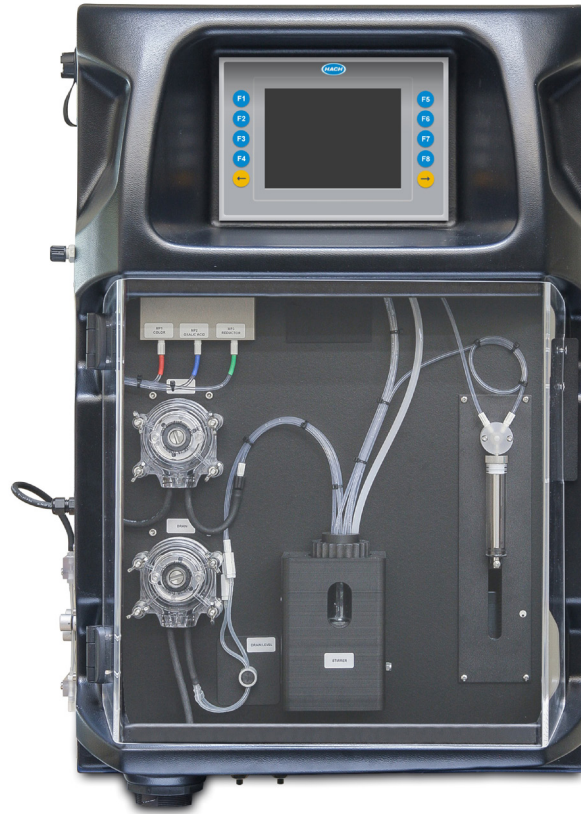




EZ1000 Series Online Colorimetric Calcium Hardness Analyzers

Applications

- Wastewater
- Drinking Water
- Power Generation
- Process/ Production Water
- Surface Water



Online colorimetric analysis of Calcium Hardness in water

Results you can rely on

EZ1000 Calcium Hardness Analyzers achieve excellent precision and accuracy. At the heart of the colorimeter there is a compact photometer assembly developed especially for the EZ Series. Consumption of reagents is reduced by low volume analysis, yet high sensitivity is assured by a long optical path length. The limit of detection is in the low $\mu\text{g/L}$ range.

Smart automatic features for calibration, validation, priming and cleaning are embedded in the controller software and contribute to analytical performance, maximized uptime and negligible operator intervention. Precision micropumps dose all reagents. Sample lines and analysis vessel are cleaned with demineralized water to eliminate cross contamination between samples. Electronic and wet-chemical part of the analyzer are strictly separated. A transparent door allows for instant visual inspection of the wet part.

Flexibility that meets your needs

EZ Series Calcium Hardness Analyzers come in an attractive, ergonomic mainframe with a compact footprint. All hardware is controlled by the integrated industrial panel PC. The modular build allows for the analyzer to match your application and operational needs.

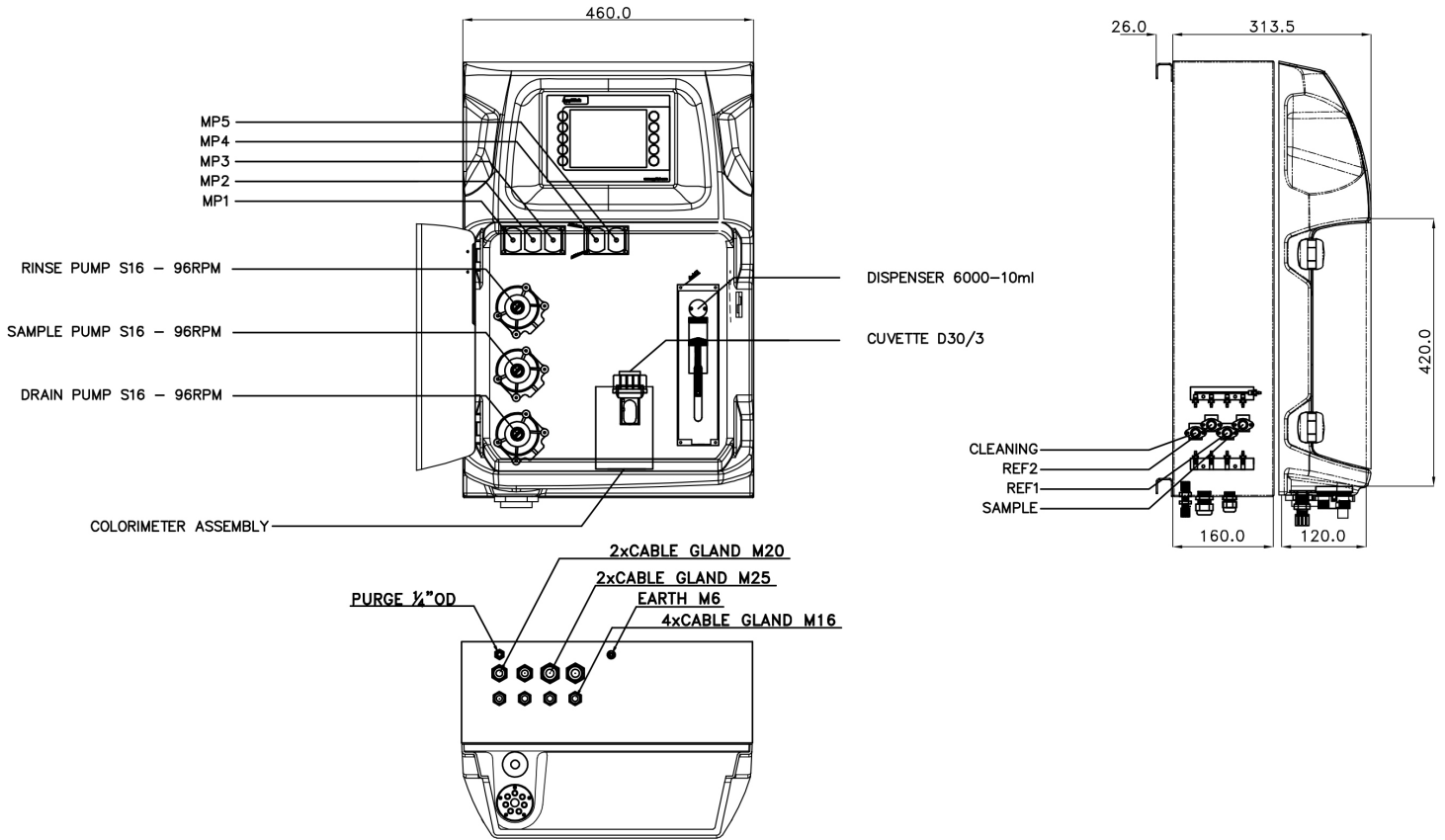
- The standard measuring range can be narrowed by a different calibration range or extended via internal dilution options.
- Analog and digital output options
- Multiple stream analysis for up to 8 sample streams

Technical Data*

Model	EZ1017
Parameter	Calcium Hardness
Measurement Method	Colorimetric measurement at 610 nm using hydroxynaphthol blue/EDTA
Range	0.025 - 1 mg/L CaCO ₃ Optional: 0.005 - 0.25 mg/L 0.005 - 0.5 mg/L 0.2 - 4 mg/L (with internal dilution) 0.4 - 8 mg/L (with internal dilution) 0.25 - 10 mg/L (with internal dilution) 0.625 - 25 mg/L (with internal dilution) 1.25 - 50 mg/L (with internal dilution) 1.875 - 75 mg/L (with internal dilution) 2.5 - 100 mg/L (with internal dilution)
Interferences	Dissolved Copper Cu(II) > 2 mg/L, Iron Fe(II) > 20 mg/L, Manganese > 10 mg/L, Zinc > 5 mg/L, Lead > 5 mg/L, Aluminium > 5 mg/L and Tin Sn(IV) interfere. Orthophosphate precipitates Calcium at the pH of the test. Strontium and Barium give a positive interference and alkalinity in excess of 300 mg/L may cause an indistinct end point in hard waters. Large amounts of color and turbidity interfere. Fats, oil, proteins, surfactants and tar.
Digital Outputs	Optional: Modbus (TCP/IP, RS485)
Protection Class	Analyzer cabinet: IP44 / Panel PC: IP65
Precision	Better than 2% full scale range for standard test solutions
Lower Limit of Detection (LOD)	≤ 2.5 µg/L CaCO ₃
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 (50 - 86 °F ± 7.2 °F deviation) at 5 - 95% relative humidity (non-condensing)
Reagent Requirements	Keep between 10 - 30 °C (50 - 86 °F)
Sample Pressure	By external overflow vessel
Sample Flow Rate	100 - 300 mL/min
Sample Temperature	10 - 30 °C (50 - 86 °F)
Sample Quality	Maximum particle size 100 µm, < 0.1 g/L; Turbidity < 50 NTU
Power	100 - 240 VAC, 50/60 Hz Max. power consumption: 120 VA
Instrument Air	Dry and oil free according to ISA-S7.0.01-1996 quality standard for instrument air
Demineralized 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
Analog Outputs	Active 4 - 20 mA max. 500 Ohm load, standard 1, max. 8 (option)
Alarm	1 x malfunctioning, 4 x user-configurable, max. 24 VDC/0.5 A, potential free contacts
Material	Hinged part: Thermoform ABS, door: PMMA Wall section: galvanized steel, powder coated
Dimensions (H x W x D)	690 mm x 465 mm x 330 mm
Weight	25 kg (55 lbs.)
Certifications	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 maximize instrument uptime, ensure data integrity, maintain operational stability, and reduce compliance risk.

Order Information - Part Number Configurator

Calcium Hardness 0.025 - 1 mg/L CaCO ₃	EZ1017.99*	X	X	X	X	X	X
Measurement settings / Dilution options							
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 (factor 10)	W						
Internal dispenser dilution (factor 25)	X						
Internal dispenser dilution (factor 50)	Y						
Internal dispenser dilution (factor 75)	Z						
Internal dispenser dilution (factor 100)	5						
Power supply							
Standard 100 - 240 VAC, 50/60 Hz			0				
Number of sample streams							
1 stream				1			
2 streams				2			
4 streams				4			
8 streams				8			
1 stream + Adaption for EZ9110				A			
2 streams + Adaption for EZ9110				B			
4 streams + Adaption for EZ9110				D			
Outputs							
1x mA					1		
2x mA					2		
4x mA					4		
8x mA					8		
1x mA + Modbus RS485					E		
2x mA + Modbus RS485					F		
4x mA + Modbus RS485					H		
8x mA + Modbus RS485					P		
1x mA + Modbus TCP/IP					I		
2x mA + Modbus TCP/IP					J		
4x mA + Modbus TCP/IP					L		
8x mA + Modbus TCP/IP					T		
No adaption, standard version						0	
With integrated industrial panel PC							2

*Part numbers may vary by country.

