

## Pressure sensor with SDL data logger for piezometers

The piezometer pressure sensor with SDL data logger is a compact, stand-alone system for the automatic measurement of water levels. Thanks to its design and small size, it can be installed directly at the head of a borehole with 2" tubing.



*Pressure sensor for piezometers*

### Measurement

The level is measured using a piezoresistive sensor, which is lowered into the borehole and connected to a data logger.

- Type of pressure sensor: piezoresistive (vibrating wire on request)
- Measuring ranges: 1, 3, 10, 30 bar, absolute or relative, other ranges and on request.
- Linearity: +/- 0,2 %
- Temperature compensation in the range from -10...+80°C
- Accuracy of temperature measurement: +/- 1°C
- Optional conductivity measurement: 4 ranges 0.2 / 2 / 20 / 200 mS/cm, accuracy 2.5% FS

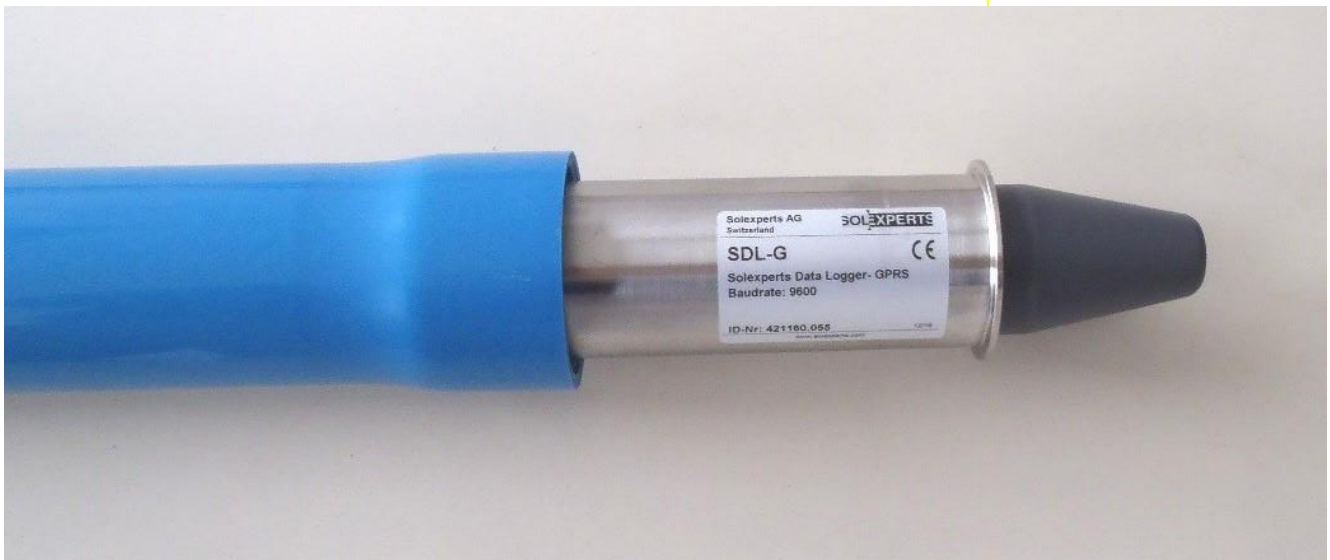
An absolute pressure sensor is used as standard. For a measurement with compensation of the atmospheric pressure, either an additional atmospheric pressure sensor or a relative sensor with a capillary can be used.

### Data Logger (SDL)

The SDL-Piezo is a monitoring system that has been specially developed for use in piezometers. The high autonomy thanks to energy-saving components makes the system a cost-effective solution for monitoring water levels. The SDL-M or SDL-G data logger is built into a robust, IP69 watertight, cylindrical stainless steel housing with a diameter of 49 mm and a length of 400 mm, which is installed at the head of the borehole in the 2" tubing.

The logger is thus protected and does not protrude from the borehole. The SDL-Piezo is available in the following versions:

- **SDL-M:** Autonomous data acquisition with continuous storage. Used when cabling is not possible or no mobile phone network is available. The SDL-M storage capacity is 1,000,000 measurements. The data is periodically read out manually to a PC via a USB interface.
- **SDL-G:** Autonomous recording and automatic transmission of measurement data to a web platform with alarm function. If a preconfigured alarm threshold is exceeded, an e-mail or SMS is sent with the following content: Measured value with time reference, sensor reference, alarm threshold and optional further project information.



*Data logger recessed in the piezometer tube*

### **Power supply**

Lithium batteries (alternatively alkaline batteries) are used as standard for the power supply. The operating time is 48 months with a measuring interval of 1 hour and daily data transmission.

### **Storage capacity**

- 1,000,000 measured values with time stamp (for 4 channels).

### **Configuration with the SDL tool**

The SDL-Tool is a software that enables simple and secure configuration of the SDL-M or SDL-G data loggers in direct connection with the PC or remotely via the web platform.