

EZ1000 Series Online Colorimetric Chlorine Analyzer

Applications

- Wastewater
- Drinking water
- Steam & power generation
- Process water
- Surface water



Online colorimetric analysis of Free and Total Chlorine in water

Results you can rely on

EZ1000 Chlorine 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 Chlorine 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

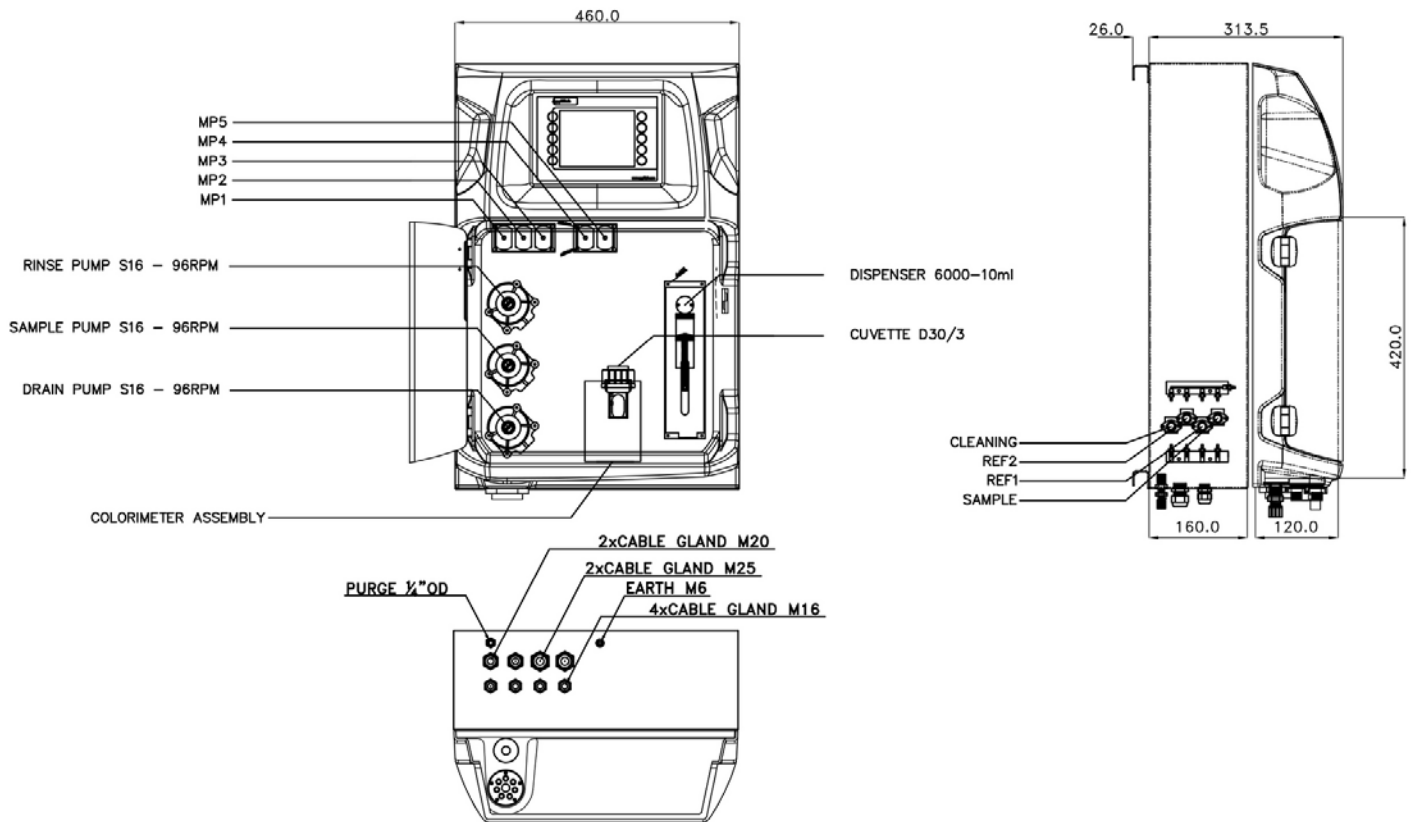
Options for the determination of Chlorine include:
Free Chlorine, Total Chlorine, Free & Total Chlorine

Technical Data*

Parameter	a) Chlorine, free b) Chlorine, total
Measurement method	Colorimetric measurement at 510 nm using DPD, conform with standard method ASTM 4500-Cl-G
Measuring range	0 - 1.5 mg/L Cl ₂ Optional: 0 - 150 µg/L 0 - 375 µg/L 0 - 750 µg/L 0 - 6 mg/L (with internal dilution) 0 - 12 mg/L (with internal dilution) 0 - 150 mg/L (with internal dilution)
Precision	Better than 2% full scale range for standard test solutions
Detection limit	≤ 10 µg/L
Interferences	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 color 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, Sulfide and oxidizable organic matter generally do not interfere. Large amounts of color and turbidity interfere. Fats, oil, proteins, surfactants and tar.
Cycle time	6 min (dilution + 5 min.) per parameter
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 refrigerated.
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
Demineralized 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	Analyzer 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

Chlorine, free; 0 - 1.5 mg/L	EZ1006.99						
Chlorine, total; 0 - 1.5 mg/L	EZ1007.99	X	X	X	X	X	2
Chlorine, free and Chlorine, total; 0 - 1.5 mg/L	EZ1300.99						
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						
Customized	Z						
Power supply							
Standard 110 - 240 VAC; 50/60 Hz	0						
Customized	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	
Customized / combined						Z	
Specials							
No adaption, standard version							0
Customer specific adaptations required, to specify							S