

CO₂-Pro-CV Submersible pCO₂ Sensor

For partial pressure measurement of dissolved CO₂.





The CO_2 -ProTM CV 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, as well as custom ranges, are available that cover the full spectrum of pCO₂ needed for accurate measurement of ocean, coastal, riverine, and lake CO_2 levels.

With industry-leading pCO₂ accuracy and stability for submersible instruments, the CO₂-ProTM CV is the sensor of choice for most applications. Labelled the CV for Compact Version of our flagship CO₂-ProTM instrument, the Pro-CV can be deployed up to 6000 m depth, ideal for carbon capture storage monitoring and deep ocean CO₂ fluxes.

+ 0.05% CO2 concentration

Features

- High accuracy, long-term stability
- Easy integration into any system
- RS-232 or analogue data output formats available
- Optional data logger (>1 year of data storage)
- Large selection of concentration ranges
- Optional internal or external battery power

Applications

- Ocean acidification
- Long-term ocean pCO₂ monitoring
- Deep Ocean studies
- Shipboard flow-through pCO₂ measurements

320mm

Coastal zone CO₂ fluxes

The small size of the CO₂-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 available for combination with a pump. The CO₂-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 pCO₂ instrument.

Length

Accuracy	± 0.05% CO ₂ concentration	Length	36011111
Resolution	0.01 ppm CO ₂ concentration	Diameter	100mm
Zero Drift	Automatic Compensation	Weight (air / water)	2.8 kg / 0.6 kg
Equilibration rate (t63)	50 Secs (with pumped head)	Operational Temp	0 - +30 °C (+40 ° option)
Sample Rate	1 Sec variable with logger	Input Voltage	10 – 18 Vdc
Standard Ranges	0 - 600, 1000, or 2000 ppm	Power consumption	3W (9 W warm-up)
Depth Ranges	600, 2000, 4000 or 6000 m	Data Output Analogue	0 - 5 V or 4 - 20 mA
		Digital	RS-232 ASCII

*Options:

Accuracy

Data logger and controller, complete with 2 GB flash memory and terminal program for self-contained measurement and logging, with variable sampling rate (Required for digital output.)

Delrin or Titanium housings, Internal or External power & Battery Modules, Flow Head and Pump, Mooring Frames, Data & Power Cables

Swale Technologies Ltd