

# Mini CO<sub>2</sub><sup>TM</sup>

## Features

- Low power consumption
- Compact size
- Optional internal or external battery power
- Easy integration
- Large selection of concentration ranges
- Digital option comes with internal data logger and controller with 2GB flash memory

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

- Aquaculture monitoring of dissolved CO<sub>2</sub> for fish and shellfish health
- Coastal zone CO<sub>2</sub> fluxes
- Algae to fuel bioreactor feedback control
- Groundwater and wellwater monitoring
- Carbon budget studies for lakes and rivers
- Carbon capture storage monitoring of aquifer and surface water levels of pCO<sub>2</sub>
- Wastewater greenhouse gas emissions
- Ocean glider and profiler missions

## Mini CO<sub>2</sub> Submersible pCO<sub>2</sub> Sensor

The Mini CO<sub>2</sub><sup>TM</sup> instrument uses infrared detection to measure the partial pressure of CO<sub>2</sub> gas dissolved in liquids. With pCO<sub>2</sub> ranges from 0-1000 ppm up to 0-100%, the Mini CO<sub>2</sub> provides the versatility needed for any application.

Mini CO<sub>2</sub><sup>TM</sup> submersible instruments are compact, lightweight, plug and play sensors. The instrument also measures total dissolved gas pressure (TDGP), a useful parameter for many applications and data correction.

With housing options rated to 6000 dbar of hydrostatic pressure, and resistance to most corrosive liquids, the Mini CO<sub>2</sub> can provide reliable dissolved carbon dioxide data for many applications. Flow-through and in-line adapters are also available for simple and effective industrial solutions.

For specialized applications, Pro-Oceanus can provide custom solutions to suit any need.



**PRO** Stability in a sea of change.  
**OCEANUS**

# Mini CO<sub>2</sub>™

## Sensor Specifications

### Sensor Performance

**CO<sub>2</sub> Measurement Ranges** 0-2000 ppm CO<sub>2</sub>; by volume  
\*other ranges available  
0-5000 ppm  
0-1% (10,000 ppm)  
0-100%

**Total Dissolved Gas Pressure** 0-2 bar

#### Accuracy:

pCO<sub>2</sub> ± 2% of max range

TDGP ± 1%

**Equilibration rate (t<sub>63</sub>)** 3 minutes

**Resolution** 0.1% of max range

### Physical

**Length** 28 cm (11 in)

**Diameter** 5.3 cm (2.1 in)

**Weight** Air: 0.53 kg (1.2 lbs)  
Water: -0.06 kg (-0.1 lbs)

**Housing Material** Acetal Plastic / Titanium

**Depth Rating** 0 - 600 m (Plastic)  
Up to 6000 m (Titanium)

**Water Temperature** 0° to 40° C

### Electrical

**Input voltage** digital: 7 - 24 VDC  
analog: 12 - 24 VDC

**Power consumption** 85 mW (7 mA @ 12 V)

**Data output** digital: RS-232, ASCII CSV  
analog: 0-5 V or 4-20mA

**Sample rate** 2 seconds (variable rate with logger/controller)

### Optional Accessories

#### Titanium housings

Rated up to 6000 m depth

#### Internal battery power

#### External battery pack

76 or 134 Amp-hour capacity

#### Water-pumped head

Reduce biofouling and improve response rate

#### Mooring cage or frame with instrument brackets

#### Pigtail Cables with Locking Sleeves

5, 10, 25, 50 meters, or longer



Water-Pumped Head Accessory



Pigtail Cable with Locking Sleeve



Copper Antifouling Shield



Instrument and Battery Mooring Bracket

