≪ KERN   *Fieldlog™ FL-3-512*

Integrated Probe & Datenlogger for hydrometrical measuring

- **Level, Temperature and conductivity.**
  pH or O_2 as options

- precise registering without paper

- long battery livetime

- data retrival on site with DataTerminal or
  GSM/GPRS-Modem from office

- simple mounting in boreholes and flumes

- automatic data-exchange with HydroBase
  and HydroWin

Fieldlog™ FL-3-512

The Fieldlog FL-3-512 is a cost-effective datalogger designed for hydrometrical stations. Equipped with the newest technology, it fulfills ideally the high demands of hydrology. All measurements are already calibrated and you only need to enter the level-offset if requested..

Thanks to stable software base and integrated control-algorism an extremely high availability of data is guaranteed. The strong, integrated build-up allow a quick and economic installation, as well as a trouble free operation. The data can be recorded by a plugable GSM modem module (Option) or alternatively, it can be logged directly into a notebook or into the DataTerminal

Installation
Thanks to compact measurements, the Fieldlog FL-3-512 can directly be built into 2"-levelpipes.
Installation panels with lid for 2" and 4"-pipes are available.

Measurements
All sensors are already built-in and calibrated.
There's availability of
- level
- temperature
- conductivity (temperature required)

Time accurate registration
A battery buffered quartz-watch with 100year calendar makes up the time-base of the Fieldlog FL-3-512

Time-synchronous measurement
All measurement intervals begin to fixed times, i.e. all measurements start out at the same time. This is the only way a comparison of data can be guaranteed.

Memory
Everything is continually being memorized in the internal circular memory: main data and measurement data. If the memory happens to be full, the oldest data can be eliminated. Taking three measurements (level, temperature, ability of flow) in 10 minute intervals, the internal memory space lasts for about 200 days.

High data security
To every measurement value time and date as well as planned interval duration (time in between measurements) are being memorized. Data gaps are immediately recognizable and do not have any far-reaching effects.

Optimized data recording
With the optimized data recording, the measurement values are only being recorded if they deviate from the last memorized measurement value. The bandwidth on which the deviation is allowed to be can easily be adjusted.

Parameterization/calibration
The parameterization takes place through software on the PC/MAC or through the menu equipment with the DataTerminal

Data retrieval
The interrogation of data takes place through HydroPro™, HydroBase™ or DataTerminal (PocketPC) and is fully automated. The data is automatically being integrated in the databank and the knowledge of data cannot be manipulated (just like Telelog TL-1). Depending on the version of the Fieldlog FL-3-512 the interrogation takes place by modem, GSM-module or directly into the notebook, or with the DataTerminal on PocketPC.

FL-2x mith memory module
The FL-3-512 can directly be connected to a Fieldlog FL-2x (with option). In the stationary operation of the FL-2x the data are automatically being transferred to the memory module. This makes a simple and secure transport of data possible coming from remote stations. With GSM-Option in the FL-2x it is possible to send SMS to alert on critical values.

Passwords
To avoid any unauthorized changes of the parameter, or unauthorized interrogation of data, they are protected by passwords. For every user (10 maximum) a password and level of authorization can be installed. This process is already well known from the Telelog TL-1.

Connections
All connections (battery and dates) are equipped with waterproof plugs.

Power-supply
There's a special battery for field-operation. The Fieldlog FL-3-512 uses electricity only for the short measurement time and recording. This results, depending on the recording intervals, in battery-standing-times of up to 2 years.
It is also possible to use a solar feeding with a small solar-module (recommended when using GSM-module).

Technical data
Mesurings
- Level: 0..2m, ..4m, ..10m, accuracy ±0.1%
- Tempertaure: -10..+70°C, accuracy ±0.1K
- Conductivity: 0..8000μS, acc. ±2%, ±5uS
- Resolution: 16 bit (65536 Punkte)
- automated offsetcorrection
- Measuringtime: ca 100msec
- Plug: 6-pin round-plug

Probe
- Power: 6.5...30V DC / 0.27W @ 9V
- operating teperature: -10°C..+55°C
- submersible to 25m
- RS-232: 1200..57600 Baud SW-Handshk.
- Datastorage: 512 + 128 kByte intern
- Housing: stainless steel, IP68, d=40mm
       l= 360mm

Options
- pH, Redox, O2
- GSM-/GPRS-Module
- No memory (Probe for FL-2x)
- Better accuracy

- SDI-12 Schnittstelle
- RS-485– Schnittstelle

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