



Powerful control unit (SBR & continuous plants) with on-board Wi-Fi connectivity and GSM as module

Different hardware versions / casings available

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- Up to 8 relay outputs, up to 3 digital inputs
- 4-20mA analogue input
- Graphical LCD
- Wi-Fi and webserver on-board, GSM as an option
- Water-level control for multiple tanks at multiple levels using pressure sensor

Why use the Sequetrol® IoT?

- **Operate** it by phone / tablet / touchscreen **via browser** (no app installation required)
- Connect into the world of **PLC / SCADA via HTTP-REST**
- Receive an **email in case of any problems**
- Run **SBR and continuous processes parallel in one control unit**, e.g. for duplex buffer-pump operation
- Measure **water level by pressure sensing** - via different airlifts / diffuser / bubbling-in
- Build even a **complex wwtp** with 8 relay outputs, 3 digital inputs, a 4-20mA analogue input and optional current measurement
- **Program your process and menu on your own** with the user-friendly and fast PC tool *MenuMaker*
- Analyze your plant using the **detailed event log** showing all relevant parameters, including pressure, in- and output states, remaining times etc.



Sequetrol® IoT maxi



Sequetrol® IoT mini



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Sequetrol® IoT details

The *Sequetrol® IoT* belongs to a new generation of control units developed to meet the requirements of the Internet of Things (IoT) and Smart Home. It combines the possibility to handle even the most complex sewage treatment processes with connectivity and remote operability.

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 you would like to operate a big plant with a touchscreen—simply add a standard tablet to the control cabinet and connect via Wi-Fi.

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

HTTP-REST interface

REST using JSON over HTTP is a widely used standard for M2M communication. The control unit can thus be integrated into any code base that can communicate over HTTP, including .NET, Java, Python, scripting environments like PHP or JavaScript, and more! Like this, an **efficient data exchange between the control unit and telemetry servers, PLC and SCADA devices** is possible.

Technical data

Attribute	Value
Dimensions (l x w x h); weight	<i>Sequetrol® IoT maxi</i> : 166mm x 182mm x 83mm; 1.2kg <i>Sequetrol® IoT mini</i> : 151mm x 125mm x 91 or 61mm; 0.9kg
Ambient temperature	-20°C to +55°C
Protection classification / UV-Resistance (casing)	IP 53 / 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 (colors as requested)
Outputs	<i>IoT maxi</i> : 8x 230VAC, 300VA relay outputs, max. total current 700VA Digital output for alarm forwarding or communication <i>IoT mini</i> : 4x 230VAC, 300VA relay outputs, max. total current 700VA Both: 5VDC alarm lamp output for <i>BonFlash</i> alarm lamp (battery-backed)
Inputs	3x / 2x (<i>maxi</i> / <i>mini</i>) digital inputs; analog input 4-20mA; pressure sensor 0-400mbar; current sensor*
Data interface	USB; Wi-Fi (AP and/or STA mode); GSM* (2G)
Power backup during mains failure	2x AA rechargeable battery or* alkaline battery plus gold-cap for RTC
Power supply	230VAC, 6W max.

Create sophisticated processes

With the *Sequetrol® IoT* there are no restrictions 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.

You can even **combine SBR and continuous processes** within one control unit to design innovative cleaning processes or to **run your buffer pump in duplex mode while cleaning the sewage**.

Create new business models

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

You want to rent your plants? **Block the plant automatically when no payment is arriving**.

You want to compete with big plants? **Connect to SCADA and offer touchscreens**.

You want to reach remote areas? Control and monitor your plant remotely.

You want to do **PPP** or provide **cleaning as service**? Prove your plant is running well connecting sensors to the analogue input and **transfer all data to telemetry servers in the cloud**.

* According to selected equipment