



TDGP-Logger DISSOLVED GAS PRESSURE MEASUREMENT

Nitrogen's influence on pH and conductivity

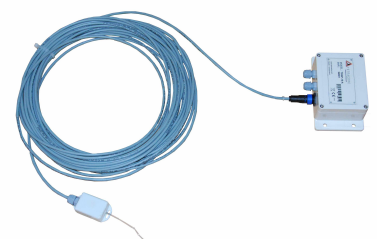
The pH and conductivity measure of sources often confronts the hydrogeologists with problems of stability, repeatability and interpretation of the results. As part of his researches, Dr Heinz Surbeck highlighted particularly the role of gases dissolved in the water regarding the variability of the measures delivered by pH probes and conductivity.

Phenomenon still little known, the supersaturation of dissolved gases in the water can occur especially when the rain infiltrates the rock; under the influence of various karstic mechanisms, nitrogen and oxygen come to enrich water. The way which leads from the mountain to the source is waterproof (because of clay), the water does not (or only little) degas, during the route.

The hydrogeologists are so often confronted with very variable measures of pH and conductivity in the same source. The measurement system TDGP - Total Dissolved Gas Pressure - is an effective tool to measure continuously the concentration of gases dissolved in the water and to understand the impact of this phenomenon on the other measures.

Advantages of TDGP-Logger:

- ✓ Easy to install
- ✓ Factory calibrated
- ✓ Measure continuously the pressure of dissolved gases
- ✓ Optional: a LED display indicating the percentage of saturation
- ✓ Optional: a TRMC™ allowing the register and the remote data transmission via the network GSM to assure a regular and accessible remote follow-up



Applications

- ✓ Understanding of the fluctuations of the pH measures
- ✓ Understanding of the fluctuations of the conductivity measures

How does it work ?

The TDGP-Logger system consists of an immersible probe and a case converter of pressure.

The system measures the ratio between dissolved gas pressure and atmospheric pressure.

The whole is powered by a battery 12V. A TRMC™-19 is connected to the system to register and to transmit remotely the data measured via the network GSM (optional).

TDGP: developed by a famous scientist

To develop a product 100% adapted to your needs, we collaborated with Doctor Heinz Surbeck, physician of great renown. He developed the fundamental principles allowing to measure effectively the concentration of gases dissolved in the water. He highlighted the problem of these gases with the measures of pH and conductivity of sources. Thanks to this collaboration we can propose a reliable and effective device to allow you to interpret your measures.

