

Control Systems



complete unit in protective housing



version with transmitters for oxygen probes

Aqua-Control Kompakt

We have developed a further extension to our **Aqua-Control** system for quick and easy use in fish farms.

The basic concept for this compact system is to supply a complete pre-wired unit that can be brought into operation in fish farms with little installation and wiring effort.

Aqua-Control Compact is a unit for controlling and monitoring up to four oxygen supply systems. It consists of the following components:

Control box with PLC module

The plastic switch box is completely pre-assembled and wired. A PLC display module is visible which constantly displays the actual values of the connected oxygen probes. The integrated keypad can be used to set the desired target values of the input systems and, in addition, an alarm threshold. Further-

more, the switch box contains a Residual Current Device (RCD), the necessary motor protection switches for the connected devices as well as the control relay for the sockets of the input systems and the solenoid valves of the oxygen supply line.

Motor protection and RCDs of the devices are constantly monitored (in addition to the oxygen value) and, in the event of irregularities, forwarded to an alarm switching device via a potential-free contact. The connection of further signal transmitters (such as float switches, level monitors or temperature probes) can be achieved easily.

Five sockets are located on the lower half of the switch box: four controlled sockets for plugging in the input systems and another for flexible use. Also included are four sockets for connecting the oxygen probes.



detail switch box



detail PLC module in switch box

Oxygen Flowmeter with Solenoid Valves

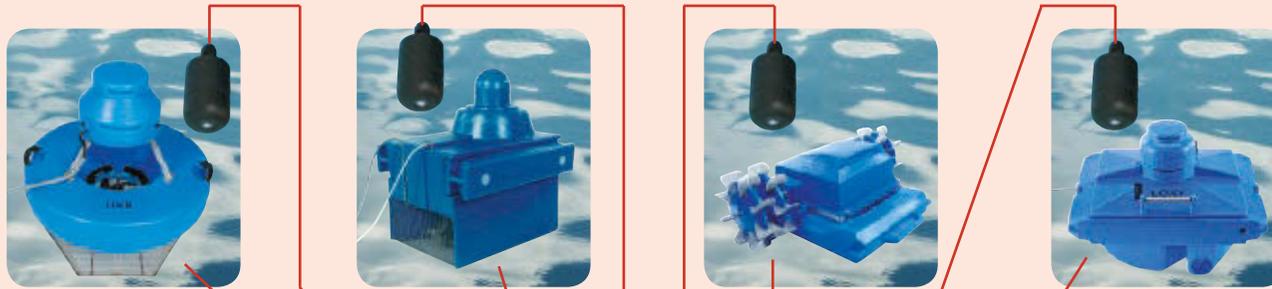
The **Aqua-Control Compact** unit as standard is equipped with five flow meters (further meters and scale on request). Four of the O₂ flow meters are automatically opened and closed by solenoid valves (normally closed) according to the inputs on the PLC. The fifth outlet can be used flexibly and is closed manually with a ball valve.

Protective housing

Both the control box and the oxygen flow meter are housed in a robust and weather-resistant polyethylene protective housing. The housing (dimensions 120 x 78 x 40 cm) was developed by us specifically for this system. **Aqua-Control Compact** can be easily mounted and screwed onto a base or foundation with this housing. Recesses for inserting the supply cables are incorporated in the housing.

Aqua Control compact is designed for rapid application. Only the power supply line, the oxygen supply line and a control line (if the system is to be connected to an alarm centre or a PC) are to be connected on site. All other wiring is already in place. All you need to do is plug in your input systems and the oxygen probes!

The most convenient solution is to combine **Aqua-Control Compact** with a computer. By means of a 2-wire USB line, the PC enables a central setting of all pre-sets and alarm values. The actual values can be displayed in your personal pond view. It is also possible to record the O₂ saturations over any length of time.



IMPORTANT: The adjustment capabilities on the switch box remains the same! A possible failure of the computer has no effect on the oxygen control!

This expansion stage also offers the possibility to "look into" the PC of a distant fish farm via telephone line from your PC at home. So at any time you can determine the current conditions or evaluate any alarm messages (over fixed net or mobile phone) and provide the necessary response.

Aqua Control compact combines the advantages of our proven system **Aqua control** developed over many years with the wishes of our customers for compact and pre-finished units which can self-installed. As you can see, the possibilities are endless – contact us now!



Variant II – Display of all data on the PC with alarm messages on the screen and additional alarming on mobile phone / smartphone

or



Variant I – Alarm triggering via horn/flashlight and/or telephone dialler

