



## **AN-ISE sc Low cost ISE combination Ammonium and Nitrate probe (immersion) without RFID, 10 m cable**

**Product #:** LXV440.99.00012  
**ZAR Price:** Contact Hach  
**Available**

### **AN-ISE sc: Combination sensor for ammonium and nitrate**

Carries out continuously direct measurements using an ion-selective electrode. No need for reagents or sample preparation. Compensated interference by potassium and chloride.

The special feature of the probe is the Cartrical technology. This provides reliable measured values and considerably reduced maintenance time and costs in comparison with conventional ISE probes.

The complete system - SC controller has to be ordered separately - comes from a single supplier. The probe is installed on the side of the tank. The measuring system can be extended to include an automatic cleaning unit with a compressor.

Prognosys is a predictive diagnostic system that allows you to be proactive in your maintenance, by alerting you to upcoming instrument issues. Know with confidence whether changes in your measurements are due to changes in your instrument or your water.

This instrument connects to Claros, Hach's innovative Water Intelligence System, enabling you to seamlessly connect and manage instruments, data, and process – anywhere, anytime. The result is greater confidence in your data and improved efficiency in your operations. To unlock the full potential of Claros, insist on Claros Enabled instruments.

### **Trustable results for ammonium and nitrate**

Looking for new ways to stretch money and reduce consumable cost? We have the perfect solution for you! Our new combination sensor with ion-selective electrode (ISE) technology was developed to measure both  $\text{NH}_4$  and  $\text{NO}_3$  at the same spot. What is unique? The most significant interferences of K and Cl are simultaneously compensated by integrated ISE electrodes, ensuring accurate results 24h/7days.

### **Easy handling with Cartrical cartridge plus**

The compact Cartrical cartridge contains four electrodes which are calibrated to each other before leaving the factory. Through the newly developed Cartrical plus technology, the factory calibration is automatically identified after replacing the cartridge. The compact design does away with tiresome handling and adjustment of individual electrodes: just unscrew the old cartridge, plug in the new one and the sensor is immediately ready to measure.

### **Simple and intuitive operation**

With a menu-guided operation and step-by-step guide with clear text, the combination AN-ISE sc sensor is very easy to use. It works directly with every SC controller without complicated wiring or set up procedures: just plug and play. The common SC controller platform allows intuitive usage not only for ammonium and nitrate but also for other parameters like pH, DO, etc.

### **Always under control**

In combination with SC1000 controller alert messages from AN-ISE sc sensor can be transmitted to the control room or by SMS / e-mail to a mobile phone. By this you are always informed about the status of your processes, early enough to react quickly.

### **Rely on Hach's application know how**

You can trust our ISE experience gathered in many waste water applications around the world. Based on this we have developed the next ISE generation to fulfill your requirements even better. Our application team is always close by.

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Specifications

Accuracy:	5% of measured value +0.2 mg/L (with standard solutions) NH <sub>4</sub> -N and NO <sub>3</sub> -N
Cable Length:	10 m (32.8 ft) fixed cable at sensor, available up to 100 m
Calibration Method:	Factory calibrated sensor cartridge (CARTRICAL), 1 and 2 point matrix correction
Controller Compatibility:	SC200, SC1000, SC4500. All controllers sold separately
Data Transfer:	Current output, relays and bus communication via SC controller
Flow:	< 4 m/s max. velocity
Includes:	Ammonium & Nitrate probe, sensor cartridge, user manual
Installation Angle:	45 ° ± 15 ° (vertical in flow direction)
Length:	320 mm
Lower Limit of Detection (LOD):	0.2 mg/L NH <sub>4</sub> -N and NO <sub>3</sub> -N
Material:	Cartridge: stainless steel (1.4571), PVC, POM, ABS, NBR  Cleaning unit: TPE, PUR, stainless steel (1.4571)  Sensor: stainless steel (1.4571), ASA + PC, silicon, PVC and PU
Measurement method:	Potentiometric ion-selective electrodes for ammonium, potassium, nitrate and chloride, reference system and temperature sensor
Measuring Interval:	Continuous
Measuring range:	0 - 1000 mg/L NH <sub>4</sub> -N  0 - 1000 mg/L NO <sub>3</sub> -N  0 - 1000 mg/L K <sup>+</sup>  0 - 1000 mg/L Cl <sup>-</sup>
Measuring uncertainty:	± 5 % + 0.2 mg/L (with standard solution) NH <sub>4</sub> -N and NO <sub>3</sub> -N
Operating temperature range:	Air: -20 - 45 °C (-4 - 113 °F)
Parameter:	Ammonium, Nitrate
pH Range:	5 - 9 pH
Process Connection:	1 inch thread
Protection Class:	IP68
Repeatability:	± 5 % of the measured value (with standard solution)+ 0.2 mg/L NH <sub>4</sub> -N and NO <sub>3</sub> -N
Response time:	< 3 min
Sample Pressure:	0.3 bar max.
Sample Temperature:	2 - 40°C (35.6 - 104°F)
Sensor cartridge:	With Cartrical plus technology: compact housing containing calibrated electrodes for ammonium, potassium, nitrate and chloride, reference system and temperature sensor, all calibrated to each other; typical lifetime 12 months
Sensor Immersion Depth:	0.3 - 3.0 m  max. 0.3 bar (4.4 psi) pressure
Storage conditions:	5 - 40 °C sensor cartridge
Warranty:	12 months
Weight:	2.38 kg
What's included?:	Ammonium & Nitrate probe, sensor cartridge, user manual

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# What's included?

Ammonium & Nitrate probe, sensor cartridge, user manual

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## Required Accessories

- SC1000 Display Module, Multi-Parameter Universal Controller (Item LXV402.99.00002)
- SC1000 Probe Module, 6 Sensor Connectors, Prognosys, Modbus 485, 100-240 VAC with Conduits (Item LXV400.99.1H082)
- SC1000 Probe Module, 8 Sensor Connectors, Prognosys, 100-240 VAC with Conduits (Item LXV400.99.1G092)
- SC1500 Controller, 6 Sensor Connectors, 8Ma Out, 110V/Cond Ext MOD (Item LXV446.99.103N1)
- SC1500 Controller, 6 Sensor Connectors, 8Ma Out, 110V/Cond 4 Relay/C Ext MOD (Item LXV446.99.1R3S1)
- SC4500 Controller, 5x mA Output, 2 digital Sensors, 100-240 VAC, without power cord (Item LXV525.99A01551)
- SC4500 Controller, Prognosys, 5x mA Output, 2 digital Sensors, 100-240 VAC, US plug (Item LXV525.99E11551)
- SC4500 Controller, Prognosys, 5x mA Output, 2 digital Sensors, 100-240 VAC, without power cord (Item LXV525.99A11551)
- SC4500 Controller, Prognosys, 5x mA Output, 1 digital Sensor, 100-240 VAC, without power cord (Item LXV525.99A11501)
- SC4500 Controller, Prognosys, 5x mA Output, 1 digital Sensor, 100-240 VAC, EU plug (Item LXV525.99C11501)
- SC4500 Controller, Prognosys, 5x mA Output, 2 digital Sensors, 24 VDC, without plug (Item LXV525.99Z11551)