

iTOXcontrol



Integrated On-line Wastewater Toxicity Monitor

Automatic waste water toxicity monitoring with the iTOXcontrol helps to control your process

- Monitors the toxicity of the influent going into, and the effluent going out of the biological treatment plant.
- Integration of different sensors like the scan uv-vis sensor (optional) to combine and automatically correlate with TOC, COD, BOD, UV, Nitrate and turbidity results.
- Information can be sent to an internet data base or SCADA system to support decision making for alarm monitoring and modelling.
- Integration of (optional) on-line Solid Phase Extraction for additional concentration of the sample up to 1.000 x

Why wait days for your toxicity results when you can run it fully automatic and have more control over your waste water treatment process.

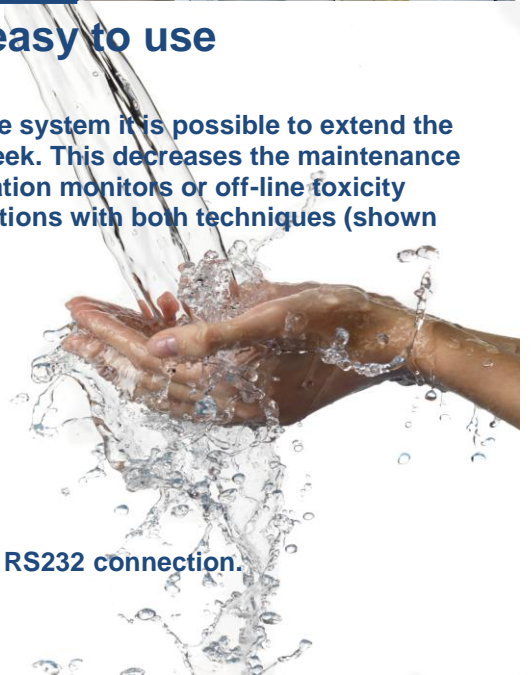


Low maintenance and easy to use

By integrating all the reagents into the system it is possible to extend the maintenance cycle to 1 hour every week. This decreases the maintenance costs, compared to traditional respiration monitors or off-line toxicity testing, but still offering good correlations with both techniques (shown in many applications).

Specifications of the new iTOXcontrol:

- Small footprint: 50x50x 183 cm (D x W x H).
- Communication : integrated 4-20 mA signal, TCP/IP
- Optional: modem for telephone connection or additional RS232 connection.
- Very reliable, low running & maintenance cost.
- TOXview software for data acquisition & evaluation.
- Can run completely independent for 1 week.



iTOXcontrol



Integrated On-line Toxicity Monitoring System



The new toxicity monitor from microLAN is called the iTOXcontrol and it includes:

- Integrated and automated cultivation of the bacteria inside of the instrument.
- Information can be sent to an internet database to support decision making for alarm monitoring and modelling.
- Integration of (optional) on-line Solid Phase Extraction for additional concentration of the sample up to 1,000x
- Integration of different sensors like the scan uv-vis sensor (optional) which creates a combined system for Early Warning and Water Quality Monitoring.

Extended maintenance cycle

By integrating the cultivation of the bacteria into the iTOXcontrol, it is possible to extend the maintenance cycle to 1h every 2 weeks. This also decreases the usage of bacteria to 50%. The bacteria in the second supply part are automatically cultivated so that there is always fresh bacteria available which react quicker and better to possible



Specifications of the new iTOXcontrol:

- Smaller footprint: 50x50x 183 cm (D x W x H).
- Communication : integrated 4-20 mA signal, TCP/IP
- Optional: modem for telephone connection or additional RS232 connection.
- Very reliable, low running & maintenance cost.
- TOXview software for data acquisition & evaluation.
- Can be used with automatic, in-line dechlorination.
- Optional uv-vis sensor (scan) for TOC, BOD, turbidity, SAC254, NO3-N.

Specifications



- Sample temperature: 15 - 30 degrees C.
- Working conditions (room temperature):
 - a. Standard: 15 - 30 degrees C.
 - b. Optional: 30 – 40 degrees. C. with additional cooling unit.
- Communication:
 - a. standard: TCP/IP, Analog output: 4 – 20 mA
 - b. optional: external USB modem 56k
 - c. optional: External COM port for MODBUS data communication.
- Cabinet: protection class IP 31.
- Sample water: \pm 10 ml/h (4,5 ml per measurement, 2 per hour)
- Reference water: \pm 100 ml/h per measurement, not chlorinated, optional dosage with a magnetic valve.
- In-line, automatic dechlorination is possible
- Connections:
 - a. Drain : waste and positive control: 20 mm (external)
 - b. Feed : sample and reference: 4 mm (external, for silicone tubing)

Hardware:

The iTOXcontrol is placed in a ventilated cabinet:

- Size: 50 x 50 x 110 cm (DxWxH), with trolley an extra 73 cm.
- Weight: \pm 90 kg (+ 20 kg with optional air-conditioning)
- Housing with glass front door, can be locked for protection.
- Build-in PC with keyboard and touchpad, DVD reader/writer.
- 17 inch TFT screen, Ethernet Controller, COM port and USB connectors
- Power: 220V - 50 Hz or 110V - 60Hz.

Software:

The TOXcontrol Engine software runs under Windows XP and controls all the settings of the instrument. The TOXview data collection software is used for or calculations, settings and the use of alarm levels. The status of the instrument is displayed at the Status page of the software. The iTOXcontrol instrument is performing the instructions given by the TOXcontrol Engine. The different settings for the instrument as the readings for calculations using variable data given by the user, are loaded when the program is started. The required data for evaluation purposes or for obtaining a history file, will be saved during a run in the TOXview database. Graphic charts are developed or changed using TOXview, which can be selected in the Graph page.