

HACH BIOTECTOR B3500s ONLINE TOC ANALYSER

Applications

- Municipal wastewater



Effluent TOC monitoring made easy

Semi-annual reagent replacement and seamless integration with the Hach® sample homogenisation unit, make the B3500s the easiest solution for regulatory TOC monitoring in municipal wastewater.

Easy sample homogeniser integration

Designed to communicate with the Hach Sigmatax 2 sample homogeniser, the system provides an off-the-shelf solution to meet TOC effluent monitoring regulations.

Extended reagent and maintenance intervals

Every six months reagent replenishment, semi-annual calibration and basic preventative maintenance allows you to focus on what matters most.

Worry-free TOC

With innovative two stage, advanced oxidation technology, the B3500s provides you with reliability and uptime, without sacrificing accuracy.

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.

Technical Data*

Ambient temperature	5 - 45 °C	Power requirements (Voltage)	230 V AC
Communication: digital	Modbus, Profibus DP, Ethernet Via add on module via converter	Power requirements (Hz)	50 Hz
Cycle time	From 5.5 minutes, depending on range and application	Range selection	Automatic or manual range selection
Parameters	Direct measurement of Total Organic Carbon, Total Inorganic Carbon, Total Carbon Chemical Oxygen Demand, Biological Oxygen Demand via correlation Volatile Organic Carbon via calculation	Repeatability	0 - 25 mg/L C: $\pm 3\%$ of reading or ± 0.03 mg/L, whichever is greater; Lower limit of detection LOD = 0.06 mg/L Exceedance tracking 0 - 100 mg/L C: $\pm 5\%$ of reading or ± 0.5 mg/L, whichever is greater
Data storage	Previous 9999 reaction data	Sample inlet temperature	0 - 60 °C
Dimensions (H x W x D)	750 mm x 500 mm x 320 mm	Service interval	6 month service intervals
Display	High contrast 40 character x 16 line backlit LCD with LED backlight	User interface	Microcontroller with membrane keyboard
Humidity	5 - 85 % (non-condensing)	Weight	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 IP54, air cooled, maximum ambient temperature 35 °C IP54, vortex cooled, maximum ambient temperature 50 °C
Measuring range	0 - 25 mg/L C, with exceedance tracking up to 100 mg/L C		
Multi-Stream	1 process stream, 1 grab sample		
Oxidation method	Innovative Two-Stage Advanced Oxidation Process (TSAO) using Hydroxyl Radicals		
Particle size	Up to 100 µm		

*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

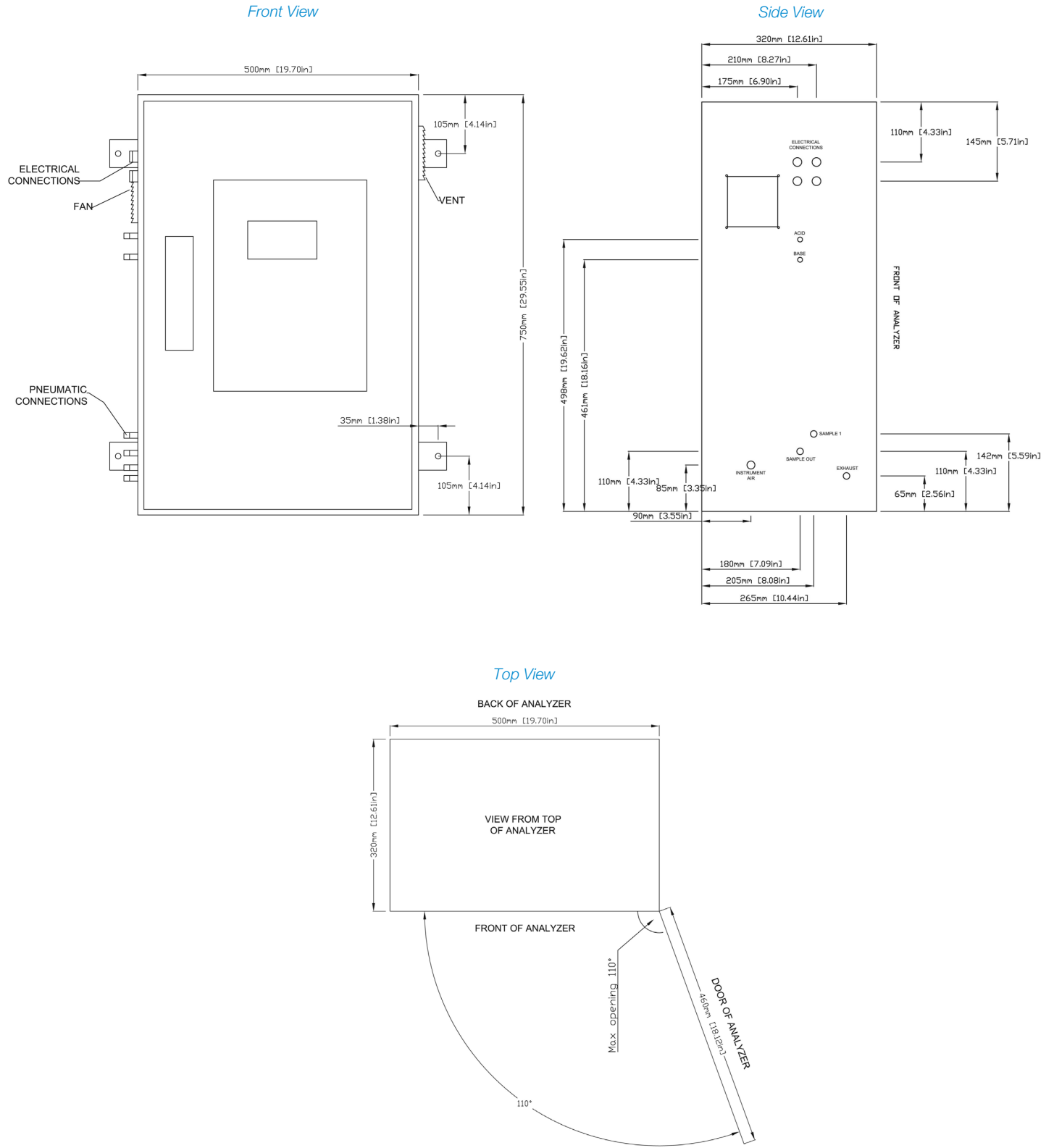
BioTectors's unique oxidation method (TSAO) efficiently oxidises the organic carbon in the sample to CO₂. TSAO utilises hydroxyl radicals generated within the analyser by combining oxygen, which passes through the ozone generator, with sodium hydroxide.

TOC

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



Dimensions



Order Information

Instruments

- B5BCAA152AAAS** Hach BioTector B3500s Online TOC analyser, 0 - 25 mg/L C, 1 stream, 230 V AC
- B5BFAA152AAAS** Hach BioTector B3500s Online TOC analyser, 0 - 25 mg/L C, with 0 - 100 mg/L C range extension, 1 stream, 230 V AC
- B5BCAA152AACS** Hach BioTector B3500s Online TOC analyser, 0 - 25 mg/L C, 1 stream, grab sample, 230 V AC
- B5BFAA152AACS** Hach BioTector B3500s Online TOC analyser, 0 - 25 mg/L C, with 0 - 100 mg/L C range extension, 1 stream, grab sample, 230 V AC

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

Note: Sigmatax 2 needs to be ordered separately.

Accessories

- 10-SMC-001** Air supply filter pack
- 2038062** BioTector reagent, 4.0 N NaOH
- 2038162** BioTector reagent, 6.0 N sulfuric acid with Mn catalyst
- 19-KIT-123** Six months spare part kit for BioTector B3500
- LXV215** Sigmatax 2 Control unit sampling & ultrasonic homogenisation
- LXV231** Suction probe (10 m) for Sigmatax 2
- LXV232** Suction probe (20 m) for Sigmatax 2
- LXV282** Suction probe (30 m) for Sigmatax 2
- LZX306** Valve piston seal set (every 6 months) for Sigmatax 2
- LZX299** Air filter without fittings (every 12 months) for Sigmatax 2
- LZX376** 230 V membrane compressor (every 18 months) for Sigmatax 2

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 maximise 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 maximise your measurement reliability and instrument uptime.

Contact us to get a service offering designed for you.