CO_2-Pro™

Features

- Patented tubular interface provides unmatched biofouling resistance
- High accuracy, long-term stability
- Multiple data outputs
- Large selection of pCO_2 concentration ranges
- Easy integration into any system
- Real-time data output; no post-processing

pCO_2 Sensor Applications

- Ocean acidification
- Long-term ocean pCO_2 monitoring
- Near-surface flux studies
- Shipboard flow-through pCO_2 measurements
- Coastal zone CO_2 fluxes

PRO OCEANUS *Stability in a sea of change.*

CO_2-Pro Submersible pCO_2 Sensor

The CO_2-Pro instrument measures the partial pressure of CO_2 gas dissolved in water using infrared detection. Standard ranges from 0-600 ppm to 0-2000 ppm provide the full spectrum of pCO_2 required for accurate measurement of ocean CO_2.

With industry-leading pCO_2 accuracy and stability for fully submersible instruments, the CO_2-Pro sensor provides the reliable long-term data that are needed for monitoring and assessing the magnitude of ocean acidification, climate change and carbon fluxes.

The patented supported tubular interface provides three effective modes of biofouling resistance: high shear on the membrane surface, darkness, and solid copper. The CO_2-Pro is ideal for shallow waters in highly productive areas.

An internal zeroing feature provides a stable long-term baseline for ensuring accurate and stable measurements. The CO_2-Pro can also be modified to measure both water and air pCO_2.

For optimal accuracy, instruments are factory calibrated using WMO traceable standard gases. In addition, detector temperature stabilization and measurement of gas stream pressure and humidity provide accuracy unparalled by small submersible pCO_2 instruments.

Pro-Oceanus.com
sales@pro-oceanus.com

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

T +1-902-530-3550
F +1-902-530-3551
Toll-Free (Canada/US) 1-855-530-3550

CO_2-Pro™

Sensor Specifications

CO_2 Detector Performance

Accuracy	
CO_2 concentration	±0.5%
Resolution	
CO_2 concentration	0.01 ppm
Zero drift	automatic zero compensation
Equilibration time (t_{63})	2.5 minutes (with water pump)
Standard range	0-600 ppm
(alternate ranges available)	

Physical

Length	33 cm (13 in)
Diameter	19 cm (7.5 in)
Weight	6 kg in air (13 lbs)
	0 kg in water (0 lbs)
Housing	Acetal Plastic
Depth	0-110 meters (0-360 ft)
Water Temperature	0° to 30° C (Standard)
	-2° to 20° C (Arctic)
	15° to 40° C (Tropical)

Electrical

Input voltage	12-18 VDC
Power consumption	4 W (includes water pump)
	12 W during warmup
Data output	RS-232, ASCII format
Optional analog	0-5 V or 4-20mA
Sample rate	1.6 seconds (user selectable with datalogger/controller)

Options & Accessories

Internal Datalogger and Controller

Seabird 5P (Plastic) or 5T (Titanium) water pump with cable (Water pumping required)

External Battery Pack
76, 134, or 268 Amp-hour capacity

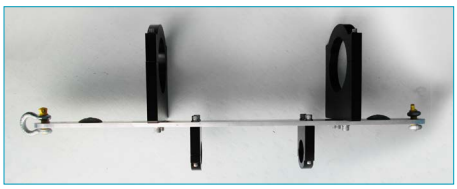
Mooring Frame with instrument brackets

Mooring cage with brackets

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

SBE 5T Water Pump

Pigtail Cable with Locking Sleeve



Instrument and Battery Mooring Bracket

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