



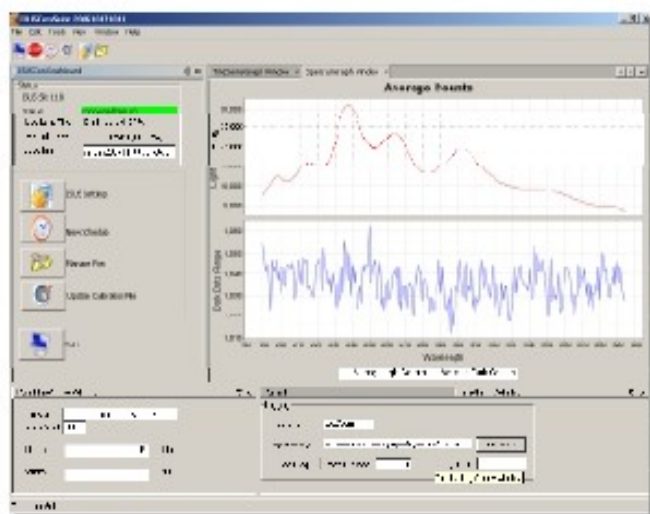
ISUS V3

Satlantic's ISUS V3 nitrate sensor, the latest version of the original MBARI-ISUS nitrate sensor, now comes with full USB capability and the new ISUSCom program. ISUSCom is a windows-based application that enables the user to download files, setup schedules, log and view data all through a simple, easy to use interface. ISUS V3, originally developed by the Monterey Bay Aquarium Research Institute (MBARI), uses advanced UV absorption technology to provide accurate nitrate concentration measurements in real-time.

The ISUS nitrate measurement technology is the current state of the art in nutrient monitoring and is in extensive use worldwide. It has been successfully deployed in a wide range of aquatic environments, from deep ocean moorings to coastal buoys to small lakes and rivers. The technology has proven to be robust, sensitive and stable, operating continuously for extended periods of time in remote and harsh environments.



New ISUSCom Software!



ISUSCom

- **Simplified Instrument Setup**
- **Fast and Easy File Download**
- **Real-time Spectral Display**
- **Nitrate Time-Series Plotting**
- **Schedule Programming**
- **Calibration Updates**
- **Data Logging**
- **V2 Compatible with Upgrade**

Moorings & Fixed Platforms - ISUS V3's onboard computer enables sample schedule programming, internal data logging and power management over long-term deployments lasting 6 months to a year.

Profiling Systems – Fast sample rates and real-time calculations produce high-resolution nutrient profiles in conjunction with typical CTD systems.

Towed Vehicles - The ISUS V3 can be integrated into towed vehicle payloads to generate 3D maps of nitrate distribution over vast geographical areas.



ISUS V3 SPECIFICATIONS

PERFORMANCE

Accuracy:	$\pm 2 \mu\text{M}$ (0.028 mg/l) or $\pm 10\%$ of reading, whichever is greater
Detection range:	0.5 to 2000 μM *(0.007 to 28 mg/l-N)
Thermal Compensation:	0 to 40 °C
Salinity Compensation:	0 to 40 psu

OPTICS

Path length:	1 cm
Wavelength range:	200 - 400 nm
Lamp type:	Deuterium
Lamp lifetime:	1000 h

ELECTRICAL CHARACTERISTICS

Input voltage:	6 - 18 V (Non-isolated power input from batteries) 19 - 75 V (Isolated power input) 11 - 36 V (Optional isolated power input)
Power consumption:	6.5 W (0.54A @ 12V)
Data storage:	256 MB
Sample rate:	1 Hz
Telemetry options:	Analog output 0 - 4.096 VDC Isolated RS-232 - RS-485 serial output User selectable baud rates available (Default 38,400 bps)
Data Download Options	USB RS-232

PHYSICAL CHARACTERISTICS

Depth rating:	1000 m
Length:	24 inches (608 mm)
Diameter:	4.5 inches (114 mm)
Weight:	11.0 lbs in air (5.0 kg) 1.5 lbs in water (0.7 kg)
Housing material:	Anodized Aluminum
Operating temperature:	0 to 40 °C

*Specifications may change without notice.
January 2008*