Solu-Blu CO_2 Exchange

SOLU-BLU CO_2 EXCHANGE

The new Solu-Blu CO_2 Exchange is a dual-purpose instrument for measuring the partial pressure of CO_2 gas in surface water and air. The design allows for both water and air CO_2 measurements.

Designed for use on multiple systems and platforms, this sensor provides maximum flexibility for a broad range of applications. This compact unit is comprised of our new Solu-Blu CO_2 Exchange that resides underwater for pCO_2 measurements and our AirLink air intake that is used to take in air from above. Alternating measurements of pCO_2 in air and water provide accurate data for reliable surface flux calculations.

With its small size and weight, the instrument is well-suited for installation into autonomous platforms such as buoys, gliders, and ASVs. The simple user interface makes integration easy and optional accessories include mounting brackets to support integration on most platforms.

Operating on one-seventh the power of a traditional high-accuracy air-sea CO_2 sensor, and measuring one-fifth the size. All Pro-Oceanus sensors are calibrated using WMO traceable standards.

FEATURES

- Measurement of pCO_2 in both air and surface water simultaneously
- Our most compact design for integration on small platforms
- Low power requirements
- Dual capability for fully submersible measurements or surface air-sea data
- Real-time data output; no post-processing
- Internal data logger and controller with 2GB flash memory

pCO_2 SENSOR APPLICATIONS

- Surface CO_2 flux studies
- Marine Carbon Dioxide Removal (mCDR) MRV
- Transect measurements via autonomous surface vehicles
- Coastal zone CO_2 fluxes

PRO OCEANUS

Dissolved Gas Sensors

sales@pro-oceanus.com | Phone +1-902-530-3550 | Pro-Oceanus.com

Solu-Blu CO_2 Exchange

SENSOR SPECIFICATIONS

Sensor Performance

Absolute Accuracy	± 3% (of max range)
Resolution	0.1% of maximum range
Equilibration time (t_{63})	Water: 3 minutes Air: 5 seconds
Standard ranges	0 - 1000 ppm CO_2; by volume 0 - 2000 ppm *Custom ranges available

Physical

Solu-Blu CO_2 Exchange Submersible:	
Length	25.4 cm (10 in)
Diameter	10 cm (4 in)
Weight	In air: 2.1 kg (4.75 lbs) In water: 0.1 kg (0.26 lbs)
Housing	Acetal Plastic
Water Temperature	-2°to 35° C
AirLink Air-side Intake:	
Diameter	7.7 cm (3 in)
Height	11 cm (4.5 in)

3 m of tubing for connection to water-side instrument

Electrical

Input voltage	10 - 24 VDC
Power consumption	0.84 W (70 mA @ 12 V DC)
Data output	Serial RS-232, CSV ASCII String
Sample rate	0.5 Hz (every 2 seconds)

Optional Accessories

AirLink Mast
60 cm high mast for deployment of the Air-intake

External Battery Pack
76, 134, or 247 Amp-hour capacity

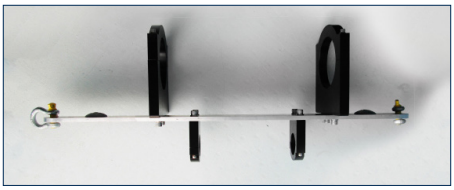
Mooring cage or frame with instrument brackets

Modified AirLink mounting

Pigtail Cables with Locking Sleeve
5, 10, 25, or 50 meters

Left: Pigtail Cable with Locking Sleeve

Right: AirLink (optional mast available)



Instrument and Battery Mooring Bracket

PRO OCEANUS Dissolved Gas Sensors

80 Pleasant Street,
Bridgewater, Nova Scotia
Canada B4V 1N1

Phone +1-902-530-3550
sales@pro-oceanus.com
Pro-Oceanus.com