Sequetrol starter plus

Sequetrol® starter plus:
Budget-price control unit for MBBR sewage treatment plants - available with GSM alarm forwarding

→ 3 outputs 230V + output for *BonFlash* alarm beacon; digital input

→ Day-, night-, and holiday-mode helps to save energy expenses

→ Innovative valve monitoring

→ Blower monitoring by pressure and / or current sensing

Why use the Sequetrol® starter plus control unit?

- Outstanding price-performance ratio

- *Sequetrol® starter plus* monitors the proper function of connected valves

- Blower monitoring by pressure and / or current

- Submersible pumps or similar consumers can be monitored by current sensing

- Detailed event log eases servicing

- "Cash-Lock" function - the control unit stops the plant after a predefined number of days if no PIN is entered. The PIN is provided to the customer as soon as the payment is fulfilled.

- Special eco-mode can be easily activated during night / weekend / holiday

- Menu structure adaptable to customer needs

- Acoustic mains failure alarm according to special German requirements

BONNEL TECHNOLOGIE

Wolkerova 38
350 02 Cheb
Czech Republic
www.bonnel.eu

Sequetrol® starter plus details

The *Sequetrol® starter plus* is designed as a highly comfortable and adaptable control unit with the price of an entry level device. The innovative valve monitoring function, that meets even future versions of the EN 12566-3 European standard, as well as the detailed event log, qualify the *starter* as a perfect control unit for fixed bed and MBBR plants.

Versatile monitoring functions

The *Sequetrol® starter plus* offers a unique, reliable, self-learning monitoring for solenoid valves. This is realized by the accurate, in-build pressure sensor. The control unit will detect both, a valve that does not open and a valve that does not close. Even if two 3/2 valves are operated.

The blower can be either monitored by an accurate pressure sensor or by current measurement.

Connected pumps or other consumers, where pressure measurement does not make sense, can be monitored by the current measurement sensor.

Event log

The *Sequetrol® starter plus* contains a detailed event log, that stores the events together with the time & date of the occurrence, the in- and output state and the measured pressure.

The logged events are: Mains failure, low battery, high water level (via float switch and digital input), low and high pressure, valve function (opening and closing), and Cash-Lock (see next paragraph).

"Cash-Lock" function to enhance payment behavior

Most customers pay in time - but some don't. If you want to avoid time and trouble solving these issues, you can use the so-called "Cash-Lock" function. If no payment is received, the control unit stops the plant after a predefined number of days. As soon as you receive payment, you send the customer a unlock PIN . If the unlock PIN is entered within the due date, the control unit won't stop the plant. Simple and efficient!

Output timing parameters and ECO-modes

To save blower runtime and thus energy, it's possible to distinguish between reduced, normal and holiday load. For example during holidays or weekends the blower ON times can be reduced. This ECO-mode can be programmed for nighttime or weekends respective weekdays. Moreover, for holidays the length of the absence can be entered to keep the ECO-mode active during this period.

Menu structure

The full menu structure is adaptable according to your needs.

Some examples: It's up to you if the serviceman can delete the operating hours of the particular outputs. You decide if the end customer can operate the outputs manually. Do you want to allow servicemen to change the ON/OFF times of the outputs?

Like this, every sewage treatment plant manufacturer will get the control unit he needs.

Technical data

Attribute	Value
Dimensions (l x w x h); weight	150 x 145 x 62mm; 0.75kg
Ambient temperature	-15°C to +50°C
Protection classification	IP32 without mains plug plugged into electrical socket; P42 with
Display / LED	Illuminated (backlit) alphanumeric LCD / 2 LED
Signal-input	1x digital input for float switch
Pressure / current sensor	0 - 500mbar / 20 - 3,000mA
Electrical output	Max. 3x relay 230V; max. 320VA (blower) or 550VA (resistive load) Max. 700VA total (outputs 1 + 2 + 3) 1x low voltage alarm (5V / 50mA max.) for *BonFlash*
Power supply during mains failure	1 X NiMH rechargeable battery (size AA) 1x CR2032 3V Lithium battery for RTC backup lithium rechargeable battery for GSM (Q3/2019)
Power consumption control unit	230VAC, 3.5W