

HACH LANGE BIOTECTOR B3500s Online TOC Analyser

Applications

- Municipal Wastewater



Effluent TOC monitoring made easy

Annual reagent replacement and seamless integration with the HACH LANGE 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 LANGE SIGMATAX 2 sample homogeniser, the system provides an off-the-shelf solution to meet TOC effluent monitoring regulations.

Extended reagent and maintenance intervals

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

Worry-free TOC

With patented two stage, advanced oxidation technology, the B3500s maximises reliability and uptime, without sacrificing accuracy.

Reagent costs that don't kill the bottom line

Reagent replenishment once a year means 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 at the same time, eliminates the double-cost of needing two separate analysers.

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Technical data*

Ambient temperature	5 - 40 °C (41 to 104 °F)	Measurement method	Infrared Measurement of CO ₂ after Oxidation
Permissible Chloride range	Up to 30 %	Measuring range	0 - 100 mg/L C
Communication: digital	Modbus, PROFIBUS, Ethernet Modbus is a registered trademark of Gould Inc.	Multi-Stream	Up to 2 process streams and grab sample
Cycle Time	Typically 10 minutes	Oxidation Method	Patented Two-Stage Advanced Oxidation Process (TSAO) using Hydroxyl Radicals
Parameter	Measures TOC, TIC, TC, and VOC	Particle size	Up to 100 µm
Data Storage	Previous 9999 reaction data Previous 99 fault events	Power requirements (Voltage)	115/220 V AC
Dimensions Metric (H x W X D)	750 mm x 500 mm x 320 mm	Range Selection	Automatic or manual range selection
Display	High contrast 40 character x 16 line backlit LCD with LED backlight	Repeatability	± 3 % of reading or ± 0.03 mg/L (30 ppb) whichever is greater
EExp / Hazardous Location	Certification options are available to North American Standards (Class 1, Div 2) and EU Standards (ATEX)	Sample inlet temperature	0 - 60 °C (32 to 140 °F)
Exceedance Tracking	Full exceedance tracking up to 100 mg/L C	Service interval	6 month service intervals
Humidity	5 - 85 % (non-condensing)	User Interface Description	Microcontroller with membrane keyboard
Languages user interface	English, Spanish, French Others available upon request	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 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 analyser by combining oxygen, which passes through the ozone generator, with sodium hydroxide.

TOC

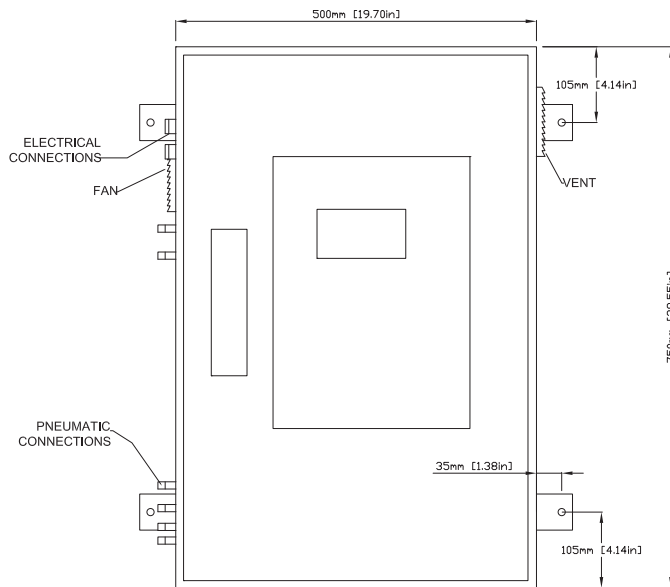
To remove CO₂ from the oxidised sample, the pH of the sample is lowered again. The CO₂ is sparged and measured by the specially developed NDIR CO₂ analyser. The result is displayed as Total Organic Carbon (TOC).



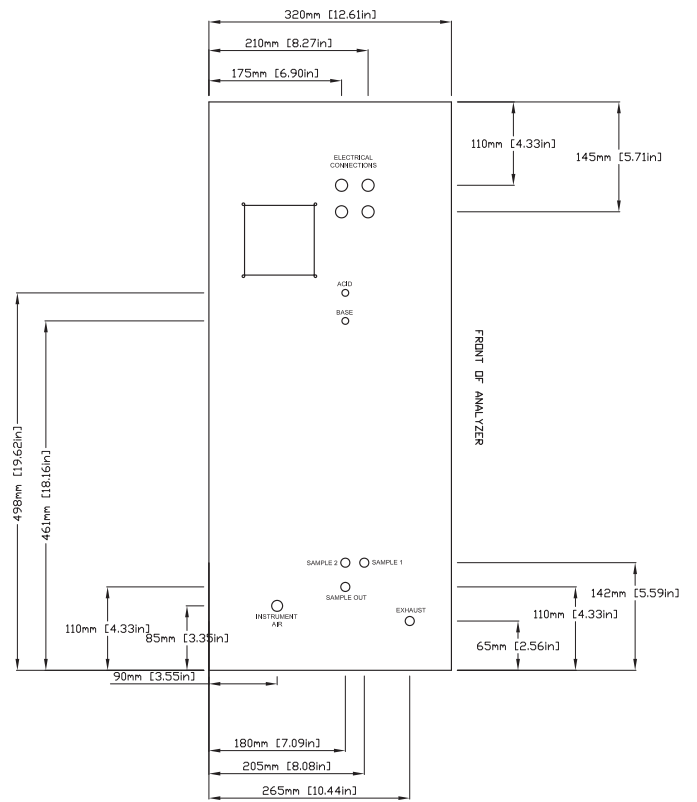
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Dimensions

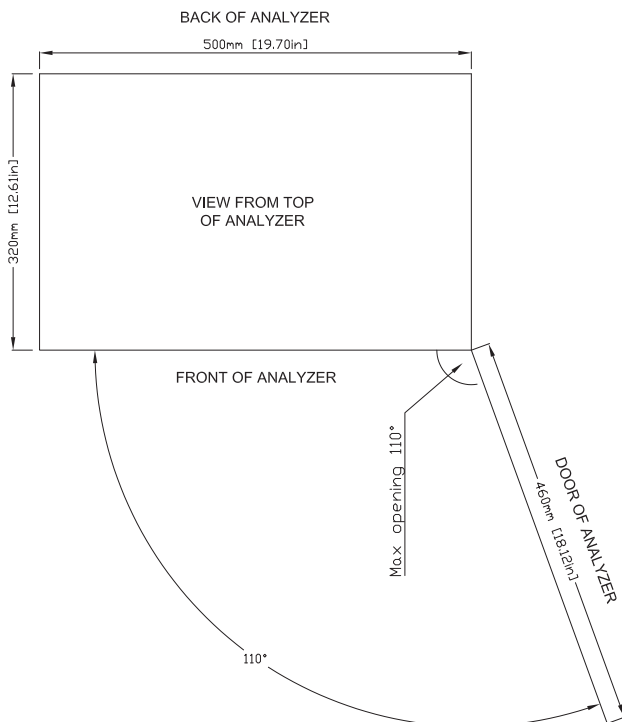
Front View



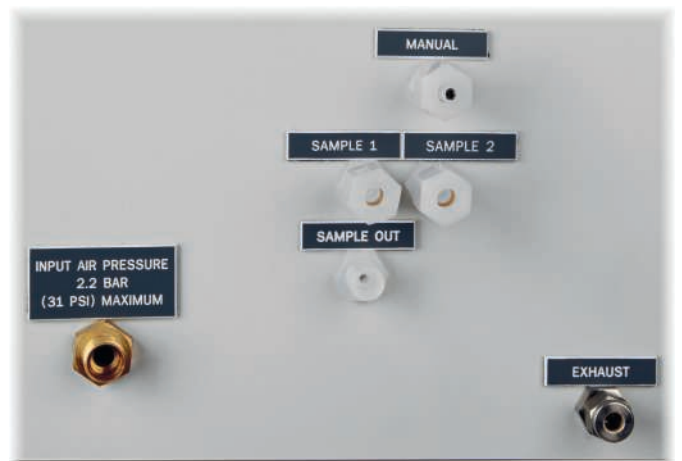
Side View



Top View



Panel Detail



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Order information

Instruments

B5BCAA199AAAS	HACH LANGE BIOTECTOR B3500s Online TOC analyser, 0 - 25 mg/L C, 1 stream, 230 VAC
B5BFAA199AAAS	HACH LANGE BIOTECTOR B3500s Online TOC analyser, 0 - 100 mg/L C, 1 stream, 230 VAC
B5BCAA199AACS	HACH LANGE BIOTECTOR B3500s Online TOC analyser, 0 - 25 mg/L C, 1 stream, manual valve, 230 VAC
B5BFAA199AACS	HACH LANGE BIOTECTOR B3500s Online TOC analyser, 0 - 100 mg/L C, 1 stream, manual valve, 230 VAC

There are additional options available. Please contact HACH LANGE for more details.

Accessories

10-SMC-001	BIOTECTOR B3500 Air supply filter pack
2038062	BIOTECTOR Reagent 4.0 N NaOH
2038162	BIOTECTOR Reagent, 6.0 N sulfuric acid w/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