

Mini CO₂TM

MINI CO₂ SUBMERSIBLE PCO₂ SENSOR

The Mini CO₂TM instrument uses infrared detection to measure the partial pressure of CO₂ gas dissolved in liquids. With pCO₂ ranges from 0-2000 ppm up to 0-100%, the Mini CO₂ provides the versatility needed for any application.

Mini CO₂TM 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 CO₂ 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
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Dissolved Gas Sensors

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

PCO₂ SENSOR APPLICATIONS

- Aquaculture monitoring of dissolved CO₂ for fish and shellfish health
- Coastal zone CO₂ 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 pCO₂
- Wastewater greenhouse gas emissions
- Ocean glider and profiler missions

Mini CO₂TM

SENSOR SPECIFICATIONS

Sensor Performance

CO₂ Measurement Ranges	0-2000 ppm CO ₂ ; by volume
*other ranges available	0-5000 ppm
	0-1% (10,000 ppm)
	0-100%

Total Dissolved Gas Pressure	0-2 bar
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Accuracy

pCO ₂	± 2% of max range
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TDGP	± 1%
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Equilibration time (t₆₃)	3 minutes
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Resolution	0.1% of max range
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Physical

Length	28 cm (11 in)
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Diameter	5.3 cm (2.1 in)
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Weight	Air: 0.53 kg (1.2 lbs)
	Water: -0.06 kg (-0.1 lbs)

Housing Material	Acetal Plastic / Titanium
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Depth Rating	0 - 600 m (Plastic)
	Up to 6000 m (Titanium)

Water Temperature	0° to 40° C
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Electrical

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

Power consumption	85 mW (7 mA @ 12 V)
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Data output	digital: RS-232, ASCII CSV
	analog: 0-5 V or 4-20mA

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