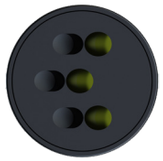
ECO V2

The ECO V2 can dynamically integrate numerous channels simultaneously—enabling you to garner multiple measurands in one compact package. Our five variations (single channel, dual channel, triplet, quad, and variation for gliders, AUVs, & integrators) meet different specification requirements:



	Single Channel	2-4 Channels	Gliders, AUVs, & Integrators
Scattering (700)	470 to 700 nm	470 to 700 nm	470 to 700 nm
Resolution (max)	3.60E-06 m-1 sr-1	3.60E-06 m-1 sr-1	3.60E-06 m-1 sr-1
Range	0.95 m-1 sr-1	0.95 m-1 sr-1	0.95 m-1 sr-1
Turbidity	700 nm	700 nm	700 nm
Resolution (max)	1.32E-03 NTU/count*	1.32E-03 NTU/count*	1.32E-03 NTU/count*
Range	0-350 NTU, 0-1000 NTU	0-350 NTU, 0 -1000 NTU	0-350 NTU, 0 -1000 NTU
Chlorophyl (EX/EM)	470/695 nm	470/695 nm	470/695 nm
Resolution (max)	0.016 µg/L/count	0.016 µg/L/count	0.016 µg/L/count
Range	0–400 µg/L	0–400 µg/L	0–400 µg/L
fDOM (EX/EM)	370/460 nm	370/460 nm	370/460 nm
Resolution (max)	0.016 ppb/count	0.016 ppb/count	0.016 ppb/count
Range	0–900 ppb	0–900 ppb	0–900 ppb
Phycocyanin (EX/EM)		630/680 nm	
Resolution (max)		0.03 ppb	
Range		0-230 ppb	
Phycoerythrin		518/595 nm	
Resolution (max)		0.03 ppb	
Range		0-175 ppb	

**Resolution only applies to range of 0-350 NTU*

SEA-BIRD SCIENTIFIC

Learn more about the ECO V2:

Look Deeper with ECO V2

Dive into the next generation of optical monitoring with Sea-Bird Scientific's cutting-edge ECO V2 Series. The ECO V2 series offers an impressive dynamic range, seamlessly transitioning from the deep blue ocean to coastal waters, all while delivering 16-bit resolution and enhanced signal-to-noise ratios across up to four channels.

The ECO V2 Series is a game-changer for biological monitoring and dye trace studies. Its robust potted optics block ensures long-term sensor stability, and with the optional anti-biofouling technology, you can achieve truly extended field measurements without compromising accuracy.

The ECO V2 Series offers a multitude of variations and configurations of components to maximize the quality and outcomes of your research. A flexible yet precise sensor package can cover the full range of natural waters, allowing for easier and more reliable research, decision making, and predictions.

The ECO V2 can be deployed independently or can be integrated within other platforms, including glider systems to garner a host of measurement parameters.

SEA-BIRD SCIENTIFIC

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Specifications subject to change without notice.

SEA-BIRD SCIENTIFIC

ECO V2

Dynamic Sensors for Optical Research

DYNAMIC SENSORS FOR OPTICAL RESEARCH

SEA-BIRD SCIENTIFIC

Key Features

• HIGH DYNAMIC RANGE
One range that covers all natural waters requiring fewer sensors to provide more data

• USER-FRIENDLY SOFTWARE
ECO V2 uses UCI and is compatible for Windows and Mac

• SYSTEM IN A SENSOR
The 4-measurement sensor option delivers even more versatility and cost savings. It eliminates cables, reduces weight, and provides better, integrated data

• BETTER DATA LOGGING
With a wider dynamic range, increased resolution and data-handling speeds

• EXTENDED DEPLOYMENTS
Through optional integrated battery packs and active and passive anti-fouling technologies up to 600 meters

• fDOM SENSITIVITY
5x more sensitive fDOM measurement

• CONSISTENTLY ACCURATE DATA
Through onboard quality assessment and quality control (QA/QC)

• EXTENDED BATTERY LIFE
Increased battery life and new battery pack option that is interchangeable with the SBE 37 and much easier to replace than the ECO Classic batteries

Applications

• PRIMARY PRODUCTIVITY STUDIES
Fluorometers are used in-situ to capture biological variability in primary productivity

• INHERENT OPTICAL PROPERTIES (IOP) AND CTD PACKAGES
Oceanographers around the world use package systems to look at water quality and ocean dynamics

• HARMFUL ALGAL BLOOMS (HABS)
ECOs can be used to detect, characterize, and determine components of harmful algal blooms

• LONG-TERM MONITORING
ECOs are used in a variety of long-term monitoring applications to provide water quality data

• AQUACULTURE
Dye-tracing ECOs are used by United States FDA to determine health of the aquatic environments for shellfish near effluent systems

• DREDGING
Environmental monitoring consultants around the world use ECO NTU sensors to monitor re-suspended
sediment near dredging sites to ensure sediment does not raise to unhealthy levels for aquatic life

• OCEAN OBSERVING SYSTEMS
ECOs are used in numerous Ocean Observing systems around the world

• CRUDE OIL DETECTION
ECOs can be used to detect oil plumes and were used during the Deepwater Horizon spill to detect plumes in the gulf

Measurands

- Backscattering 470 nm, 530 nm, 650 nm, 700 nm
- Chlorophyll 435 nm, 470 nm
- fDOM
- NTU
- Phycocyanin (PC)
- Phycoerythrin (PE)

Integrations

The ECO V2 can be deployed independently or can be integrated within other platforms, including glider systems to garner a host of measurement parameters