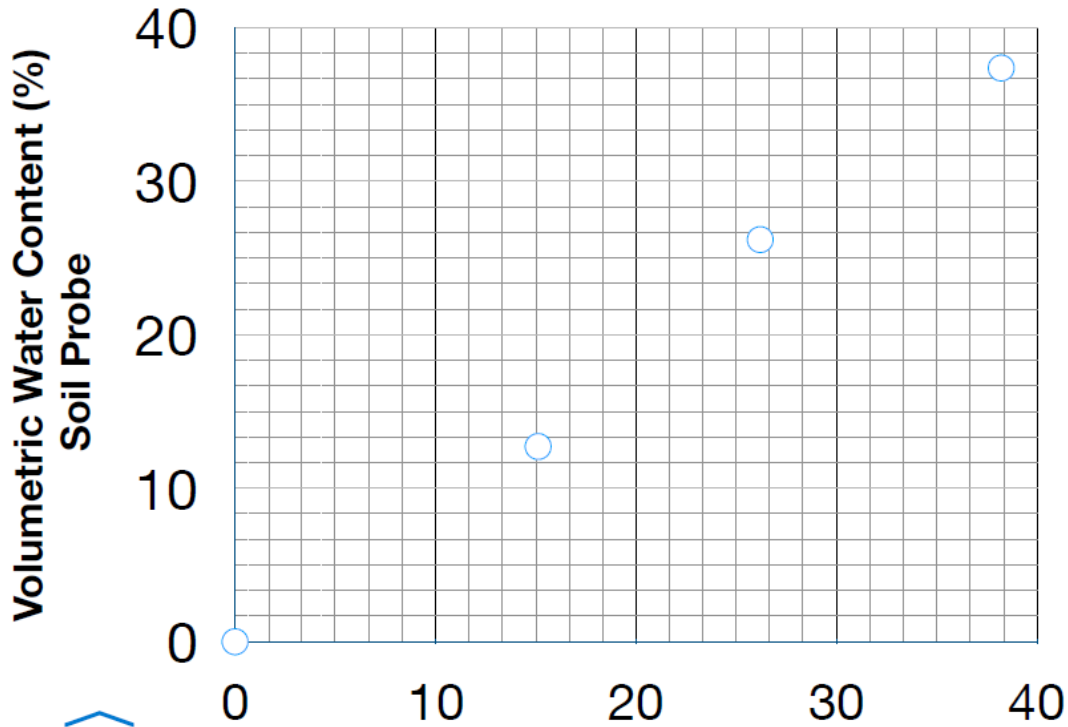
Additional Information

For more information, please contact Argus.



PHONE: 604-538-3531 or 1-888-667-2091 (Canada and the US) - FAX: 604-538-4728 - EMAIL: argus@arguscontrols.com

Measurement Graphs - Volumetric Water Content



Volumetric Water Content (%) Kopecky Ring • Golden standard

Soil Pro Probe Validation vs Kopecky Ring

Author: Ir. Bashar A.Barri at Gent University Soil Management Department by
 Conclusion: Absolute differences lower than 2.4% with salinities up to 3 mS/cm.

Additional Information



For more information, please contact Argus.