EZ1000 Series Online Colorimetric Nickel Analyser

Online colorimetric analysis of dissolved Nickel in water

Results you can rely on

EZ1000 Nickel 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 µg/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 Nickel 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.
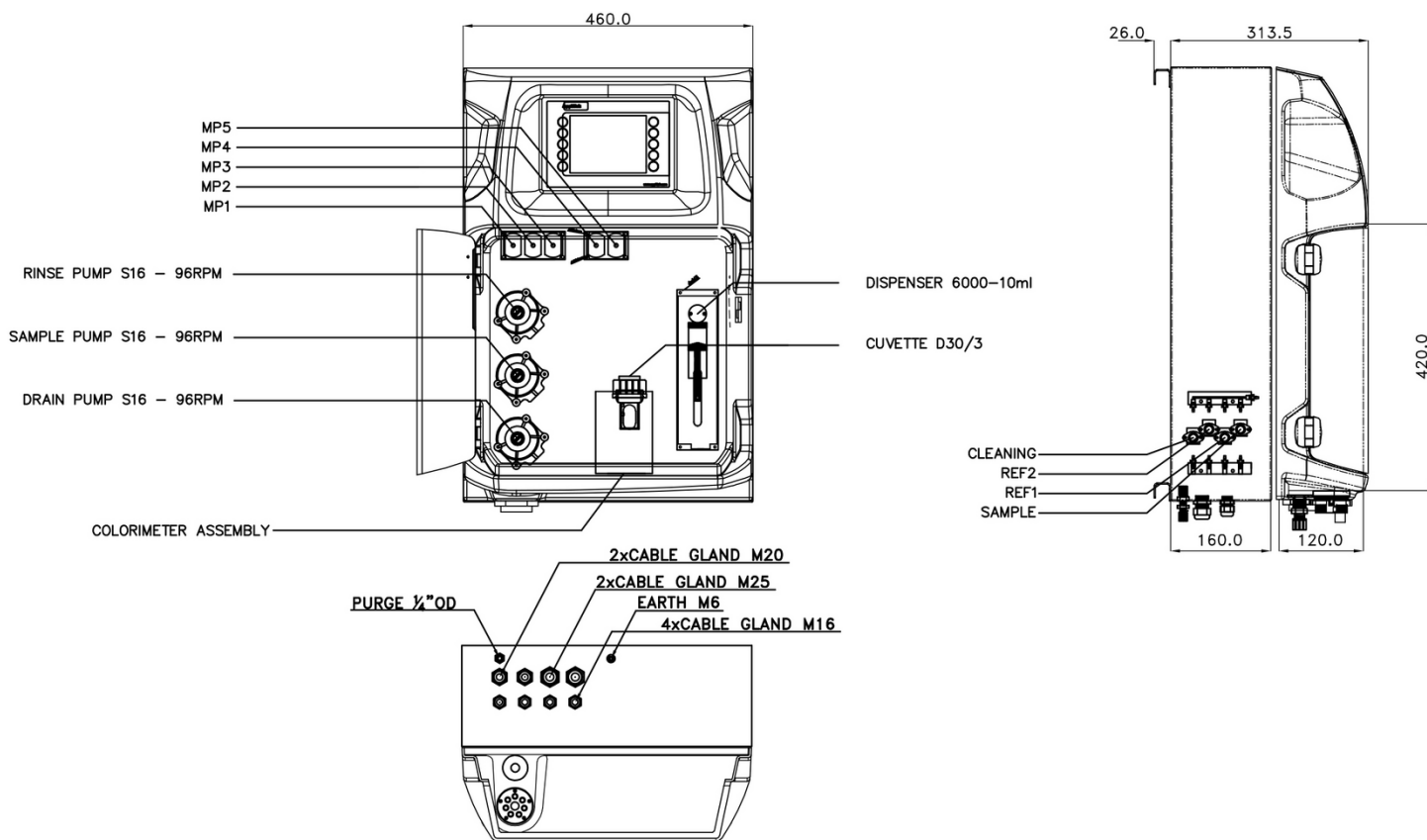
- The standard measuring range can be narrowed by a different calibration range or extended via internal dilution options.
- Analogue and digital output options
- Multiple stream analysis for up to 8 sample streams

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Technical Data*

Parameter	Nickel Ni(II), dissolved
Measurement method	Colorimetric measurement using DMG colour solution
Measuring range	10 - 500 µg/L Ni Optional: 5 - 125 µg/L 5 - 250 µg/L 80 - 2000 µg/L (with internal dilution) 160 - 4000 µg/L (with internal dilution) 1 - 50 mg/L (with internal dilution)
Precision	Better than 2% full scale range for standard test solutions
Detection limit	≤ 5 µg/L
Interferences	Metal ions like Aluminium Al(III), Bismuth Bi(II), Cadmium Cd(II), Chromium Cr(III), Cobalt Co(II), Copper Cu(II), Iron Fe(II), Iron Fe(III), Lead Pb(II), Manganese Mn(II), Magnesium Mg(II), Mercury Hg(II), Palladium Pd(II), Platinum Pt(II), Silver Ag(I), Tin Sn(II), Zinc Zn(II). Large amounts of colour and turbidity interferes. Fats, oil, proteins, surfactants and tar.
Cycle time	10 minutes (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 at 5 - 95% relative humidity (non-condensing)
Reagent requirements	Keep between 10 - 30 °C
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	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
Demineralised water	For rinsing / 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: Modbus (TCP/IP, RS485)
Alarm	1 x malfunctioning, 4 x user-configurable, max. 24 VDC/0.5 A, potential free contacts
Protection class	Analyser cabinet: IP44 / Panel PC: IP65
Material	Hinged part: Thermoform ABS, door: PMMA 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 / 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

Ni(II), 10-500 µg/L	EZ1027.52	X	X	X	X	X	2
Measurement range 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 (max. 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			
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	

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