Hach BioTector B3500dw TOC Analyzer

Applications
- Drinking Water

Service Protected

Maximum uptime and reliability for TOC analysis in drinking water applications

The Hach BioTector B3500dw uses patented technology that only requires scheduled maintenance every 6 months and delivers 99.86% uptime ensuring total confidence in your TOC measurement.

Rock solid reliability

With patented, EPA method approved Two Stage Advanced Oxidation Technology, the self-cleaning sample reactor of B3500dw delivers maximum reliability.

Lowest cost of ownership

With its 99.86% uptime, semi-annual maintenance and reagent replenishment is all that is needed.

Secure your source water

TSAO technology analyzes organics in your source that are invisible to scanning UV technologies.

HACH®
Be Right™

Technical Data*

Parameter	TOC (NPOC), TIC, % TOC removal (with 2 streams) and COD, BOD after correlation
Measurement Method	Infrared measurement of CO_2 after oxidation (DIN EN 1484:1997-08, ISO 8245:1999-03, EPA 415.1)
Oxidation Method	Patented Two-Stage Advanced Oxidation Process (TSAO) using Hydroxyl Radicals, Hach Company method 10261 (EPA approved for drinking water)
Range	0 - 25 mg/L C
Multi-Stream	1 stream
Repeatability	±3% of reading or ±0.03 mg/L, whichever is greater; Lower Limit of detection LOD = 0.06 mg/L
Cycle Time	From 5.5 minutes, depending on range and application
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)
Sample Inlet Temperature	0 - 60 °C
Ambient Temperature	5 - 45 °C
Humidity	5 - 85 % (non-condensing)
Particle Size	Up to 100 µm
Data Storage	Previous 9999 reaction data Previous 99 fault events
Display	High contrast 40 character x 16 line backlit LCD with LED backlight
User Interface	Microcontroller with membrane keyboard
Power Requirements (Voltage)	120/230 V AC
Power Requirements (Hz)	50/60 Hz
Service Interval	6 month service intervals
Dimensions (H x W x D)	750 mm x 500 mm x 320 mm
Weight	46 kg

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

Oxidation

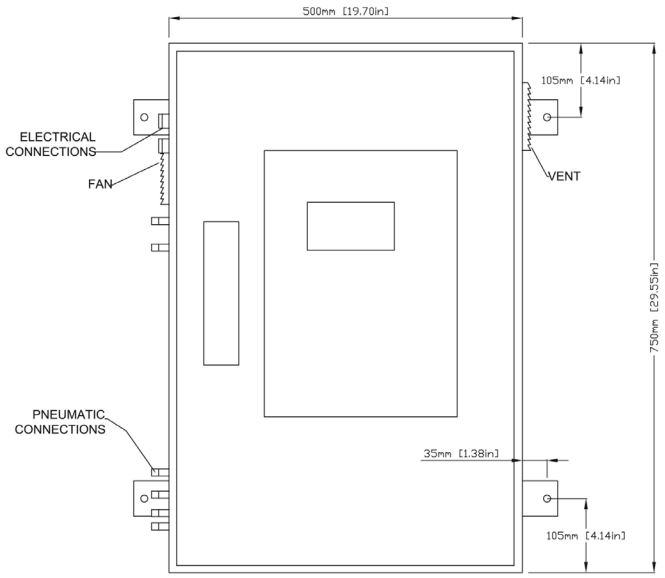
BioTector's patented oxidation method (TSAO) achieves total and complete oxidation of the sample, including organic carbon to CO_2. TSAO utilizes hydroxyl radicals generated within the analyzer by combining oxygen, which passes through the ozone generator, with sodium hydroxide.

TOC

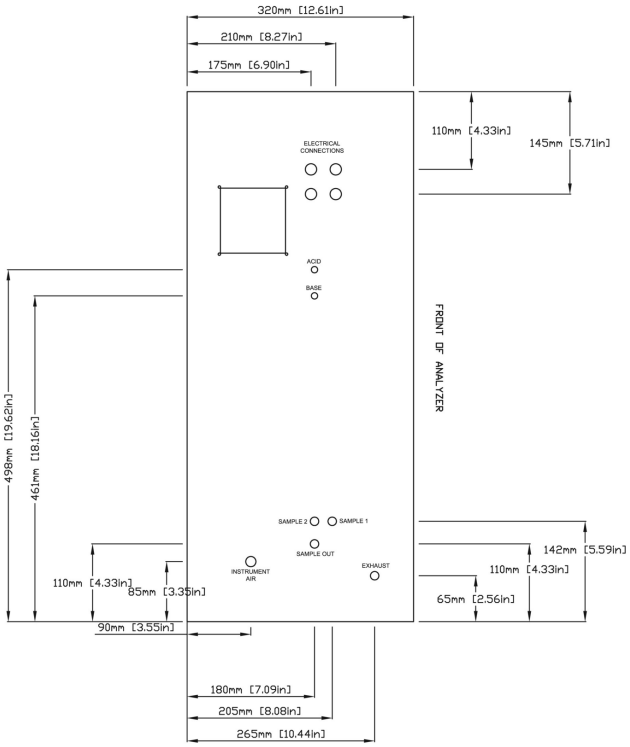
To remove CO_2 from the oxidized sample, the pH of the sample is lowered again. The CO_2 is sparged and measured by the specially developed NDIR CO_2 analyzer. The result is displayed as Total Organic Carbon (TOC).

Dimensions

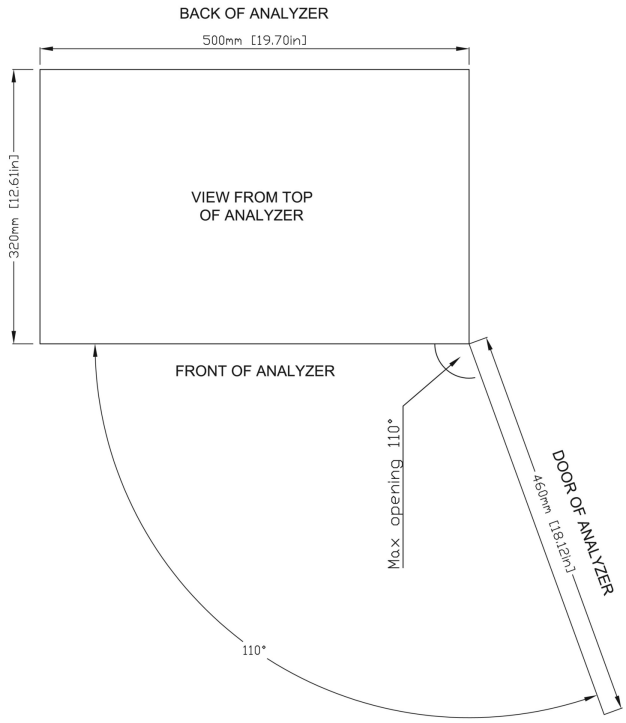
Front view



Side view



Top view



Panel detail

Order Information

Instruments

DWACAA152AAA2	Hach BioTector B3500dw Online TOC analyzer, 0 - 25 ppm, 1 stream, 120 V AC
DWBCAA152AAA2	Hach BioTector B3500dw Online TOC analyzer, 0 - 25 ppm, 1 stream, 230 V AC
DWACAA152AAC2	Hach BioTector B3500dw Online TOC analyzer, 0 - 25 ppm, 2 stream, 120 V AC
DWBCAA152AAC2	Hach BioTector B3500dw Online TOC analyzer, 0 - 25 ppm, 2 stream, 230 V AC

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

Service Protected

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 maximise instrument uptime, ensure data integrity, maintain operational stability, and reduce compliance risk.

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