



Every water sample captures a moment. NuLAB captures the full story.

Continuous Monitoring

Lab Accuracy

Actionable Insights

Field-Ready

NuLAB provides laboratory-grade accuracy without the wait, delivering real-time nutrient data that makes the invisible chemistry of water health visible, measurable, and actionable.

Traditional water quality monitoring captures a snapshot: one moment in time at one location. NuLAB replaces the snapshot with a running record, measuring the specific nutrient parameters that drive water quality decline continuously, so the data reflects what is actually happening rather than what happened on the day someone visited.

- > Measures nitrate, phosphate, ammonia, total nitrogen, total phosphorus, and silicate (the nutrient parameters most directly linked to algal bloom development and water quality decline).
- > Continuous in-water measurement that builds a real-time, running record of nutrient dynamics over time.
- > Field-deployable and built to operate in the conditions water managers actually work in, not controlled laboratory environments.



NuLAB System with Field Enclosure Kit.

- > Data integrates into the SEPRO platform, where it is interpreted alongside historical baselines and diagnostic results to build a complete picture of ecosystem nutrient health over time.
- > 145+ NuLAB channels are currently deployed and active across the United States, Canada, and Southeast Asia.

See other side for NuLAB Specifications >>>



Contact Us

Monitor Smarter. Manage Better.

Contact SEPRO Technical Specialist to learn how NuLAB delivers continuous nutrient monitoring and actionable water quality insights.

Call 1-800-419-7779. Visit SEPROSCIENTIFIC.com

NuLAB Specifications

The NuLAB adapts established wet chemical methods to a field chemical analyzer. Precise volumes of sample, on-board standard and reagents connected to a rotary valve are mixed by a syringe pump and reacted solutions are analyzed in high precision colorimeters. In essence, the NuLAB is a rugged “chemistry robot” capable of various wet-chemical analysis. Sample data is calibrated via preserved on-board standards that are analyzed at user specified intervals. Sample and reagent volumes, mixing times and flushing are controlled by straight-forward scripts that can be customized to achieve specific analytical goals.

Features

Sensitive and specific wet-chemistry methods for the analysis of Nitrate + Nitrite, Soluble Reactive Phosphorus, Ammonia + Ammonium, Silicate, Total Nitrogen and Total Phosphorus

- > Calibration via preserved on-board standard
- > High reliability and dedicated support
- > Customized chemistry available

Physical

- > Analyzer: 42 cm x 22 cm x 20 cm (H x W x D)
- > Weight: 4.9 kg (add 1.1 kg for optional internal relays) plus reagents
- > Real-time data and remote login
- > Field proven
- > Ready-to-install reagent kits supplied upon request

Analytical

Ranges (detection limit to linear range)

High Sensitivity Detectors (6.4mm pathlength)

mg/L: N+N 0.003 to 0.70, Nitrite 0.002 to 0.5, Phosphate 0.004 to 1.0, Ammonia/Ammonium 0.004 to 1.0, Silicate 0.005 to 1.7

micro mol/L: N+N 0.2 to 50, Nitrite 0.2 to 35, Phosphate 0.3 to 25, Ammonia/Ammonium 0.3 to 20, Silicate 0.2 to 60

Low Sensitivity Detectors (2mm pathlength)

mg/L: N+N 0.01 to 2.8, Nitrite 0.008 to 2.1, Phosphate 0.025 to 2.0, Ammonia/Ammonium 0.02 to 1.0, Silicate 0.04 to 2.8

micro mol/L: Nitrate 0.8 - 200, Nitrite 0.6 - 150, Phosphate 1.0 - 75, Ammonia/Ammonium 1.5 to 75, Silicate 1.5 to 100

- > Precision (one SD at midrange of scale): Nitrate 3%, Nitrite 2%, Phosphate 3%, Ammonium 3%, Silicate 3%
- > Expanded Ranges: Up to 10 mg/l through dilution macro
- > Accuracy: Based on the accuracy of the preserved on-board standard and sample replicate precision
- > Analyses: Typically 1000 per channel per deployment. Controlled by reagent payload and chemistry
- > Analysis Time*: We are in the range of 18 to 25 minutes with NH4 being the higher end
- > **Note:** detection limit calculated as 3 x SD of reagent blank; linear range is variable upon detector path length and chemistry. Contact Green Eyes for specific information.

General

- > Power: voltage 10 - 15 dc, current per channel (mA) heating max. 820, motors 160-260, idle 90
- > Communications: RS232 9600,N,8,1
- > Maximum inlet length: 1m, 0.66m vertical head. Sample pumps for 1-25m available

