EZ sc Series Ammonium Analysers - EZ1102sc

Applications

- Wastewater
- Drinking Water
- Power Generation
- Surface Water



Online Ammonium Monitoring for Water Quality and Process Control

Ammonium is a critical nutrient and process indicator across water applications. Changing concentrations can signal treatment upsets, incomplete nitrification, or changing water quality. The Hach™ EZ1102sc Ammonium Analyser provides online ammonium measurement across a broad concentration range, helping operators identify trends and excursions, optimise treatment performance, and maintain water-quality confidence with automated workflows designed to reduce routine operator intervention.

Detect Ammonium Changes with Confidence

The EZ1102sc maintains a stable 35 °C measurement environment using a heated photometric cell with Pt100 temperature control. This precise thermal control eliminates calibration drift, improves repeatability, and reduces the need for recalibration, giving operators consistent confidence in their data.

Build Confidence into Every Measurement

Hach ready-to-use reagents and standards reduce preparation steps and operator variability. Automatic calibration, validation, cleaning, reagent priming, and photometer checks further standardise workflows, helping reduce operator dependency while supporting consistent ammonium measurement and proactive maintenance.

Measure Across Changing Process Conditions

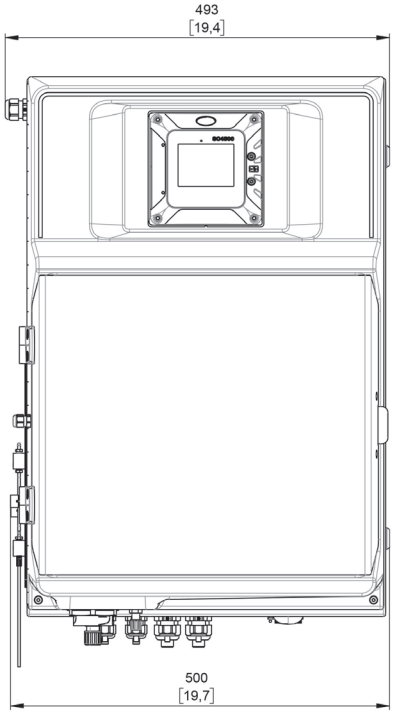
Real-time ammonium data and advanced connectivity sharpen operator response times, enabling faster, more informed process decisions. Configurable analog and digital outputs, including Profibus DP, Modbus RTU, and Ethernet IP, allow the EZ1102sc to integrate directly with your existing control systems. This seamless connectivity standardises data flow across sites, reduces manual reporting, and helps your team act quickly on changing ammonium conditions before they affect treatment performance or compliance.

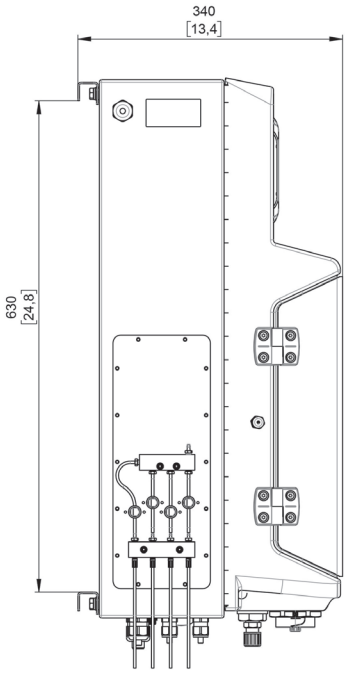
Technical Data*

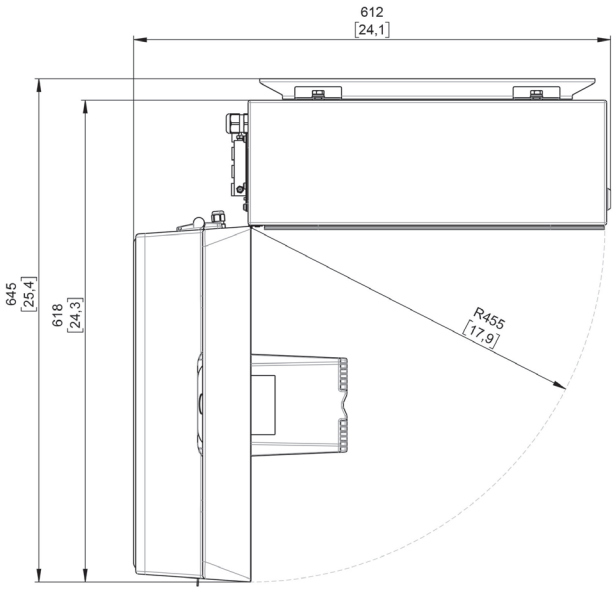
Model	EZ1102sc	
Parameter	Ammonium	
Measurement method	Colorimetric	
Measuring range	No Dilution 0.005 - 0.1 mg/L NH_4-N 0.01 - 0.25 mg/L NH_4-N 0.01 - 0.5 mg/L NH_4-N 0.025 - 1.0 mg/L NH_4-N	Internal Dilution 0.125 - 5 mg/L NH_4-N 0.25 - 10 mg/L NH_4-N 1 - 25 mg/L NH_4-N 1.25 - 50 mg/L NH_4-N 2 - 75 mg/L NH_4-N 2.5 - 100 mg/L NH_4-N
Detection limit	No Dilution 0.005 - 0.1 mg/L NH_4-N: 0.005 mg/L 0.01 - 0.25 mg/L NH_4-N: 0.01 mg/L 0.01 - 0.5 mg/L NH_4-N: 0.01 mg/L 0.025 - 1.0 mg/L NH_4-N: 0.025 mg/L	Internal Dilution 0.125 - 5 mg/L NH_4-N: 0.125 mg/L 0.25 - 10 mg/L NH_4-N: 0.25 mg/L 1 - 25 mg/L NH_4-N: 1 mg/L 1.25 - 50 mg/L NH_4-N: 1.25 mg/L 2 - 75 mg/L NH_4-N: 2 mg/L 2.5 - 100 mg/L NH_4-N: 2.5 mg/L
Precision	Better than 2% full scale range for standard test solutions	
Interferences	Amino acids, hydrazine (H_4N_2) and urea (H_2NCONH_2). Large quantities of colour and turbidity interfere. Fats, oil, proteins, surfactants and tar interfere. Possible negative interference from alkalinity >800 mg/L (as $CaCO_3$, Mg > 10 mg/L)	
Cycle time	No Dilution Default: 30 min. Continuous: 29 min. Internal Dilution Default: 32 min. Continuous: 32 min.	
Parameter	Ammonium	
Automatic cleaning	Yes; Frequency freely programmable: 6 hours, 12 hours, daily, weekly	
Calibration	Automatic; 2-point; Frequency freely programmable: 6 hours, 12 hours, daily, weekly. Note: manufacturer recommends that a calibration is done when the reagents are replaced	
Validation	Automatic; Frequency freely programmable: 6 hours, 12 hours, daily, weekly	
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 (open to atmospheric pressure)	
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. Used to flush the instrument in corrosive environement. Min. 0.2 bar - Max. 0.5 bar	
Demineralised water	Internal dilution option: Rinse water and Dilution water	
Drain	Atmospheric pressure, vented, min. Ø 32 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 0 - 20 mA (or 4 - 20 mA) max. 500 Ohm load, standard 4, optional: 8	
Digital outputs	Optional: Modbus (TCP/IP, RTU), Profinet, Profibus DP, Ethernet IP	
Protection class	IP44	
Material	Hinged part: Thermoform ABS, door: PMMA Wall section: Galvanised steel, powder coated	
Dimensions (H x W x D)	688 mm x 460 mm x 340 mm	
Weight	Max. 35 kg	
Certifications	CE, ETL certified to UL and CSA safety standards, UKCA	

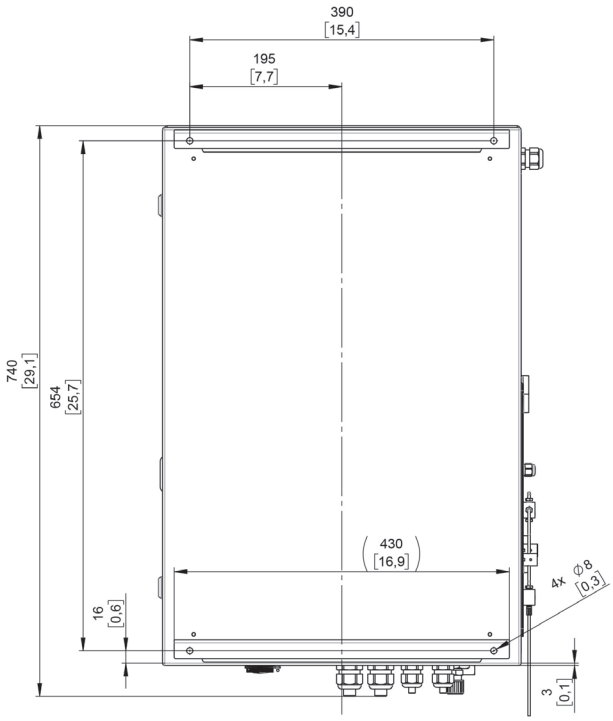
**Subject to change without notice.*

Dimensions









Enable the Benefits of Smart Monitoring

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.

Hach Service Protects Your Investment

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

EZ1102.98	X	X	X	X	X
Measurement range					
0.005 - 0.1 mg/L NH_4-N	0				
0.01 - 0.25 mg/L NH_4-N					
0.01 - 0.5 mg/L NH_4-N					
0.025 - 1.0 mg/L NH_4-N					
0.125 - 5.0 mg/L NH_4-N (with internal dilution)	V				
0.25 - 10 mg/L NH_4-N (with internal dilution)					
1 - 25 mg/L NH_4-N (with internal dilution)					
1.25 - 50 mg/L NH_4-N (with internal dilution)					
2 - 75 mg/L NH_4-N (with internal dilution)					
2.5 - 100 mg/L NH_4-N (with internal dilution)					
Power supply					
100 - 240 VAC, 50/60 Hz		0			
Number of sample streams					
1 stream			1		
Outputs					
4x mA				4	
8x mA				8	
4x mA + Modbus RTU				D	
8x mA + Modbus RTU				E	
4x mA + Modbus TCP/IP				I	
8x mA + Modbus TCP/IP				J	
4x mA + Profinet				N	
8x mA + Profinet				O	
4x mA + Profibus DP				S	
8x mA + Profibus DP				T	
4x mA + Ethernet/IP				X	
8x mA + Ethernet/IP				Y	
No adaption, “SC4500” version					0T

Accessories

APPAZ0080011 - Overflow Vessel 100 mL for EZ sc
APPAZ0080002 - Moduplex, 2 streams, Pinch Valve, 1/8” OD
APPAZ0080004 - Moduplex, 4 streams, Pinch Valve, 1/8” OD
APPAZ0080008 - Moduplex, 8 streams, Pinch Valve, 1/8” OD

Reagents

APPC1102-01 - EZ1102 Ammonia Chlorine Solution
APPC1102-02 - EZ1102 Ammonia Buffer Solution
APPC1102-03 - EZ1102 Ammonia Indicator Solution
2354153 - Ammonium Standard Solution, 1000 mg/L