



EnviroTech Instruments

Environmental Products & Services



AutoLAB 4 [Remote Station Nutrient/Chemical Analyzer]

All new field-deployable nutrient analyzer system available in single or dual channel configurations that may be "daisy-chained" to provide up to six channels of simultaneous chemical analysis. Parameters include nitrate, phosphate, ammonia, silicate, chloride, iron & urea. Sampling pump control and a cellular modem interface for real-time / on-line data are built-in. AutoLAB 4 has a very low maintenance requirement, incorporates easy-load reagent storage for maximum up-time and on-site service. Also very affordably priced.



EcoLAB 2 / MicroLAB [In-situ Nutrient/Chemical Analyzers]

A new version of EcoLAB, our multi-channel submersible nutrient/chemical analyzer, is now available with new state-of-the-art detectors, new drive system, new electronics and embedded software. **EcoLAB 2** offers increased measurement range and greater sensitivity. Available in shallow & a deep 4000 m version. **MicroLAB** is our single-channel in-situ nutrient analyzer. Compact and affordable for use in freshwater and near-coastal applications. Both **EcoLAB** & **MicroLAB** are resilient to biofouling, do not suffer from interferences and offer the sensitivity required for most environmental monitoring and lab comparable data.



Aqua Monitor 4 [Water & Microplankton Sampler]

The latest model of our unique water sampler includes a new sampling valve and drive mechanism improving sampling reliability & precision, increasing ease of use and extending maintenance intervals. Also new motor drives, electronics & firmware. The 100 m rated model is shown and a 4000 m rated version is also available. Designed for coastal and open ocean water and micro-plankton sampling, Aqua Monitor's unique two-stage capture and store capability allows sample processing (filtering, preservation, etc.). Also sensor triggerable for "smart" applications. Samples from 10 ml to 1000 ml (200 ml as standard).



Aqua Sentinel [On-line process control Chemical Analyzer]

An all-new product for precise, reliable and cost-effective nutrient/chemical monitoring in water intake, process control & effluent discharge applications. Aqua Sentinel provides 1 to 4 channels of rapid simultaneous nutrient/chemical analysis using standard & approved US EPA methods. The system includes built-in data dissemination to the Internet (web-server and/or FTP data transfer). Traditional RS232/RS485 & analog outputs are included for existing SCADA & data-logging systems. Controls for pump, valve and alarm switching also included.



System Building & Design Services

We offer mechanical, electronic, software and system design services. Areas of expertise include: New product development, mechanical design, custom low-power system control & data-logging electronics, firmware development (drivers or complete applications), telemetry, sensor integration, software & user interface applications, prototyping (virtual and/or solid models), electro-mechanical systems (stepper & DC motor control, actuators, solenoids), manufacturing documentation and design support. Also design rework and upgrades. Use our experience to provide working solutions that save you time & money.

Nutrient / Chemical Measurement Specification

	Nitrate	Silicate	Phosphate	Ammonium	Others
Range (mg/L)	0-5 mg/L NO3/N	0-6 mg/L SiO4/Si	0-0.8 mg/L PO4/P	0-4 mg/L NH4/N	Chloride
Wavelength (nm)	543	810	880	660	Iron
Sensitivity (mg/L)	0.003	0.003	0.003	0.003	Urea

Sampling Specification

	AutoLAB 4	EcoLAB 2	MicroLAB	Aqua Monitor 4	Aqua Sentinel
Samples (typical) Extendable	840 samples (per channel)	840 samples (per channel)	840 samples	48 samples	1000 samples (per channel)
Sample volume (ml.)	1.00	1.00	1.00	200 (std.) up to 1L	1.00
Sample rate (max.)	7 mins	7 mins	7 mins	1 min	5 mins

Physical / Electrical / Communications

	AutoLAB 4	EcoLAB 2	MicroLAB	Aqua Monitor 4	Aqua Sentinel
Dimensions: H x W x D Inch (mm)	Single module: 20" (508) x 8.5" (216) x 15" (381) Dual module: 20" (508) x 13.5" (343) x 15" (381)	12.2" (310) diameter x 23.2" (590) in standard housing	8.5" (215) diameter x 17.75" (450) in standard housing	5.7" (146) diameter x 24.5" (623)	24" (610) x 20" (510) x 12" (305)
Weight lbs (kg)	Single: 25 lbs (11.3) / Dual: 55 lbs (25.0)	Air: 55 lbs (2.0) Water: 8.8 lbs (4.0)	Air: 22 lbs (9.9) Water: Neutrally buoyant	Air: 24 lbs (12.5) Water: Neutrally buoyant	90 lbs (40.5)
Sealing / protection	Splash / spray proof NEMA-4X / IP67	For immersion (see below)	For immersion (see below)	For immersion (see below)	Splash / spray proof NEMA 4 / IP66
Depth capability	Not submersible	200 m standard - 4000 m optional	200 m standard	100 m standard - 4000 m optional	Not submersible
Power consumption	Analysis: 400 mA / Sleep: <100 µA (per channel)	Analysis: 260 mA Sleep: <100 µA Mean: 22 mA (8 weeks)	Analysis: 260 mA Sleep: <100 µA Mean: 22 mA (8 weeks)	Peak: 740 mA Sleep: <100 µA Mean: 2 mA (8 weeks)	<120 Watts
Communications	RS232 - ASCII - 19,200 baud (N81)	RS232 - ASCII - 19,200 baud (N81)	RS232 - ASCII - 19,200 baud (N81)	RS232 - ASCII - 19,200 baud (N81)	RS232, RS485, Ethernet, wireless (802.11g)
Power supply (range)	12 volts DC nom. (10.0 - 15.0 volts)	12 volts DC nom. (9.0 - 15.0 volts)	12 volts DC nom. (9.0 - 15.0 volts)	12 volts DC nom. (10.0 - 15.0 volts)	90 - 250 VAC 50 - 60 Hz
Materials	Aluminum, Delrin, stainless steel 316/A4	PVC, polypropylene, titanium, stainless steel 316/A4 (fittings)	PVC, polypropylene, titanium, stainless steel 316/A4 (fittings)	PVC, titanium, stainless steel 316/A4 (fittings)	Power-coated steel (enclosure), aluminum, Delrin, stainless steel 316/A4 (fittings)
Scope of supply (typical)	Analyzer module, detector, housing, flow- cell, filter, reagent bag set, communications cable, tool kit, manual & software	EcoLAB analyzer, detector(s) guard, power & comms cable, reagent bag set, filter, toolkit, manual, software, scientific transit case	MicroLAB analyzer, detector, guard, power & comms cable, reagent bag set, filter, internal battery pack, toolkit, manual, software, scientific transit case	Aqua Monitor sampler, power & comms cable, sample bags, toolkit, manual, software, scientific transit case	Aqua Sentinel base system (controller, memory, display, interface, power supply, flow-cell, filter). Plus 1 - 4 analytical modules, reagent bags, tool-kit.
Optional extras	Pump controller, pump, telemetry modems, scientific transit case	Mooring frame, external battery pack & lead, o- seal set	Mooring frame, o-seal set	Mooring frames, external battery pack & lead, sample bags	Upgrade to stainless steel enclosure, filtration, flow-line control / manifold, pumps, sensors

Warranty

	AutoLAB 4	EcoLAB 2	MicroLAB	Aqua Monitor 4	Aqua Sentinel
Return to base (RTB) at users cost	Two years	Two years	Two years	Two years	Two years