

# 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

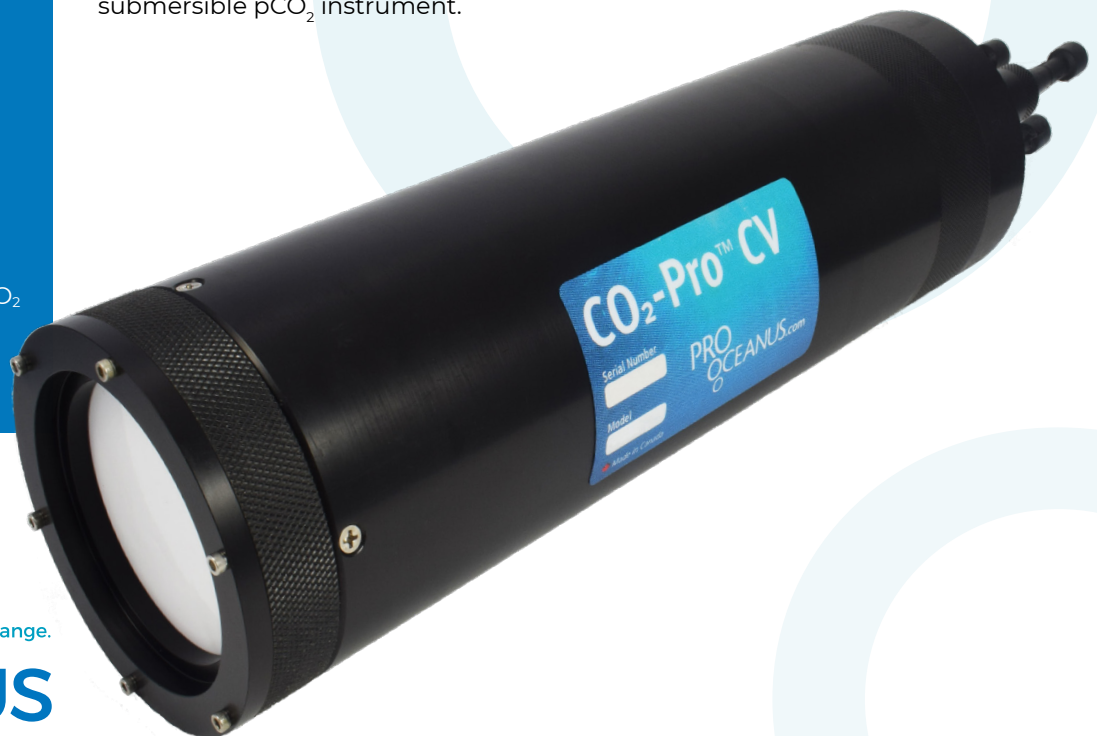
- Ocean acidification
- Long-term ocean pCO<sub>2</sub> monitoring
- Deep ocean studies
- Shipboard flow-through pCO<sub>2</sub> measurements
- Coastal zone CO<sub>2</sub> fluxes

## 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 up to 6000 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 small submersible pCO<sub>2</sub> instrument.



# CO<sub>2</sub>-Pro™ CV

## Sensor Specifications

### Sensor Performance

#### Accuracy

CO<sub>2</sub> concentration ±0.5%

#### Resolution

CO<sub>2</sub> concentration 0.01 ppm

#### Zero drift

automatic zero compensation

#### Equilibration time (t<sub>63</sub>)

50 seconds (with pumped head)

#### Standard range

0 - 600 ppm  
(alternate ranges available) 0 - 1000 ppm  
0 - 2000 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)  
0-2000 meters  
0-4000 meters  
0-6000 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 4-20mA optional

**Sample rate** 1 second (variable rate with logger/controller)

### Optional Accessories

#### Water-Pumped Interface Head

Reduces biofouling and improves response rate

#### Internal Battery Power

#### External Battery Pack

76, 134, or 268 Amp-hour capacity

#### Seabird Water Pump with cable

5P (Plastic) or 5T (Titanium)

#### Mooring cage or frame with instrument brackets

#### Pigtail Cables with Locking Sleeve

5, 10, 25, or 50 meters



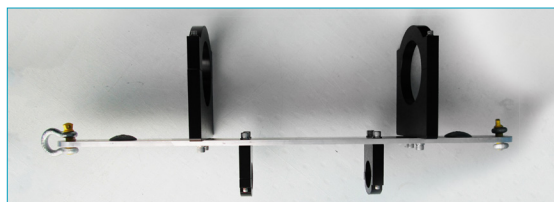
SBE 5T Water Pump



Pigtail Cable with Locking Sleeve



CO<sub>2</sub>-Pro™ CV water pumped head



Instrument and Battery Mooring Bracket

