



Data Logger MDS Dipper II



We are certified

ISO 9001

certificate no. 01110505

Quality Is Our Standard



ground water



Measuring system for observation of:

- groundwater measuring sites
- pumping tests
- construction areas
- surface water levels

Special features:

robust and durable PVC-housing

high data security due to additional Flash-memory

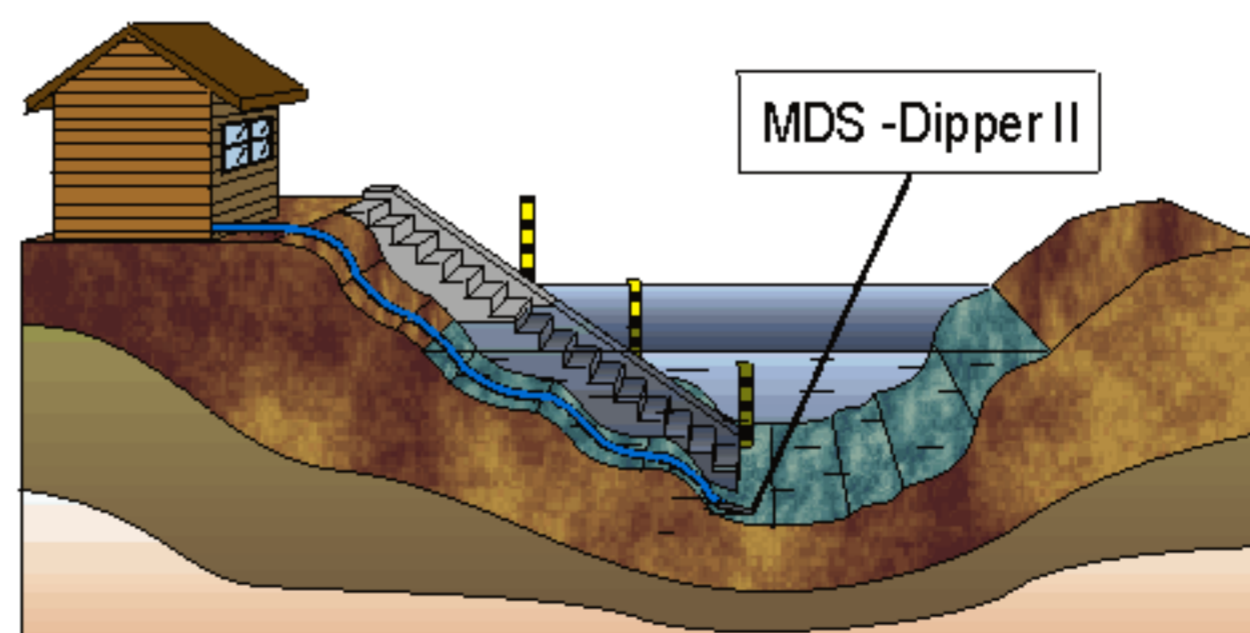
Watch-dog-function for high operation security

nearly maintenance-free,
battery life time approx. 10 years
-exchangeable-

vario system for flexible measuring tasks (option)



water level



Description

The new **SEBA Data Logger** type **MDS Dipper II** is the consequential further development of the well proven MDS Dipper for continuous registration in ground- and surface water, with special focus to the **operation- and data security**:

A Watch-dog-function, integrated in the MDS-Dipper II supervises continuously the microprocessor activities and so it provides a high operation security. Undefined system conditions are recognized immediately and eliminated by the Watch-dog-function.

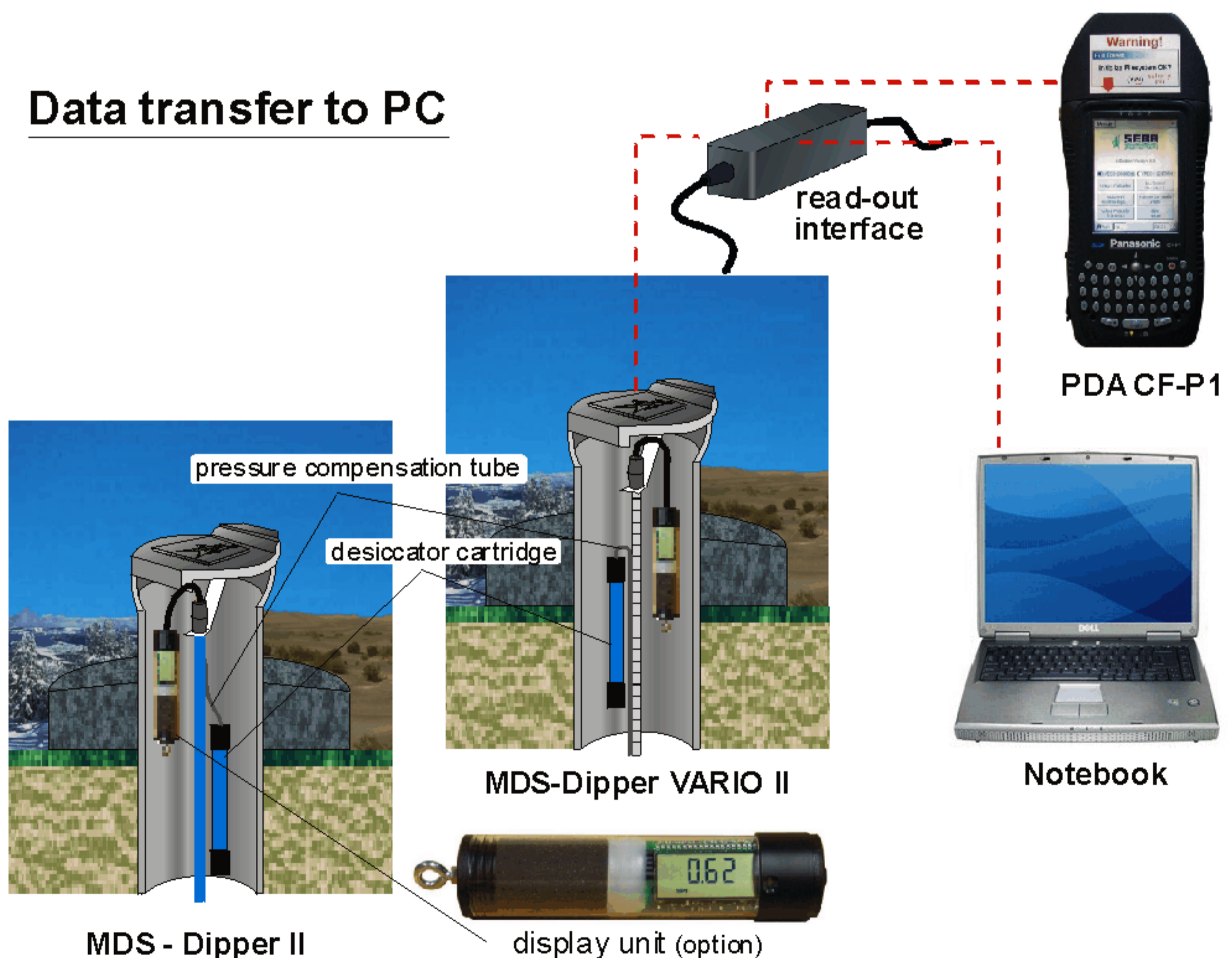
Additionally to the ring memory, the **MDS Dipper II** is equipped with a Flash-memory (**Flash-RAM**), which disposes of the eightfold storage capacity of the ring memory. The acquired measuring data are stored in the ring memory, as well as in the archive data backup of the **MDS Dipper II**. Due to the described double data storage, you have access to the complete measured data in the archive data backup, even in case of breakdown of the power supply!

Further important characteristics of the MDS Dipper II

- robust, pressure-tight PVC-housing with high chemical resistance for installation in tubes from 2" diameter
- exchangeable lithium batteries for > 10 years operation (depending on the adjusted measuring interval)
- high accurate, robust ceramic pressure measuring cell for different measuring ranges (i.e. 1 bar, 2 bar, etc.)
- available as Dipper-Vario II for the flexible operation at different measuring sites: with adjustable flat cable and pressure compensation tube
- with diameter independent fixing device, suitable for all standard top pieces.

So the new MDS Dipper II sets standards in regards to operation security, data security and functionality!

Data transfer to PC



Water level sensor

Integrated robust, high accuracy pressure transducer with excellent long-term stability.

Technical details

Data Logger (MDS Dipper II)

- SMD technic with auto-testing routine
- 16 bit microprocessor
- 32 kByte C-MOS-RAM ring memory for approx. 45.000 measured values (in case of compressed data-structure)
- 256 kByte Flash-archive memory for approx. 120.000 measured values
- watch-dog for control of the microprocessor activities
- serial communication interface RS 232
- real-time clock
- analog input (water level)
- power supply with exchangeable lithium battery, sufficient for >10 years (with 15 minutes interval)
- operating temperature: -20...+70°C

Storage of measured values:

Storage of measuring values in real-time

- 12 bit resolution
- compressed data-structure for optimal capacity utilization
- observation function (timestamp, control value)
- storage of control values
- measuring interval: 1 minute up to 45 days

Housing:

- pressure-watertight PVC housing
- supply- and adaption unit with integrated desiccator and pressure compensation tube
- material: PVC-U
- dimensions: 40 mm dia., 295 mm length
- installation device in top pieces (for diameter of 2" and bigger)



Sensor

Pressure Sensor for water level measurement:

- robust pressure sensor with excellent long-term stability
- accuracy: 0,1 % = 1 cm at 10 m measuring range
- long-term stability: 0,1 % / year
- temperature stability: 0,01 % / K
- measuring ranges: 20 / 30 / 40 / 50 m etc. resp. on request
- special cable: special cable: screened round cable with pressure compensation tube or 2-core-flat cable with cm-division and pressure compensation tube (Dipper-Vario II)
- system length: up to max. 150 m

available also with **piezoresistive measuring cell** for highest accuracy (better than 0,1%)

Panasonic PDA CF-P1

- CPU: Intel StrongARM SA-1110 Microprocessor 206MHz
- Memory (RAM/ROM): 32 MB / 32 MB (Flash)
- Operation Temperature: -20°C...+50°C
- Housing: Magnesium, IP54
- Dimensions: 173x98x41 mm (HxWxD)
- Weight: 480g
- Display: 3.5" type (Reflective color TFT)
- Pointing Device: Touchscreen, Cursor control
- Interface: Serial Communication Port RS232
- Power supply: Battery Pack Li-ion 7,4V, 1,4Ah
- Sub-Battery: Lithium Rechargeable Backup Battery
- Operating Time: Approx. 8...24hours
- Operating System: Microsoft® Windows® CE 3.0

included in delivery:

- battery-charging station
- software WBedien CE
- MGMDS/MLMDS CE for presentation of lists and graphs

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



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