SEBA HYDROMETRIE

Groundwater Survey - Online

GSM-Remote-Data Transmission

FlashCom

LogCom

QZV We are certificated ISO 9001 certificate no. 01110505 Quality Is Our Standard

FlashCom

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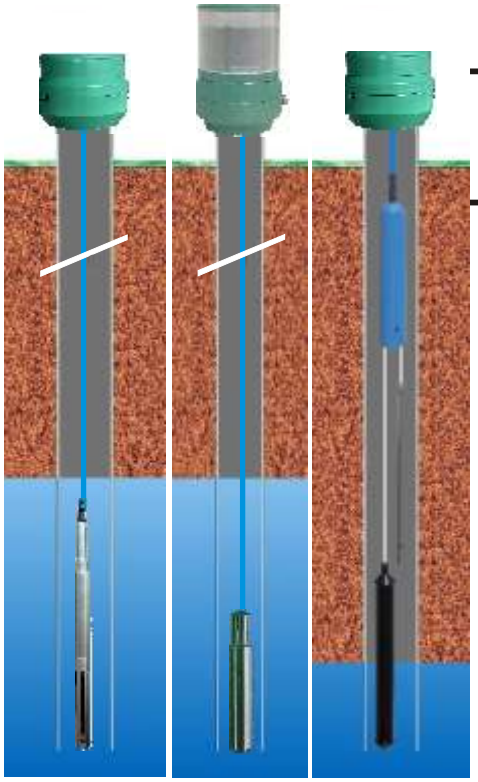

multiparameter probe pressure sensor float-driven sensor

- remote data transmission with GSM - modem
- automatic query of measuring data
- SMS - alarm
- suitable from 2" tubes
- battery operation / solar operation
- reduction of expenses due to longer control intervals

parameters

- **water level**
- **temperature**
- **conductivity**
- **salinity**
- **pH**
- **oxygen**
- **redox**
- **turbidity**

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Remote Data Transmission Systems

System description

SEBA - GSM

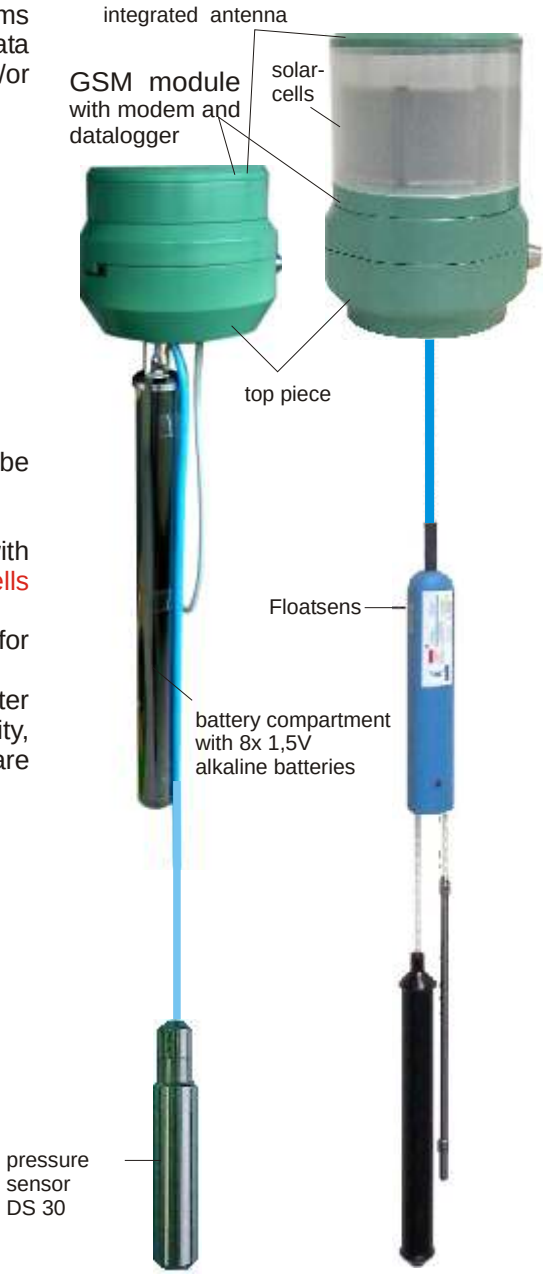
The GSM-LogCom/FlashCom remote data transmission systems are modern, robust and economical measuring systems for data registration at site and online-transmission of the water level and/or water quality parameters.
The remote data transmission will be effected via the standard GSM 900 / 1800 MHz -telephone networks.

Following options are possible:

- query of the measuring sites in preselected intervals
- automatic transmission of the measuring data via SMS to a mobile phone or PC
- SMS-alarm in case of exceeding adjusted limits (water level, battery, water quality parameters)

Additionally to the remote transmission all measuring data will be stored in a data logger and can be read out at site at any time.

The power supply of the GSM-LogCom will be effected with changeable batteries and of the GSM-FlashCom with solarcells and buffer accumulators (so no battery changes are necessary.
Due to their compact construction size, both systems are suitable for observation tubes from 2" .
As pick-up high precise and long-term stable water level and water quality sensors (for measuring temperature,conductivity, salinity, pH-value, redox potential, dissolved oxygen and turbidity) are available.



LogCom ***FlashCom***

Measuring sensors directly connectable to GSM-LogCom/FlashCom

Water level:	Water level -/temperature:	Water quality:
● with float-driven sensor Floatsens ● with pressure sensor DS 30 robust, high precise differential pressure sensors with extreme long-term stability; stainless steel encapsulation ; special cable with pressure compensation tube.	● combined sensor DS/T with special cable and pressure compensation tube For measuring water level and water temperature with extreme long-term stability.	● multiparameter sensor MPS-D for measuring of: ● water level ● water temperture ● conductivity ● salinity ● pH-value ● Redox potential ● dissolved oxygen ● turbidity

Operation

SEBA - GSM *LogCom*

Battery operation:

- life time > 2 years (in case of 1 query/day)
- simple extracting of the battery compartment and change of the batteries

SEBA - GSM *FlashCom*

Solar operation:

- sufficient for 1 query or 1 transmission/day
- no battery change

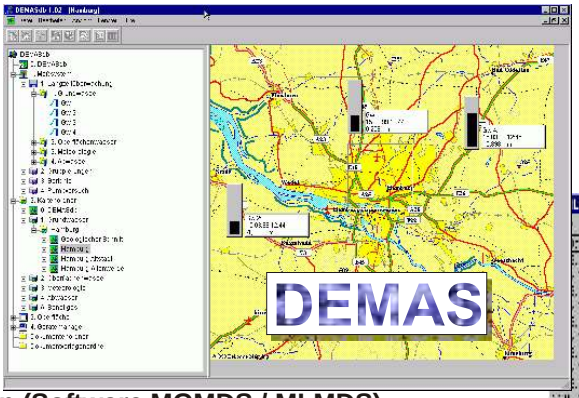
=> **maintenance-free operation**

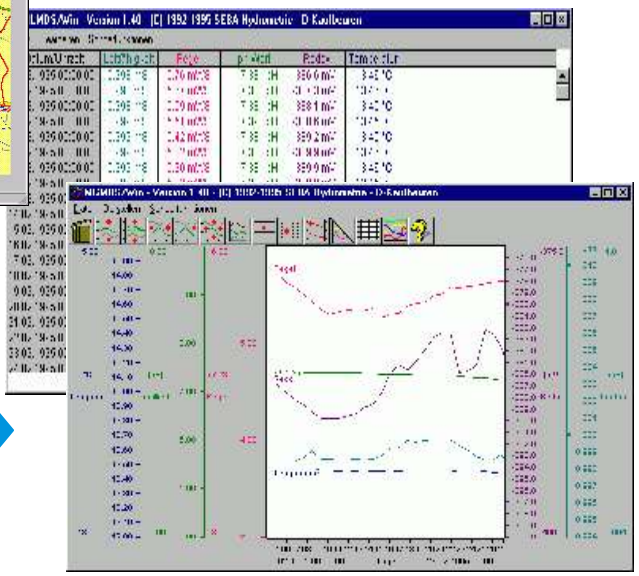
Automatic query or automatic transmission of the measuring data incl. evaluation of data and SMS alarm

For the automatic query of the measuring data the software **DEMAS** or WISKI will be utilized. This calls automatically the measuring sites in programmed intervals and reads out the measuring values stored in the datalogger. In case of exceeding or falling below the programmed limits an SMS alarm can be released.

For evaluation of the data menu-driven and thus easy operable program routines are available.

4 - 6" 2 - 3"





Evaluation (Software MGMDS / MLMDS)

List

- single measured values with date and time
- daily middle- and extreme values
- conversion of measured values with mathematical functions

Graphic

- parameter lines with zoom and fade-cross function
- hard-copy routines
- multi parameter graph
- plot routines
- correction possibility via control values

SEBA GSM

Technical data

GSM *LogCom / FlashCom for GSM 900/1800 MHz - Networks*

Housing: Aluminium watertight IP67
dimensions:
LogCom Ø168mm, height 133mm
FlashCom Ø168mm, height 220mm

Data-logger: integrated with DDP protocol
Memory: 512K for 130000 values

MODEM: GSM standard, 900MHz and 1800MHz (EGSM, Dualband), GPRS

Operation: with 3V- SIM-cards

Antenna: integrated in the top of the protection housing, robust, impact resistant and weatherproof

Power supply:

LogCom: 8x1,5V Alkaline batteries
Operation time:[3] 2 years in case of 1 query/day (depending on the quality of the GSM connection)

FlashCom: solar operation
sufficient for 1 query/day
(other query intervals on request)

Sensors

Pressure sensor for water level registration

- high accurate, robust and long-term stable pressure transducer with stainless steel housing
- accuracy: <0,1% = better 1cm at 10 m measuring range
- long-term stability: <0,1% /year
- temperature stability: <0,01%/°K
- measuring ranges: 2,5; 5,0; 10,0; m water level etc.
- special cable for pressure transducer (food safe) with integrated pressure compensation tube (length up to 300m)

Combined sensor DS/T:
for water level and water temperature registration

Multiparametersonde MPS-D
for measuring water quality:

- water level: 0...10m, 0...Xm
- water temperature: 0...25°C, 0...50°C
- conductivity: 0...2mS, 0...10mS, 0...100mS etc.
- pH/Redox: 0...15pH / ±2000mV
- dissolved oxygen: 0...40mg/l; 0...400%
- turbidity: 0...1000NTU
- special cable (food safe!) with integrated pressure compensation tube (length up to 300m)

Further technical data please learn fromleaflet MPS-D.

DS 30 DS-T Floatsens MPS

The right is reserved to change or amend the foregoing technical specifcation without prior notice.

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