

# EZ1000 Series Online Colorimetric Chlorine Analyser

## Applications

- Wastewater
- Drinking water
- Power and steam generation
- Process water
- Surface water



## Online colorimetric analysis of Free + Total Chlorine in water

### Results you can rely on

EZ1000 Free + Total Chlorine 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 Free + Total Chlorine 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.

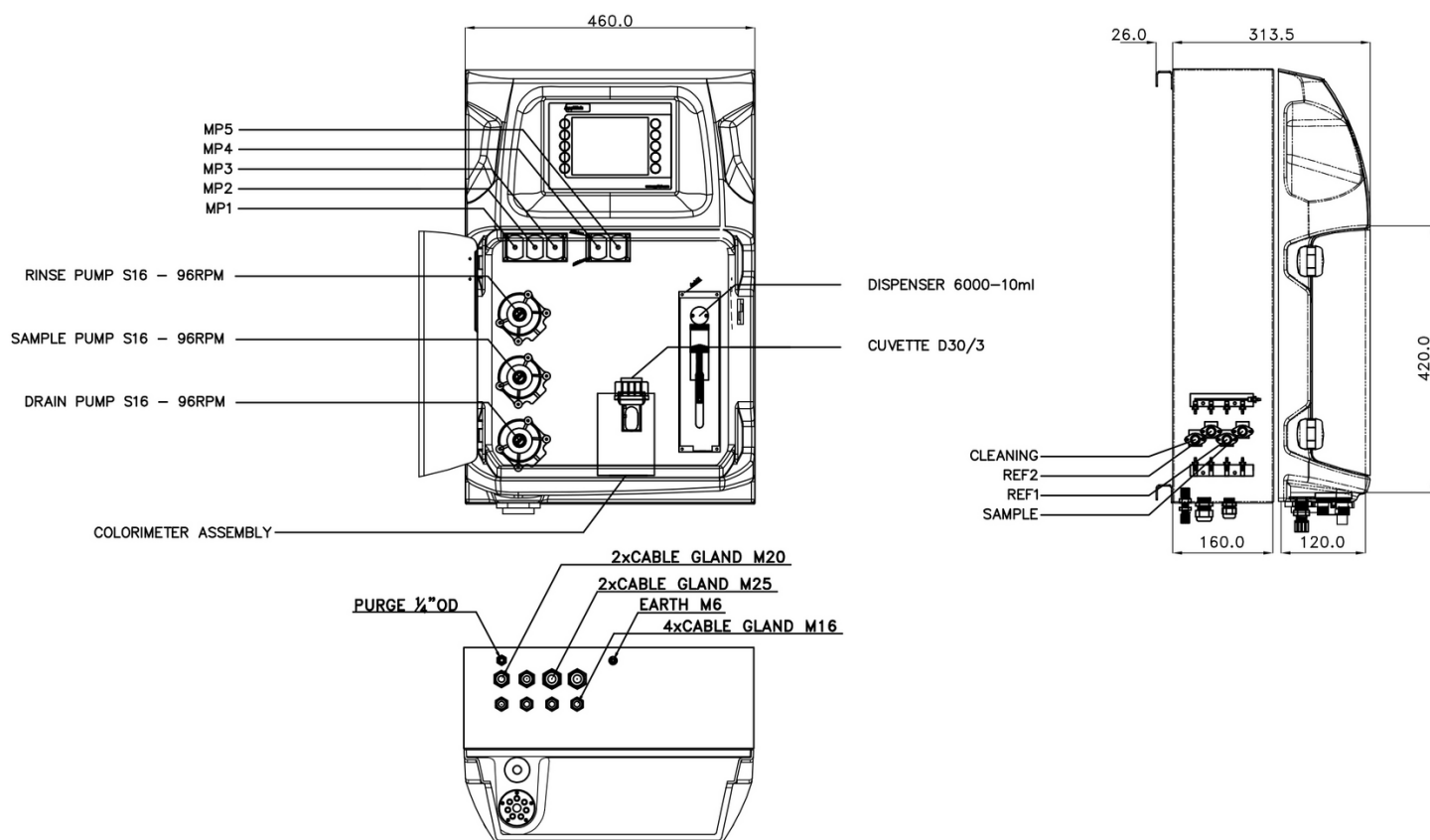
- The standard measuring range can be narrowed by a different calibration range or extended via internal dilution options
- Analogue and digital output options
- Multiple stream analysis for up to 8 sample streams

## Technical Data\*

<b>Parameter</b>	Free Chlorine, Total Chlorine
<b>Measurement method</b>	Colorimetric measurement at 510 nm using DPD, conform with standard method ASTM 4500-Cl-G
<b>Measuring range</b>	0.025 - 1.5 mg/L Cl <sub>2</sub> Optional: 5 - 150 µg/L 10 - 375 µg/L 10 - 750 µg/L 0.2 - 6 mg/L (with internal dilution) 0.4 - 12 mg/L (with internal dilution) 2.5 - 150 mg/L (with internal dilution)
<b>Precision</b>	Better than 2% full scale range for standard test solutions
<b>Detection limit</b>	≤ 5 µg/L
<b>Interferences</b>	Oxidants like Bromine, Bromamine, Copper Cu(II) >8 mg/L, Chromate, Hydrogen peroxide, Iodine, Iodoamines, Iron Fe(III) >20 mg/L, Nitrite, Ozone and Manganese may oxidize the DPD colour solution. Iodide and Bromide will interfere with determination of free Chlorine. Reduced forms of these components – Chloride, Manganous ion Mn(II) and Oxygen – do not interfere. Organic contaminants may produce a false Free chlorine reading. Chlorine dioxide will be detected as Total Chlorine. Reducing agents such as Ferrous compounds, Hydrogen, Sulphide and oxidizable organic matter generally do not interfere. Large amounts of colour and turbidity interfere. Fats, oil, proteins, surfactants and tar.
<b>Cycle time</b>	6 min (dilution + 5 min) per parameter
<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 refrigerated.
<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 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: IP55 / Panel PC: IP66
<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

Chlorine, free, 0.025 - 1.5 mg/L	EZ1006.99	X	X	X	X	X	2
Chlorine, total, 0.025 - 1.5 mg/L	EZ1007.99						
<b>Measurement range settings / Dilution options</b>							
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					
<b>Power supply</b>							
Standard 100 - 240 VAC, 50/60 Hz			0				
<b>Number of sample streams</b>							
1 stream				1			
2 streams				2			
3 streams				3			
4 streams				4			
5 streams				5			
6 streams				6			
7 streams				7			
8 streams				8			
<b>Outputs</b>							
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		
<i>*Combinations of up to 8x mA + Modbus are available.</i>							
No adaption, standard version							0