Hach BioTector B3500c Online TOC Analyzer

Applications

- Industrial Condensate Water
- Cooling Water
- Boiler Water

Maximum uptime and reliability for TOC analysis in condensate applications

Using patented technology, only requiring scheduled maintenance every 6 months, allowing for dual stream monitoring, and having one of the most compact analyzer footprints, the Hach® BioTector B3500c delivers 99.86% uptime in condensate applications with the lowest operating cost.

Worry-free TOC

With a patented Two Stage, Advanced Oxidation Technology system, the B3500c provides you with maximum reliability and uptime, without sacrificing accuracy.

Lowest Cost of Ownership

Requiring you to replenish reagents, replace the pump tube, and calibrate only twice a year, the Hach BioTector B3500c has the lowest operating cost available.

Small Footprint = Critical Wall Space Savings

With one of the most compact analyzer footprints, this analyzer frees up wall space for other needed instruments.

Reagent Costs that Don't Kill the Bottom Line

By only needing to replenish reagents every six months, you will see direct bottom line savings in comparison to other systems requiring bi-weekly or monthly replacements.

One Instrument for Multiple Streams

Providing the ability to monitor two streams sequentially, eliminates the double-cost of needing two separate analyzers.

HACH®
Be Right™

Technical Data*

Ambient Temperature	5 - 45 °C
Communication	Modbus RTU, Modbus TCP/IP & Profibus (when the Profibus option is selected, the digital output signals are sent through the Profibus converter with its specific communication protocol) Except for Zone 1 certification then Modbus RTU, Modbus TCP/IP & Modbus TCP/IP Redundant is available
Cycle Time	From 5.5 minutes, depending on range and application
Parameter	Direct measurement of Total Organic Carbon, Total Inorganic Carbon, Total Carbon Chemical Oxygen Demand, Biological Oxygen Demand via correlation Volatile Organic Carbon via calculation
Data Storage	Previous 9999 reaction data
Dimensions (H x W x D)	750 mm x 500 mm x 320 mm
Display	High contrast 40 character x 16 line backlit LCD with LED backlight
EExp / Hazardous Location	Certification options are available to European Standards, (ATEX Zone 1, Zone 2), North American Standards (Class I Division 2) and IECEx Zone 1
Humidity	5 - 85 % (non-condensing)
Measurement Method	Infrared measurement of CO_2 after oxidation (DIN EN 1484:1997-08, ISO 8245:1999-03, EPA 415.1)
Range	0 - 25 mg/L C, 0 - 100 mg/L C
Multi-Stream	Up to 2 process streams and grab sample
Oxidation Method	Patented Two-Stage Advanced Oxidation Process (TSAO) using Hydroxyl Radicals
Particle Size	Up to 100 µm
Power Requirements (Voltage)	230 V AC
Power Requirements (Hz)	50 Hz
Range Selection	Automatic or Manual Range Selection
Repeatability	0 - 25 mg/L C: ±3% of reading or ±0.03 mg/L, whichever is greater; 0 - 100 mg/L C: ±5% of reading or ±0.5 mg/L, whichever is greater
Sample Inlet Temperature	0 - 60 °C
Service Interval	6 month service intervals
User Interface	Microcontroller with membrane keyboard
Weight	46 kg (enclosure weight may change depending on system optional features)
Protection Class	IP44, standard fan cooled, maximum ambient temperature 45 °C (113 °F) IP54, air cooled, maximum ambient temperature 35 °C (95 °F) IP54, vortex cooled, maximum ambient temperature 50 °C (122 °F)

**Subject to change without notice.*

Principle of Operation

TIC

Acid is added to lower the pH so that inorganic carbon is sparged off as CO_2. This is also measured to ensure the Total Inorganic Carbon (TIC) in not carried over into the TOC.

Oxidation

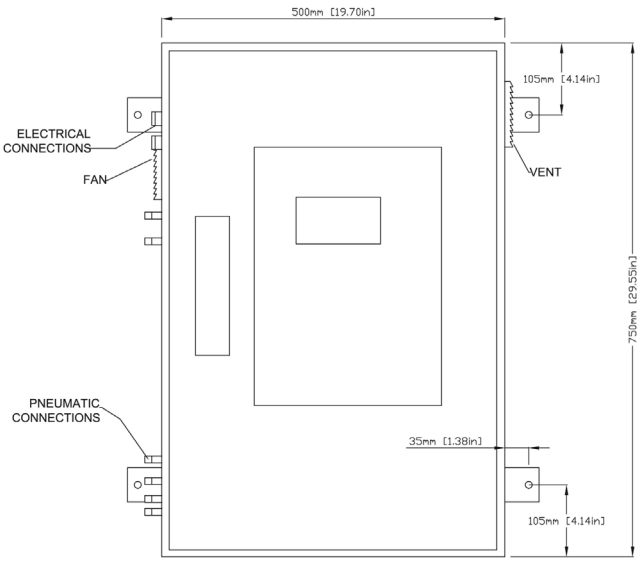
BioTectors's patented oxidation method (TSAO) efficiently oxidizes the organic carbon in the sample to CO_2. TSAO utilizes hydroxyl radicals generated within the analyser by combining oxygen, which passes through the ozone generator, with sodium hydroxide.

TOC

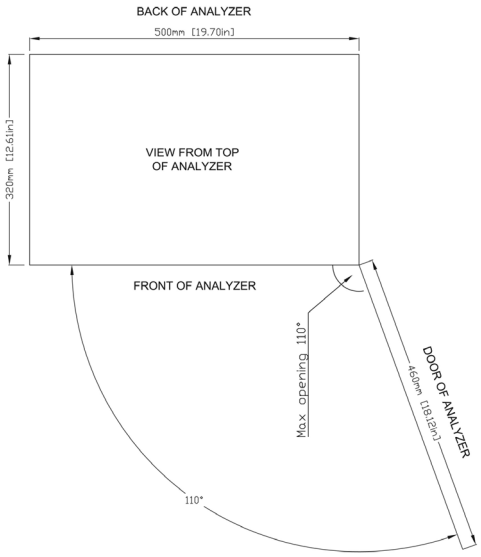
To remove CO_2 from the oxidized sample, the pH of the sample is lowered again. The CO_2 is sparged and measured by the specially developed NDIR CO_2 analyzer. The result is displayed as Total Organic Carbon (TOC).

Dimensions

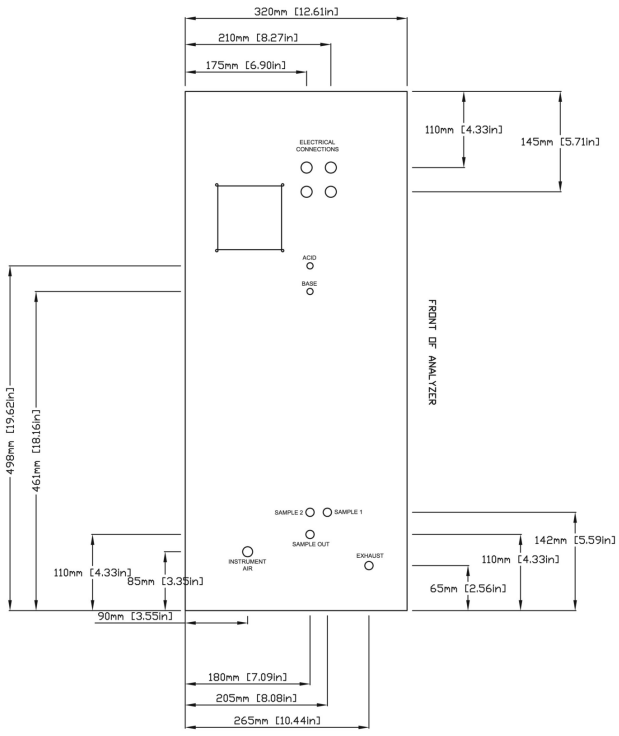
Front View



Top View



Side View



Panel Detail

Order Information

Instruments

B5ACAA152AAC2	Hach BioTector B3500c TOC analyzer, 0-25 ppm, 1 stream, grab sample, 115 V AC
B5AFAA152AAC2	Hach BioTector B3500c TOC analyzer, 0-25 ppm with 0-100 ppm range extension, 1 stream, grab sample, 115 V AC
B5ACAA152AAF2	Hach BioTector B3500c TOC analyzer, 0-25 ppm, 2 streams, grab sample, 115 V AC
B5AFAA152AAF2	Hach BioTector B3500c TOC analyzer, 0-25 ppm with 0-100 ppm range extension, 2 streams, grab sample, 115 V AC

There are additional options available. Please contact Hach for more details.

Accessories

19-COM-160	BioTector Compressor 115 V / 60 Hz
19-COM-250	BioTector Compressor 230 V / 50 Hz
10-SMC-001	Air supply filter pack
19-KIT-123	Six months spare part kit for BioTector B3500

Reagents

2038062	BioTector Reagent, 4.0 N NaOH
2038162	BioTector reagent, 6.0 N sulfuric acid with Mn catalyst

Hach Service Protects Your Investment

With Hach Service, you have a global partner who understands your needs and cares about delivering timely, high-quality service you can trust. Our Service Team brings unique expertise to help you maximize instrument uptime, ensure data integrity, maintain operational stability, and reduce compliance risk.

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