

HACH BIOTECTOR B3500e TOC ANALYZER



Applications

- Discharge Control
- Wastewater Effluent
- Ground Water / Raw Surface Water
- Storm Water / River Water
- Carbon Bed Absorber
- Cooling Water

Highest reliability in TOC analysis for water control meets low cost of ownership.

The Hach® BioTector B3500e delivers the market leading, patented self-cleaning technology to provide accurate on-line TOC analysis. With 99.86% certified uptime the B3500e delivers maximum availability for reliable results. Ideal for water control, the B3500e helps you to be compliant while minimizing your operating costs.

Ensure environmental compliance.

The B3500e is tailor-made for monitoring final wastewater effluent and discharges to meet TOC requirement in water regulations. Being regulatory compliant will save you significant penalty costs while protecting the local environment.

Save with low ownership costs.

Requiring you to replace the pump tube and calibrate only twice a year, the Hach BioTector B3500e provides low operating expenses.

Worry-free TOC with smart design.

The B3500e comes with a built in self-cleaning sample tube and reactor. This enables the B3500e to deliver trustworthy results even if your water contains some level of fat, oil, greases and sludge or has moderate pH swings.

Information you can rely on.

Using BioTector's internationally proven and patented Two Stage Advanced Oxidation technology, the B3500e delivers maximum uptime, reliability and accuracy.

Access your results from everywhere.

With the B3500e TOC results can be viewed at your desk, your home, or while you are on the move with the BioTector Network Control Unit remote access.

Technical Data*

Parameters	Measures TOC, TIC and TC
Range	0 to 250 mg/L C or 0 to 1000 mg/L C
Range Selection	Automatic or manual range selection
Repeatability	Standard range $\pm 3\%$ of reading or ± 0.45 mg/L C (ppm), whichever is greater
Measurement Method	Infrared measurement of CO ₂ after oxidation
Oxidation Method	Patented Two-Stage Advanced Oxidation Process (TSAO) using Hydroxyl Radicals
Number of sample streams	Single process stream and manual grab sample
Cycle Time	Typically 7 minutes 30 seconds
Exceedance Tracking	No
Particle Size	Up to 100 μm
Automatic cleaning	Yes
Data Storage	

Communication	Modbus, Profibus, Ethernet, and Network Control over Internet
User Interface	Microcontroller with membrane keyboard
Display	High contrast 40 character x 16 line backlit LCD with LED backlight
Sample Inlet Temperature	2 to 60 °C (36 to 140 °F)
Ambient Temperature	5 to 45 °C (41 to 113 °F)
Humidity	5 to 85 % (non-condensing)
Service Interval	6 month service intervals
Power Requirements (Voltage)	115/230 V AC
Power Requirements (Hz)	50/60 Hz
Weight	101.41 lbs. (46 kg)
Dimensions (H x W x D)	750 mm x 500 mm x 320 mm

*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 measured to ensure Total Inorganic Carbon (TIC) is not carried over into the TOC.

Oxidation

BioTector's patented oxidation method (TSAO) achieves total and complete oxidation of the sample, including organic carbon to CO₂. TSAO utilises hydroxyl radicals generated within the analyzer by combining oxygen, which passes through the ozone generator, with sodium hydroxide.

TOC

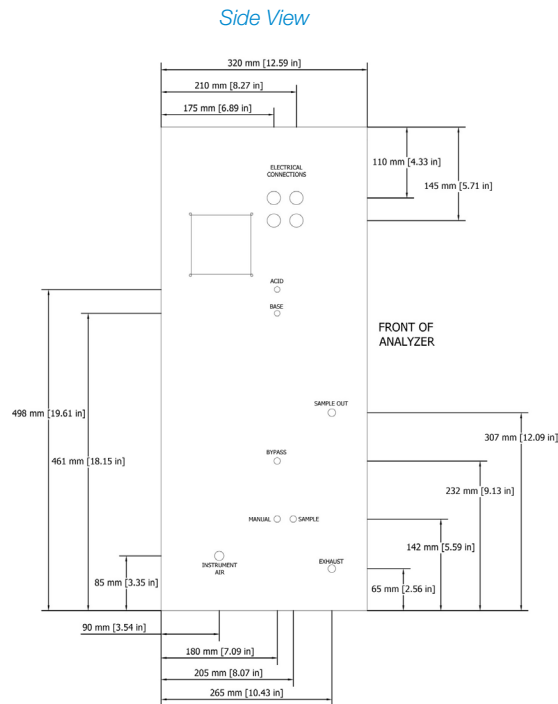
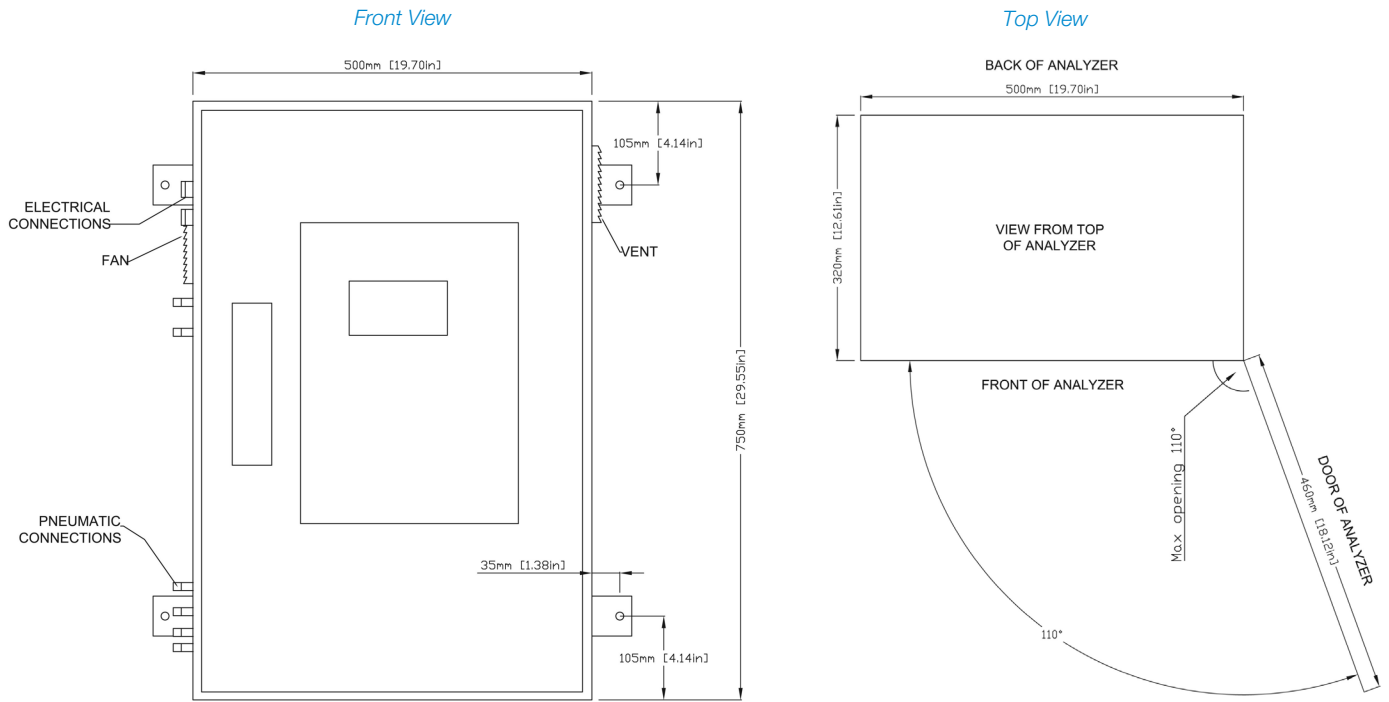
To remove CO₂ from the oxidized sample, the pH of the sample is lowered again. The CO₂ is sparged and measured by the specially developed NDIR CO₂ analyzer. The result is displayed as Total Organic Carbon (TOC).

Cleaning

The entire system is automatically self-cleaned by the reaction process during every cycle.



Dimensions



Order Information

Instruments

- BEAAAA152AAA2** Hach BioTector B3500e Online TOC analyzer, 0-250 ppm, 1 stream, grab sample, cleaning, 115 V AC
- BEABAA152AAA2** Hach BioTector B3500e Online TOC analyzer, 0-250 ppm with 0-1000 ppm range extension, 1 stream, grab sample, cleaning, 115 V AC
- BEAAAA152AAB2** Hach BioTector B3500e Online TOC analyzer, 0-250 ppm, 1 stream, grab sample, cleaning, sample sensor, 115 V AC
- BEABAA152AAB2** Hach BioTector B3500e Online TOC analyzer, 0-250 ppm with 0-1000 ppm range extension, 1 stream, grab sample, cleaning, sample sensor, 115 V AC

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

Accessories

- 10-SMC-001** B3500 Air supply filter pack
- 19-COM-160** BioTector Compressor 115 V / 60 Hz
- 19-COM-250** BioTector Compressor 230 V / 50 Hz

Service Kit

- 19-KIT-130** B3500e 6 month service kit

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.

Hach World Headquarters: Loveland, Colorado USA

United States: 800-227-4224 tel 970-669-2932 fax orders@hach.com

Outside United States: 970-669-3050 tel 970-461-3939 fax int@hach.com

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