

Configurations

The **BACTI-Station** and **BACTI-Station Pro** have been designed for outdoor operation, with the UviLux fluorometers either fitted within a water trough or mounted in flow-through manifolds for in-line operation. A single cable connects the UviLux fluorometers to the Watchkeeper display and logger unit, which is powered from a 24 Vdc supply. Signal inputs are presented on the screen and up to **three 4 – 20 mA signals** can be accessed for data system networking. Audible alarms or control valves can be fitted and programmed to alert or activate when signals exceed user-set thresholds.

Data is recorded onto a **2 Gbyte memory card**. Data can be downloaded via a USB cable, or by removal of the memory card.

Specification

UviLux Fluorometer

Size	Ø70 x 150 mm
Weight	800 g
Pressure rating	60 bar

UviLux Performance

	Tryptophan	CDOM
Sensitivity (QSU)	0.01	0.01
Calibrated range (QSU)	600	600
Example compound: sensitivity - range (ppb)	Tryptophan: 0.02 – 1200	PTSA:* 0.02 – 900

*PTSA is pyrene tetrasulphonic acid

BACTI-Station, single UviLux fluorometer with Flow Manifold

Size	Ø130 x 200 mm
Weight	2.5 kg
Fluid connections	Union, 20mm, PN16
Pressure rating	4 bar
Max operating temp.	55 °C

BACTI-Station Pro, two UviLux fluorometers with Flow Manifolds

Size	265 x 200 x 200 mm
Weight	5 kg
Fluid connections	Union, 20mm, PN16
Pressure rating	4 bar
Max operating temp.	55 °C

Watchkeeper display and logger

Display	320 x 240 pixel qVGA backlit LCD
Display size	70 x 50 mm
Size	200 x 110 x 60 mm
Weight	900 g
Memory capacity	2 Gbyte
IP rating	IP67
Voltage input	24 Vdc
Power	2.8 W @ 24 Vdc 4.6 W @ 24 Vdc (Pro)
Temperature range	-20 °C to 55 °C

Contact us today to see how we can help you

BACTI-Station and BACTI-Station Pro



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BACTI-Station systems provide real-time, highly sensitive measurements for assessing bacteria levels.



Applications

- Faecal Indicator (FI) monitoring
- Assessment of bathing & shellfish waters
- Filter bed management
- Groundwater quality monitoring
- Plant loading assessments from river abstractions



Clarity in Water

In view of our continual improvement, the designs and specifications of our products may vary from those described.

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What can the BACTI-Station do for you?



How does it work?

Introduction

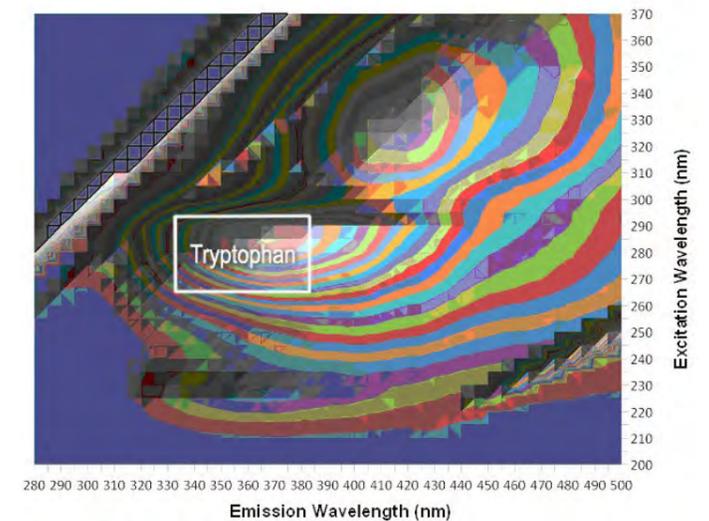
CTG's **BACTI-Station** and **BACTI-Station Pro** systems allow laboratory managers, process scientists and engineers to assess real-time levels of bacteria in water systems. This is achieved by detecting UV Tryptophan fluorescence, which has been shown to correlate with bacterial levels.

The **BACTI-Station** comprises of a CTG UviLux fluorometer and a Watchkeeper wall mounted data display and logger. CTG's UviLux fluorometers detect UV fluorescence with industry-leading sensitivity and selectivity and have been optimised for minimal interference from water turbidity.

Data is displayed on the Watchkeeper's **colour touchscreen** and is logged internally. Up to **three 4 - 20mA outputs** are provided for data transmission.

CTG's **BACTI-Station** and **BACTI-Station Pro** detect UV fluorescence from amino acids and organic matter associated with the presence of bacteria. These compounds absorb UV light and re-emit a fraction of this energy as fluorescence at longer wavelengths. Fluorescence intensity is directly proportional to concentration. The technique is **widely recognised** as one of the **most sensitive detection methods** available.

Tryptophan is an essential amino acid in the human diet and is the main component of protein fluorescence. Recent work has indicated that Tryptophan fluorescence can be used to assess bacterial levels, which in environmental waters will often arise from faecal/sewage contamination. Therefore, high levels of Tryptophan fluorescence will **alert to when sewage impacts on water quality**, for example when monitoring Bathing Waters.



Fluorescence map of an environmental water sample spiked with Tryptophan, indicating BACTI-Station measurement window

★ Features

- Real-time indication of bacteria levels (in µg/l of Tryptophan)
- Automated data logging (2Gbyte storage capacity)
- 4 – 20mA output for data export in real-time
- Relay for audible alarm or control valves
- In-line flow-through operation with standard pipefittings
- High sensitivity

Provides instant measurements of water-borne bacteria avoiding lengthy, potentially costly, delays in obtaining laboratory results



i BACTI-Station and BACTI-Station Pro

The **BACTI-Station** comprises a single CTG UviLux Tryptophan fluorometer and a Watchkeeper wall mounted data display and logger. The **BACTI-Station Pro** includes an additional UviLux sensor for discriminating Tryptophan fluorescence from Coloured Dissolved Organic Matter (CDOM). This is particularly useful when CDOM background levels are high or when correlating Tryptophan concentrations across a wide range of locations where background CDOM levels are varying.

