



MODERNWATER

CTM™ Continuous Toxicity Monitoring Early Warning System

Online Real-Time Detection of Toxic Agents in Water and Wastewater

DIMENSIONS: 60 CM WIDE, 94 CM HIGH, 45 CM DEEP



Monitoring of water toxicity using biosensors has become a widely accepted technique. Bacterial biosensors offer simple and reproducible tests that can be automated, with reagents that can be stored. Biosensor tests using bioluminescent bacteria have been in use for 30 years and their capability in detecting toxic substances is well understood but existing tests are offline or intermittent and require high levels of skilled operator intervention. The new CTM™ Continuous Toxicity Monitor makes fully automatic, continuous, on-line testing a reality.

SPECIFICATIONS

Sample Requirement	200 ml/h at ambient pressure. Fast sampling loop available if required
Sample Temperature	1-30°C (automatic temperature correction)
Connections	2.2mm tube with luer couplings
Electrical	230V 50Hz AC 250W
Control system	Industrial PLC
Display	Colour 120x90mm touch sensitive
Communications	Ethernet, USB port for data download
Communications options	4-20 mA loop, relay alarm output(s)
Consumables	Replaced every 4 weeks
Auto Calibration Interval (control/blank)	User settable between 3 and 24 hours
Standard	5 mg/l zinc sulphate
Maintenance	2 hours per month
Waste volume	120 l/month – non-toxic, suitable for soak-away
Autosampler	Takes samples on positive alarm (optional)
Weight	60kg (approx)
Dimensions (main enclosure)	985x590x460mm (HxWxD)
Housing	Ventilated housing IP44



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Name

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Title

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Telephone

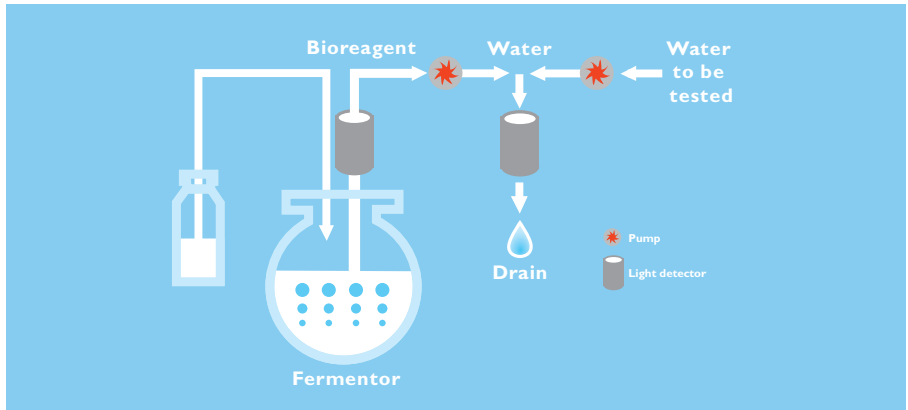
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CTM™ explained

How the test works

Certain strains of bacteria emit light when healthy. When they are exposed to toxic substances, the amount of light emitted reduces. The greater the toxicity of the sample, the lower the light emitted. This has been shown over many years to be a reproducible effect. Measuring changes in light between healthy bacteria and bacteria exposed to toxic substances will therefore indicate presence in a water sample.

What it detects

The CTM™ Continuous Toxicity Monitor automatically and simultaneously detects a broad range of toxicants including metals, pesticides, fungicides, herbicides, chlorinated solvents, industrial chemicals, algal toxins. The presence of harmful contaminants in waters and wastewaters is detected without having to monitor for a wide range of specific chemicals.

Applications include

- Deliberate and accidental contamination events
- Water intake protection
- Potable and make-up water quality at point of use
- Monitoring of rivers, lakes, reservoirs, seawater
- Industrial effluent monitoring
- Groundwater monitoring / natural attenuation
- Wastewater recycling
- WWTP influent monitoring

Features

- Real time and truly continuous monitoring
- Continuous unsupervised operation for 1 month
- No manual intervention except for monthly maintenance (2 hours per month)
- Reagents can be stored at room temperature
- Automatic diagnosis of system faults
- Remote control, data analysis and troubleshooting
- Detects thousands of chemical compounds at lower levels of contamination than most other biosensor systems
- Option to test multiple water sources
- Operating costs not dependent upon no. of tests

WHERE CAN CTM™ BE USED?



DRINKING WATER INTAKE



INDUSTRIAL DISCHARGES/ RECYCLING



HIGH SECURITY BUILDINGS/ DISTRIBUTION



ALGAL TOXINS



OIL WELL DISCHARGES



POTENTIAL TERRORIST TARGETS

MORE INFO:

www.ctm-tox.co.uk
or call +44 1483 696 000

Part of the Modern Water Group