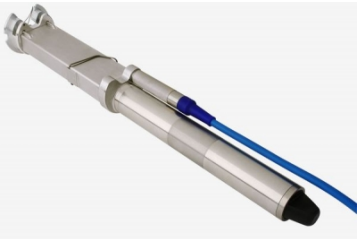

Level Data Logger PD-5, PD-Mini

Data Logger with probes for groundwater monitoring

Level Data Loggers are the ideal measurement devices for reliable measuring of water level and temperature, conductivity or pH-value or further parameters in groundwater, at springs or lakes. Appropriately to the measuring requirements diverse loggers and probes can be supplied.

Features and advantages

- Measuring up to four different parameters
- Compact, waterthight housing, flood-proof and suitable for long-term use in the field
- Compensation of barometric fluctuations and temperature fluctuations as a standard
- Data retrieval locally or by means of data transmission (only PD-5)
- Convenient back-check measuring by use of electric contact gauge without the need to dismantle the equipment
- Energy supply for up to 10 years of operating time or 2,000,000 measurements
- Universal range of application: level pipes, wells, open water or measurement at weir
- Variable cabel lenghts are possible
- System at a good value for money level

Fields of application

SOMMER level data loggers are considered to be the ideal measuring instruments in order to reliably record water level in level pipes and wells. Moreover, the PD-product family is a useful tool for hydrography, the groundwater monitoring as well as for water resources management, applicable for measurements in open water, water reservoirs or tanks where it builds a dependable tool for the water management. Simple and cost efficiently parameters like water level, temperature, conductivity, etc. are recorded.

PD-Mini (max. 2 Parameters)

Reliably measure water level and temperature. The PD-Mini is ideal for reliable monitoring of groundwater monitoring wells. It is an inexpensive solution to measure and record water level and temperature, even under extreme conditions such as intense heat/cold or high humidity. The pressure probe and the logger form a compact and rigid unit.

Technical details PD-Mini

- **Parameter** water level up to 100 m; temperature, -5°C to +70 °C
- **Resolution** 0.02 mbar, < 0,1 °C

- **Memory** 200'000 Measurements
- **Interface** USB-radio 433MHz
- **Power supply** D lithium cell batteries for 200.000 measurements or 10 years operation
- **Measurement interval** adjustable, 1 second to 99 days
- **Assembly in level pipe** 1" to 6" pipes; from 3" with fall protection rings (optional)
- **Material** stainless steel housing V4a
- **Protection** IP 68, peramanently flood-proof up to 1 m hydrostatic head

PD-5 (max. 4 parameters and with data transmission)

High end logger with data transmission - Hydrology at its highest level: With the opportunity to measure up to four parameters at the same time and built-in data transmission the PD-5 stands above all for its customer value. Using GPRS technology it delivers the collected data via internet directly to the PC or a webserver of the water management system.

Technical details PD-5

- **Parameters** water level, temperature, conductivity, pH-value, turbidity (optional)
- **Data transmission** 2G oder 3G (via FTP/FTPS, SMS, E-mail)
- **Frequency** 900 / 1800 MHz (standard); 850 / 1900 MHz (alternative)
- **Memory** 4 MB for up to 190.000 measuring values
- **Interface** RS-232
- **Sensor interface** 1x RS-485 Modbus (optional 2x)
- **Power supply** standard: 3 pcs. alkali-manganese battery size C - for approx. 2 years; alternative: 3 pcs. lithium battery size C - approx. 5 years with daily data transmission
- **Measuring interval** adjustable, 1 second to 99 days
- **Dimensions** Ø 49 mm x 380 mm - including battery compartment and antenna
- **Assembly in level pipe** 2" to 6" pipes; from 3" with fall protection rings (optional)
- **Material** housing in high-grade stainless steel 1.4301 / high-quality synthetic (polyoxymethylen)-closure prohibits network shielding
- **Protection** IP 68, peramanently flood-proof up to 1.5 m hydrostatic head

Technical details for measuring probes

Water pressure probe (compatible with PD-5)

- **Parameter** water level: adjustable; up to 300 m hydrostatic head; temperature: 0 to +50 °C (expandable up to +70 °C)
- **Accuracy** < 0.05 % of measuring range (water level); < 0.1 °C (temperature)
- **Dimensions** Ø 22 mm x 120 mm
- **Material** high-grade stainless steel 1.4571

Multiparameter probe (compatible with PD-5)

- **Parameters** water level: adjustable; up to 200 m hydrostatic head; temperature 0 to +50 °C (expandable up to +70 °C); conductivity: 0 to 200 mS / cm
- **Accuracy** < 0.05 % of measuring range (water level); < 0.1 °C (temperature); < 0,5 % of measuring range; min. 0.002 mS / cm (conductivity)
- **Abmaße** Ø 30 mm x 175 mm
- **Material** high-grade stainless steel 1.4571 / POM

Conductivity probe (compatible with PD-5)

- same as multiparameter probe, except measuring water level

pH-value probe (compatible with PD-5)

- **Parameters** pH-Value 2 to 14 pH; temperature 0 to +50 °C
- **Accuracy** < 0.02 pH; < 0.1 °C (temperature)
- **Overlap** max. 100 m hydrostatic head (= 10 bar)
- **Dimensions** Ø 29.5 mm x 250 mm
- **Material** high-grade stainless steel 1.4571

General technical information

- **Data format** readout of data in ASCII or Excel-format
- **Cable of probes** special cable (Ø 6 mm): UV-resistant polyurethan-manteling with kevlar core and inside air hose for compensation of barometric fluctuatuions, no cartridges necessary; selectable cable lenght up to max. 300 m
- **Assembly** device conveniently fits into level pipes with the possibility to do back-check measurements with an electric contact gauge without the need to disassemble the probes.
- **Accessories** USB-transmission cable 5 m, user software, caps for level pipes with synthetic insert (sizes from 1 ¼" to 6"; from 3" with fall protection rings - optional)
- **Temperature** temperature-compensation 0 ... +50 °C
- **Optional equipment** probe to measure turbidity (applicable only for PD-5)