

PlantCare Mini-Logger

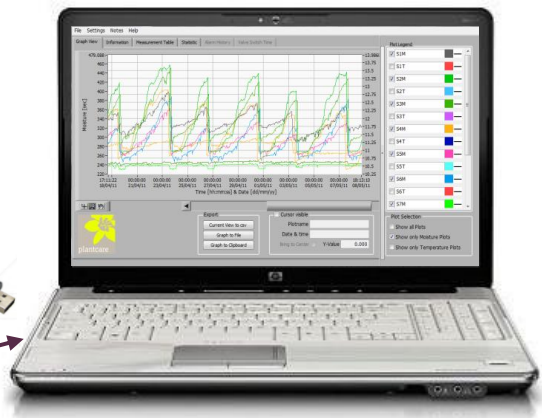
Soil moisture and soil temperature monitoring system.

PlantCare Mini-Logger

The PlantCare Mini-Logger is a maintenance-free sensor which records soil moisture and soil temperature. A USB stick is used to easily program the mini-logger and readout the data. The PlantCare DataViewer Software allows a quick and easy display and analysis of the measured data. Fields of application are scientific research, agriculture and garden and landscaping construction.



Simple readout of the data with a USB stick



Quick analysis of the measured data with the PlantCare DataViewer software

Area of use

- Agricultural research / forestry / hydrology
- Irrigation monitoring in:
 - Garden and landscaping construction
 - Agriculture
 - Horticulture
 - Nurseries
 - Tree nurseries

Features

- Measurement of soil moisture levels and soil temperature at freely selectable intervals.
- Speedily reaction to changes in moisture levels.
- Reliable results even at minimum depths (from 5 cm).
- Value measured is unaffected by salt or fertilizer content.
- Precise recording of measurements through built-in quartz clock.
- A USB-interface allows programming the logger as well as readout the measured data.
- Maintenance-free
- Weatherproof IP67 housing

Scope of supply

- PlantCare Mini-Logger incl. batteries
- PlantCare DataViewer software for the display and analysis of the measured data

Accessories

- Data upload / download cable incl. 2 USB Sticks (1GB) for Mini-Logger configuration respectively data download
- Replacement tip with felt for Mini-Logger sensor



Available in different length as stick or cable version



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Measuring method

PlantCare's worldwide patented sensor technology is based on the microthermic measurement of soil moisture. A specially developed felt material in moisture balance with the soil acts as the interface between the surrounding soil and the sensor. To measure the moisture level, the sensor is briefly heated and the cooling-down time, which varies depending on soil moisture, is determined. The sensor's cooling-down time thus provides a reliable statement of the soil's moisture content.

Technical specifications

- Temporary or permanent installation
- Can be used in all soil types
- Setting options
 - Device name
 - Measuring cycle time : 10 - 360 min
 - Measurement in: relative % or hPa (for hPa 6 standard soils to choose from)
 - Time of first measurement
 - Date and time
 - Date erase
 - Parameter reset
- Logging capacity for approx. 12.000 data sets
- Data export with export cable and USB Stick
- Programming with configuration file on a USB stick
- Data analysis with PlantCare DataViewer Software (inclusive)
- Power supply: 2 AA 1.5 V mono-cells
- Battery life span approx. 1 year depending on measuring cycle time
- Weatherproof IP67 sealing with one button operation
- Frost resistant
- Dimensions: 4 x 4 x 23 cm (shortest version)
- Weight approx. 130 gram
- Available length:
 - Stick version: 18/35/60/100 cm
 - Cable version: 60/250 cm (other length available on request)
- Operating temperature: -20° C to +50° C



Measurement data

- Moisture display:
 - In relative %-units or
 - hPa suction pressure for 6 standard soils
- Measuring range soil moisture (at a soil temperature between 2° C to +37° C*):
 - Relative %-units: 0 - 100%
 - hPa: 0 – 400 hPa high sensitivity / > 400 - 800 hPa lower sensitivity
- Measuring range soil temperature: -20°C to +50° C
- Measuring accuracy:
 - Soil moisture: +/- 3%
 - Soil temperature: +/- 0.3° C
- Reading accuracy:
 - Soil moisture in relative %: 1%
 - Soil moisture in hPa: 1hPa
 - Soil temperature: 0.1 °C



* Sensors for soil moisture measurements at soil temperature range between 2° C to +50° C on request



PlantCare Ltd. | Sennhof 13 | CH-8332 Russikon | Switzerland
+41 (0)44 463 77 88 | info@plantcare.ch | www.plantcare.ch

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