e - S E N S E ®

From Eijkelkamp Agrisearch Equipment

Eijkelkamp
Agrisearch Equipment
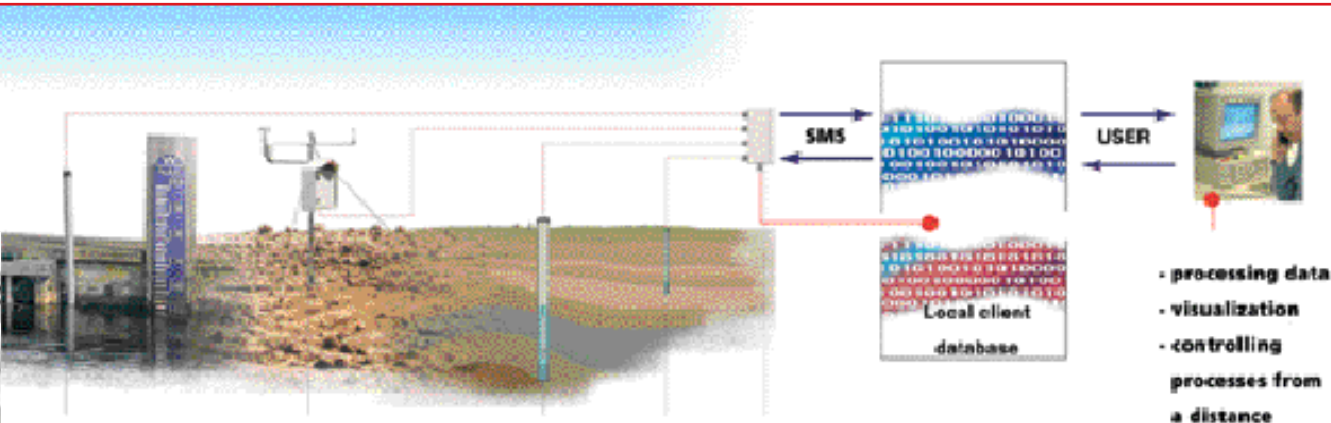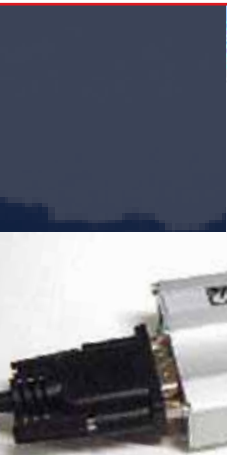
e-SENSE®

From Eijkelkamp Agrisearch Equipment

Measurement and control equipment need to be increasingly often employable at a (large) distance. Setting up, reading out and if necessary taking measures from a location of your choice, are possibilities that these days are part of the standard package of requirements. With e-SENSE® measurement data using intelligent sensors, such as the e+® sensors of Eijkelkamp Agrisearch Equipment or the Diver® of Van Essen Instruments, becomes more than just measuring. Intelligent sensors independently measure data in the field and register these internally. Connected to the e-SENSE field modem, your measurement data or alarms are transferred to a database, which is in your own PC (e-SENSE direct) or on a data site accessible via the Internet (e-SENSE Internet).

e-SENSE® direct

e-SENSE direct is easy to install (plug & play), control and maintain.

With e-SENSE direct the monitoring and communication is carried out from your own PC. You have insight into your entire installation and can change any of the settings. This enables an optimal functioning with regard to response speed, costs of data traffic and battery use. The measurement data can be imported into Logger Data Manager (LDM) e+ software, after which it is possible to process, have graphical displays and to produce reports. It is also possible to export the data to your own personal database.

e-SENSE® Internet

e-SENSE Internet has been built up of almost the same components, but with this system the management of your data is organised on a web site. For this system you only need a PC that has access to the Internet and a browser program such as Internet Explorer or Netscape. Via www.e-sense.info the measurements can be read or downloaded and the settings of sensor(s) and modem(s) can be viewed or changed.

- processing data
- visualization
- controlling processes from a distance
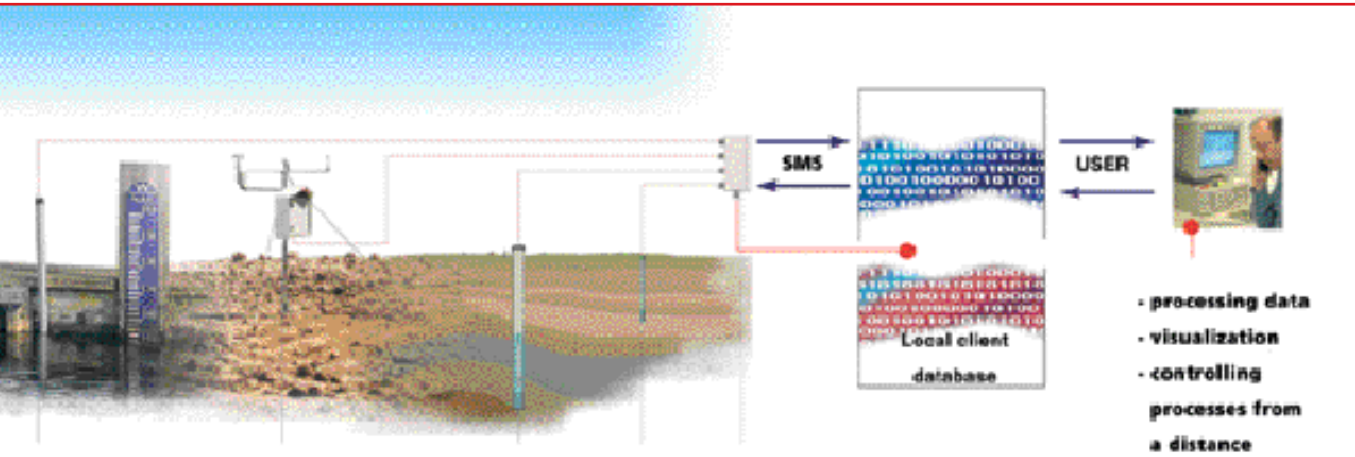
e-SENSE field modem with 2 connections (11.31.12) or 8 connections (11.31.18)

The field modem and the associated battery supply are specially suited for field use. On a field modem 2 to 8 intelligent sensors can be connected, depending on the type. The field modem can read the stored measurement data from the sensors and send via SMS data messages to a database, which is accessible for you as user, directly or via the Internet. Setting the modem takes place through SMS communication from the database or by a connected laptop. The modem has a status display and an active indication.

LDM e+ software for integrated data management for e+ sensors and Diver.

This program makes it easy to program and read dataloggers as well to process and present measurement data. The program organises the data management itself so that it is no longer necessary to store every set of measurements that are read from the datalogger in separate files. LDM offers additional possibilities to save the standard settings. This does not only apply to the settings of the measurements, but also for the settings of the location such as height above sea level. The most important characteristics of LDM:

- Data import of all Divers and e+ sensors.
- Data import of e-SENSE direct measurement data
- Barometer wizard compensation of all files in one go (for Divers)
- Easy to export data and graphics to Word and Excel documents
- Graphics presentation
- Flexibility of export formats, including Excel, Dino, CSV

e-SENSE®
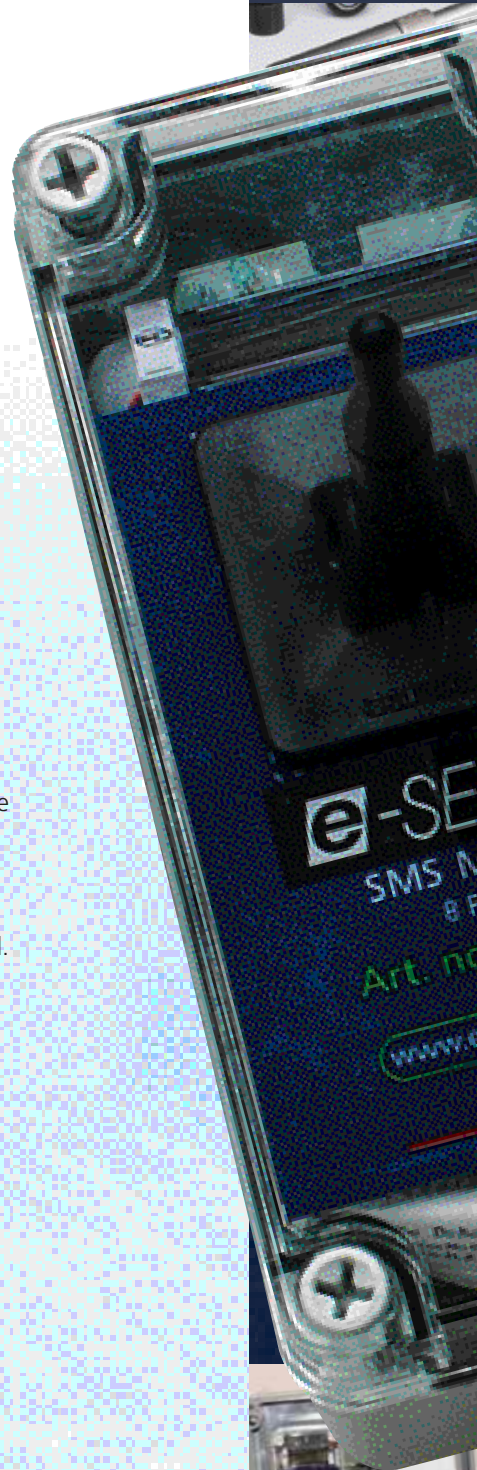
Housing

The durability of equipment in the field determines their optimal functioning.
The watertight housing guarantees a long climate-resistant set up.

Housing aboveground (11.31.01)

Aboveground housing for placing the SMS modem and battery housing. The
housing can be attached with the stainless steel clamps to the existing monitoring
pipe covers.

- Can be applied in existing situation
- Optimal GSM reception
- Vandalism-proof
- Cable protection possible
- Water-tight

Housing underground (11.31.00)

Underground housing for placing an SMS modem and battery housing
(11.31.20). Underground entry and placing of cables. The choice for an above-
ground or an underground housing depends among others on the field strength
of the GSM signal.

- Optimal installation below the surface level
- Can only be applied with a good GSM reception
- Vandalism-proof
- Cable protection possible
- Can only be applied in dry ground
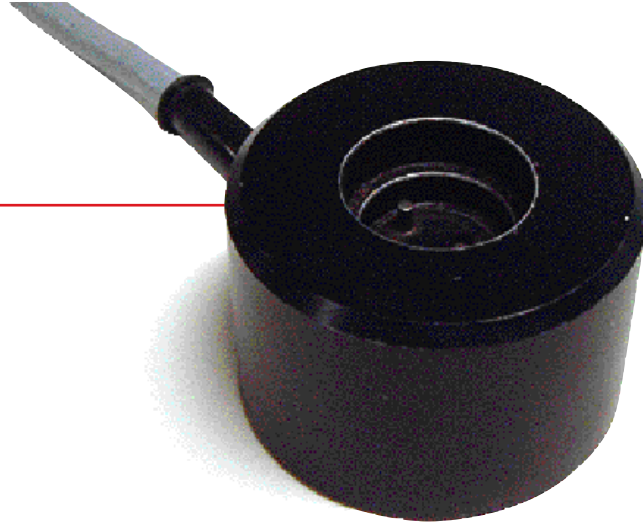
e+ Sensor development (11.41):

e+ sensors have an internal datalogger and are supplied in various models for measuring 1 to 3 parameters. The measurements are stored in the internal memory and the sensor can produce level alarms. The alarm levels and the interval period where in the measurements are stored can be programmed.

• 1, 2, 3 Parameters per e+ sensor

• Storage capacity 60,000, 30,000, and 20,000 measurements per parameter

• Basic accuracy 0.05%

• Resolution 15 bit

• Registration adjustable 1 sec. to 24 hours

• Starting time programmable for "immediately" or "future"

• Real time clock

• 2 Alarm functions per channel

• Life of battery 6-8 years

• Lithium AA battery can be replaced by user

• Diver compatible

Read out units

The sensor can be read out using an optical connector or from a distance with an IrDa (Infrared Read Out Unit) read out unit. The sensor can be connected to the SMS modem or to a computer with the necessary installed software.
The e+ sensors can be read out in various ways:

Optical reading out unit USB (11.11.10.01) or RS 232 (11.11.10)
The unit uses the optical interface of the sensor. This unit is used for reading out or programming the sensor in the field or at the office (after the sensor has temporarily been taken out of the measurement set up).

DRC Cable (11.31.50 to 11.31.77)

The Direct Reading Cable (DRC) is available in various lengths from 5 up to 200 metres and is suitable for reading out of the sensor in poorly accessible places, for example under the soil surface. A laptop using a DRC communication cable (11.11.45) can take readings from the e+ sensors on site.

e+ infrared communicator (11.31.90)

With the help of an IrDa readout unit the e+ sensor can have readings taken from it and programmed on site, in the field or at the office (by using a laptop), at a distance of 1 to 2 metres from the e+ sensor.

Diver sensors (11.11.50 to 11.11.55)

The Diver is the world's smallest tool for the automatic measurement and registration of the groundwater level and the groundwater temperature. It fits in the palm of a hand and is remarkably light. With its length of only 125 mm and diameter of 22 mm it can be used in almost every existing monitoring well. The pressure sensor, the temperature sensor, memory and the battery have been built into the housing. The following parameters can be monitored with the Diver:

• Depth
• Temperature
• Conductivity
• Oxygen

e+ Sensors

e+ Sensors are versatile 1, 2, or 3-channel dataloggers for measuring climatological, environmental and technical variables. Depending on the type the measuring element can be connected integrated or externally.

R e p l y   f o r m

Personal details:

Company name	: ....
Contact person	: Mr./Ms. ....
Address	: ....
City	: ....
Country	: ....
Telephone	: ....
Fax	: ....
E-mail	: ....

Please send me more information on:

❏		e-SENSE direct
❏		e-SENSE Internet
❏	11.31.12	e-SENSE field modem with 2 connections
❏	11.31.18	e-SENSE field modem with 8 connections
❏	11.11.14	LDM e+ software for integrated data management
❏	11.31.00	Housing underground
❏	11.31.01	Housing aboveground
❏	11.11.10.01	Optical read-out unit
❏	11.31.50 to 11.31.57	Direct Reading Cable (DRC)
❏	11.41.21	e+ RAIN
❏	11.41.11	e+ SOIL MCT
❏	11.41.55	e+ WATER L
❏	11.11.50 to 11.11.55	Diver
❏	11.11.58.01 to 11.11.58.03	CTD Diver
❏	11.11.60 to 11.11.64	OTD Diver

❏   Please send me the complete Eijkelkamp catalogue

Signature: Date:

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