

Equipamentos para: Solo – Cimento – Concreto – Betume – Agregados – Metalografia – Areia de Fundação – Refratários
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e-SENSE[®]

More often than not it is necessary that measuring and control devices can be used at (great) distances. Setting, reading and, if necessary, taking measurements from the location preferred by you, are possibilities that are standard requirements these days. With e-SENSE the measuring of data with the aid of intelligent sensors like the e+ sensors[®] from Eijkelkamp Agrisearch Equipment or the Diver[®] from Van Essen Instruments, is more than just measuring.

Via the e-SENSE fieldmodem, your measuring data or alarm signals are transmitted to a database, which can be on your own PC or on an Internet accessible data site. e-SENSE direct comes in the form of a 'plug and play' system and is easy to install, to operate and to maintain. Control and communication are done from your own PC. e-SENSE Internet is built from almost exactly the same components, but here the management of data is done on a website.

The actual sensors:

1. e+[®] SOIL MCT

The e+[®] SOIL MCT measures humidity, electric conductivity and temperature of the soil. The data measured are saved internally and can be linked to the e-SENSE telemetric system, so the actual values can be compared with the freely adjustable alarm levels and, if necessary, action can be taken from the remote control post.

The sensor's measuring principle is based on the 'Frequency Domain Method (FDM)'. The sensor contains a special chip to be able to deduct the volumetric water content and the electric conductivity from it's data. The integrated software compensates the conductivity for the measured temperature. Besides a soil specific calibration is very easily done by a 2-point calibration, adjustable by the client.

Applications

- Agricultural, horticultural and botanical investigations, e.g. for monitoring and managing irrigation parameters.
- Areas where the actual value and the actual change of humidity are important.
- Warehousing of foodstuff before or during a long stocking period.
- Agro-meteorological investigation / monitoring
- Soil investigation
- Environmental investigation / monitoring
- Civil engineering
- Erosion
- Investigation of the transport of nutrients in soil / water

Characteristics

Length : ± 290 mm
Diameter : 22 mm
Electrodes : 2 of, dimensions 68x3 mm, distance in between 15 mm
Weight : ± 300 g
Operating temperature : -20...80 °C
Operating humidity : 0...100%
Protection class : IP68

2. e+[®] RAIN

The e+[®] RAIN is an easy and flexible logger system for rainfall measuring. The sensor measures and registers rainfall during, adjustable, periods of time. Also the total quantity of rainfall is always registered. In this way a quick insight in the intensity of the rainfall can be obtained, and also the total rainfall in a chosen period can easily be determined. The standard e+[®]RAIN set consists of the de e+[®]RAIN logger and the synthetic e+[®]RAIN rainfall measuring device.

Characteristics:

e+® RAIN rainfall measuring device:

Type : tipping bucket

Precision : 1%

Resolution : 0,2 mm

Measuring surface : 507 cm²

Height : 340 mm

Diameter : 254 mm

Weight : ±1,15 kg

e+® RAIN logger

Number of channels : 2

Rainfall measuring range : 0...40 mm/hour

Capacity : 30.000 intensity, 30.000 integrator

Measuring interval : 1...60 seconds, 1...60 minutes, 1...24 hour

Clock precision : Better than 1 sec. per day

Alarm functions : High / low alarm for both channels

Communication : e-SENSE SMS-modem; Optical connector (IR), Read-out unit / DRC, IrDa connection on distance (1...2 m)

Operating temperature : -20...+70 °C

Operating humidity : 0...100%

Applications:

- Agro-meteorological investigation / monitoring
- Environmental investigation / monitoring
- Erosion
- Investigation into transport of nutrients in soil / water

3. e+® WATER L

The e+® WATER L is a waterlevel sensor, appropriate for application in open water. The e+® WATER L executes a level measurement with a dissolving power (resolution) of 1 mm and a precision of ± 0,5 cm that needs no calibration. The sensor is resistant to climatic circumstances, has an internal data saving function, can be read remotely and be connected on the e-SENSE system. The measuring range is 150 cm.

Applications:

- Open water (surface water)
- Irrigation
- Agro-meteorological investigation / monitoring
- Environmental investigation / monitoring
- Erosion
- Investigation into the transport of nutrients in soil / water

Characteristics:

Diameter : 22 cm

Length : 2 meter

Measuring range : 150 cm

Precision : ± 0,5 % FS