



# EZ1000sc Series Online Colorimetric Manganese Analyzer

## Applications

- Wastewater
- Drinking Water
- Power Generation
- Surface Water



## Online colorimetric analysis of dissolved Manganese in water

### Results you can rely on

EZ1000sc Manganese 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. The consumption of reagents is monitored through automatic counters, signalling the need of replacement. 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.

The EZ1000sc system has standard Claros connection enabled, which allows for remote monitoring, operating and troubleshooting.

### Flexibility that meets your needs

EZ Series Manganese 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.

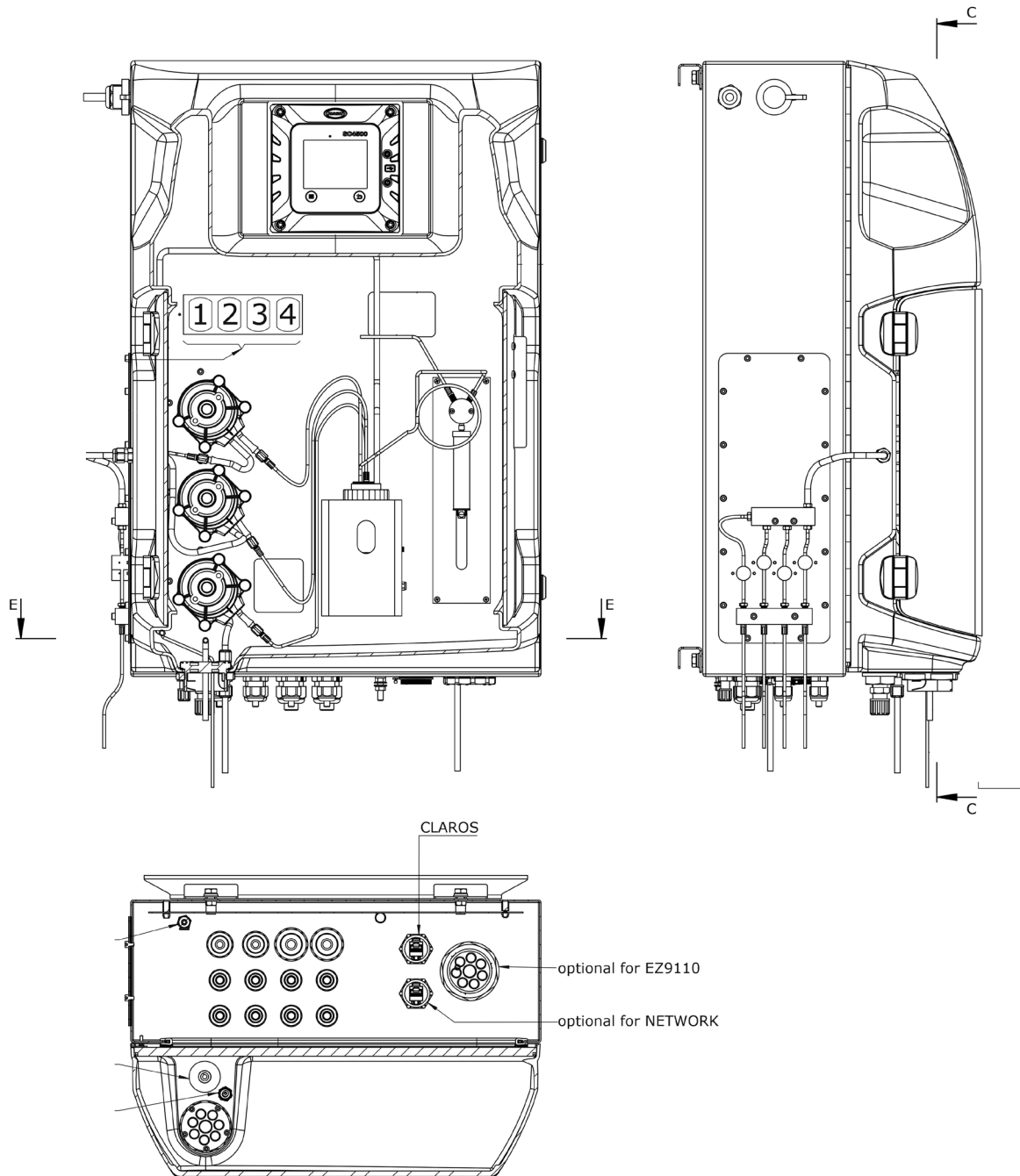
- The standard measuring range can be narrowed by a different calibration range or extended via internal dilution options.
- Analog and digital output options
- Multiple stream analysis for up to 8 sample streams

## Technical Data\*

Parameter	Manganese Mn(II), dissolved
<b>Measurement Method</b>	Colorimetric measurement using formaldoxime method at 450 nm
<b>Range</b>	0.01 - 1 mg/L Mn(II) Optional: 0.002 - 0.1 mg/L Mn(II) 0.005 - 0.25 mg/L Mn(II) 0.005 - 0.5 mg/L Mn(II) 0.1 - 10 mg/L Mn(II) (with internal dilution) 0.25 - 25 mg/L Mn(II) (with internal dilution) 0.5- 50 mg/L Mn(II) (with internal dilution) 0.75 - 75 mg/L Mn(II) (with internal dilution) 1 - 100 mg/L Mn(II) (with internal dilution)
<b>Precision</b>	Better than 2% full scale range for standard test solutions
<b>Lower Limit of Detection (LOD)</b>	≤ 2 µg/L
<b>Interferences</b>	Large amounts of color and turbidity interfere. Fats, oil, proteins, surfactants and tar.
<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 (50 - 86 °F ± 7.2 °F deviation) at 5 - 95% relative humidity (non-condensing)
<b>Reagent Requirements</b>	Keep between 10 - 30 °C (50 - 86 °F)
<b>Sample Pressure</b>	By external overflow vessel
<b>Sample Flow Rate</b>	100 - 300 mL/min
<b>Sample Temperature</b>	5 - 30 °C (41 - 86 °F)
<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>Demineralized 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>Analog Outputs</b>	Active 4 - 20 mA max. 500 Ohm load, standard 1, max. 8 (option)
<b>Digital Outputs</b>	Optional: Modbus (TCP/IP, RTU/RS485), Profinet, Profibus DP, Ethernet/IP
<b>Alarm</b>	Malfunction, maintenance, analyzer busy
<b>Protection Class</b>	IP44
<b>Material</b>	Hinged part: Thermoform ABS, door: PMMA Wall section: Galvanized steel, powder coated
<b>Dimensions (H x W x D)</b>	690 mm x 465 mm x 330 mm
<b>Weight</b>	25 kg (55 lbs.)
<b>Certifications</b>	CE compliant / ETL certified

\*Subject to change without notice.

## Dimensions



This instrument connects to Claros, Hach's innovative Water Intelligence System. Claros allows you to seamlessly connect and manage instruments, data, and process - anywhere, anytime. The result is greater confidence in your data and improved efficiencies in your operations. To unlock the full potential of Claros, insist on Claros Enabled instruments.



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

Mn(II), 0.01-1 mg/L	EZ1025.99*	X	X	X	X	X	X
<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 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					3		
8x mA					4		
1x mA + Modbus RTU/RS485					B		
2x mA + Modbus RTU/RS485					C		
4x mA + Modbus RTU/RS485					D		
8x mA + Modbus RTU/RS485					E		
1x mA + Modbus TCP/IP					G		
2x mA + Modbus TCP/IP					H		
4x mA + Modbus TCP/IP					I		
8x mA + Modbus TCP/IP					J		
1x mA + Profinet					L		
2x mA + Profinet					M		
4x mA + Profinet					N		
8x mA + Profinet					O		
1x mA + Profibus DP					Q		
2x mA + Profibus DP					R		
4x mA + Profibus DP					S		
8x mA + Profibus DP					T		
1x mA + Ethernet/IP					V		
2x mA + Ethernet/IP					W		
4x mA + Ethernet/IP					X		
8x mA + Ethernet/IP					Y		
No adaption, standard version							0
With SC4500 controller + Claros enabled							T

\*Part numbers may vary by country.

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In the interest of improving and updating its equipment, Hach Company reserves the right to alter specifications to equipment at any time.

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