EZ1000 Series
Online Colorimetric
Nitrate and Nitrite Analyzer

Online colorimetric analysis of Nitrate and Nitrite in water

Results you can rely on

EZ1000 Nitrate and Nitrite 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 µg/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 invervention. 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 Nitrate and Nitrite 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

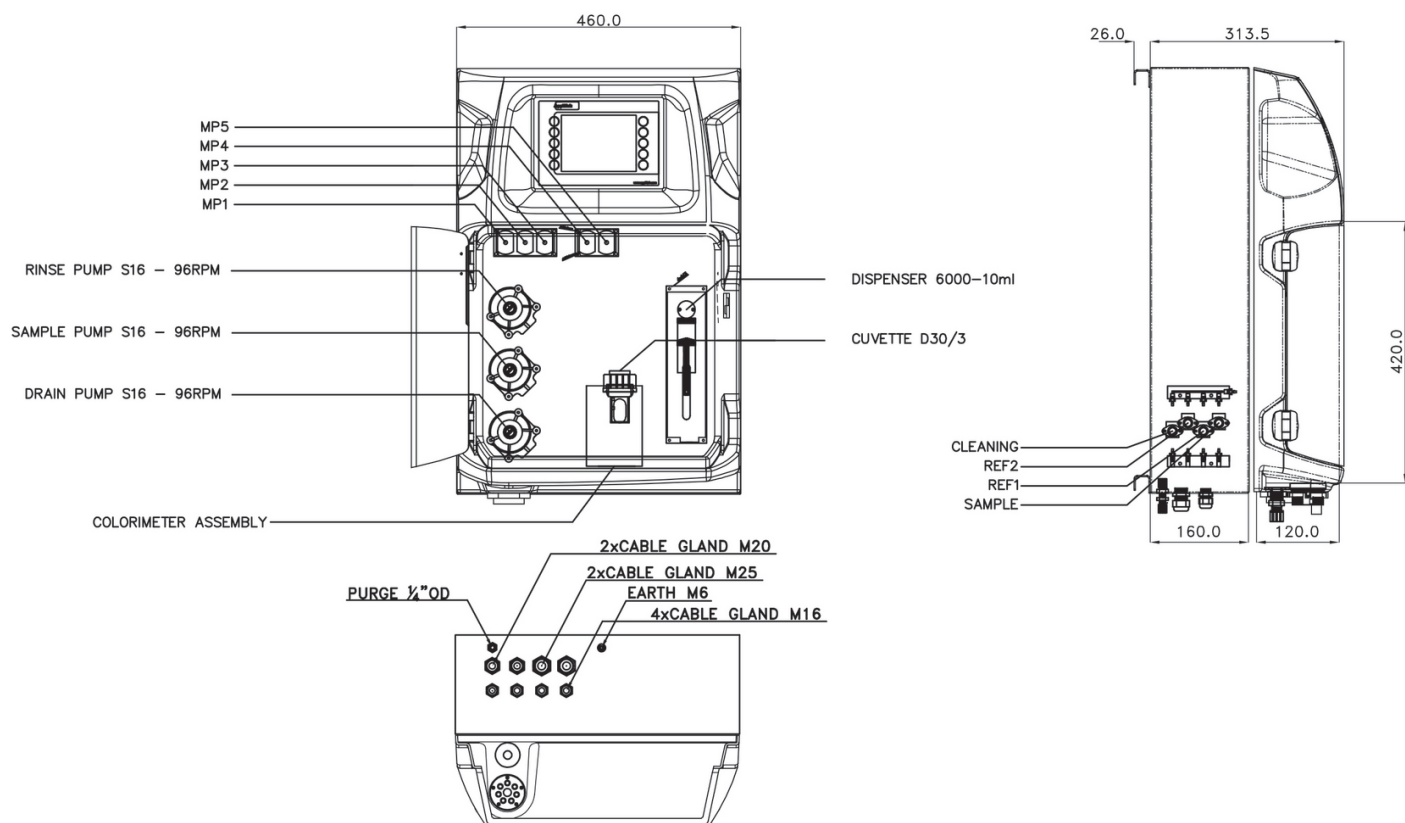- Multiple stream analysis for up to 8 sample streams

Options for the determination of Nitrate and Nitrite include: Nitrate; Nitrite; Nitrate & Nitrite

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Technical Data*

Parameter	Nitrate	Nitrite
Measurement method	Colorimetric measurement at 546 nm using NEDD, conform with standard method ASTM 4500-NO3-A	Colorimetric measurement at 546 nm using NEDD, conform with standard method ASTM 4500-NO2-A
Measuring range	2 - 100 µg/L NO_3-N Optional: 16 - 400 µg/L (with internal dilution) 32 - 800 µg/L (with internal dilution) 0.2 - 10 mg/L (with internal dilution)	1 - 100 µg/L NO_2-N Optional: 0.25 - 10 µg/L 0.5 - 25 µg/L 0.5 - 50 µg/L 8 - 400 µg/L (with internal dilution) 16 - 800 µg/L (with internal dilution) 0.1 - 10 mg/L (with internal dilution)
Precision	Better than 3% full scale range for standard test solutions	Better than 2% full scale range for standard test solutions
Detection limit	≤ 2 µg/L	≤ 0.25 µg/L
Interferences	Ions like Antimony Sb(III), Bismuth, Chloroplatinate, Gold, Iron Fe(III), Lead, Mercury, Metavanadate, Silver can precipitate with Nitrate. Presence of Copper Cu(II) may decompose the diazonium salt which results in a low result. Strong oxidizing agents. Trichloramine results in a false red color. Large amounts of color and turbidity interfere. Fats, oil, proteins, surfactants and tar.	
Cycle time	10 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 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	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 / 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

Nitrite, 1 - 100 µg/L NO$_2$-N	**EZ1028.99**						
Nitrate, 2 - 100 µg/L NO$_3$-N	**EZ1029.99**	X	X	X	X	X	2
Nitrate, 2 - 200 µg/L NO$_3$-N & Nitrite, 1 - 200 µg/L NO$_2$-N	**EZ1301.99**						

Measurement range settings / Dilution options

10% of standard range (EZ1028 only)	A
25% of standard range (EZ1028 only)	B
50% of standard range (EZ1028 only)	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 adaptions required, to specify	S

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