

The power to accurately measure & understand **nitrate** and **nitrite** in **all water environments**

Aquamonitrix provides industry-leading accuracy (~99%) for the real-time measurement of nitrate in freshwater - when compared in trials with fixed-position UV analysers, operating in stationary monitoring kiosks.

But, above and beyond this, it provides many additional advantages over both stationary UV analysers and portable field-based UV, UV-LED and ISE nitrate analysers, including

- High performance across all matrices from surface- and ground-water to marine and waste-water
- Highly accurate mobile monitoring in off-grid locations - with virtually no intervention required over long deployments and no recalibration needed - even when moved to a different matrix type
- A simultaneous real-time nitrite reading - also with laboratory-quality accuracy, providing unique insights into nitrite persistence and impacts in aquatic environments

Aquamonitrix® is a new type of **nitrate and nitrite analyser**

- Based on rapid ion chromatography and a novel, proprietary optical detection technology
- Offering laboratory accuracy in the field and real-time measurement
- With real-time data transmission to the proprietary Datamonitrix data storage and analysis platform and/or your environmental data management system

- Easily add real-time nitrate (and nitrite) monitoring capabilities to a new or existing monitoring station without requiring site works or add-on sampling equipment.
- Move from one monitoring location or sample matrix type to another (e.g. from fresh to saline water) without having to recalibrate the analyser.
- Perform mobile monitoring – for example, from a boat – to track river water-quality from source to sea – or from a van – for spot checks of nitrate and nitrite levels in private wells and septic tanks.
- Carry out long-term catchment/watershed studies in remote and off-grid locations – without requiring the frequent intervention, maintenance and recalibration associated with existing portable UV, UV-LED or ISE nitrate analysers
- Harness the ability of Aquamonitrix® to capture nitrite spikes in real-time to gain new insights on the progressive oxygenation of ammonia to nitrate and to better understand the ecological impacts of nitrite.



Game-changing performance, making high-frequency monitoring a reality

Aquamonitrix® combines the separation capabilities of rapid ion chromatography with the low-power requirements of UV-LED detection to provide laboratory-quality accuracy – from an automated, field-based analyser.

It can be operated by mains power or by a battery/solar unit.

Weighing just 12 kg and with a convenient carry handle, it can be used for mobile monitoring and long-term catchment/watershed studies in remote and off-grid location.

Unlike conventional portable UV, UV-LED or ISE-based nitrate sensors, which require frequent intervention, re-sets and recalibration, Aquamonitrix® can be operated virtually maintenance-free, with low technical skills needs, over extended deployments.

It can even be transferred from any one matrix type to another to another without recalibration.

Virtually plug n' play for instant deployment

On arriving on site, your Aquamonitrix® unit can be installed and operating in a matter of hours

- No need for site preparation
- The analyser is lightweight and portable
- The only connections required are sample inlet and outlet
- Choose from the mains powered or the solar/battery version, with data communication options to suit your site

Low life-time costs

- No nitrite/nitrate sampling or lab analysis costs
- Low skills requirement, with simple setup and minimal intervention operation
- Equally simple servicing, which can be carried out in-house or by a local vendor-neutral service company
- Low-cost, non hazardous (NaCl) eluent (reagent)

Aquamonitrix® key performance parameters

- Maximum sampling frequency: 10 minutes
- Accuracy ~99% (fresh water), ~95% (35 ppt saline)
- Aquamonitrix® can transmit your nitrate and nitrite readings by IoT and/or wired data transmission in real time to your environmental data management system
- The proprietary Datamonitrix portal allows you to store, manage and trend your data, set limits and alarms, and receive analyser self-diagnosis reports - all from your PC



Want to know more?

Call us on +353 59 9149097

Email us at info@aquamonitrix.com
Visit www.aquamonitrix.com

View more technical specifications over the page ->



TECHNICAL DATA SHEET

Specifications

- + Analyser technology: Ion chromatography and UV-LED
- + Maximum sampling frequency: 10 mins
- + Accuracy:
 - Fresh water ~99%
 - Wastewater & Saline Water ~95%
- + Precision 95%
- + Analytical Range for Fresh Water and Wastewater*
 - Nitrate: 0.6 – 500 mg/L NO_3^- (0.14 to 113 mg/L as N)
 - Nitrite: 0.05 – 100 mg/L NO_2^- (0.01 to 23 mg/L as N)

**In 35 ppt saline water, the lower limits of detection are 1.0 mg/L nitrate as NO_3^- (0.23 mg/L as N) and 0.5 mg/L nitrite as NO_2^- (0.15 mg/L as N)*

Power Source

- + 15 - 25 V dc input power, 50W max. rated power
- + Integrated battery for backup
- + Solar/battery version available for mobile and off-grid use

Environmental

- + Operating temperature range: 10 - 40°C
- + Sample temperature range: 2 - 50°C
- + Operating humidity range: 10 - 90% RH, non-condensing
- + Storage temperature range: -20 - 60°C
- + Storage humidity range: 10 - 90% RH, non-condensing
- + IP rating: IP65 (IEC 60529)

Dimensions and Features

- + External size: 23cm X 36cm X 57cm (enclosure size, without supporting cradle)
- + Weight: 12 kg
- + Portable
- + Integrated provision for mounting/securing to a fixed surface (e.g. floor, wall, etc.)
- + Integrated carry handle and lockable hinged door
- + Rugged construction: Impact, UV and corrosion-resistant
- + Eluent: Sodium Chloride (NaCl)
- + Alarms and indicators: Tri-colour Status LED

User Interfaces/Data Output

- + Wired output transmission: MODBUS over Serial (RS232 / RS485)
- + IoT communication capability
- + Optional IoT Datamonitrix data management platform
- + Data communications via RS232, for commissioning/troubleshooting

Certifications

- + C.E. Mark, REACH

Warranty

- + One Year

Want to know more?

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