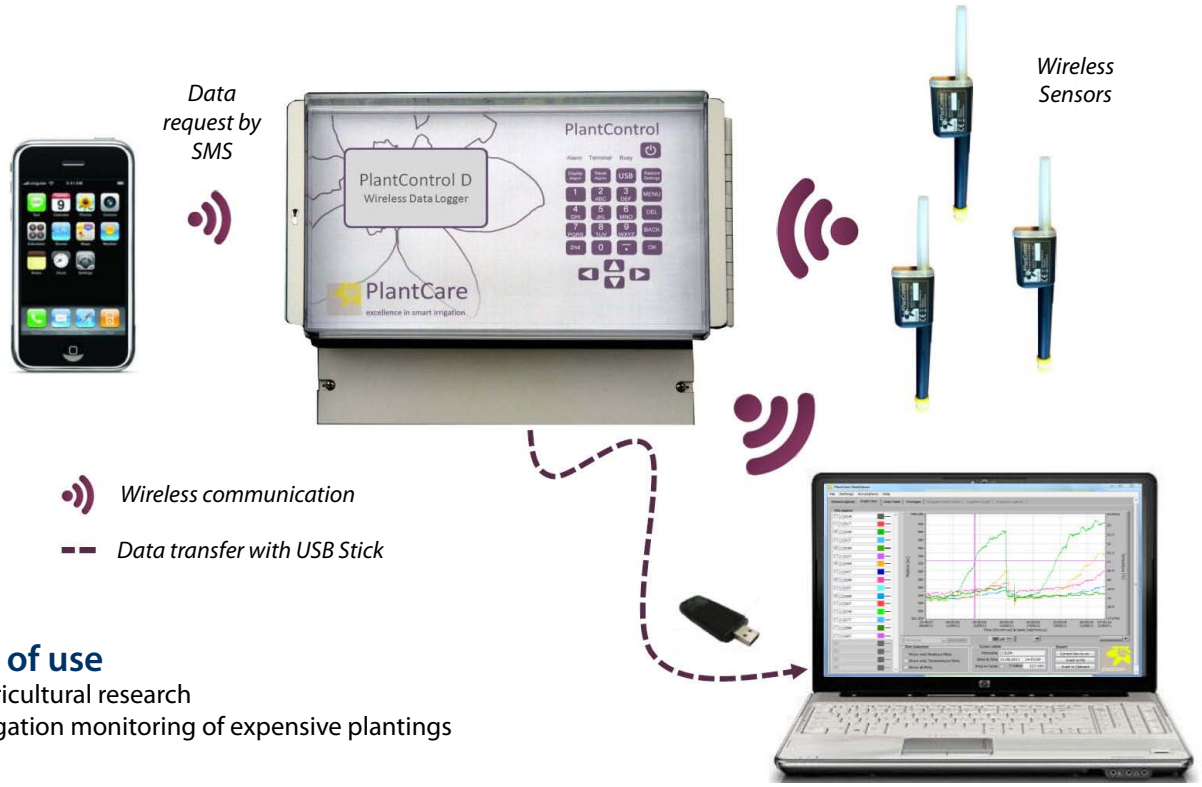
PlantControl D wireless data logger

Soil moisture and soil temperature monitoring system for larger surface areas

In combination with PlantCare's wireless soil moisture sensors, the PlantControl D is used for the wireless reception and recording of soil moisture levels and soil temperature in the scientific sector, for agricultural applications as well as garden and landscaping construction.



Area of use

- Agricultural research
- Irrigation monitoring of expensive plantings

Features

- Up to 99 wireless sensors can be connected.
- Weatherproof IP67 housing
- Signal range up to 200 meters, dependent on the type of terrain.
- 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 to readout the measurement data as well as a logbook to a USB stick.
- Communication module with GPRS terminal for remote data retrieval (optional).
- Language setting German/English

Scope of supply

- PlantControl D Data Logger, internal transformer
- PlantCare DataViewer software for the display and analysis of the measured data

Accessories

- PlantCare Wireless soil moisture sensors incl. batteries
- Solar cell
- Communication module for remote data retrieval
- External antenna for enhanced signal reception (for PlantControl D or GPRS terminal)
- Replacement tip with felt for sensor

All it takes for environmental research

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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.

General specifications

- Temporary or permanent installation
- Measurement in: relative % or hPa (for hPa 6 standard soils to choose from)
- Data analysis with PlantCare DataViewer Software (inclusive)
- Signal range up to 200 meters, dependent on the type of terrain
- Licence-free transmission frequency: 868 MHz or 915 MHz, interchangeable
- Weatherproof IP67 housing
- Frost resistant
- Operating temperature: -20° C to +50° C

Technical specifications PlantControl D

- Up to 100.000 data sets can be recorded
- USB interface for data export on USB stick
- Power supply: 8 AA rechargeable batteries (inclusive), in combination with mains (110/230V) or solar cell 12W
- Dimensions: 29 x 23 x 15 cm

Technical specifications soil moisture sensor

- Can be used in all soil types
- Power supply: 2 AA 1.5 V batteries
- Battery life span approx. 1 year depending on measuring cycle
- Dimensions: 4 x 4 x 29 cm (shortest version)
- Available length:
  - Stick version: 18/35/60/100 cm
  - Cable version: 60/250 cm (other length available on request)

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