



## EZ7641 Total Nitrogen + Total Phosphorus Analyser

**Product #:** EZ7641.XXXXXXXX  
**AED Price:** Contact Hach

### 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 analyser from Hach, you'll get industry-leading technology with the power to measure both parameters in one analyser 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 analyser simplifies the process by helping you get both measurements, quickly and accurately, with one device. When you choose our TN/TP analyser, 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 optimise 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 analyser 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 analyser gives you the power to simplify your process and get accurate readings. The new combined analyser 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 analyser provides.

---

## Specifications

Alarm:	1 x malfunctioning, 4 x user-configurable, max. 24 VDC/0.5 A, potential free contacts
Ambient temperature:	10 - 30 °C, $\pm 4$ °C deviation at 5 - 95% relative humidity (non-condensing)
Analogue outputs:	Active 4 - 20 mA max. 500 Ohm load, standard 1, max. 8 (option)
Automatic cleaning:	Yes
Calibration:	Automatic, 2-point; frequency freely programmable
Certifications:	CE compliant / ETL certified

Cycle Time:	Standard measurement cycle time for both TN & TP: 60 minutes
Demineralised water:	Consumption: 140 mL/analysis (hour)
Detection limit:	TN: $\leq 0.25$ mg/L  TP: $\leq 0.005$ mg/L
Digital outputs:	Optional: Modbus (TCP/IP, RS485)
Dimensions (H x W x D):	690 mm x 465 mm x 330 mm
Drain:	Atmospheric pressure, vented, min. Ø 32 mm
Earth connection:	Dry and clean earth pole with low impedance ( $< 1$ Ohm) using an earth cable of $> 2.5$ mm <sup>2</sup>
Flow rate:	100 - 300 mL/min
Instrument air:	Dry and oil free according to ISA-S7.0.01-1996 quality standard for instrument air
Interferences:	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, Sulphide $> 2$ mg/L, and Vanadium (V), Silica $> 60$ mg/L. Large amounts of colour and turbidity interfere. Fats, oil, proteins, surfactants and tar.
Material:	Hinged part: Thermoform ABS, door: PMMA  Wall section: Galvanised steel, powder coated
Measurement method:	TN: UV photometric measurement at 220 nm after persulphate digestion in alkaline medium, based on APHA 4500-NO3 (B)  TP: Colorimetric measurement at 700 nm using ascorbic acid reduction and molybdate colour solution after persulphate digestion in acidic medium, based on APHA 4500-P
Measuring range:	0.25 - 10 mg/L TN; 0.005 - 1 mg/L TP
Number of sample streams:	1, 2, 4, or 8
Parameter:	Total Nitrogen (TN), Total Phosphorus (TP)
Power:	230 VAC, 50/60 Hz  120 VAC, 50/60 Hz  Max. power consumption: 440 VA
Precision:	Better than 3% (TN) and 2% (TP) full scale range for standard test solutions
Protection class:	Analyser cabinet: IP55 / Panel PC: IP65
Reagent Requirements:	Keep between 10 - 30 °C
Sample pressure:	By external overflow vessel
Sample quality:	Maximum particle size 100 µm, $< 0.1$ g/L; Turbidity $< 50$ NTU
Sample temperature:	10 - 30 °C
Validation:	Automatic; frequency freely programmable
Warranty:	24 months
Weight:	25 kg
What's included?:	EZ7641 Total Nitrogen & Total Phosphate Analyser, Instruction Manual, 1 x Double Bit Door Key, 1 x Mounting Brackets, 3 x empty 2.5L Reagent Containers with Fittings (HCl, NaOH and H <sub>2</sub> SO <sub>4</sub> Solution) and 3 x empty 2.5L Glass Reagent Containers with Fittings (Colour, Reductor & Persulphate Solution)

## What's included?

EZ7641 Total Nitrogen & Total Phosphate Analyser, Instruction Manual, 1 x Double Bit Door Key, 1 x Mounting Brackets, 3 x empty 2.5L Reagent Containers with Fittings (HCl, NaOH and  $\text{H}_2\text{SO}_4$  Solution) and 3 x empty 2.5L Glass Reagent Containers with Fittings (Colour, Reductor & Persulphate Solution)