



TDGP-Logger DISSOLVED GAS PRESSURE MEASUREMENT

Fish farming under surveillance

The measurement system TDGP - Total Dissolved Gas Pressure - allows to measure continuously the concentration of dissolved gases in the water.

The air is mainly composed of 78% of nitrogen, 21% of oxygen and 1% of argon. Air gases are dissolved in the water and the TDGP-Logger system allows to measure them. An excessive quantity of oxygen dissolved in the water do not represent risk for fishes. However, a too big presence of nitrogen represent an important risk for their health.

A nitrogen saturation less than 90% allows fishes to develop healthily and they survive easily to certain diseases. If the saturation of nitrogen is situated between 105% and 120%, a stress come out by fishes and they become then extremely sensitive to the diseases.

Beyond 120% of nitrogen saturation, the fishes survival becomes critic and in only ten days, the whole production is lost.

The TDGP sensor measures the air pressure in the dissolved gases. Used with an Oxygen sensor, the TDGP allows you know the concentration of nitrogen and thus keeping your fishes healthy !

Advantages of TDGP-Logger :

- ✓ Easy to install
- ✓ Factory calibrated
- ✓ Continuous measurement of dissolved gas pressure
- ✓ Optional: a LED display indicating the percentage of saturation
- ✓ Option: a TRMC™ with GSM module to send the data remotely



Applications

- ✓ Fish farming surveillance
- ✓ Coupling between TDGP and the regulator of a nitrogen degassing system

How does it work ?

The TDGP system consists of a submersible probe, a pressure converter case and a power supply to power the system via an ordinary socket (230V). The system can be also powered by 12V or by +24V, so facilitating its integration with a SPC. It is easy to connect a LED display (optional) that allows to visualize directly the pressure of dissolved gases. The converter case has an output 4-20mA that we can connect to any automaton of supervision. A TRMC™-19 can be connected to the system to register and to send remotely the data measured via the network GSM/GPRS (optional). A probe of dissolved oxygen (optional) can be also connected to the TRMC™-19 to watch the concentration of O₂. It is also possible to connect a tablet Android to have all the data directly on site on a screen.



TDGP: developed by a renowned scientist

To develop a product 100% adapted to your needs, we collaborated with Dr Heinz Surbeck, physicist of great renown. He developed the fundamental principles allowing to measure effectively the concentration of gases dissolved in the water and highlighted the problem of the saturation of nitrogen for fish farming. Thanks to this collaboration we propose you a reliable and effective device to protect the health of your fishes.