

EZ4000 Series Ammonium Analysers

Applications

- Wastewater
- Surface water



Online automatic titration of Ammonium in water monitoring applications

State of the art titration platform

The EZ4000 Series Analysers are single-parameter titrators built on an industrial analytical platform. High precision dispensers, robust peristaltic pumps and carefully designed liquid pathways all add up to the highest performance for industrial and environmental analysis needs.

Unique flexibility in titration methods

Every application starts with the basics: the right titrimetric technique for the parameter of interest, the measuring range and the water matrix. Depending on the change in the specific variables, the EZ4000 Series run either acid-base, redox, precipitation or photocolometric titration allowing for a unique flexibility.

The EZ4005 Ammonium Analysers use acid-base titration. They combine an unparalleled expertise in on-line titration with a set of unique analysis, control and communication features in a compact footprint:

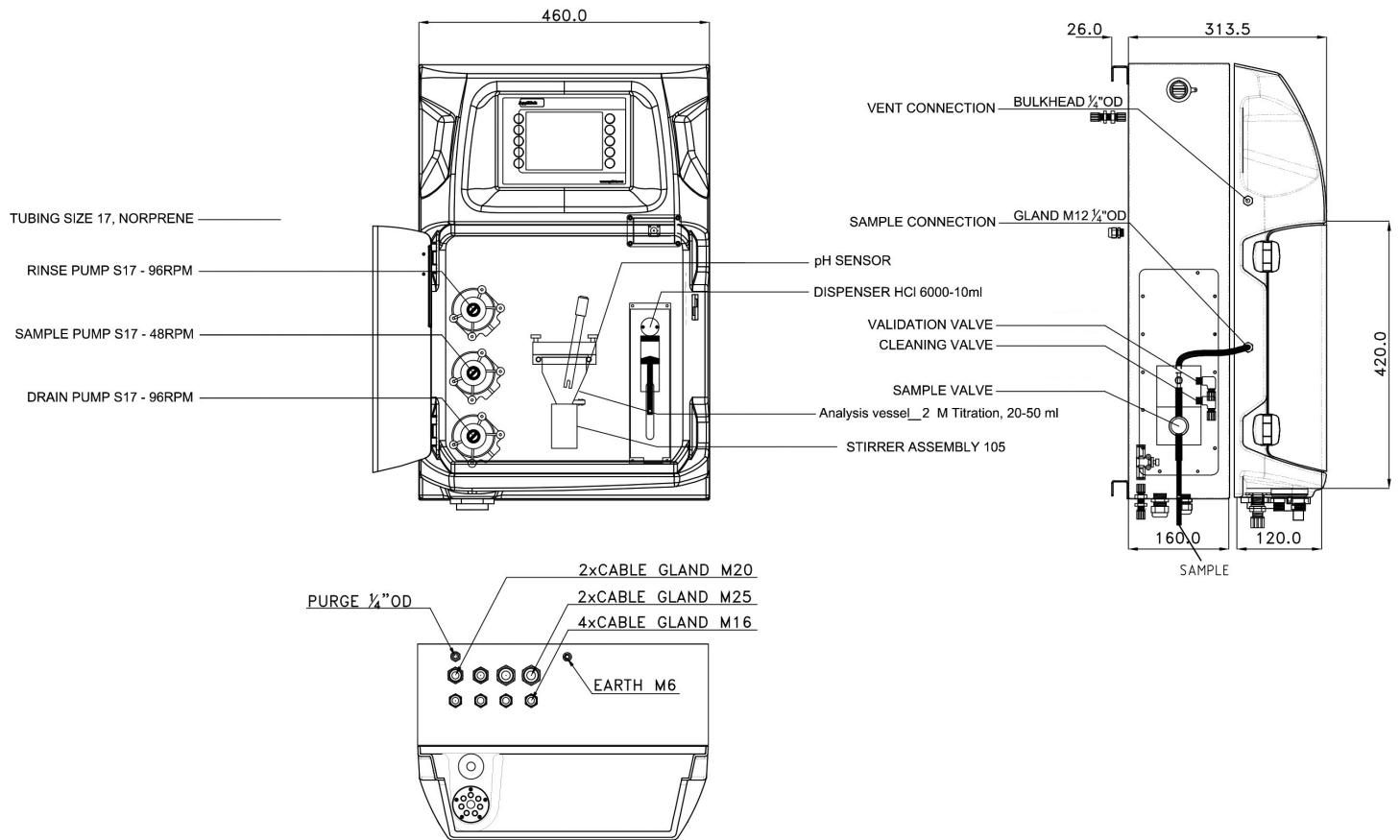
- Wide standard range of 0-5000 mg/L $\text{NH}_4\text{-N}$
- Smart automatic features
- Control and communication via industrial panel PC
- Analogue and digital output options
- Multiple stream analysis (up to 8 streams)

Technical Data*

Parameter	Ammonium
Measurement method	Acid-base titration with sulphuric acid, conform with standard method APHA 4500-NH ₃ (C)
Measuring range	0 - 5000 mg/L NH ₄ -N
Precision	Better than 2% full scale range for standard test solutions
Detection limit	≤ 10 mg/L
Interferences	Soaps, oily matter, suspended solids or precipitates may coat the glass electrode and cause a sluggish response. Allow additional time between titrant additions to let the electrode come to equilibrium or clean the electrodes occasionally. Alkaline compounds may interfere with the titration.
Cycle time	10 - 15 minutes
Automatic cleaning	Yes
Calibration	N.A.
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
Demineralised water	For rinsing purposes (application depending)
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	Analyser 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

Standard range, 0-5,000 mg/L NH ₄ -N	EZ4005.99	X	X	X	X	X	2
Measurement range settings / Dilution options							
10% of standard range		A					
25% of standard range		B					
50% of standard range		C					
Standard range		0					
Customised		Z					
Power supply							
Standard 110 - 240 VAC; 50/60 Hz			0				
Customised			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	
Customised / combined						Z	
Specials							
No adaption, standard version							0
Customer specific adaptations required, to specify							S