### 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.

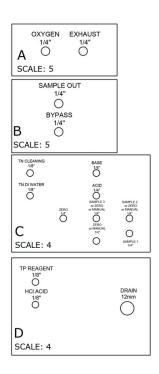


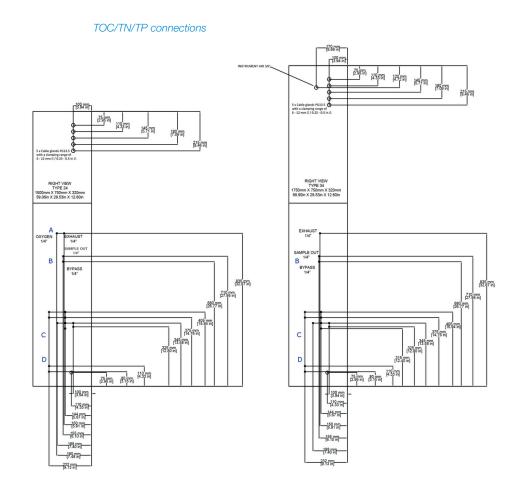
#### **Technical Data\***

Parameter	Direct measurement of TOC, TIC, TC, TN, TP; COD, BOD via correlation; VOC via calculation		
Measurement Method	TOC: NDIR measurement of ${\rm CO}_2$ 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 $\pm 0.3$ mg/L C, whichever is greater TN: $\pm 3\%$ of reading or $\pm 0.2$ mg/L N, whichever is greater TP: $\pm 3\%$ of reading or $\pm 0.2$ 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)		
<b>Enclosure Rating</b>	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		
<b>Ambient Temperature</b>	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.		

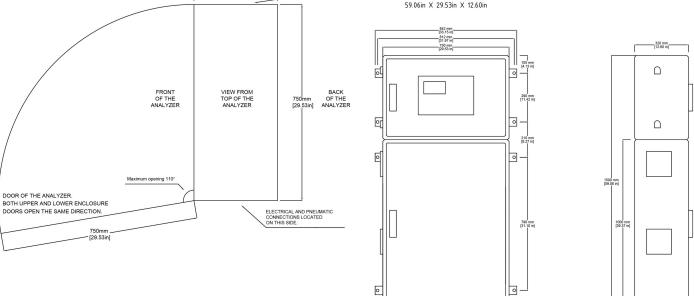
\*Subject to change without notice.

#### **Dimensions**





# Access requirements FAN AND VENT LOCATED ON THIS SIDE 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

2985662 BioTector TN cleaning solution, 18.9 L2986162 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.

hvdroxide

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.

#### 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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