



Powerful programmable controller for small SBR sewage treatment plants with an integrated valve unit and an onboard webserver

- 4 stepper-motor valves
- Up to 4 relay outputs
- Wi-Fi module and web-server onboard
- GSM as an option
- Easy to install and connect
- IP53 casing, optionally UV – resistant for outdoor installation

### Why use the BonBloc® IoT?

- Cost efficient, reliable and quiet solution thanks to the integration of the control unit and stepper motor valves
- Operate the control unit by phone / tablet / touchscreen via browser (no application needed) and Wi-Fi or GSM
- Receive an email in case of any alarms
- Analyze your plant using the detailed event log showing all relevant parameters, including pressure, in- and output states, remaining times etc.
- Control the water level in multiple tanks at different levels using the integrated pressure sensor plus an airlift or a diffuser
- Program your process and menu on your own with the user-friendly PC tool MenuMaker and update it via USB, Wi-Fi or GSM
- Store and select multiple programs for different plant types and sizes



Wolkerova 38  
350 02 Cheb  
Czech Republic  
[www.bonnel.eu](http://www.bonnel.eu)

## BonBloc® IoT details

The *BonBloc® IoT* integrates both, a powerful controller and quiet and reliable valves into a compact and **easy to install device** at a competitive price. It belongs to a new generation of control units developed to meet the requirements of the **Internet of Things (IoT)** and **Smart Home**.

The *BonBloc® IoT* comes with features as acoustic signaling of predefined conditions, **USB, Wi-Fi or GSM for updates** and non-volatile memory for event-logs. To ensure continuous acoustic and optical signaling during power outage, a **set of NiMH rechargeable batteries** powers the alarm buzzer and the **optional BonFlash LED alarm beacon**. All electrical connections are implemented using cost-effective and universally compatible screw type terminals.

Instead of conventional solenoid valves the *BonBloc®* uses reliable stepper motors from the automotive industry. Why stepper motors? First, they are saving 95% of energy when compared to conventional valves. Secondly, our **valves are much quieter** than solenoid actuated valves.

### Integrated webserver

The integrated webserver of the *IoT* controller series allows you to **operate the treatment plant and to access all information with any browser**.

Imagine, you'd like to service a plant and the owner of the building is not at home—simply **access via Wi-**

**Fi without entering the building.**

Imagine, your plant has some troubles and you don't like to go hundreds of kilometers—simply **connect via GSM and operate, analyze and update the plant.**

### Create sophisticated processes

With the *BonBloc® IoT* there are no limits to your ideas. BONNEL's PC software *MenuMaker* enables you to program even the most complex processes and menus without being a programmer. The *IoT* controller supports **multiple, connected programs, calculations within the process, analogue water level evaluation, automatic switching-off of airlifts, user defined alarm conditions, timers, counters and much more.**

### Create creative business models

The IoT platform can help you to create new business models.

- ⇒ Do you want to **rent your plants**? Block the plant automatically when no payment is arriving.
- ⇒ Do you want to **reach remote areas**? Control and monitor your plant remotely.
- ⇒ Do you want to do **PPP or provide water treatment as service**? Prove your plant is running well connecting sensors to the analogue input and transfer all data to telemetry servers in the cloud.

### Technical data

Attribute	Value
Dimensions (l x w x h); weight	118mm x 214mm x 181mm; 1.9kg
Ambient temperature	-20°C to +50°C
Protection classification / UV-Resistance (casing)	IP 53 (outdoor installation) / UV-resistant casing as option
Functions, sequence program, alarms, GSM-communication, display messages (also multilanguage)	All according to customer request and requirement. Sequence programs are designed and adapted by means of a clear and easy-to-use PC-software <i>MenuMaker</i>
Display / LED	Backlit graphical LCD (128 x 64); 3 LED (red, yellow, green)
Outputs	4x valves: Air inlet 3/4", air outlets 1/2" Up to 4x 230VAC, 350VA relay outputs (max. total current 3.15A) Digital output for alarm forwarding or communication 5VDC alarm lamp output for <i>BonFlash</i> alarm lamp (battery-backed)
Inputs	3x digital inputs; pressure sensor 0-450mbar; current sensor*
Data interface	USB; Wi-Fi (AP and/or STA mode); GSM* (2G)
Power backup during mains failure	2x AA rechargeable battery plus gold-cap for RTC
Power supply	230VAC, 15W max.

\* According to selected equipment