

CONTROL UNITS

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Applications

Controller for small sewage plants

Advantages

- Easy to install and connect
- Water-level control without float switch
- Individually equipped
- Easily programmable
- GSM-module as option

CONTROL UNITS

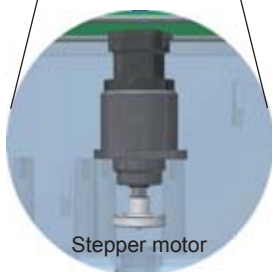


BonBloc

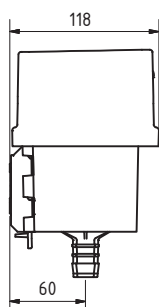
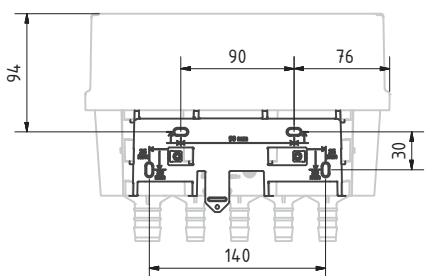
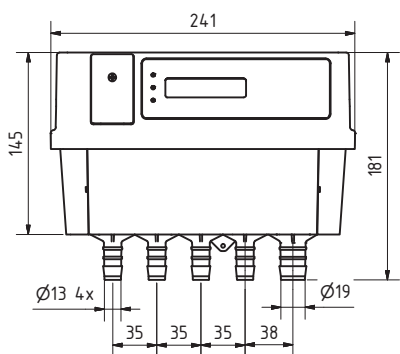
BonBloc

Energy-saving valve unit with integrated programmable controller for small wastewater treatment plants.

(Also available without integrated controller - then potentially compatible to almost every other control system.)



Stepper motor



- 4 motor-driven valves
- 1 air inlet: $\frac{3}{4}$ "
4 outlets: $\frac{1}{2}$ "
- Easily programmable control unit
- Up to 4 relay outputs
- Water-level control for up to 2 tanks using pressure sensors
- GSM-module as option

Why use the BonBloc?

- Outstanding price-performance ratio due to the integrated design and the absence of 230V solenoid valves
- Easy to install and connect
- Quiet valve operation
- Saves approx. 95% energy compared to units using standard solenoid actuated valves
- Water-level control without float switch (using a pressure sensor)
- Up to 4 relay outputs offer a comfortable connection of accessory devices
- Individually equipped (display, keypad, connectors) according to customer requirements
- Sequence program can be easily created and modified with the PC software MenuMaker
- Password protected operating levels and updateable firmware and software
- IP54 casing, optionally UV-resistant for outdoor installation

CONTROL UNITS

BonBloc 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 integrates both, the controller and the valves into a single compact and easy to install device.

Nevertheless we can offer you the well-equipped BonBloc with its wide functionality for a competitive price.

Valves:

Instead of conventional solenoid valves we use reliable stepper motors from the automotive industry. These new valves have been successfully tested since 2008 in real waste water treatment plants.

Why stepper motors? First, they consume energy only during opening or closing of the valve, there-fore 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.

Control unit:

The control unit of the BonBloc has already proved itself as a separate device in thousands of wastewater treatment plants all over Europe.

The extend of the system functionality can be tailored to match your individual needs.

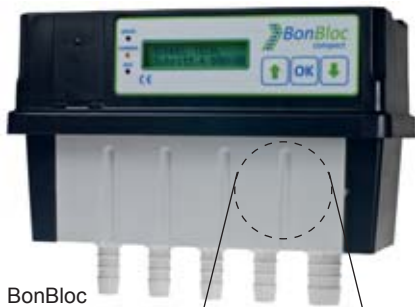
We can offer you zero to six push buttons; anything from three LEDs to a graphical LCD display; from a simple sequence control up to a event-driven control system with water-level controls utilizing pressure sensors; analog / digital inputs, relay outputs, GSM-module and a handy memory stick for pro-gramming the control and the read-out of the protocols - we are flexible!

The BonBloc is also available with features, such as, acoustic signaling of predefined conditions, a sequence program permanently saved in the EEPROM and additional EEPROM memory for event-logging. To ensure continuous signaling during power outage or the function of the GSM-module, a set of NiMH rechargeable batteries can be supplied.

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

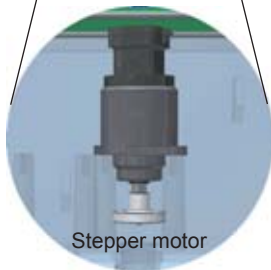
Attribute	Value
Dimensions (l x w x h); weight	118 x 241 x 181 mm; 1,9 kg
Ambient temperature	-20°C to +50°C
Protection classification / UV-Resistance (casing)	IP 54 / UV-resistant casing as option
Functions, sequence program, alarms, GSM-communication, display messages (also foreign-languages)	All according to customer request and requirement. Sequence programs are designed and adapted by the wastewater treatment plant manufacturer by means of a clear and easy-to-use PC-software.
Display / LED	According to customer request, illuminated (backlit) graphical or alphanumeric LCD, alternatively numeric LED display (e.g. 6-digit) Additionally up to 3 LED (colors as requested)
Signal-input	Up to 4 x digital inputs or a combination of digital and analog (0-10V) 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	450 mbar
Power supply	230 VAC, 12 W max.

CONTROL UNITS

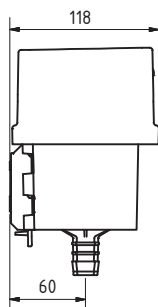
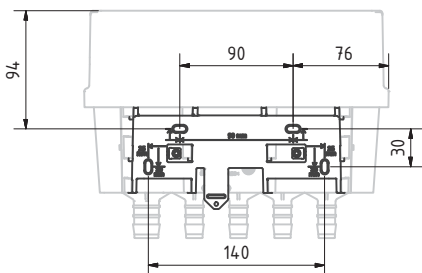
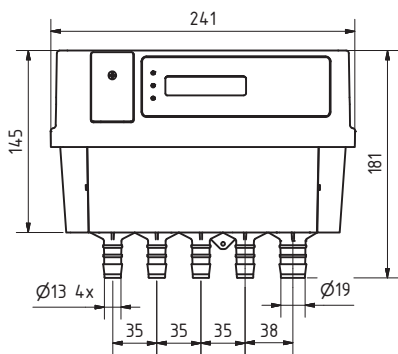


BonBloc

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



Stepper motor



- All relevant control functions within a compact casing
- 4 motor-driven valves
- 1 air inlet: 3/4"
- 4 outlets: 1/2"
- 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
- Option of the BonBloc with a reduced set of features
- 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

CONTROL UNITS

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!

The unit is equipped with a reduced set of features than its bigger brother, the BonBloc. Nevertheless it offers all the comfort you need for most of the applications at a very competitive price.

Valves:

Instead of conventional solenoid valves we use reliable stepper motors from the automotive industry. These new valves have been successfully tested since 2008 in real waste water treatment plants.

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.

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 (both available from 2012).

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.

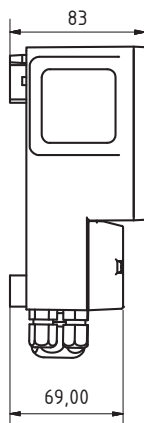
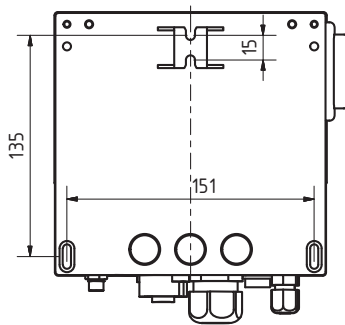
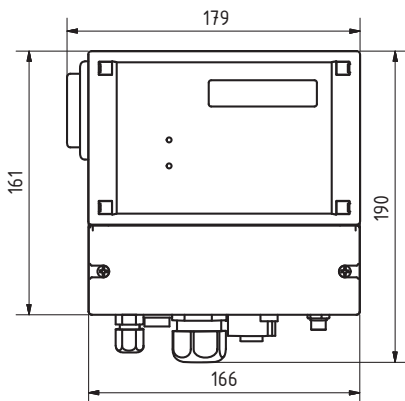
All electrical connections are implemented using cost-effective and universally compatible screw type terminals.

Attribute	Wert
Dimensions (l x w x h); weight	118 x 241 x 181 mm; 1,9 kg
Ambient temperature	-20°C bis +50°C
Protection classification / UV-Resistance (casing)	IP 54 / 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	¾" or 1" fittings
Compressed air outlet	½" or ¾" fittings
Maximum pressure	450 mbar
Power supply	230 VAC, 12 W max.

CONTROL UNITS



Sequetrol Programmable controller for small wastewater treatment plants with water-level control without float switch



- Easily programmable
- Water-level control for up to 2 tanks using pressure sensors
- Up to 8 + 1 relay outputs
- Individually equipped (display, keypad, connectors) according to customer requirements
- GSM-module as option

Why use the Sequetrol control unit?

- Water-level control without expensive and unreliable float switches means no more electricity carrying parts in the cesspool.
- Easy and accurate monitoring of the water-level & its rate of change
- Reliable technology proven in thousands of installations
- Up to 8 + 1 relay outputs (8 x 230VAC, 1 x low voltage) offer easy connection of accessory devices
- Individually equipped (display, keypad, connectors) according to customer requirements
- Sequence program can be easily created and modified with the PC software MenuMaker
- Password protected operating levels, updateable firmware and software
- Power supply during mains failure for the control and for the GSM-module (failure message) as option

CONTROL UNITS

Sequetrol details

Sequetrol was designed as a comfortable and reasonably priced control unit for small wastewater treatment plants.

Water-level control:

The innovative water-level control utilizing pressure sensors allows cost-effective detection of preset water levels and continuous level measurement without the use of failure-prone float-switches.

Beyond that, the Sequetrol control unit is especially suited for more sophisticated control algorithms particularly where incoming/outgoing water flow or its rate of change is employed as a control variable.

Interfaces and connectors:

The optional analogue input can be utilized for a further optimization of the wastewater treatment process. Properties, such as the turbidity of the treated water can be analyzed.

Up to four external digital signals can be monitored and processed within the control algorithm.

In addition the Sequetrol control can be equipped with an RS-232, RS-485 or a USB bus interface, so other „intelligent“ peripheral devices or control panels can be connected to the system. Up to 8 relay outputs for 230VAC offer a comfortable connection of solenoid valves, diaphragm compressors or other loads.

The optional GSM module can be used to send alarm and status text messages or to receive control commands.

All electrical connections are made using reverse polarity protected plugs with IP54 rating. Of course the type of connectors can be changed according to customer requirements.

Equipment:

The extent of the system functionality and the design of the front panel of the Sequetrol control unit can be tailored to match your individual needs.

We can offer you zero to six push buttons; anything from three LEDs to a graphical LCD display; from a simple sequence control up to an event-driven control system with water-level control utilizing pressure sensors; analog/digital inputs, relay outputs, GSM module and a handy memory stick for programming the control and the readout of the protocols - we are flexible!

The Sequetrol is also available with features, such as, acoustic signaling of predefined conditions, a sequence program permanently stored in the EEPROM and additional EEPROM memory for event-logging. To ensure continuous signaling and operation of the GSM module during power outage a set of NiMH rechargeable batteries can be supplied.

Attribute	Value
ns (l x w x h), weight	83 x 179 x 190 mm; 1,5 kg
Ambient temperature	-20°C bis +55°C
Protection classification	IP 54
Functions, sequence program, alarms, GSMcommunication, display messages (also foreign-languages)	All according to customer request and requirement. Sequence programs are designed and adapted by the wastewater treatment plant manufacturer by means of a clear and easy-to-use PCsoftware.
Display / LED	According to customer request, illuminated (backlit) graphical or alphanumeric LCD, alternatively numeric LED display (e.g. 6-digit) Additionally up to 3 LED (colors as requested)
Signal-input	Up to 4 x digital inputs or a combination of digital and analog (0-10V) inputs
Data interface	RS-232 (optional RS-485)
Electrical output	According to customer request, up to 8 relays 230V / 300VA + 1 x low voltage
Power supply during mains failure	4x mignon batteries, optionally NiMH rechargeable batteries (size AA)
Power supply	230 VAC, 6 VA max.