

EZ1000 Series Online Colorimetric Phosphate Analyser

Applications

- Wastewater
- Drinking water
- Power
- Surface water



Single and multiple parameter water analysis for industrial and environmental applications

Since their introduction in 2009 the EZ1000 Series of Online Colorimetric Analysers have served in hundreds of industrial water, drinking water and municipal water applications. The flexible analyser mainframe allows a perfect online duplicate of any standard/laboratory wet-chemical method, with outstanding precision and accuracy.

The EZ1000 Series online analysers stem from many years of analytical expertise and application knowledge in colorimetry in an attractive, yet rugged mainframe with a compact footprint, harnessing the following features:

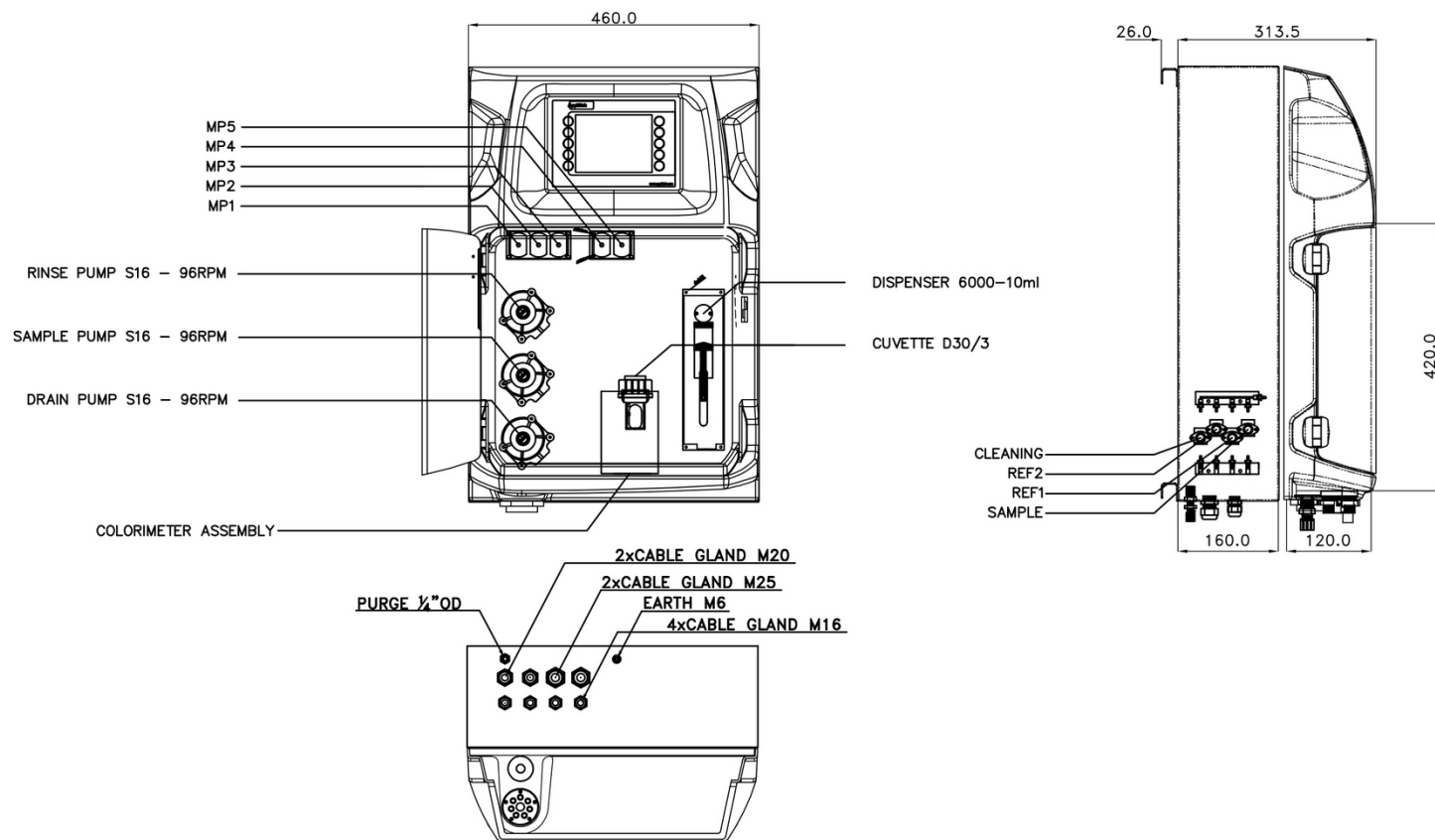
- Excellent analytical performance
- Smart automatic features
- Control and communication via industrial panel PC
- Standard 4 - 20 mA signal output with alarm processing
- Communication supporting Ethernet connectivity to Modbus TCP/IP
- Higher measuring ranges: internal sample dilution
- Multiple stream analysis

Technical Data*

Model	EZ1031	EZ1032
Measurement method	Colorimetric measurement using vanadate yellow method (450 nm)	Molybdate blue method (630 nm), conform with APHA 4500-P (C) and (E)
Measuring range	0 - 10 mg/L PO ₄ -P	0 - 1 mg/L PO ₄ -P
Precision	Better than 3% full scale range for standard test	1% full scale range for standard test
Detection limit	≤ 10 µg/L	≤ 1 µg/L
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.	Arsenic (V), Chromium (VI), Copper (II) > 10 mg/L, Iron (III) > 10 mg/L, Sulphide > 2 mg/L, Vanadium, Silica > 60 mg/L. Large amounts of colour and turbidity interfere. Fats, oil, proteins, surfactants and tar.
Parameter	Phosphate PO ₄ -P	
Cycle time	10 min (dilution + 5 min)	
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 temperature	10 - 30 °C	
Sample quality	Maximum particle size 100 µm, < 0.1 g/L; Turbidity < 50 NTU	
Power	110 - 240 VAC, 4 A, 50/60 Hz Max. power consumption: 150 VA	
Instrument air	Dry and oil free according to ISA-S7.0.01-1996 quality standard for instrument air	
Demineralised water	For rinsing and/or dilution	
Drain	Atmospheric pressure, vented, min. Ø 64 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 1, max. 8 (option)	
Digital outputs	Optional: RS232, Modbus (TCP/IP, RS485)	
Alarm	1 x malfunctioning, 4 x user-configurable, max. 24 VDC/0.5 A, potential free contacts	
Protection class	Analyser cabinet: IP55 / Panel PC: IP65	
Material	Hinged part: Thermoform ABS, door: plexiglass Wall section: Galvanised steel, powder coated	
Dimensions (H x W x D)	690 mm x 465 mm x 330 mm	
Weight	25 kg	
Certifications	CE compliant / UL certified	

*Subject to change without notice.

Dimensions



Be confident with Hach Service

Start-Up/Commissioning: Our service technicians visit your site and setup instrumentation, provide basic end-user training on operations and maintenance, and validate settings and performance to get you started.

Service Agreement: Hach provides on-site and in-factory repair, preventive maintenance, and calibration programs for your instruments to ensure reliability and instrument up-time. We have services to fit your specific needs.

Order Information - Part Number Configurator

Vanadate Yellow, 0-10 mg/L PO ₄ -P	EZ1031.99	X	X	X	X	X	2
Molybdate Blue, 0-1 mg/L PO ₄ -P	EZ1032.99						
Measurement range settings / Dilution options							
10% of standard range		A					
25% of standard range		B					
50% of standard range		C					
Standard range		0					
Internal micropump dilution (factor 4)		1					
Internal micropump dilution (factor 8)		2					
Internal dispenser dilution (max. factor 100)		5					
Customised		Z					
Power supply							
Standard 110 - 240 VAC; 50/60 Hz			0				
Customised			Z				
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		
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		
Customised / combined					Z		
Specials							
No adaption, standard version						0	
Customer specific adaptations required, to specify						S	