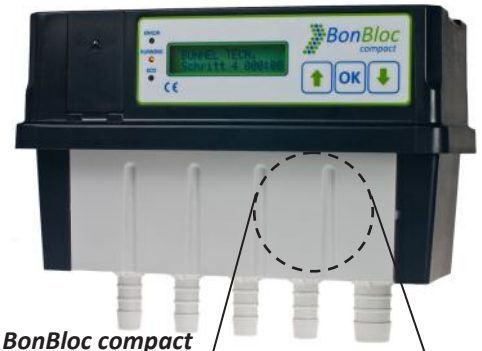
BonBloc compact

Reasonably priced programmable controller for small wastewater treatment plants with integrated energy-saving valve unit

- → All relevant control functions within a compact casing
- → 4 motor-driven valves
- → Water-level sensing by pressure measurement
- → Easily programmable via Excel®-Sheet
- → Up to 4 relay outputs
- → GSM-module as option

Why use the BonBloc® compact?

- Outstanding price-performance ratio due to the integrated design and absence of 230V solenoid valves
- Up to two water levels can be evaluated by pressure sensing
- Easy to install and connect
- Quiet valve operation
- Saves approx. 95% energy compared to units using standard solenoid actuated valves
- Up to 4 relay outputs offer a comfortable connection of accessory devices
- Sequence program can be easily created and modified using Excel® table
- Password protected system-menu provides access to manual control and easy changing of step times
- IP54 casing, optionally UV-resistant for outdoor installation



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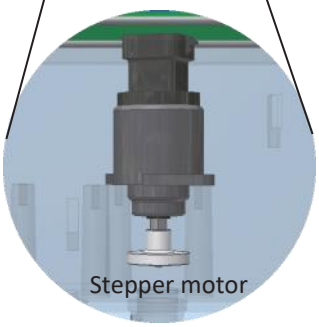

Stepper motor

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BonBloc® compact details

Idea:

SBR wastewater treatment plants normally use a control unit and a valve module. These are installed separately and have to be connected using costly cables and connectors.

The ***BonBloc® compact*** integrates both, the controller and the valves into a single compact and easy to install device. No more cable spaghetti, all the comfort you need at a very competitive price.

Valves:

Instead of conventional solenoid valves we use reliable stepper motors from the automotive industry.

Why stepper motors? First, they consume energy only during opening or closing of the valve, therefore saving 95% of energy when compared to conventional valves. That is about 90kWh per year or 15€, and the trend is rising.

Secondly, our valves are, due to the smoother and slower movement, much quieter than solenoid actuated valves.

Water -level sensing by pressure measurement:

The ***BonBloc® compact*** is equipped with a pressure sensor and an evaluation logic to determine the water level during aeration or pumping. This level sensing can be used instead of failure-prone and costly float-switches.

Control unit:

Three buttons, three LEDs, an alphanumeric LCD display - regarding its operability our BonBloc compact leaves nothing to be desired. The device can be equipped with pressure and current sensing to monitor the compressor.

Using the digital inputs up to three float switches or other signal sources can be connected (depending on equipment version). Up to four reliable relays can control the compressor and other devices (e.g. UV-lamp, dosing of chemicals).

The GSM-module will reliably send SMS if any alarm occurs. The ***BonBloc® compact*** can even be remotely controlled and recalled by GSM.

The ***BonBloc® compact*** is also equipped with features, such as acoustic signaling of predefined conditions, a sequence program permanently saved in the EEPROM and a set of NiMH rechargeable batteries (or normal batteries) to ensure continuous signaling during power outage or the function of the GSM-module.

All electrical connections are implemented using cost-effective and universally compatible screw type terminals.

Technical data

Attribute	Value
Dimensions (l x w x h); weight	118mm x 241mm x 181mm; 1.9kg
Ambient temperature	-20°C to +50°C
Protection classification / UV-Resistance (casing)	IP 53 / UV-resistant casing as option
Functions, sequence program, alarms, GSM-communication, display messages (also multi-lingual)	All according to customer request and requirement. Sequence programs are designed and adapted by the wastewater treatment plant manufacturer by means of an Excel®-sheet.
Display / LED	Illuminated (backlit) alphanumeric LCD Additionally up to 3 LED (colors as requested)
Signal-inputs	Up to 3 x digital inputs Pressure sensor 0-400mbar
Data interface	RS-232 (using adapter-cable)
Electrical output	According to customer request, up to 4 relays e.g. 230V / 300VA
Power supply during mains failure	2x NiMH rechargeable batteries (size AA), optionally mignon batteries
Compressed air inlet	3/4" or 1" fittings
Compressed air outlet	1/2" or 3/4" fittings
Maximum pressure	450mbar
Power supply	230VAC, 12W max.