CO_2-Pro CV™

Features

- Fast Response and High accuracy
- Long-term stable data for deployments of a year or longer
- Resistant to biofouling
- Real-time data output
- Large selection of concentration ranges
- External battery power available

pCO_2 Sensor Applications

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

CO_2-Pro CV Submersible pCO_2 Sensor

The CO_2-Pro CV instrument measures the partial pressure of CO_2 gas dissolved in water using infrared detection. Standard ranges from 0-600 ppm up to 0-10,000 ppm provide the full spectrum of pCO_2 needed for accurate measurement of ocean, coastal, riverine and lake CO_2 levels.

With industry-leading pCO_2 accuracy and stability for submersible instruments, the CO_2-Pro CV is the sensor of choice for most applications. Labelled the CV for Compact Version of our flagship CO_2-Pro instrument, the Pro-CV can be deployed 4000 meters depth, ideal for carbon capture storage monitoring and deep ocean CO_2 fluxes.

The small size of the CO_2-Pro CV means it is easily transported and deployed in the field. When combined with our anti-fouling features and options, the instrument can perform in even the most biologically active rivers and lakes for extended periods of time. An internal zeroing feature provides a stable long-term baseline to ensure accurate measurements. A flow-through adapter is also available for simple integration into many systems.

The CO_2-Pro CV is factory calibrated using WMO traceable standard gases. In addition, detector temperature stabilization and measurement of gas steam pressure and humidity provide accuracy unparalled by small submersible pCO_2 instruments.

PRO OCEANUS *Stability in a sea of change.*

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CO_2-Pro CV™

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})	50 seconds*
Standard range	0-600 ppm
(alternate ranges available)	
*with pumped head at 20° C	

Physical

Length	38 cm (15 in)
Diameter	10 cm (4 in)
Weight	2.8 kg in air (6 lbs)
	0 kg in water (0 lbs)
Housing	Acetal Plastic or Titanium
Depth	0-600 meters (Plastic)
	0-4000 meters (Titanium)
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	3 W (0.25 A, 12 V)
	9.5 W during warmup
Optional Water Pump	1.8 W (12 V)
Data output	RS-232, ASCII format
Optional analog	0-5 V or 4-20mA
Sample rate	1.6 seconds (variable rate with logger/controller)

Options & Accessories

Water-Pumped or Non Water-Pumped Interface Head Assembly (User must specify prior to ordering)

Internal Datalogger and Controller

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

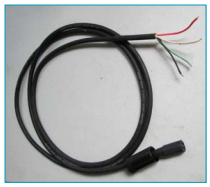
External Battery Pack
76, 134, or 268 Amp-hour capacity

Mooring Frame with instrument brackets

Mooring Cage with instrument brackets

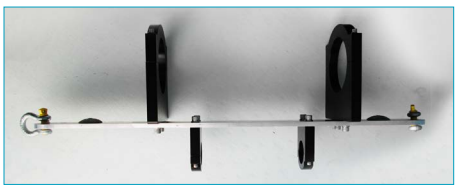
Pigtail Cables with Locking Sleeve
5, 10, 25, or 50 meters

CO_2-Pro CV waterpumped head



Pigtail Cable with Locking Sleeve

SBE 5T Water Pump



Instrument and Battery Mooring Bracket

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