

# CO<sub>2</sub>-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
- Internal data logger and controller with 2GB flash memory

## pCO<sub>2</sub> Sensor Applications

- Ocean acidification
- Long-term ocean pCO<sub>2</sub> monitoring
- Deep ocean studies
- Shipboard flow-through pCO<sub>2</sub> measurements
- Coastal zone CO<sub>2</sub> fluxes

## CO<sub>2</sub>-Pro CV Submersible pCO<sub>2</sub> Sensor

The CO<sub>2</sub>-Pro CV instrument measures the partial pressure of CO<sub>2</sub> gas dissolved in water using infrared detection. Standard ranges from 0-600 ppm up to 0 - 10,000 ppm as well as custom ranges are available that cover the full spectrum of pCO<sub>2</sub> needed for accurate measurement of ocean, coastal, riverine, and lake CO<sub>2</sub> levels.

With industry-leading pCO<sub>2</sub> accuracy and stability for submersible instruments, the CO<sub>2</sub>-Pro CV is the sensor of choice for most applications. Labelled the CV for Compact Version of our flagship CO<sub>2</sub>-Pro instrument, the Pro-CV can be deployed to 4000 meters depth, ideal for carbon capture storage monitoring and deep ocean CO<sub>2</sub> fluxes.

The small size of the CO<sub>2</sub>-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<sub>2</sub>-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 unparalleled by other small submersible pCO<sub>2</sub> instruments.



**PRO** *Stability in a sea of change.*  
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# CO<sub>2</sub>-Pro CV™

## Sensor Specifications

### Sensor Performance

Accuracy	±0.5%
Resolution	0.01 ppm
Zero drift	automatic zero compensation
Equilibration time (t <sub>63</sub> )	50 seconds (with pumped head at 20° C)
Standard range (alternate ranges available)	0 - 600 ppm 0 - 1000 ppm 0 - 2000 ppm 0 - 10 000 ppm

### Physical

Length	38 cm (15 in)
Diameter	10 cm (4 in)
Weight	Air: 2.8 kg (6.2 lbs) Water: 0 kg
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	10 - 18 VDC
Power consumption	3W (9.5W during warmup)
w/ Optional Water Pump	4W (12W during warmup)
Data output	RS-232, ASCII format, 0-5 V or 4-20 mA optional
Sample rate	1 second (variable rate with logger/controller)

### Optional Accessories

#### Water-Pumped Interface Head

Reduces biofouling and improves response rate

#### Seabird Water Pump with cable

5P (Plastic) or 5T (Titanium)

#### External Battery Pack

76, 134, or 247 Amp-hour capacity

#### Internal Battery Power

#### Mooring Frame or Cage with Instrument Brackets

#### Anti-fouling Copper Head

#### Pigtail Cables with Locking Sleeve

5, 10, 25, or 50 meters



Mooring Cage with Brackets



SBE 5T Water Pump



Water-Pumped Interface Head

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