# EZ sc Series Phosphate Analysers - EZ1031sc, EZ1032sc and EZ2732sc

**Applications**

- Wastewater
- Drinking Water
- Power Generation
- Surface Water


## Reliable, Scalable Systems Designed for Peak Performance

The EZ sc Series of online analysers delivers robust, efficient, and future-ready solutions for facilities striving to maximise operational uptime and meet evolving demands. Engineered with precision and backed by expert support, EZ sc systems integrate flexibility, providing durable performance, intuitive tools, and the ability to scale, all while minimising downtime and maintenance requirements.

### Trusted Equipment for Critical Operations

The EZ sc Series combines robust engineering with high-quality materials to ensure reliability 24/7. Designed for long-term performance, EZ sc Series minimises breakdowns and supports sustained operational success.

### Scalable Solutions for Growing Needs

Built to evolve alongside your needs, online analysers from the EZ sc Series offer adaptable parameters and easier integration. They ensure your facility remains future proof without requiring expensive upgrades. Easily adjust parameter testing ranges and expand sample streams to accommodate innovation and growth.

### Real-Time Data for Faster Decisions

The EZ sc Series offers advanced connectivity and real-time monitoring, delivering immediate access to actionable insights. Facilities utilising this technology benefit from improved reaction times, empowering more informed decision-making and quicker responses during critical situations.

### Simplified Troubleshooting with Expert Support

Built-in diagnostics combined with secure remote data access make the EZ sc Series simplify issue resolution. Supported by a highly responsive team of experts, it ensures uninterrupted functionality and minimises operational downtime. By addressing and identifying issues early, EZ sc Series of online analysers helps prevent costly disruptions and repairs while maintaining system efficiency

### Clear Workflows for Predictable Outcomes

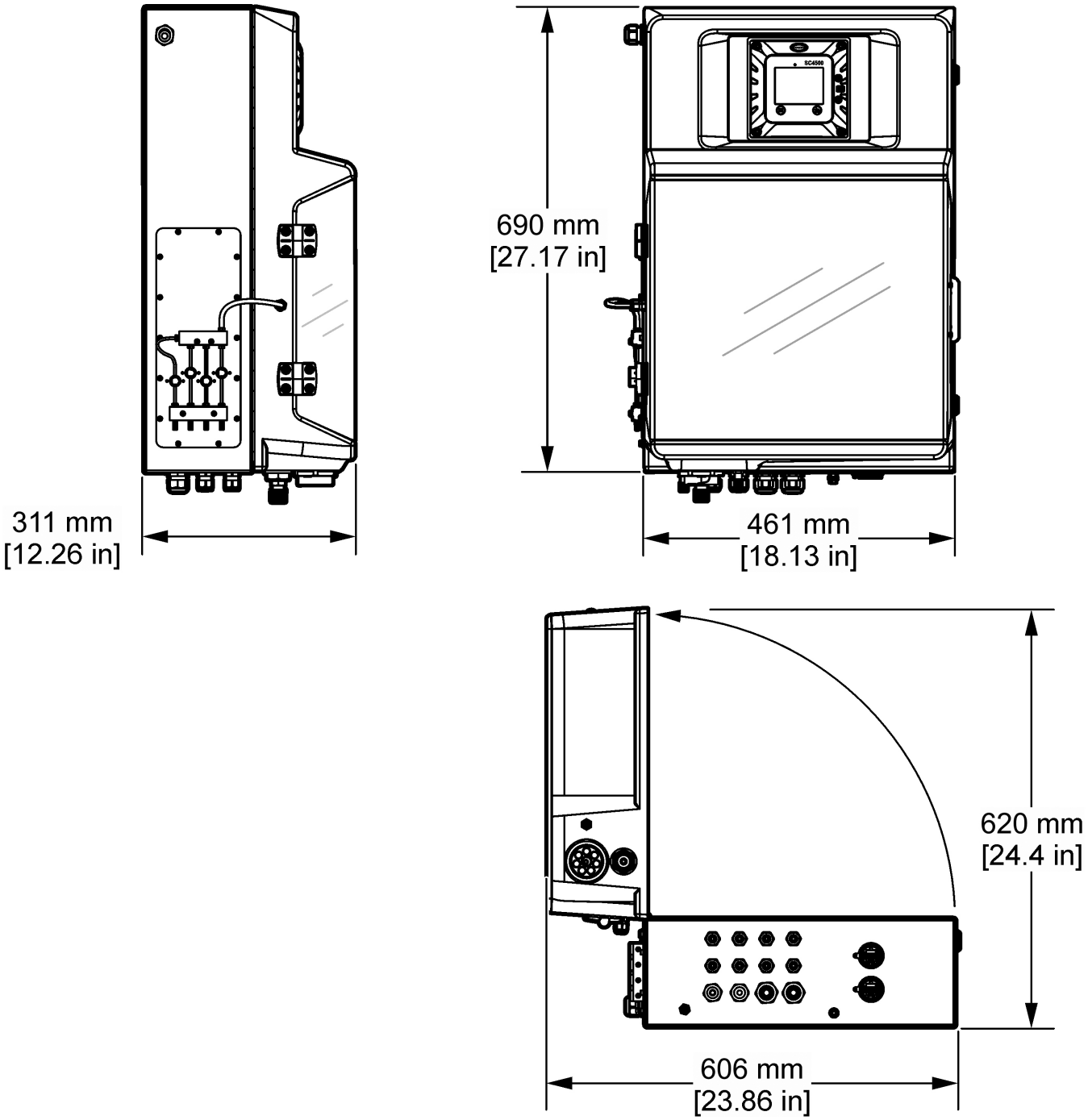
Standardised tools and guided workflows ensure consistent implementation and operation. The EZ sc Series minimises miscommunication, sets clear expectations, and reduces process inconsistencies, driving greater efficiency.

## Technical Data*

| Model | EZ1031sc | EZ1032sc | EZ2727sc |
|---|---|---|---|
| **Parameter** | Orthophosphate ($PO_4$-P) | Orthophosphate ($PO_4$-P) | Phosphorus, total |
| **Measuring range** | 0.02 - 1 mg/L $PO_4$-P<br>0.05 - 2.5 mg/L $PO_4$-P<br>0.05 - 5 mg/L $PO_4$-P<br>0.1 - 10 mg/L $PO_4$-P<br>0.5 - 50 mg/L $PO_4$-P<br>(with internal dilution)<br>1.0 - 100 mg/L $PO_4$-P<br>(with internal dilution)<br>2.5 -250 mg/L $PO_4$-P<br>(with internal dilution)<br>5.0 -500 mg/L $PO_4$-P<br>(with internal dilution)<br>7.5 -750 mg/L $PO_4$-P<br>(with internal dilution)<br>10 -1000 mg/L $PO_4$-P<br>(with internal dilution) | 0.001 - 0.1 mg/L $PO_4$-P<br>0.003 - 0.25 mg/L $PO_4$-P<br>0.003 - 0.5 mg/L $PO_4$-P<br>0.005 - 1 mg/L $PO_4$-P<br>0.025 - 5 mg/L $PO_4$-P<br>(with internal dilution)<br>0.050 - 10 mg/L $PO_4$-P<br>(with internal dilution)<br>0.125 - 25 mg/L $PO_4$-P<br>(with internal dilution)<br>0.250 - 50 mg/L $PO_4$-P<br>(with internal dilution)<br>0.375 - 75 mg/L $PO_4$-P<br>(with internal dilution)<br>0.500 - 100 mg/L $PO_4$-P<br>(with internal dilution) | 0.005 - 1 mg/L $PO_4$-P<br>0.025 - 5 mg/L $PO_4$-P<br>(with internal dilution)<br>0.05 - 10 mg/L $PO_4$-P<br>(with internal dilution)<br>0.125 - 25 mg/L $PO_4$-P<br>(with internal dilution)<br>0.25 - 50 mg/L $PO_4$-P<br>(with internal dilution) |
| **Detection limit** | ≤ 20 µg/L | ≤ 1 µg/L | ≤ 0.005 mg/L |
| **Cycle time** | 10 min (dilution + 5 min) | 10 min (dilution + 5 min) | Standard measurement cycle time for TP: 30 minutes |
| **Measurement method** | Colorimetric measurement using vanadate yellow method (450 nm) | Molybdate blue method (630 nm), conform with APHA 4500-P (C) and (E) | Colorimetric measurement at 700 nm using ascorbic acid reduction and molybdate colour solution after persulphate digestion in acidic medium, conform with APHA 4500-P |
| **Sample temperature** | 10 - 30 °C | 10 - 30 °C | 10 - 30 °C |
| **Power** | 100 - 240 VAC, 50/60 Hz<br>Max. power consumption: 120 VA | 100 - 240 VAC, 50/60 Hz<br>Max. power consumption: 120 VA | 230 VAC, 50/60 Hz<br>120 VAC, 50/60 Hz<br>Max. power consumption: 240 VA |
| **Precision** | Better than 3% full scale range for standard test solutions | | |
| **Interferences** | Positive interference is caused by Silica Arsenate if the sample is heated. Negative interferences are caused by Arsenate, Fluoride, Thorium, Bismuth, Sulphide, Thiosulphate, Thiocyanate or excess of Molybdate. Blue colour is caused by Ferrous Iron but this does not affect results for Ferrous Iron concentrations < 100 mg/L. If Nitric Acid is used, Chloride interferes from 75 mg/L. Large amounts of colour and turbidity interfere. Fats, oil, proteins, surfactants and tar. | | |
| **Automatic cleaning** | Yes | | |
| **Calibration** | Automatic, 2-point; frequency freely programmable | | |
| **Validation** | Automatic; frequency freely programmable | | |
| **Ambient temperature** | 10 - 30 °C ± 4 °C deviation at 5 - 95% relative humidity (non-condensing) | | |
| **Reagent requirements** | Keep between 10 - 30 °C | | |
| **Sample pressure** | By external overflow vessel | | |
| **Flow rate** | 100 - 300 mL/min | | |
| **Sample quality** | Maximum particle size 100 µm, < 0.1 g/L; Turbidity < 50 NTU | | |
| **Instrument air** | Dry and oil free according to ISA-S7.0.01-1996 quality standard for instrument air | | |
| **Demineralised water** | For rinsing / dilution | | |
| **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 $mm^2$ | | |
| **Analogue outputs** | Active 4 - 20 mA max. 500 Ohm load, standard 4, max. 8 (option) | | |
| **Digital outputs** | Optional: Modbus (TCP/IP, RTU), Profinet, Profibus DP, Ethernet IP | | |
| **Alarm** | 1 x malfunctioning, 4 x user-configurable, max. 24 VDC/0.5 A, potential free contacts | | |
| **Protection class** | IP44 | | |
| **Material** | Hinged part: Thermoform ABS, door: PMMA<br>Wall section: Galvanised steel, powder coated | | |
| **Dimensions (H x W x D)** | 688 mm x 460 mm x 340 mm | | |
| **Weight** | 40 kg | | |
| **Certifications** | CE compliant / ETL certified | | |

**Subject to change without notice.*

## Dimensions




### Enable the Benefits of Smart Monitoring

This instrument connects to Claros, Hach's innovative Water Intelligence System. Claros allows you to seamlessly connect and manage instruments, data, and process – anywhere, anytime. The result is greater confidence in your data and improved efficiencies in your operations. To unlock the full potential of Claros, insist on Claros Enabled instruments.

### Hach Service Protects Your Investment

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

| Vanadate Yellow: EZ1031.98<br>Molybdate Blue: EZ1032.98 | X | X | X | X | X |
|---|---|---|---|---|---|
| **Measurement range** | | | | | |
| 0.02 - 1 mg/L $PO_4$-P | | | | | |
| 0.05 - 2.5 mg/L $PO_4$-P | | | | | |
| 0.05 - 5 mg/L $PO_4$-P | 0 | | | | |
| 0.1 - 10 mg/L $PO_4$-P | | | | | |
| 0.5 - 50 mg/L $PO_4$-P (with internal dilution) | | | | | |
| 1.0 - 100 mg/L $PO_4$-P (with internal dilution) | | | | | |
| 2.5 -250 mg/L $PO_4$-P (with internal dilution) | | | | | |
| 5.0 -500 mg/L $PO_4$-P (with internal dilution) | V | | | | |
| 7.5 -750 mg/L $PO_4$-P (with internal dilution) | | | | | |
| 10 -1000 mg/L $PO_4$-P (with internal dilution) | | | | | |
| **Power supply** | | | | | |
| 100 - 240 VAC, 50/60 Hz | | 0 | | | |
| **Number of sample streams** | | | | | |
| 1 stream | | | 1 | | |
| **Outputs** | | | | | |
| 4x mA | | | | 4 | |
| 8x mA | | | | 8 | |
| 4x mA + Modbus RTU | | | | D | |
| 8x mA + Modbus RTU | | | | E | |
| 4x mA + Modbus TCP/IP | | | | I | |
| 8x mA + Modbus TCP/IP | | | | J | |
| 4x mA + Profinet | | | | N | |
| 8x mA + Profinet | | | | O | |
| 4x mA + Profinet DP | | | | S | |
| 8x mA + Profinet DP | | | | T | |
| 4x mA + Ethernet/IP | | | | X | |
| 8x mA + Ethernet/IP | | | | Y | |
| No adaption, “SC4500” version | | | | | 0T |

### Accessories

APPAZ0080002 - Moduplex, 2 streams, Pinch Valve, 1/8" OD
APPAZ0080004 - Moduplex, 4 streams, Pinch Valve, 1/8" OD
APPAZ0080008 - Moduplex, 8 streams, Pinch Valve, 1/8" OD

## Order Information

| EZ2732.98 | X | X | X | X | X |
|---|---|---|---|---|---|
| **Measurement range** | | | | | |
| 0.005 - 1 mg/L $PO_4$-P | 0 | | | | |
| 0.025 - 5 mg/L $PO_4$-P (with internal dilution)<br>0.05 - 10 mg/L $PO_4$-P (with internal dilution)<br>0.125 - 25 mg/L $PO_4$-P (with internal dilution)<br>0.25 - 50 mg/L $PO_4$-P (with internal dilution) | V | | | | |
| **Power supply** | | | | | |
| 220 VAC, 50/60 Hz | | A | | | |
| 120 VAC, 50/60 Hz<br>Max. power consumption: 240 VA | | B | | | |
| **Number of sample streams** | | | | | |
| 1 stream | | | 1 | | |
| **Outputs** | | | | | |
| 4x mA | | | | 4 | |
| 8x mA | | | | 8 | |
| 4x mA + Modbus RTU | | | | D | |
| 8x mA + Modbus RTU | | | | E | |
| 4x mA + Modbus TCP/IP | | | | I | |
| 8x mA + Modbus TCP/IP | | | | J | |
| 4x mA + Profinet | | | | N | |
| 8x mA + Profinet | | | | O | |
| 4x mA + Profibus DP | | | | S | |
| 8x mA + Profibus DP | | | | T | |
| 4x mA + Ethernet/IP | | | | X | |
| 8x mA + Ethernet/IP | | | | Y | |
| No adaption, “SC4500” version | | | | | 0T |

## Accessories

APPAZ0080002 - Moduplex, 2 streams, Pinch Valve, 1/8" OD
APPAZ0080004 - Moduplex, 4 streams, Pinch Valve, 1/8" OD
APPAZ0080008 - Moduplex, 8 streams, Pinch Valve, 1/8" OD