



# EZ7800 Series Online Analyser for Total Phosphorus and Orthophosphate

## Applications

- Wastewater
- Surface water



## The full picture of Phosphorus removal: Total Phosphorus and Orthophosphate

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 Phosphorus and Orthophosphate analyser from Hach<sup>®</sup>, you'll get industry-leading technology with the power to measure both parameters in one analyser for a full picture of your Phosphorus removal process. Full process insight gives you the confidence to take action.

### Stay in control

Monitor your Phosphorus removal process with the reliable data and insights you need to act quickly and with confidence. Phosphorus discharge permits evolve, and the EZ Series Total Phosphorus and Orthophosphate analyser helps you quickly and accurately get both measurements to ensure permit compliance.

### See the total picture

Be confident in your process. You employ biological treatment and/or chemical precipitation to remove Phosphate, but the ratio of effluent TP vs. ortho-PO<sub>4</sub> may vary throughout the day. The new TP/PO<sub>4</sub> analyser will get you actionable data for both parameters with one device. Continuous monitoring will enable you to detect trends. You'll always see both forms of Phosphorus in your water.

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

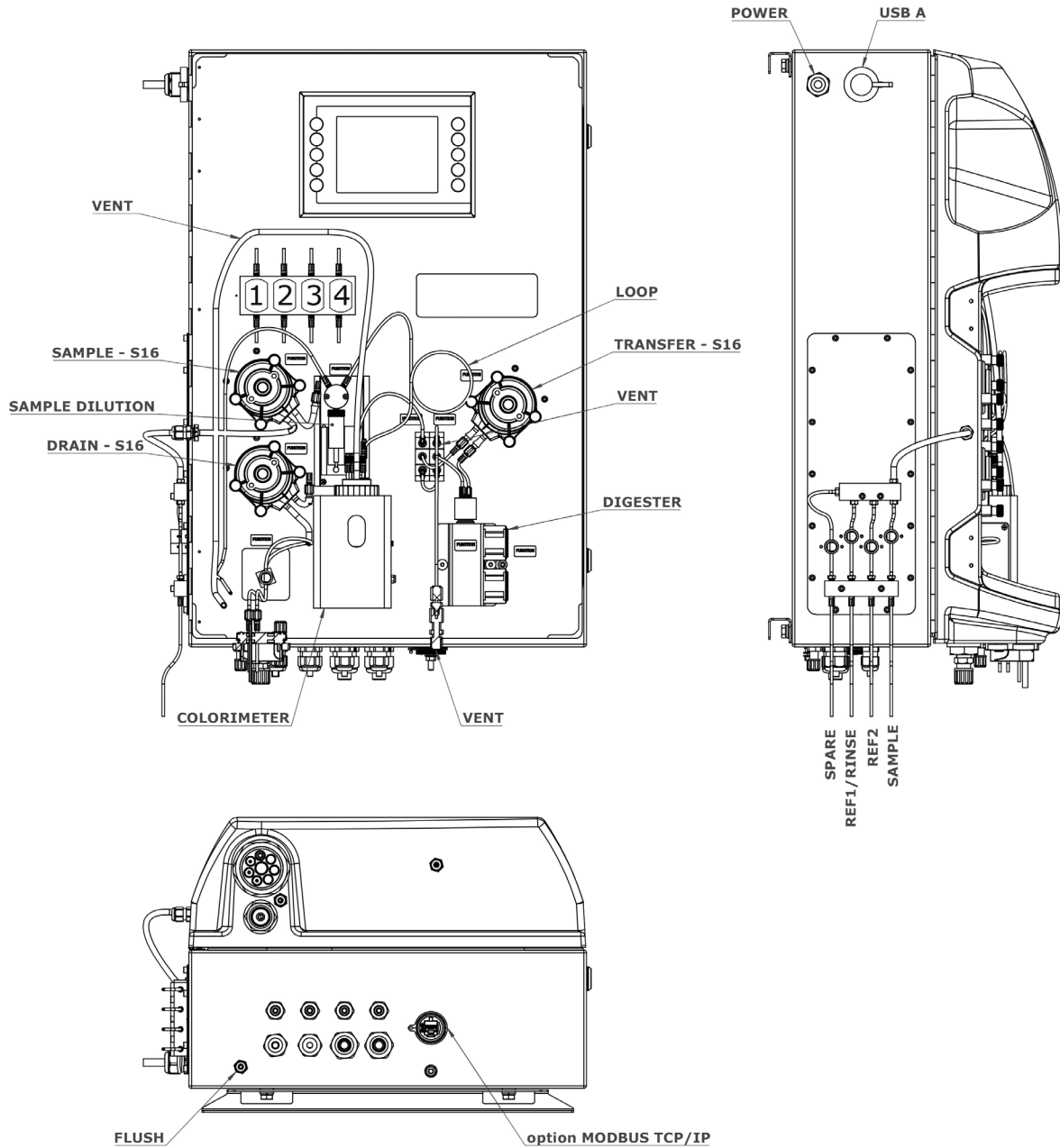
Sampling for lab analysis can be time-consuming, costly, and incurs a delay, whereas continuous monitoring helps you to understand the process conditions much faster. The new combined analyser will make your day easier with features that help you save hands-on time. Cooling water is no longer needed. You'll enjoy the autocalibration, self-cleaning and automatic validation this analyser provides. Ready to use reagents and the unparalleled Hach service and support are there to help you optimise your work.

**Technical Data\***

<b>Parameter</b>	Total Phosphorus (TP) and/or Orthophosphate (PO <sub>4</sub> -P)
<b>Measurement method</b>	Colorimetric measurement at 700 nm using ascorbic acid reduction and molybdate colour solution after persulphate digestion in acidic medium, conform with APHA 4500-P
<b>Measuring range</b>	EZ782x: Starting from 0.005 - 1 mg/L TP up to 0.5 - 50 mg/L TP (see page 4) EZ786x: Starting from 0.005 - 1 mg/L TP/PO <sub>4</sub> -P up to 0.5 - 50 mg/L TP/PO <sub>4</sub> -P (see page 4)
<b>Precision</b>	Better than 2% full scale range for standard test solutions
<b>Detection limit</b>	≤ 0.005 mg/L
<b>Interferences</b>	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.
<b>Cycle time</b>	Standard measurement cycle time for TP or both TP & Orthophosphate: 30 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 at 5 - 95% relative humidity (non-condensing)
<b>Reagent requirements</b>	Keep between 10 - 30 °C
<b>Sample pressure</b>	By external overflow vessel
<b>Flow rate</b>	100 - 300 mL/min
<b>Sample temperature</b>	10 - 30 °C
<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>Demineralised water</b>	For rinsing / dilution
<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>Analogue 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>	Analyser cabinet: IP44 / Panel PC: IP65
<b>Material</b>	Hinged part: Thermoform ABS, door: plexiglass Wall section: Galvanised steel, powder coated
<b>Dimensions (H x W x D)</b>	690 mm x 465 mm x 330 mm
<b>Weight</b>	25 kg
<b>Certifications</b>	CE compliant / ETL certified

\*Subject to change without notice.

## Dimensions



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

## Order Information - Part Number Configurator

Total Phosphorus, 0.005-1 mg/L TP	EZ7821.99						
Total Phosphorus, 0.01-2 mg/L TP	EZ7822.99						
Total Phosphorus, 0.025-5 mg/L TP	EZ7823.99						
Total Phosphorus, 0.05-10 mg/L TP	EZ7824.99						
Total Phosphorus, 0.1-20 mg/L TP	EZ7825.99						
Total Phosphorus, 0.5-50 mg/L TP	EZ7826.99						
Total Phosphorus/Orthophosphate, 0.005-1 mg/L TP/PO <sub>4</sub> -P	EZ7861.99	X	X	X	X	X	2
Total Phosphorus/Orthophosphate, 0.010-2 mg/L TP/PO <sub>4</sub> -P	EZ7862.99						
Total Phosphorus/Orthophosphate, 0.025-5 mg/L TP/PO <sub>4</sub> -P	EZ7863.99						
Total Phosphorus/Orthophosphate, 0.05-10 mg/L TP/PO <sub>4</sub> -P	EZ7864.99						
Total Phosphorus/Orthophosphate, 0.10-20 mg/L TP/PO <sub>4</sub> -P	EZ7865.99						
Total Phosphorus/Orthophosphate, 0.50-50 mg/L TP/PO <sub>4</sub> -P	EZ7866.99						

### 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

1x mA

1

2x mA

2

3x mA

3

4x mA

4

5x mA

5

6x mA

6

7x mA

7

8x mA

8

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

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

No adaption, standard version

0

Homogenisation

1

