



EcoLAB II

Multi Channel *in-situ* Nutrient Analyzer



- Submersible
- Established wet chemistry
- On board standards
- Multi channel
- Flexible chemistry



EcoLAB adapts established wet chemical methods to an *in-situ* 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 colorimeters. In essence, the EcoLAB is a submersible “chemistry robot”.

Sample data is calibrated via an on-board standard(s) that are also analyzed in-situ at user specified intervals. Sample and reagent volumes, mixing times and flushing are controlled by straight-forward macros that can be customized by users or Green Eyes to achieve specific QC or analytical goals.

With the mooring and reagent frame, the EcoLAB II can be deployed from a surface buoy or on a taught mooring.

EcoLAB II Specs

Dimensions (cm) and weight (Kg)

Analyzer : 50 x 16 (L x max OD)

Reagent Frame: 56 x 32 (L x OD)

Battery Pack: 88 x 14 (L x OD)

Weight: Air 25, Water 4 (not including reagent payload)

Analytical

Range (detection limit to linear range, micro M): Nitrate 0.2 - 50, Nitrite 0.15 - 50, Phosphate 0.2 - 50, Ammonium 0.3 to 50, Silicate 0.3 to 60

Precision (one Std. Dev. @ microM conc.): Nitrate 5% @ 10, Nitrite 5% @ 3, Phosphate 5% @ 3, Ammonium 5% @ 3, Silicate 5% @ 10

Accuracy: Based on the accuracy of the onboard standard and sample replicate precision

Analyses: Approximately 1000 per channel, per deployment. Controlled by reagent payload and chemistry.

NOTE: linear range is variable upon detector pathlength and chemistry. Contact Green Eyes for specific information.

General

Power: voltage 10 - 15 dc, current (mA) max 300, sleep 0.1, mean 22

Communications: RS232 19200,N,8,1

Depth rating: 50m, deeper upon request