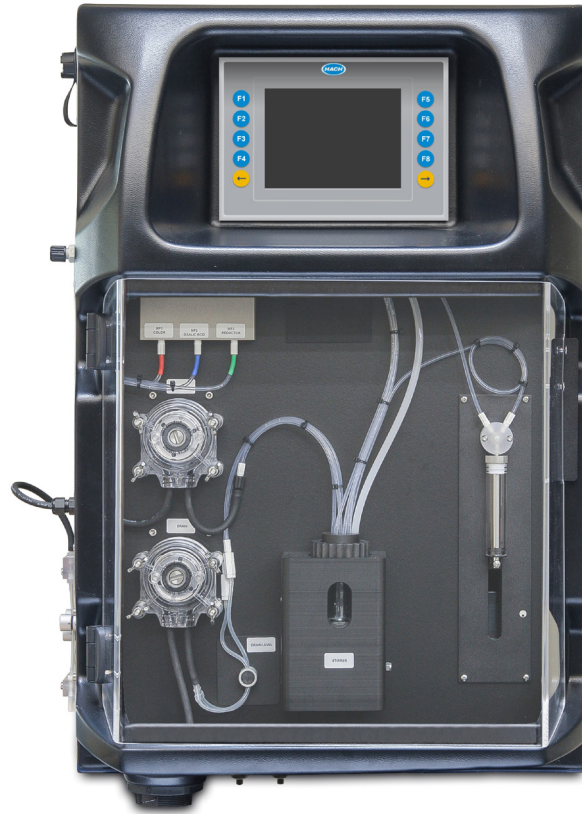


# EZ1000 Series Online Colorimetric Calcium Hardness Analysers

## 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 Analysers 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, maximised uptime and negligible operator intervention. Precision micropumps dose all reagents. Sample lines and analysis vessel are cleaned with demineralised water to eliminate cross contamination between samples. Electronic and wet-chemical part of the analyser are strictly separated. A transparent door allows for instant visual inspection of the wet part.

### Flexibility that meets your needs

EZ Series Calcium Hardness Analysers 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 analyser to match your application and operational needs.

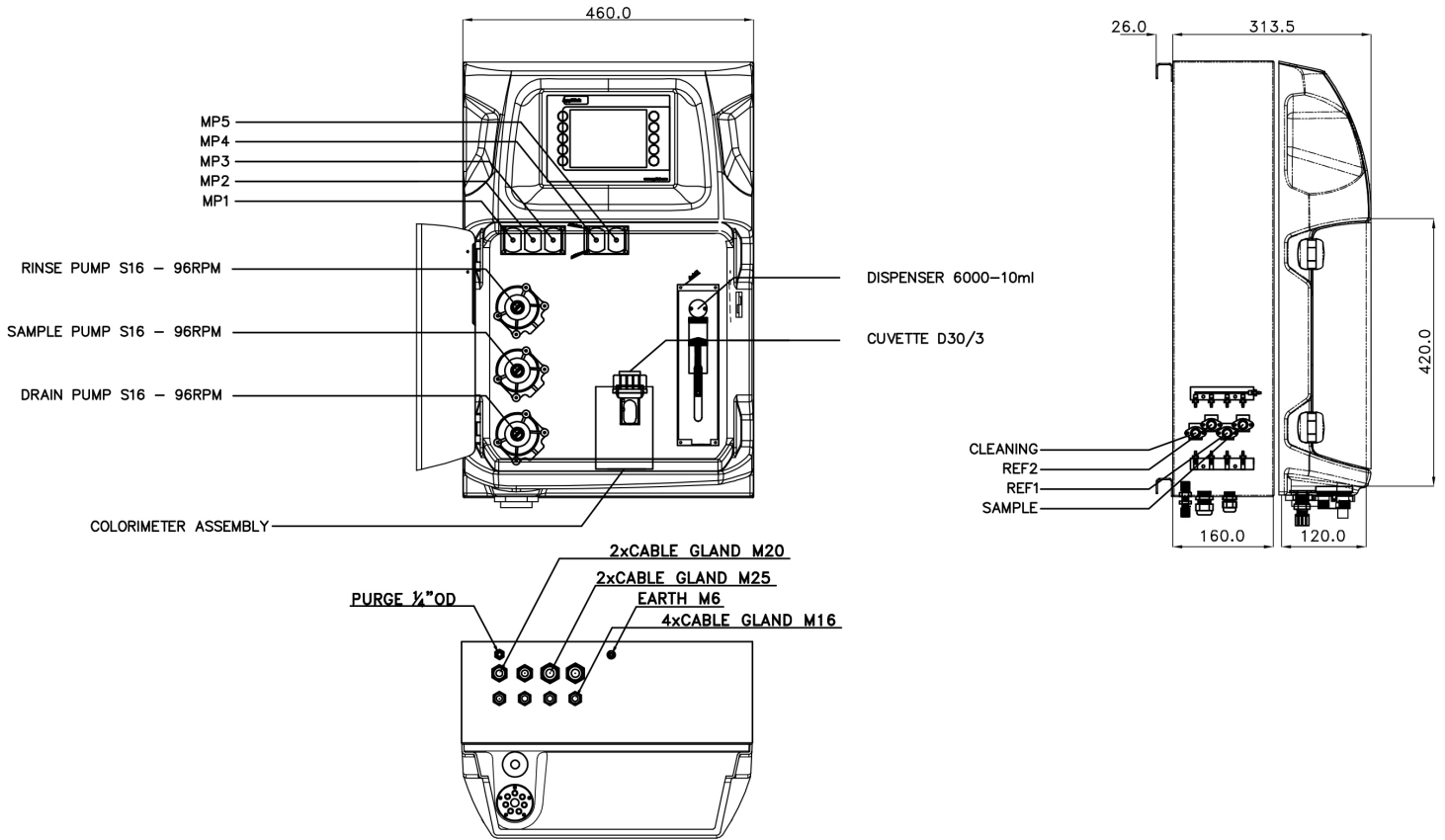
- The standard measuring range can be narrowed by a different calibration range or extended via internal dilution options.
- Analog and digital output options
- Multiple stream analysis for up to 8 sample streams

**Technical Data\***

<b>Model</b>	EZ1017
<b>Parameter</b>	Calcium Hardness
<b>Measurement method</b>	Colorimetric measurement at 610 nm using hydroxynaphthol blue/EDTA
<b>Measuring range</b>	0.025 - 1 mg/L CaCO <sub>3</sub> 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)
<b>Interferences</b>	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 colour and turbidity interfere. Fats, oil, proteins, surfactants and tar.
<b>Digital outputs</b>	Optional: Modbus (TCP/IP, RS485)
<b>Protection class</b>	Analyser cabinet: IP44 / Panel PC: IP65
<b>Precision</b>	Better than 2% full scale range for standard test solutions
<b>Detection limit</b>	≤ 2.5 µg/L CaCO <sub>3</sub>
<b>Cycle time</b>	10 min (dilution + 5 min.)
<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>	100 - 240 VAC, 50/60 Hz Max. power consumption: 120 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 32 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>Alarm</b>	1 x malfunctioning, 4 x user-configurable, max. 24 VDC/0.5 A, potential free contacts
<b>Material</b>	Hinged part: Thermoform ABS, door: PMMA 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

Calcium Hardness 0.025 - 1 mg/L CaCO <sub>3</sub>	EZ1017.99*	X	X	X	X	X	X
<b>Measurement settings / Dilution options</b>							
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						
<b>Power supply</b>							
Standard 100 - 240 VAC, 50/60 Hz			0				
<b>Number of sample streams</b>							
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			
<b>Outputs</b>							
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.

