

# EZ7600 Series Online Analyzer for Total Nitrogen and Total Phosphorus

## Applications

- Wastewater
- Surface Water



## The power of the perfect pair: TN and TP

You spend a lot of time looking at your data and your process, so you never come close to any compliance issues while managing your environmental and regulatory goals. When you choose the new EZ Series Total Nitrogen and Total Phosphorus analyzer from Hach, you'll get industry-leading technology with the power to measure both parameters in one analyzer for an hour-by-hour picture of nutrient removal efficiency. Full process insight gives you the confidence to take action.

### Stay in control

Be confident in your process. Measuring Total Nitrogen and Total Phosphorus can be a complicated array of processes, but you can be in control. Hach's new TN/TP analyzer simplifies the process by helping you get both measurements, quickly and accurately, with one device. When you choose our TN/TP analyzer, you'll get industry-leading technology and unparalleled Hach service and support. We are your partner in managing your environmental and regulatory goals, and we're here to help you optimize your work.

### See the total picture

Get a complete picture of your nutrient removal process with the reliable data and insights you need to act quickly and with confidence. Total nutrient discharge permits evolve, and with Hach's new EZ Series Total Nitrogen and Total Phosphorus analyzer you'll get actionable data every hour. You'll always see the total load of Nitrogen and Phosphorus in your water.

### This isn't simple, but we'll help you simplify

Hach is monitoring wastewater in new and exciting ways. We know that monitoring total nitrogen and total phosphorus can be a complicated process. That's why our new TN/TP analyzer gives you the power to simplify your process and get accurate readings. The new combined analyzer will make your day easier with features that help you save hands-on time. You'll enjoy the autocalibration, self-cleaning and automatic validation this analyzer provides.



Be Right™

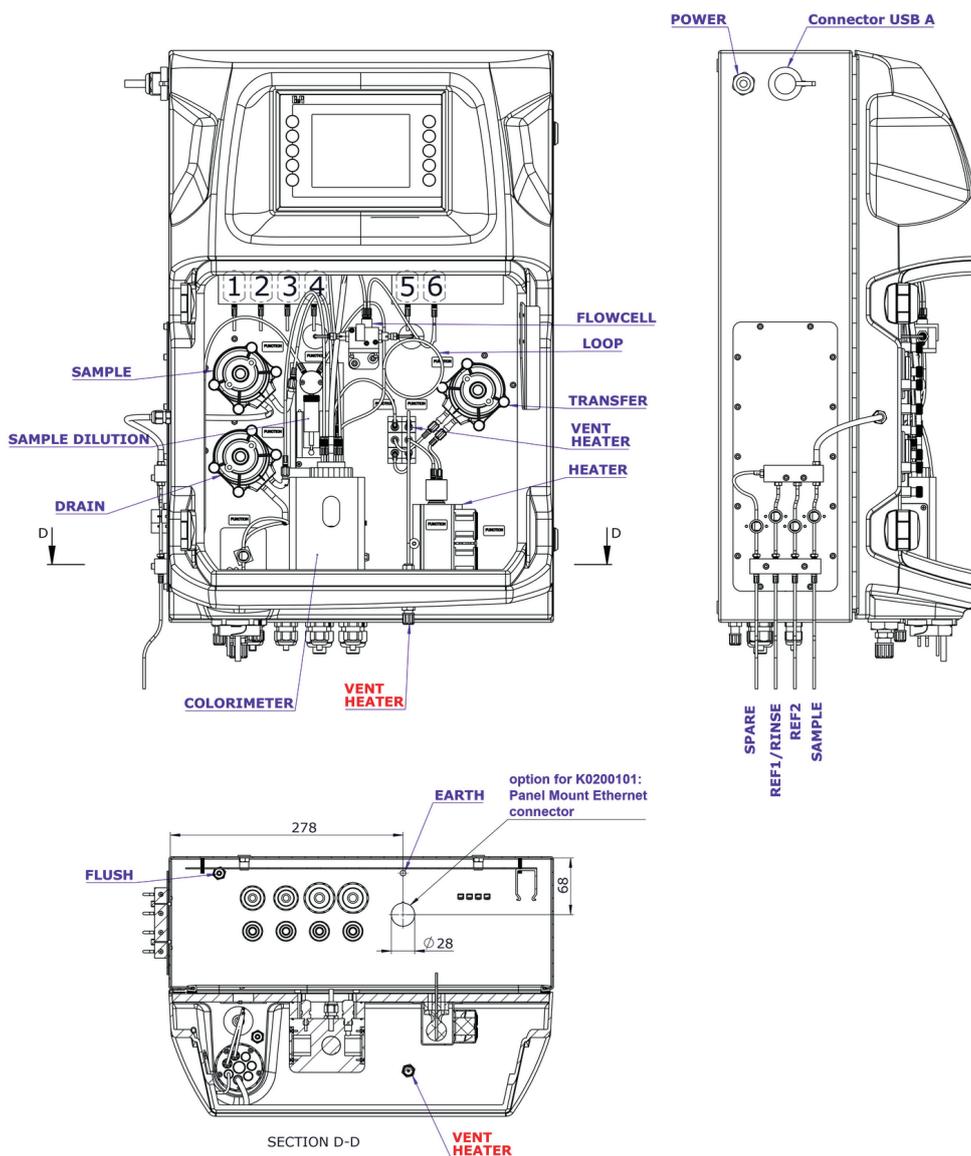
## Technical Data\*

<b>Parameter</b>	Total Nitrogen (TN) and Total Phosphorus (TP)
<b>Measurement Method</b>	TN: UV photometric measurement at 220 nm after persulfate digestion in alkaline medium, based on APHA 4500-NO <sub>3</sub> (B) TP: Colorimetric measurement at 700 nm using ascorbic acid reduction and molybdate color solution after persulfate digestion in acidic medium, based on APHA 4500-P
<b>Range</b>	Starting from 0.1 - 2 mg/L TN / 0.005 - 1 mg/L TP up to 10 - 200 mg/L TN / 0.5 - 50 mg/L TP (see page 4)
<b>Precision</b>	Better than 3% (TN) and 2% (TP) full scale range for standard test solutions
<b>Lower Limit of Detection (LOD)</b>	TN: ≤ 0.1 mg/L TP: ≤ 0.005 mg/L
<b>Interferences</b>	TN: The main interferences are Br <sup>-</sup> and I <sup>-</sup> . When the amount of I <sup>-</sup> is 2.2 fold of the amount of TN, or the amount of Br <sup>-</sup> is 3.4 fold of the amount of TN, this will interfere on the test results. Dissolved organic matter, surfactants and Chromium (VI) interfere. Various inorganic substances not normally found in natural water, such as Chlorite [ClO <sub>2</sub> <sup>-</sup> ] and Chlorate [ClO <sub>3</sub> <sup>-</sup> ], may interfere. TP: Arsenic (V), Chromium (VI), Copper (II) > 10 mg/L, Iron (III) > 10 mg/L, Sulfide > 2 mg/L, and Vanadium (V), Silica > 60 mg/L. Large amounts of color and turbidity interfere. Fats, oil, proteins, surfactants and tar.
<b>Cycle Time</b>	Standard measurement cycle time for both TN & TP: 60 minutes
<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 120 VAC, 50/60 Hz Max. power consumption: 440 VA
<b>Instrument Air</b>	Dry and oil free according to ISA-S7.0.01-1996 quality standard for instrument air
<b>Demineralized Water</b>	Consumption: 140 mL/analysis (hour)
<b>Drain</b>	Atmospheric pressure, vented, min. Ø 64 mm
<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: 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 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 / ETL certified

\*Subject to change without notice.

## Dimensions

No adaption, standard version



## 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

Total Nitrogen 0.1 - 2 mg/L TN, Total Phosphorus 0.005 - 1 mg/L TP	EZ7621.99						
Total Nitrogen 0.25 - 5 mg/L TN, Total Phosphorus 0.010 - 2 mg/L TP	EZ7632.99						
Total Nitrogen 0.25 - 10 mg/L TN, Total Phosphorus 0.005 - 1 mg/L TP	EZ7641.99						
Total Nitrogen 0.25 - 10 mg/L TN, Total Phosphorus 0.010 - 2 mg/L TP	EZ7642.99						
Total Nitrogen 0.5 - 20 mg/L TN, Total Phosphorus 0.010 - 2 mg/L TP	EZ7652.99						
Total Nitrogen 0.5 - 20 mg/L TN, Total Phosphorus 0.025 - 5 mg/L TP	EZ7653.99						
Total Nitrogen 0.5 - 20 mg/L TN, Total Phosphorus 0.05 - 10 mg/L TP	EZ7654.99	X	X	X	X	X	2
Total Nitrogen 2 - 50 mg/L TN, Total Phosphorus 0.025 - 5 mg/LTP	EZ7663.99						
Total Nitrogen 2 - 50 mg/L TN, Total Phosphorus 0.05 - 10 mg/L TP	EZ7664.99						
Total Nitrogen 2 - 50 mg/L TN, Total Phosphorus 0.1 - 20 mg/L TP	EZ7665.99						
Total Nitrogen 4 - 100 mg/L TN, Total Phosphorus 0.1 - 20 mg/L TP	EZ7675.99						
Total Nitrogen 4 - 100 mg/L TN, Total Phosphorus 0.5 - 50 mg/L TP	EZ7676.99						
Total Nitrogen 10 - 200 mg/L TN, Total Phosphorus 0.1 - 20 mg/L TP	EZ7685.99						
Total Nitrogen 10 - 200 mg/L TN, Total Phosphorus 0.5 - 50 mg/L TP	EZ7686.99						

### Measurement range settings / Dilution options

Standard range

0

### Power supply

230 VAC, 50/60 Hz

A

120 VAC, 50/60 Hz

B

### Number of sample streams

1 stream

1

2 streams

2

3 streams

3

4 streams

4

5 streams

5

6 streams

6

7 streams

7

8 streams

8

### Outputs

2x mA

3x mA

4x mA

5x mA

6x mA

7x mA

8x mA

Modbus TCP/IP

Modbus RS485

1x mA + Modbus RS485

2x mA + Modbus RS485

3x mA + Modbus RS485

4x mA + Modbus RS485\*

1x mA + Modbus TCP/IP

2x mA + Modbus TCP/IP

3x mA + Modbus TCP/IP

4x mA + Modbus TCP/IP\*

\*Combinations of up to 8x mA + Modbus are available.

2

3

4

5

6

7

8

B

C

E

F

G

H

I

J

K

L

No adaption, standard version

0