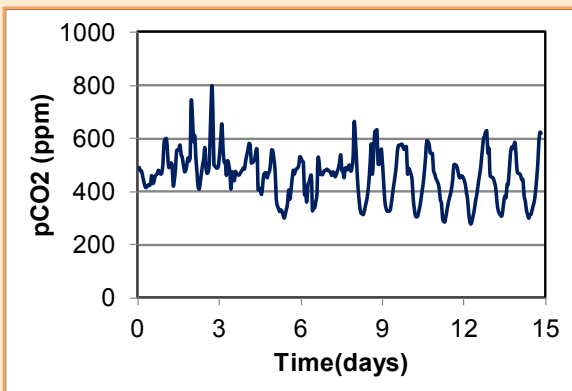




C-sense in situ pCO₂ Sensors

C-sense probes are compact, lightweight sensors for measurement of the partial pressure of gas in liquids. Designed for applications involving immersion in water, oil, or water and oil mixtures, the sensors combine an oil-resistant interface with a compact, temperature-compensated non-dispersive infrared (NDIR) detector. Designed for integration, C-sense enables pCO₂ monitoring at a significantly lower price than traditional pCO₂ sensors.



pCO₂ data from Kaneohe Bay, Hawaii showing the large variability that can be seen in shallow coastal areas where coral reefs are growing.

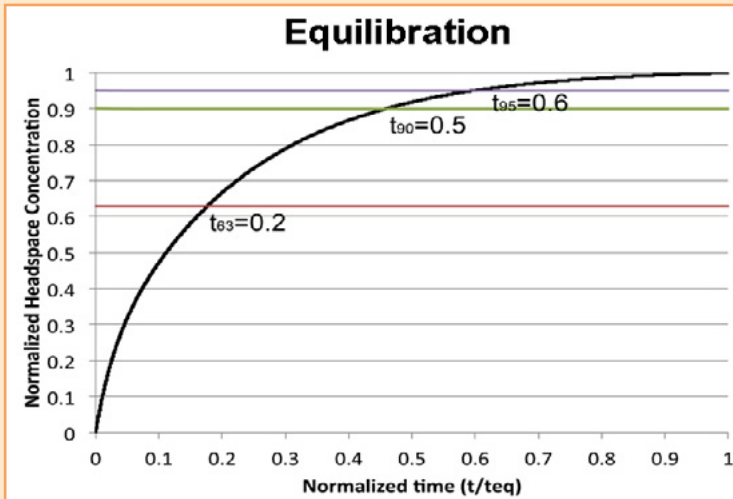
Data courtesy Pro-Oceanus Systems Inc.

Highlights of the C-sense

- Available in 4 standard measurement ranges
1000ppm
2000ppm
4000ppm
10,000ppm
other ranges available
- Accuracy 3% of full scale
- Submersible to 600m
- Easily integrated: 4-pin analog output
- Small size: <2" x 8" and <1lb
- Low power consumption: 80mA @ 6V DC
- Interfaces with DataBank Datalogger

Applications

- Water quality monitoring
- Aquaculture
- Wastewater monitoring
- Reef monitoring
- Carbon capture storage monitoring
- Biofuel production



The C-sense will reach the t_{63} level in ~4 minutes. Total equilibration time is ~15 minutes but this is reduced to ~12 minutes when using the water-pumped head. Equilibration with surrounding waters is not dependent on powering the C-sense. The analog output updates at once per second.

C-sense Physical Specifications

Length x Diameter	8" x 1.97"; 20.3cm x 5cm
Weight	<1 lb; 430 grams

C-sense Environmental Specifications

Temperature Range	
Water Temp	-2 to 35C
Ambient Temp	-20 to 50C
Depth Range	600 meters

C-sense Electrical Characteristics

Signal Output	0-5V DC
Supply Voltage	6-12V DC
Power Consumption	80mA @ 6 VDC (100mA during warm-up)
Detector Warm-up Time	45 sec - 3 min

Ordering Information

INSTRUMENT*	PART NUMBER
C-sense, 1000ppm	2400-001
C-sense, 2000ppm	2400-002
C-sense, 4000ppm	2400-004
C-sense, 10,000ppm	2400-010

C-sense ACCESSORIES	PART NUMBER
Water-Pumped Head	2400-700
Copper Cutouts (30 pack)	2400-506
0.6 meter Pigtail Cable	105-2410
5 meter Pigtail Cable	105-2411
10 meter Pigtail Cable	105-2412
25 meter Pigtail Cable	105-2413
50 meter Pigtail Cable	105-2414

*Other ranges available by special order

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