DATA LOGGER DN4110

A technologically modern device, intended mainly for quick installations in field conditions, wherever accurate and reliable measurement of levels, temperatures and flow rates directly in boreholes and water sources is required.

It is a technologically advanced device that is intended, thanks to its small size and ease installation especially for installation directly into boreholes, but it can be deployed in other applications concerned with the measurement of physical quantities.

- **Small size**
  Diameter 50 mm, length 290mm, easy installation with lifting eye bolt

- **GSM/GPRS**
  Data transmission via GSM / GPRS, data on the web, SMS warning and query messages

- **Increased environmental protection**
  Operating temperature: -40 to +60 °C; protection rating: IP67

- **Sensors and probes**
  Can be connected via RS-485 or analogue and digital inputs

- **Low power consumption**
  5 years of operation with GSM / GPRS data transmission without the need to replace the power cell

- **Local data querying**
  Bluetooth wireless low power version 4.0 for communication with Android OS and PC, USB PC communication (after disassembly of top cover)
Using and typical application
- measurement of level and temperature directly in the borehole and water sources
- for special scientific and research purposes (e.g. forest and plant sectors),
- for rain gauge stations

Inputs and outputs
- 2x digital impulse (counter) or binary input
- 1x digital output (also usable as sensor power supply)
- 1x USB port for communication with a PC (Mini USB connector)
- 1x RS-485 connects to intelligent sensors communicating using the HART protocol

Low consumption
The device is powered by the Li-SOCl2 primary cell, which can be easily changed in the field and is also used in the GSM network for more than 5 years.

Additional parameters
- GSM/GPRS data transmission - Measurements are sent to the server at preset intervals.
- Own data servers - All data is stored on our own secure servers, where it is available to you.
- On-line access - data can be monitored in real time using a web application, in a graphical or tabular form.
- SMS - Text messages can be used to check the status of the measured variables. By setting the alarm messages (up to 4 priorities) warnings can be sent to up to 16 telephone numbers when set values are exceeded (or not reached). If you dislike the preset message format, you can create your own.
- SIM card and tariff - standard or prepaid SIM cards can be used, checking amount of credit via SMS, Bluetooth, USB, or on the server.

Measurement channels
Each channel can be named as needed; data can be recorded at varying intervals (1 second to 24 hours); measurement (analogue value, counter, binary status, equipment hours) and/or logging modes. You can create virtual channels for every measured channel (i.e. channels whose values are obtained by calculation) and set alarms to indicate up to four limit states.

Examples: difference between two channels, flow calculation, averages, maxima, minima, moving average, moving sum, gradient alarm (up to four degrees), hysteresis, concentration of measurement period in case of excess, output switching or measurement of another channel in case of alarm, alarm SMS messages to up to 16 GSM numbers (creation of user-defined alarm messages).