EZ1000 Series Online Colorimetric Nitrate and Nitrite Analyzer

Applications

- Wastewater
- Drinking Water
- Power Generation
- Process/Production Water
- Surface Water

Service Protected

Online colorimetric analysis of Nitrate + Nitrite in water

Results you can rely on

EZ1000 Nitrate + 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 + 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

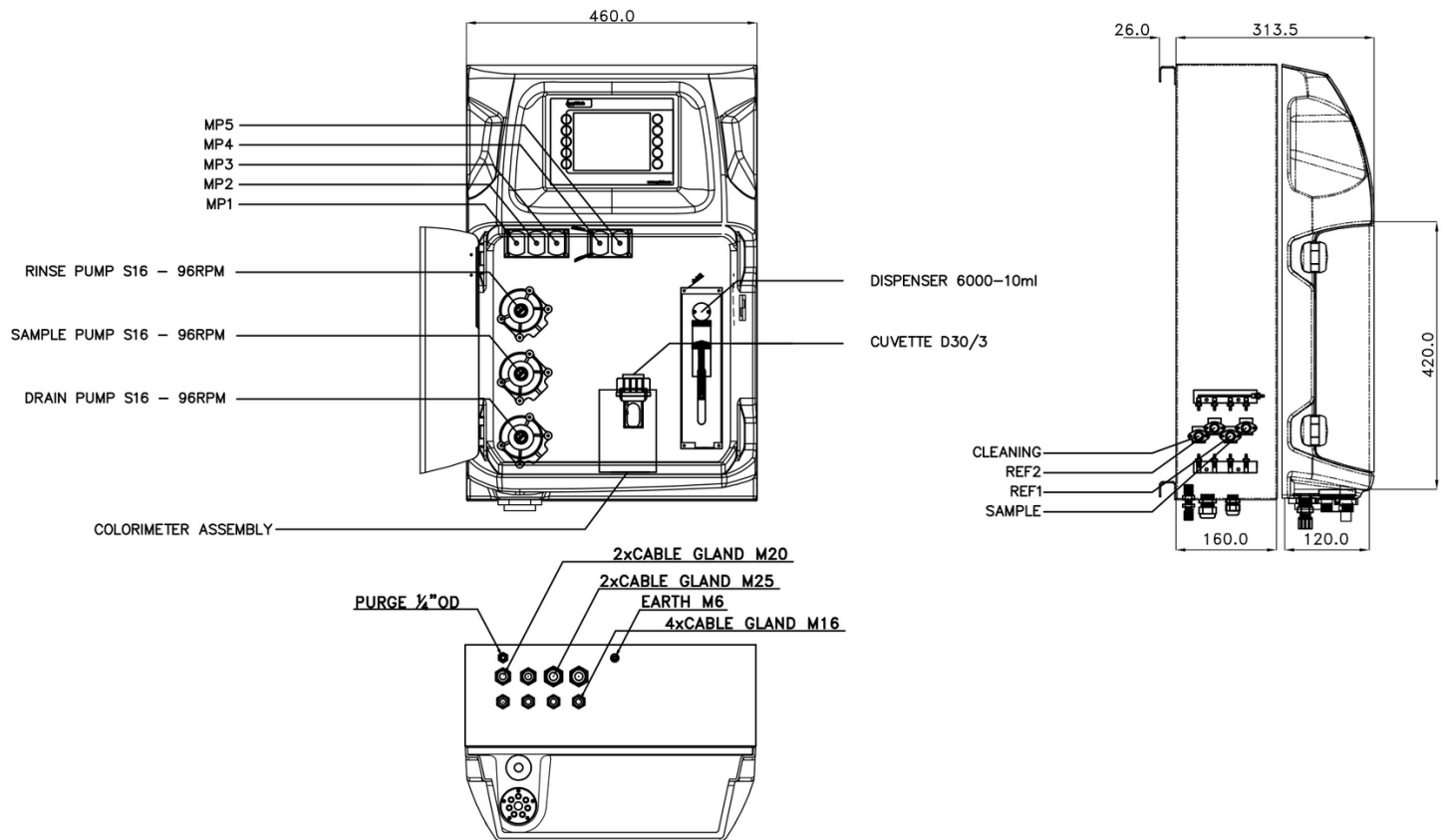- Multiple stream analysis for up to 8 sample streams

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

HACH®

Be Right™

Technical Data*

Model	EZ1028	EZ1029	EZ1301
Parameter	Nitrite	Nitrate	Nitrate, Nitrite
Measurement Method	Colorimetric measurement at 546 nm using NEDD, conform with standard method ASTM 4500-NO2-A	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-NO3-A
Range	1 - 100 µg/L NO_2-N Optional: 8 - 400 µg/L (with internal dilution) 16 - 800 µg/L (with internal dilution) 0.1 - 10 mg/L (with internal dilution)	0.2 - 10 mg/L NO_3-N	0.2 - 10 mg/L NO_3-N 0.1 - 5 mg/L NO_2-N
Precision	Better than 2% full scale range for standard test solutions	Better than 3% full scale range for standard test solutions	Better than 3% full scale range for standard test solutions
Lower Limit of Detection (LOD)	≤ 1 µg/L	≤ 0.2 mg/L	≤ 0.2 mg/L NO_3-N ≤ 0.1 mg/L NO_2-N
Cycle Time	10 min (dilution + 5 min)	10 min	10 min per parameter
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.		
Automatic cleaning	Yes		
Calibration	Automatic, 2-point; frequency freely programmable		
Validation	Automatic; frequency freely programmable		
Ambient Temperature	10 - 30 °C ± 4 °C deviation (50 - 86 °F ± 7.2 °F deviation) at 5 - 95% relative humidity (non-condensing)		
Reagent Requirements	Keep between 10 - 30 °C (50 - 86 °F)		
Sample Pressure	By external overflow vessel		
Sample Flow Rate	100 - 300 mL/min		
Sample Temperature	10 - 30 °C (50 - 86 °F)		
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		
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		
Analog 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: galvanized steel, powder coated		
Dimensions (H x W x D)	690 mm x 465 mm x 330 mm		
Weight	25 kg (55 lbs.)		
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 maximize instrument uptime, ensure data integrity, maintain operational stability, and reduce compliance risk.

Order Information - Part Number Configurator

Nitrite, 1 - 100 µg/L NO_2-N	EZ1028.52						
Nitrate, 0.2 - 10 mg/L NO_3-N	EZ1029.52	X	X	X	X	X	2
Nitrate, 0.2 - 10 mg/L NO_3-N; Nitrite, 0.1 - 5 mg/L NO_2-N	EZ1301.52						

Measurement range settings / Dilution options							
Standard range		0					
Internal micropump dilution (factor 4; EZ1028 only)		1					
Internal micropump dilution (factor 8; EZ1028 only)		2					
Internal dispenser dilution (max. factor 100; EZ1028 only)		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 | |

HACH®

Be Right™