NH6000sc Online Ammonia Analyzer

Simplify your online operations with the NH6000sc, an online Ammonia Analyzer using gas sensing electrode (GSE) technology. The environmentally controlled design is ready for easy, outdoor installations at the measurement point you need. With minimal maintenance requirements and proven reliability, Hach's NH6000sc will give you confidence in your measurement results and improved process efficiency.

Maximize uptime and accuracy with trusted technology

The NH6000sc ammonia analyzer from Hach® uses fast, accurate and trusted GSE technology. The NH6000sc provides reliable measurements with automatic calibration, validation, and cleaning. A verification grab sample improves consistency between online and lab data through an automatic sampling process. Predictive diagnostics and supportive maintenance workflows help you maximize uptime.

Save time with biannual maintenance

The NH6000sc ammonia analyzer reduced routine user maintenance frequency to only twice per year. Engineered with efficiency in mind, the instrument's streamlined design and optimized reagents make operation simple and user-friendly. With a standard cleaning cycle, the reagents have an extended replacement time of every 6-months.

Robust and lightweight intergrated filtration options

The integrated FX610 filtration system and the more rugged FX620 feature lightweight construction with improved air cleaning and innovative flow detection. These features ensure reliable functionality and reduced operational touchpoints. Plus, you'll have the ability to remotely check that your sample is consistently supplied to your analyzer to increase confidence in your results.

Technical Data*

	Measuring Range 1	Measuring Range 2	Measuring Range 3	Measuring Range 4
Range	0.02 - 5.0 mg/L NH_4-N	0.05 - 20 mg/L NH_4-N	1 - 100 mg/L NH_4-N	10 - 1000 mg/L NH_4-N
Lower Limit of Detection (LOD)	0.02 mg/L NH_4-N	0.05 mg/L NH_4-N	1 mg/L NH_4-N	10 mg/L NH_4-N
Accuracy	≤ 1 mg/L: 3% of the measured value + 0.02 mg/L > 1 mg/L: 5% of the measured value + 0.02 mg/L	3% of the measured value + 0.05 mg/L	3% of the measured value + 1.0 mg/L	4.5% of the measured value + 10 mg/L
Repeatability	3% of the measured value + 0.02 mg/L	2% of the measured value + 0.05 mg/L	2% of the measured value + 1.0 mg/L	2% of the measured value + 10 mg/L
Response Time	≤ 0.2 mg/L: 3 measurements required (15 total minutes minimum) > 0.2 mg/L: 1 measurement required (5 total minutes)	< 5 minutes	< 5 minutes	< 5 minutes
Measurement Method	Gas sensing electrode (GSE)			
Measuring Interval	5, 10, 15, 20 or 30 min. (user adjustable)			
pH Range	5 - 9 pH			
Permissible Chloride Range	≤ 1000 mg/L Cl^-			
Sample Quality	Ultra filtrated or comparable (FX6x0 < 0.45 µm)			
Sample Flow Rate	1.0 - 20.0 L/h to the analyzer from the external sample filtration			
Sample Pressure	2.5 bar (0.25 mPa) (36.3 psi) maximum			
Sample Temperature	4 - 40 °C (39 - 104 °F)			
Special Remarks	The liquid level in the basin must be below the bottom of the analyzer			
Operating Temperature Range	-20 - 45 °C (-4 - 113 °F); 95% relative humidity, non-condensing			
Storage Conditions	-20 - 60 °C (-4 - 140 °F); 95% relative humidity, non-condensing			
Power Supply	Power supplied by the SC controller. With the SC4500, an additional power box is needed. Analyzer and heated drain tubing (powered by analyzer): 115 VAC or 230 VAC			
Cable Length	Data and power cable: 2 m (80 in.) from edge of enclosure			
Material	PUR 66 UV-resistant			
Enclosure Rating	Rating: IP55, NEMA 3R UL50E Material: PUR 66			
Controller Compatibility	Digital SC Controller. Controllers are sold separately.			
Dimensions	575 x 991 x 425 mm (22.63 x 39.01 x 16.73 in.)			
Weight	Approximately 45 kg (99.21 lbs.) without chemicals			

Subject to change without notice.

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Technical Data Filtration Systems*

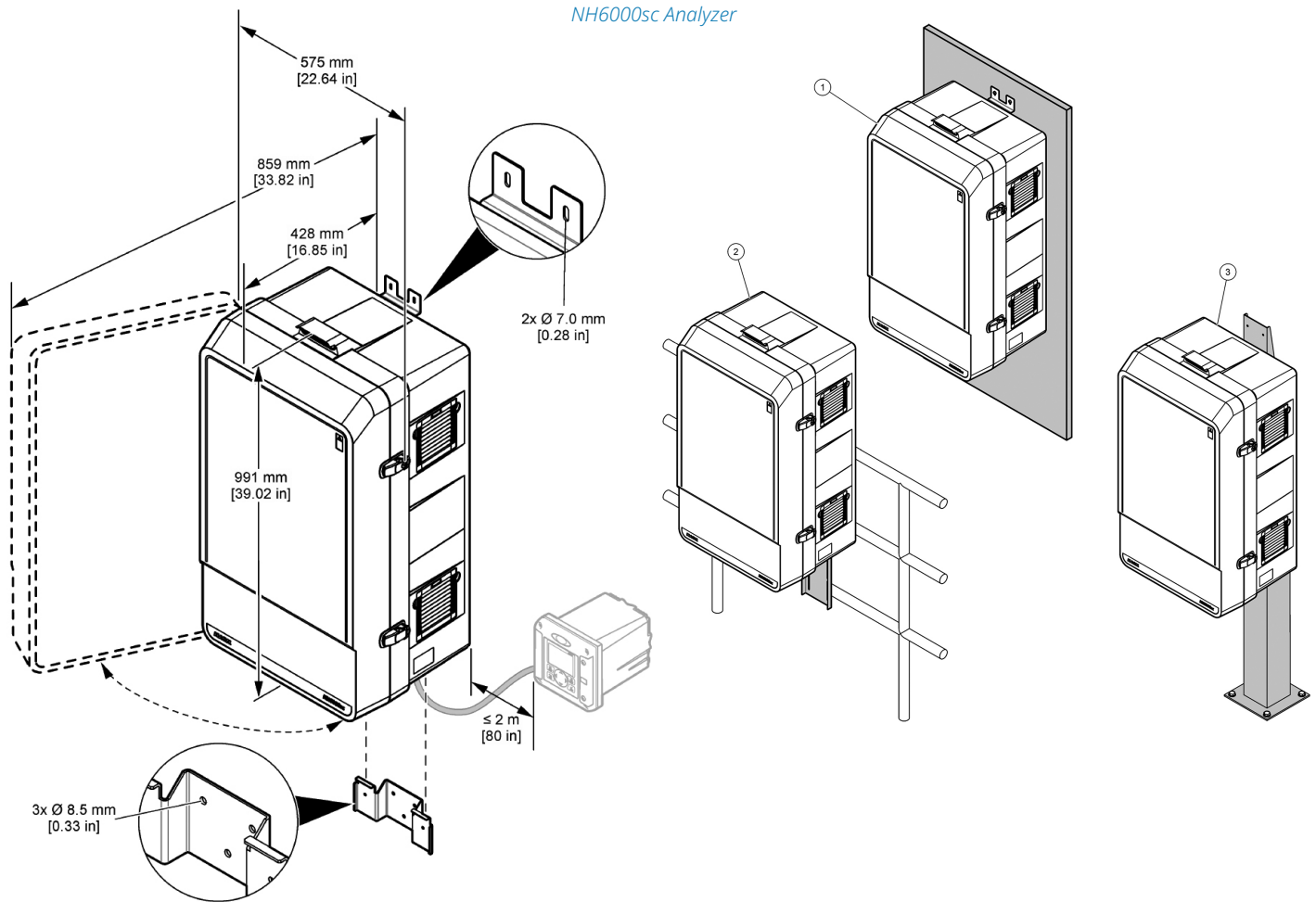|	Integrated - FX610 and FX620[1]	External - Filtrax
Dimensions (H x W x D)	FX610: 348 mm x 287 mm x 81 mm FX620: 424 mm x 408 mm x 86 mm	Control unit: 530 x 430 mm x 220 mm Module carrier: 500 mm x 340 mm x 92 mm
Weight	FX610: 2.2 kg with filter module FX620: 3.5 kg with filter module	Control unit: approx. 22 kg Module carrier with 5 m suction tube: approx. 9 kg Sample tube 10 m: approx. 5 kg Sample tube 20 m: approx. 10 kg Sample tube 30 m: approx. 15 kg Mounting pipe 2 m: approx. 5 kg
Sample Volume	Delivers a sample volume of ~1 L/h	Approximately 900 mL/h suitable for up to 3 process instruments
Hose Length	5 m or 10 m heated sample hose	Suction hose: 5 m heated Sample hose: 2 m unheated or 10 m, 20 m, 30 m heated
Maintenance Requirements	Approximately 30 minutes/ 3 months in standard municipal wastewater aeration basin applications	Approximately: 1 hour / month
Sample Temperature	4 - 40 °C (39.2 - 104 °F) in basin	5 - 40 °C (41 - 104 °F)
Ambient Temperature	-20 - 45 °C (-4 - 113 °F)	-20 - 40 °C (-4 - 104 °F)
pH Range	5 - 9 pH	5 - 9 pH
Power Requirements	115 - 230 VAC; 50/60 Hz, supplied by analyzer	115 - 230 VAC; 50/60 Hz
Certifications	CE, UKCA, CMIM, FCC, ISED, certified to UL and CSA safety standards by TÜV	CE, UL, CSA

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[1] *The NH6000sc can be retrofit with the integrated FX610 or FX620 filtration systems. Contact Hach for more information.*
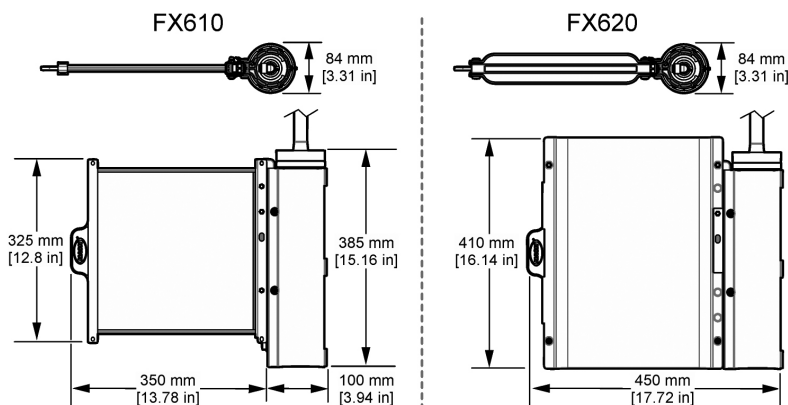
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Principle of Operation

The NH6000sc analyzer measures the ammonium concentration with a gas-sensing electrode (GSE). The ammonium in the sample is first converted to gaseous ammonia. Only the NH_3 gas passes through the gas-permeable membrane of the electrode and is detected. This method supports a wide measuring range and is less susceptible to cross sensitivity than methods based on an ion-selective electrode (ISE).

Dimensions

The NH6000sc ammonia analyzer is designed for wall mounting, outdoor or indoor. Rail- and stand-mounting options are available.

NH6000sc Analyzer

575 mm [22.64 in]
859 mm [33.82 in]
428 mm [16.85 in]
991 mm [39.02 in]
2x Ø 7.0 mm [0.28 in]
≤ 2 m [80 in]
3x Ø 8.5 mm [0.33 in]

FX610 and FX620 Filtration Units

FX610

84 mm [3.31 in]
325 mm [12.8 in]
385 mm [15.16 in]
350 mm [13.78 in]
100 mm [3.94 in]

FX620

84 mm [3.31 in]
410 mm [16.14 in]
450 mm [17.72 in]

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Order Information

Analyzers

LXV461.99.00021 NH6000sc Ammonia Analyzer, 1 channel, for use with 1 external sample filtration system, 115 VAC

LXV461.99.00121 NH6000sc Ammonia Analyzer, 1 channel, for use with 1 external sample filtration system, automatic verification grab sample, 115 VAC

LXV461.99.02021 NH6000sc Ammonia Analyzer, 1 channel, includes sample supply pump for use with FX620 sample filtration system, 115 VAC

LXV461.99.02121 NH6000sc Ammonia Analyzer, 1 channel, includes sample supply pump for use with FX620 sample filtration system, automatic grab sample verification, 115 VAC

LXV461.99.03021 NH6000sc Ammonia Analyzer, 2 channels, for use with 2 external sample filtration systems, 115 VAC

Please note: These are the most common product configurations, but others are available. Please contact your Hach representative for additional information.

A sample filtration system (Filtrax or FX6x0) and a digital Hach SC controller are required for operation of the NH6000sc. Sample filtration system and controller are sold separately.

Mounting Hardware and Accessories

LZY285 Rail mounting kit for SC analyzer with SC controller
LZY286 Stand mounting kit for SC analyzer with SC controller
LZY316 Rail mounting kit for SC analyzer without SC controller
LZY287 Stand mounting kit for SC analyzer without SC controller
LXZ461.99.00007 Controller Mounting kit
LXZ461.99.00011 Heated Drain Hose, 5 m, 230 V
LXZ461.99.00003 Sample and Connection Tube for multiple Analyzers
LQV155.99.00002 Power box without power connection cable
LQV155.99.00012 Power box with power connection cable

Reagents

LCW1211 NH6000sc Standard Solution 1 for Measuring Range 1, 0.5 mg/L NH_4-N, 2 L
LCW1212 NH6000sc Standard Solution 2 for Measuring Range 1, 2.5 mg/L NH_4-N, 2 L
LCW1221 NH6000sc Standard Solution 1 for Measuring Range 2, 1 mg/L NH_4-N, 2 L
LCW1222 NH6000sc Standard Solution 2 for Measuring Range 2, 10 mg/L NH_4-N, 2 L
LCW1231 NH6000sc Standard Solution 1 for Measuring Range 3, 10 mg/L NH_4-N, 2 L
LCW1232 NH6000sc Standard Solution 2 for Measuring Range 3, 50 mg/L NH_4-N, 2 L
LCW1241 NH6000sc Standard Solution 1 for Measuring Range 4, 50 mg/L NH_4-N, 2 L
LCW1242 Standard solution 2, 500 mg/L for measurement range 4
LCW1255 NH6000sc Reagent Solution, 2 L
LCW1265 NH6000sc Cleaning Solution, 250 mL
LCW1275 NH6000sc Electrolyte Set for Measuring Range 2, 3 and 4
LCW1285 NH6000sc Electrolyte Set for Measuring Range 1

Order Information

Sample Filtration Systems

Integrated - FX610 and FX620

The FX610 and FX620 are lightweight, sample filtration systems for the NH6000sc with a sample pump and compressor directly integrated into the analyzer. The filter system collects a sample from the basin and the integrated sample pump moves the sample to the measuring chamber.

The FX610 and FX620 offer lower user maintenance, each with one membrane that requires cleaning only every 3 months and a large diameter air supply tube. The FX620 has an air bubble cleaning module below the filter system to decrease the collection of solids on the filter membrane.

LXV464.97.11021	FX610 Sample Filtration System, 5 m heated hose, 115 VAC
LXV464.97.12021	FX610 Sample Filtration System, 10 m heated hose, 115 VAC
LXV464.97.21021	FX620 Sample Filtration System, rough samples, 5 m heated hose, 115 VAC
LXV464.97.22021	FX620 Sample Filtration System, rough samples, 10 m heated hose, 115 VAC

External - Filtrax

The Filtrax sample filtration system continually extracts samples directly from process effluent and pull the water through ultra-filtration membranes (0.15 μm) that are immersed in the aeration basin or primary settling tank. The control unit of the Filtrax can be placed outdoor in any climate and is virtually maintenance free, all tubing is completely accessible and easy to eplace. A programmable alarm relay alerts operators to inspect the system when flow decreases, and a second relay can shut the unit down if flow decreases further.

5738900	Filtrax sample filtration system, 2 m unheated hose, 115 VAC
5739200	Filtrax sample filtration system, 2 m heated hose, 115 VAC
5739000	Filtrax sample filtration system, 10 m heated hose, 115 VAC
5739100	Filtrax sample filtration system, 20 m heated hose, 115 VAC

*For more details and technical specifications please visit hach.com.

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 maximize instrument uptime, ensure data integrity, maintain operational stability, and reduce compliance risk.

World Headquarters: Loveland, Colorado USA | hach.com

United States	**800-227-4224**	fax: 970-669-2932	email: orders@hach.com
Outside United States	**970-669-3050**	fax: 970-461-3939	email: int@hach.com