

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.



Be Right™

Technical Data*

Ambient Temperature	5 to 45 °C (41 to 113 °F)	Oxidation Method	Patented Two-Stage Advanced Oxidation Process (TSAO) using Hydroxyl Radicals
Communication	Modbus, Profibus DP, Ethernet	Particle Size	Up to 100 µm
	Via add on module via converter	Power Requirements (Voltage)	115/230 V AC
Cycle Time	From 5.5 minutes, depending on range and application	Power Requirements (Hz)	50/60 Hz
Parameters	Direct measurement of Total Organic Carbon, Total Inorganic Carbon, Total Carbon	Range Selection	Automatic or Manual Range Selection
	Chemical Oxygen Demand, Biological Oxygen Demand via correlation	Repeatability	0 - 25 mg/L C: ± 3 % of reading or ± 0.03 mg/L, whichever is greater;
	Volatile Organic Carbon via calculation		Lower limit of detection LOD = 0.06 mg/L
Data Storage	Previous 9999 reaction data		Exceedance tracking 0 - 100 mg/L C: ± 5% of reading or ±0.5 mg/L, whichever is greater
Dimensions (H x W x D)	750 mm x 500 mm x 320 mm	Sample Inlet Temperature	0 to 60 °C (32 to 140 °F)
Display	High contrast 40 character x 16 line backlit LCD with LED backlight	Service Interval	6 month service intervals
EExp / Hazardous Location	Certification options are available to North American Standards (Class 1, Div 2) and EU Standards (ATEX Zone 2)	User Interface	Microcontroller with membrane keyboard
Humidity	5 to 85 % (non-condensing)	Weight	101.41 lbs. (46 kg)
Measurement Method	Infrared measurement of CO ₂ after oxidation (DIN EN 1484:1997-08, ISO 8245:1999-03, EPA 415.1)	Protection Class	IP44, standard fan cooled, maximum ambient temperature 45 °C (113 °F)
Range	0 to 25 mg/L C, with Exceedance tracking up to 100 mg/L C		IP54, air cooled, maximum ambient temperature 35 °C (95 °F)
Multi-Stream	Up to 2 process streams and grab sample		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 CO₂. This is also measured to ensure the Total Inorganic Carbon (TIC) is not carried over into the TOC.

Oxidation

BioTectors's patented oxidation method (TSAO) efficiently oxidizes the organic carbon in the sample to CO₂. TSAO utilizes hydroxyl radicals generated within the analyser by combining oxygen, which passes through the ozone generator, with sodium hydroxide.

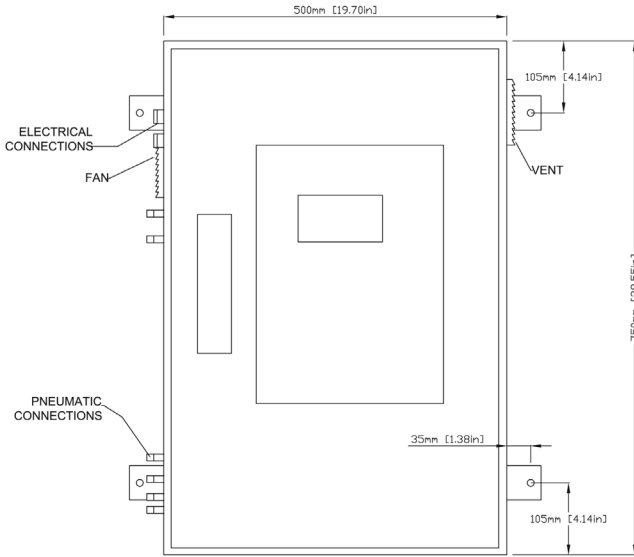
TOC

To remove CO₂ from the oxidized sample, the pH of the sample is lowered again. The CO₂ is sparged and measured by the specially developed NDIR CO₂ analyzer. The result is displayed as Total Organic Carbon (TOC).

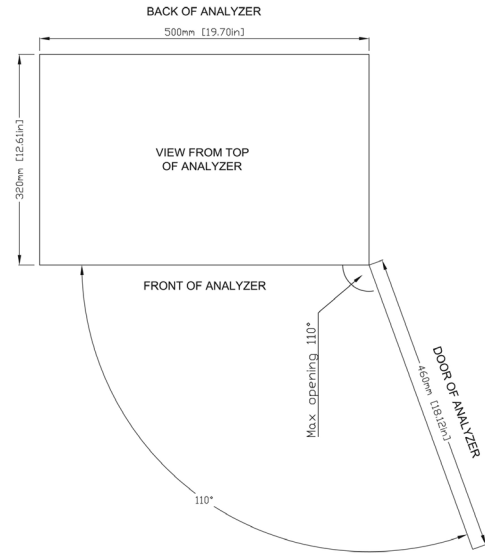


Dimensions

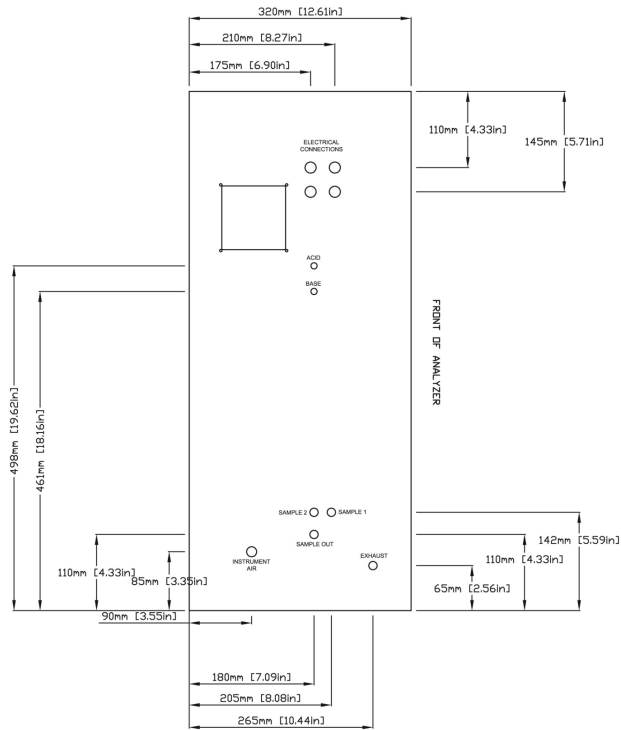
Front View



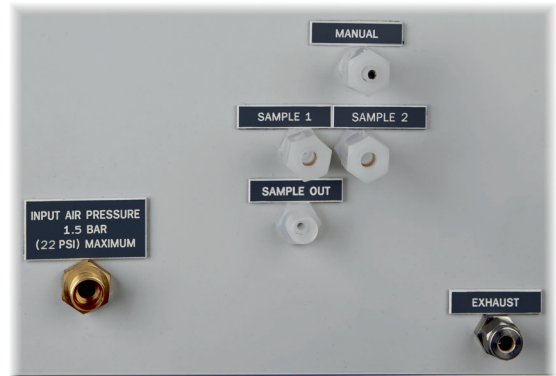
Top View



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** B3500 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

Be certain in your measurements with a first class Service Partner. Be confident with Hach Service.

By having regular on-site preventative maintenance and calibration, you maximize your measurement reliability and instrument uptime. Hach Service Programs give you full assurance that your instruments stay in compliance, and you stay within your budget.

Start-Up:

Commissioning will ensure you get the best performance from your instrumentation from the first day you use it.

Service Agreements:

Hach offers a wide range of service agreements that can be tailored to you to help maximize your measurement reliability and instrument uptime.

Contact us to get a service offering designed for you.

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