



SWALE OCEANOGRAPHIC

Solu-Blu™ CO₂ Submersible pCO₂ Sensor

For partial pressure measurement of dissolved CO₂.



Compact and rugged Plug & Play sensor, supplied with 3m cable.



Applications

- Recirculating Aquaculture Systems (RAS)
- Shellfish hatchery water intakes
- Measurements of CO₂ in lakes and rivers
- Shallow groundwater CO₂ studies
- Monitoring acidification in shellfish grow-outs

The **Solu-Blu™** dissolved CO₂ probe can be used for long-term continuous in-situ monitoring that provides reliable free dissolved carbon dioxide data. The probe provides a fully temperature and pressure compensated free dissolved CO₂ and partial pressure of CO₂, and user-input salinity values allow for automatic salinity correction. Flow-through and in-line adapters are also available for simple and effective industrial solutions.

Fish: Intensive water re-use systems and well-boats are particularly susceptible to CO₂ problems. Increased stocking densities, leaks in aeration pumps, biofilters etc, can lead to elevated CO₂ levels which can harmful to fish health and affect economic efficiencies. Continuous measurement of dissolved CO₂ in RAS with the Solu-Blu™ probe can provide useful and cost-effective feedback control for aeration to consistently maintain optimal levels of CO₂.

Shellfish: Elevated CO₂ levels alter the delicate balance of the carbonate system in the ocean. These changes make ocean water more corrosive to shellfish shells. Intake of ocean water during acidification events has been linked to collapse of oyster seed production at hatcheries. In-situ monitoring is the best method to ensure timely knowledge of changes in carbonate chemistry to allow for protection of shellfish stock.

pCO ₂ ranges	0-50 mg/L	Length	260mm
(other ranges available)	0-2000 µatm	Diameter	50mm
	0-5000 µatm	Weight (air)	0.28kg
	0-10,000 µatm	Depth	50m
TDGP range	0 – 2 Bar	Operational Temp	-2 – +40 °C
Accuracy: pCH ₄	± 2% FS	Input Voltage	5 – 30 Vdc
TDGP	± 1% FS	Power consumption	0.45W (35mA @12v)
Equilibration rate (t63)	4 minutes (10 min TDGP)	Data Output Analog	0 – 5 V or 4 – 20mA
Resolution	0.1% FS	Digital	RS-232
		Sample Rate	1 Sec

Optional Accessories:

- Power / Communications Box (for direct connection to computer and power outlet for plug & play operation).
- Water-pumped head (reduces biofouling and improve response rate).

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