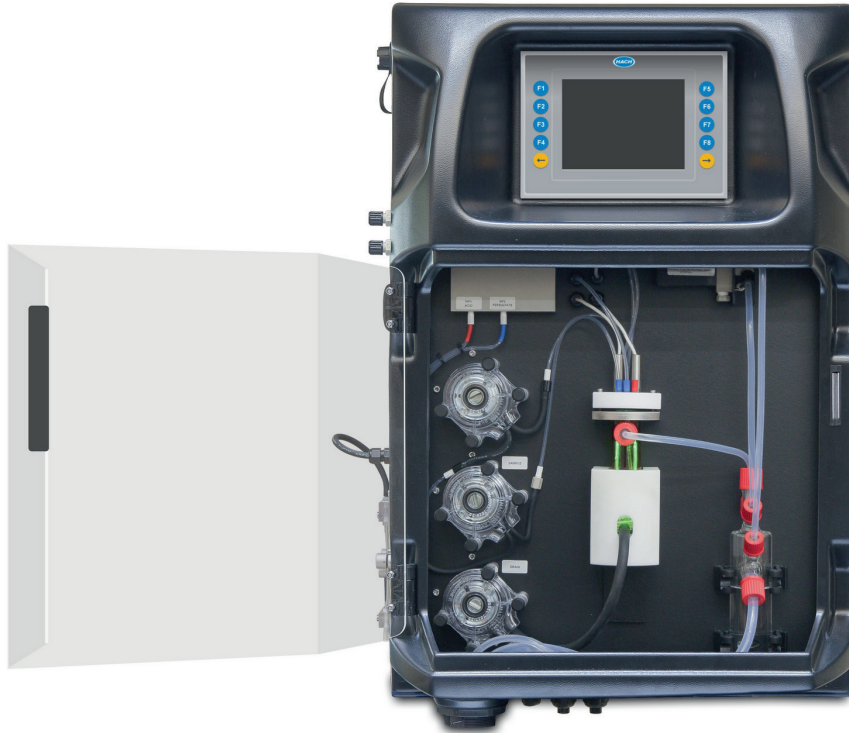


# EZ7100 Series TOC & TC Analyzers

## Applications

- Wastewater
- Surface Water



## Online, automatic TOC or TC monitoring for wastewater and surface water applications

### Proprietary discontinuous analysis

The EZ7100 Series Analyzers are designed to run a discontinuous analysis on Total Organic Carbon or Total Carbon levels, reducing reagent consumption and overall maintenance costs. A rinsing or cleaning cycle can be introduced to eliminate cross-contamination and fouling.

### Smart features and reduced calibration intervals

In the controller-database software, all necessary smart automatic features are already embedded: auto-calibration, auto-validation, auto-cleaning and auto-priming. In order to assure optimal analytical performance, it is recommended to calibrate the EZ7100 Series monthly or quarterly simply by starting the calibration sequence via the panel PC.

The mainframe of the EZ7100 Series is a compact and straightforward design running a hot UV/persulphate destruction for determination of organic load in various water applications.

- Options for TOC or TC analysis
- Discontinuous analysis with programmable frequency
- Smart automatic features
- Control and communication via industrial panel PC
- Standard 4 - 20 mA signal output with alarm processing
- Communication ports supporting connectivity to Modbus
- Multiple stream analysis (up to 8 streams)



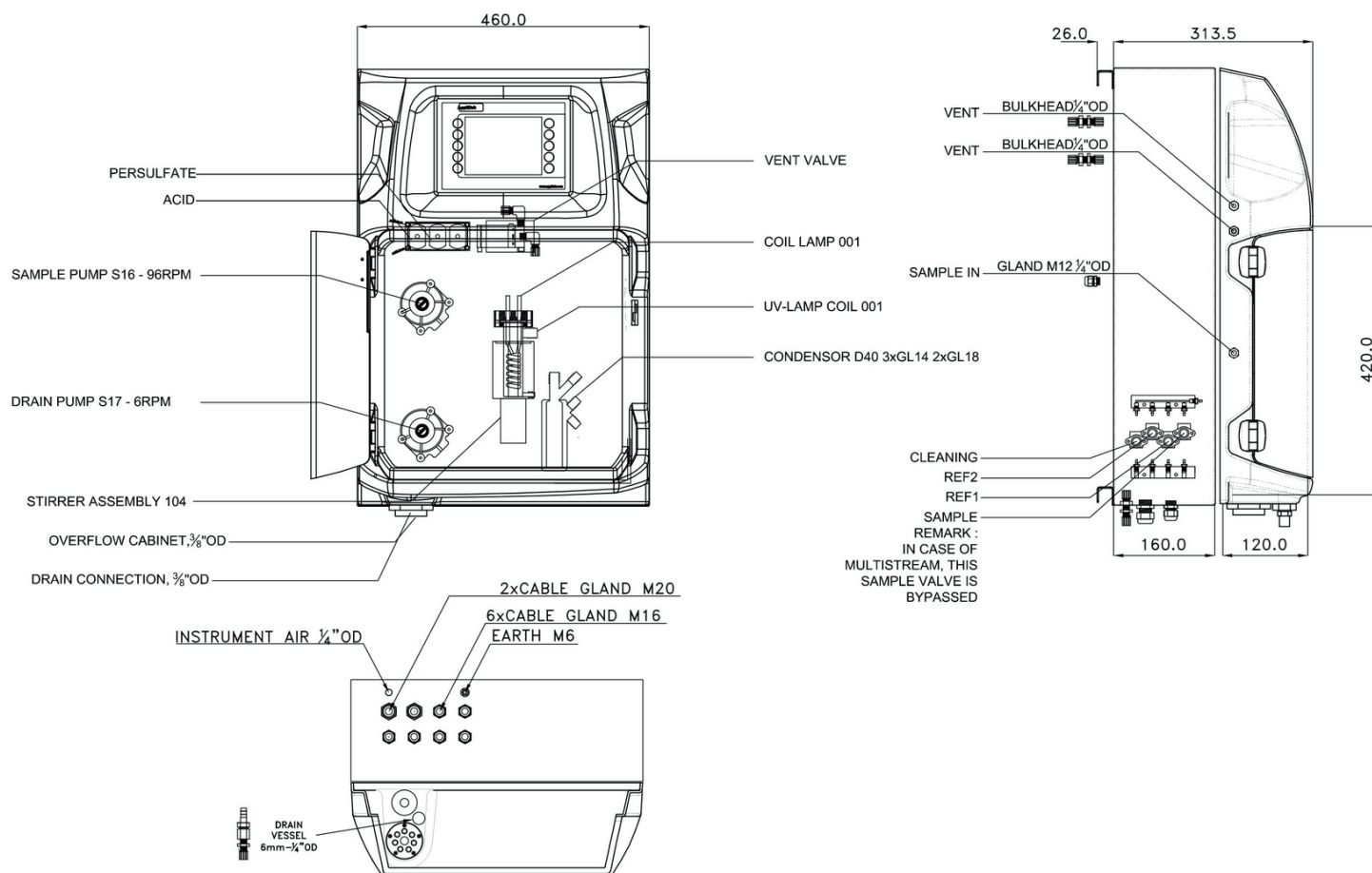
Be Right™

## Technical Data\*

|                                       |  |
|---------------------------------------|--|
| <b>Parameter</b>                      | Total Organic Carbon (TOC), Total Carbon (TC)  |
| <b>Measurement Method</b>             | Hot UV/persulphate method, conform with ISO 8245, USEPA 415.2, ASTM D4839-03 and DIN-EN 1484   |
| <b>Range</b>                          | 0.4 - 20 mg/L C<br>2 - 100 mg/L C<br>10 - 500 mg/L C<br>25 - 1000 mg/L C<br>200 - 5000 mg/L C<br>500 - 10,000 mg/L C                                   |
| <b>Precision</b>                      | Better than 2% full scale range for standard test solutions  |
| <b>Lower Limit of Detection (LOD)</b> | ≤ 200 µg/L   |
| <b>Interferences</b>                  | Chloride >1 g/L affects oxidation efficiency. Volatile organic compounds evaporate in the TOC configuration. Fats, oil, proteins, surfactants and tar. |
| <b>Cycle Time</b>                     | 15 - 30 minutes, depending on range; frequency freely programmable   |
| <b>Automatic cleaning</b>             | Yes  |
| <b>Calibration</b>                    | Automatic, 2-point; frequency freely programmable  |
| <b>Validation</b>                     | Automatic; frequency freely programmable   |
| <b>Ambient Temperature</b>            | 10 - 30 °C ±4 °C deviation (50 - 86 °F ±7.2 °F deviation) at 5 - 95% relative humidity (non-condensing)  |
| <b>Reagent Requirements</b>           | Keep between 10 - 30 °C (50 - 86 °F)   |
| <b>Sample Pressure</b>                | By external overflow vessel  |
| <b>Sample Flow Rate</b>               | 100 - 300 mL/min   |
| <b>Sample Temperature</b>             | 10 - 30 °C (50 - 86 °F)  |
| <b>Sample Quality</b>                 | Maximum particle size 100 µm, < 0.1 g/L; Turbidity < 50 NTU  |
| <b>Power</b>                          | 230 VAC, 50/60 Hz, max. power consumption 440 VA<br>120 VAC version also available (see configurator)  |
| <b>Instrument Air</b>                 | Dry and oil free according to ISA-S7.0.01-1996 quality standard for instrument air   |
| <b>Demineralized Water</b>            | For rinsing and calibration  |
| <b>Drain</b>                          | Atmospheric pressure, vented, min. Ø 64 mm   |
| <b>Cooling Water</b>                  | Flow rate approx. 5 L/h; temperature max. 30 °C; pressure max. 0.5 bar   |
| <b>Earth Connection</b>               | Dry and clean earth pole with low impedance (< 1 Ohm) using an earth cable of > 2.5 mm <sup>2</sup>  |
| <b>Analog Outputs</b>                 | Active 4 - 20 mA max. 500 Ohm load, standard 1, max. 8 (option)  |
| <b>Digital Outputs</b>                | Optional: RS232, Modbus (TCP/IP, RS485)  |
| <b>Alarm</b>                          | 1 x malfunctioning, 4 x user-configurable, max. 24 VDC/0.5 A, potential free contacts  |
| <b>Protection Class</b>               | Analyzer cabinet: IP55 / Panel PC: IP65  |
| <b>Material</b>                       | Hinged part: Thermoform ABS, door: plexiglass<br>Wall section: Galvanized steel, powder coated   |
| <b>Dimensions (H x W x D)</b>         | 690 mm x 465 mm x 330 mm   |
| <b>Weight</b>                         | 25 kg (55 lbs.)  |
| <b>Certifications</b>                 | CE compliant / UL certified  |

\*Subject to change without notice.

## Dimensions - Drawings



## Hach Service

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

### Order Information - Part Number Configurator

|                                       |                                      |  |
|---------------------------------------|--------------------------------------|--|
| EZ7100.99XXXXX TOC, 0.4 - 20 mg/L     | EZ7120.99XXXXX TC, 0.4 - 20 mg/L     | EZ7140.99XXXXX TOC + TC, 0.4 - 20 mg/L     |
| EZ7101.99XXXXX TOC, 2 - 100 mg/L      | EZ7121.99XXXXX TC, 2 - 100 mg/L      | EZ7141.99XXXXX TOC + TC, 2 - 100 mg/L      |
| EZ7102.99XXXXX TOC, 10 - 500 mg/L     | EZ7122.99XXXXX TC, 10 - 500 mg/L     | EZ7142.99XXXXX TOC + TC, 10 - 500 mg/L     |
| EZ7103.99XXXXX TOC, 25 - 1,000 mg/L   | EZ7123.99XXXXX TC, 25 - 1,000 mg/L   | EZ7143.99XXXXX TOC + TC, 25 - 1,000 mg/L   |
| EZ7104.99XXXXX TOC, 200 - 5,000 mg/L  | EZ7124.99XXXXX TC, 200 - 5,000 mg/L  | EZ7144.99XXXXX TOC + TC, 200 - 5,000 mg/L  |
| EZ7105.99XXXXX TOC, 500 - 10,000 mg/L | EZ7125.99XXXXX TC, 500 - 10,000 mg/L | EZ7145.99XXXXX TOC + TC, 500 - 10,000 mg/L |

| EZ71XX.99  | X | X | X | X | X | 2 |
|--|---|---|---|---|---|---|
| <b>Measurement range settings / Dilution options</b> |   |   |   |   |   |   |
| Standard range                                       | 0 |   |   |   |   |   |
| <b>Power supply</b>                                  |   |   |   |   |   |   |
| 230 VAC, 50/60 Hz                                    |   | A |   |   |   |   |
| 120 VAC, 50/60 Hz                                    |   | B |   |   |   |   |
| <b>Number of sample streams</b>                      |   |   |   |   |   |   |
| 1 stream   |   |   |   | 1 |   |   |
| 2 streams  |   |   |   | 2 |   |   |
| 3 streams  |   |   |   | 3 |   |   |
| 4 streams  |   |   |   | 4 |   |   |
| 5 streams  |   |   |   | 5 |   |   |
| 6 streams  |   |   |   | 6 |   |   |
| 7 streams  |   |   |   | 7 |   |   |
| 8 streams  |   |   |   | 8 |   |   |
| <b>Outputs</b>                                       |   |   |   |   |   |   |
| 1x mA  |   |   |   |   | 1 |   |
| 2x mA  |   |   |   |   | 2 |   |
| 3x mA  |   |   |   |   | 3 |   |
| 4x mA  |   |   |   |   | 4 |   |
| 5x mA  |   |   |   |   | 5 |   |
| 6x mA  |   |   |   |   | 6 |   |
| 7x mA  |   |   |   |   | 7 |   |
| 8x mA  |   |   |   |   | 8 |   |
| RS232  |   |   |   |   | A |   |
| Modbus TCP/IP  |   |   |   |   | B |   |
| Modbus RS485   |   |   |   |   | C |   |
| 1x mA + Modbus RS485                                 |   |   |   |   | E |   |
| 2x mA + Modbus RS485                                 |   |   |   |   | F |   |
| 3x mA + Modbus RS485                                 |   |   |   |   | G |   |
| 4x mA + Modbus RS485                                 |   |   |   |   | H |   |
| 1x mA + Modbus TCP/IP                                |   |   |   |   | I |   |
| 2x mA + Modbus TCP/IP                                |   |   |   |   | J |   |
| 3x mA + Modbus TCP/IP                                |   |   |   |   | K |   |
| 4x mA + Modbus TCP/IP                                |   |   |   |   | L |   |
| No adaption, standard version                        |   |   |   |   |   | 0 |

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