

Mini-Pro CO₂ Submersible pCO₂ Sensor

For partial pressure measurement of dissolved CO₂.



The Mini-Pro CO₂ uses infrared detection to measure the partial pressure of CO₂ gas dissolved in liquids. With pCO₂ ranges from 0-500 ppm up to 0-100%, the Mini-Pro CO₂ provides the versatility needed for any application.

Mini-Pro CO₂ 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 submersible options rated from 600-6000 dBar pressure, and resistant to most corrosive liquids, the Mini-Pro CO₂ can provide reliable carbon dioxide data for many applications. Flow-through and in-line adapters are also available for simple industrial solutions.

Pro-Oceanus can provide custom products for specialized applications.

Features

- Low power consumption
- Easy integration
- Multiple data output formats available
- Optional data logger (>1 year of data storage)
- Large selection of concentration ranges
- Optional internal or external battery power

Applications

- Aquaculture monitoring of fish and shellfish health
- Coastal zone CO₂ fluxes
- Algae to fuel bioreactor feedback control
- Groundwater and well water monitoring
- Carbon budget studies of lakes and rivers
- Carbon capture storage monitoring of aquifer and surface water levels of pCO₂
- Wastewater greenhouse gas emissions
- Ocean glider and profiler missions

pCO ₂ Concentration	Resolution
0 – 2000 ppm by volume	1 ppm
0 – 5000 ppm	10ppm
0 – 1 % (10,000ppm)	0.01%
0 – 100 %	0.1%
TDGP	0 – 2 Bar
Accuracy: pCO ₂	± 2% FS
TDGP	± 1% FS
Equilibration rate (t63)	3 minutes

Length	280mm
Diameter	53mm
Weight (air / water)	0.53kg / 0.06kg
Depth (Delrin / Titanium)	600m / 6000m
Operational Temp	0 – +40 °C
Input Voltage	7 – 24 Vdc
Power consumption	7 mA @ 12 V
Data Output	Analog 0 – 5 V or 4 – 20mA
	Digital RS-232 or RS-485
Sample Rate	2 Sec *

*Options:

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.)

Internal batteries / External power / Water pumped Head / Anti-fouling head

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