Hach BioTector B7000 Online TOC/TN/TP Analyzer



Applications

- Industrial wastewater influent and effluent
- Industrial process
 monitoring
- Municipal wastewater influent
- Storm Water / River Water

A single analyzer for Carbon contamination and Nitrogen/Phosphorus nutrient levels in water

Contamination levels in water impact treatment and re-use decisions. With data on contamination plus nutrient levels water managers can make the most efficient and cost-effective decisions for treatment and reuse of important water supplies.

- Improve treatment and re-use decisions with accurate and complete water quality
- Reduce costs on nutrient dosing while protecting critical treatment facilities with accurate C:N:P ratios
- Spend more time managing the plant and less time collecting data with a robust, industrially designed online analyzer to monitor TOC, TN, and TP parameters
- Detect product loss quickly to save valuable product, and minimize risk of noncompliance by preventing excessive contamination releases to the wastewater treatment plant

The Hach® TOC analyzer completes a full breakdown of each process sample to deliver trusted results.

Improve wastewater treatment process

Capture changes in water quality with a direct analysis of Total Organic Carbon (contamination), Total Nitrogen and Total Phosphorus in the most challenging samples.

Reduce the environmental footprint

Comprehensive information about your incoming sample composition enables improved process control. Knowing TOC + TN and TP allows you to decrease utilities usage and related costs. Optimized processes will reduce effluent environmental impact and minimize the risks of fines and reputation damage.

Protect your WWTP and WWRP

TOC is commonly used as a fast, reliable water analysis metric for water quality. TOC levels are often correlated to lagging water quality metrics such as Chemical Oxygen Demand (COD) and Biochemical Oxygen Demand (BOD).

Superior reliability

With a certified 99.86% uptime critical process information is available when you need it most. Maintenance in most applications is done 2x per year.

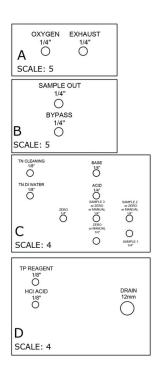


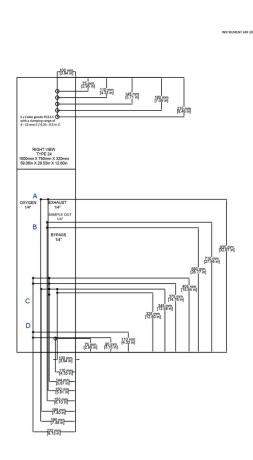
Parameter	Direct measurement of TOC, TIC, TC, TN, TP; COD, BOD via correlation; VOC via calculation
Measurement Method	TOC: NDIR measurement of CO ₂ after oxidation TN: direct photometric analysis of Nitrate after oxidation TP: colorimetric analysis of Phosphate with standard Vanadomolybdophosphoricacid method after oxidation
Oxidation Method	Patented Two-Stage Advanced Oxidation Process (TSAO) using Hydroxyl Radicals
Range	0 - 10000 mg/L C/N/P
Range Selection	Automatic or Manual Range Selection
Multi-Stream	Valves for up to 3 streams with up to six 4-20 mA signals The number of available outputs depends on the manual stream configuration.
Repeatability	TOC: $\pm 3\%$ of reading or ± 0.3 mg/L C, whichever is greater TN: $\pm 3\%$ of reading or ± 0.2 mg/L N, whichever is greater TP: $\pm 3\%$ of reading or ± 0.2 mg/L P, whichever is greater
Cycle Time	From 10 minutes, depending on range and application
Permissible Chloride Range	Up to 30%
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)
Enclosure Rating	IP44; optional IP54 with air purge
EExp / Hazardous Location	Certification options are available to European Standards (ATEX Zone 2 - maximum T3 for TP analyzer) and North American Standards (Class I Division 2)
Sample Inlet Temperature	2 - 60 °C
Ambient Temperature	5 - 40 °C
Humidity	5 - 85 % (non-condensing)
Particle Size	Up to 2 mm, soft particulates
Data Storage	Previous 9999 analysis data on screen in the microcontroller memory and storage of data archive for the lifetime of the analyzer in the SD/MMC card.
	Previous 99 fault data on screen in the microcontroller memory and storage of fault data archive for the lifetime of the analyzer in the SD/MMC card.
Display	High contrast 40 character x 16 line backlit LCD with LED backlight
Power Requirements (Voltage)	115 V AC / 230 V AC
Power Requirements (Hz)	50/60 Hz
Service Interval	6 months service intervals
Dimensions (H x W x D)	1500 mm x 750 mm x 320 mm
Weight	90 - 120 kg Enclosure weight may change depending on system optional features.

Technical Data*

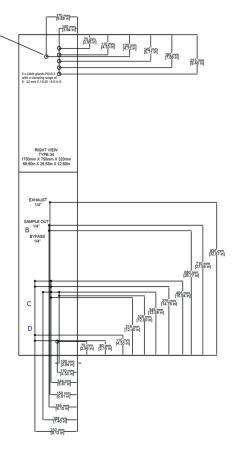
*Subject to change without notice.

Dimensions

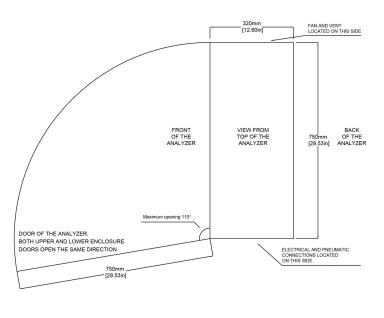




TOC/TN/TP connections

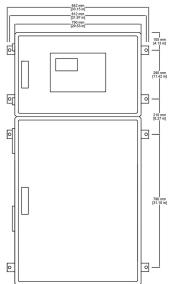


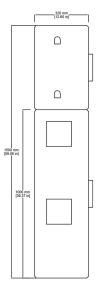
Access requirements



Enclosure

TYPE 24 1500mm X 750mm X 320mm 59.06in X 29.53in X 12.60in





Order Information

Analyzers

B4QDDF052AECAE2	B7000 TOC/TN/TP Analyzer, 1 channel, 115 V, 0 - 25 mg/L
B4QEDF052AECAE2	B7000 TOC/TN/TP Analyzer, 1 channel, 115 V, 0 - 50 mg/L
B4QFDF052AECAE2	B7000 TOC/TN/TP Analyzer, 1 channel, 115 V, 0 - 100 mg/L
B4QGDF052AECAE2	B7000 TOC/TN/TP Analyzer, 1 channel, 115 V, 0 - 500 mg/L
B4QHDF052AECAE2	B7000 TOC/TN/TP Analyzer, 1 channel, 115 V, 0 - 1000 mg/L
B4QKDF052AECAE2	B7000 TOC/TN/TP Analyzer, 1 channel, 115 V, 0 - 10,000 mg/L

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

Accessories

12-AIR-001	Oxygen Concentrator, 115 V, 60 Hz, with compressor
19-OGS-101	Oxygen Concentrator, 115 V, 60 Hz, without compressor
10-SMC-001	Air supply filter pack
19-KIT-119	BioTector TOC/TN/TP Dual Cell 6 month Service Kit
19-KIT-110	KNF300 pump 6 month Service Kit
19-KIT-120	BioTector TOC/TN/TP Dual Cell 12 month Service Kit
19-KIT-111	KNF300 Pump 12 month Service Kit

Reagents

2985462	BioTector acid reagent with catalyst
2985562	BioTector base reagent 1.2 N sodium hydroxide
2985662	BioTector TN cleaning solution, 18.9 L
2986162	BioTector Total Phosphorus reagent, 18.9 L
27362	Deionized water, 18.9 L

Be confident with Hach Service

Start-Up/Commissioning: Our service technicians visit your site and setup instrumentation, provide basic end-user training on operations and maintenance, and validate settings and performance to get you started.

Service Agreement: Hach provides on-site and in-factory repair, preventive maintenance, and calibration programs for your instruments to ensure reliability and instrument up-time. We have services to fit your specific needs.



Sortilantie 5 A, PL 16, 04261 KERAVA puh. 010 417 4500 hyxo@hyxo.fi www.hyxo.fi

Hach World Headquarters: Loveland, Colorado USA

United States: Outside United States: hach.com 800-227-4224 tel970-669-2932 fax970-669-3050 tel970-461-3939 fax

orders@hach.com int@hach.com



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