

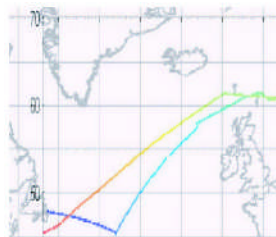


PSI CO2-Pro™

with deck box and optional Seabird 5T pump

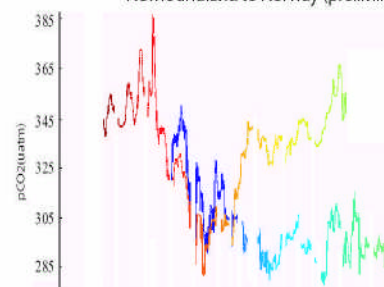
The PSI CO2-Pro™ is a compact, light-weight, plug-n-play pCO₂ sensor that is designed for use on moorings (to 200m), in under-way mode, and in the laboratory. The PSI CO2-Pro™ is fitted with an IR detector and the new PSI pump-driven fast interface (patent pending). This revolutionary new interface provides an equilibrated gas sample to the detector.

The PSI CO2-Pro™ is factory calibrated from 0 – 600 ppm with calibration burned into EPROM. To maintain accuracy, the detector module is equipped with a power interruption or contact closure initiated automatic zero point calibration (AZPC). When the AZPC is initiated, the gas stream is routed through a CO₂ absorbent to provide zero ppm CO₂ measurement. The CO₂ zero measurement compensates for changes in optical cell performance, and is used in determinations of ppm CO₂ until a new AZPC is performed (recommended at least once a day).



Matt Horn
Craig McNeil

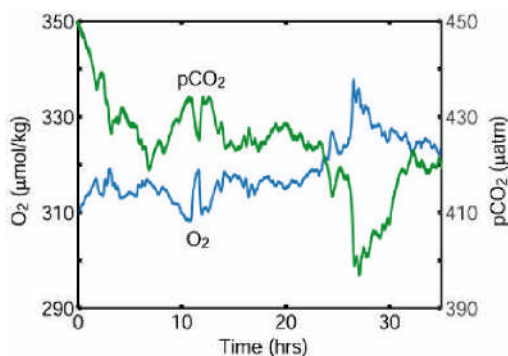
Transect on R/V Endeavor from
Newfoundland to Norway (preliminary results)

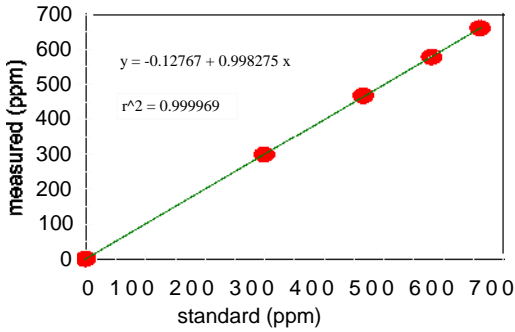


Features:

high precision and accuracy

- light weight, compact size
- unique antifouling protection
- RS-232 data interface
- data stream includes raw data and ppm CO₂
- power saving and onboard logging options available
- low cost





calilbration of a *PSI CO2-Pro™*
after 6 months of laboratory and
field use

Performance:

accuracy

CO2 concentration

± ~1 ppm

Gas stream humidity

±1 mb

Gas stream pressure

±2 mb

precision

CO2 concentration

0.01 ppm

gas stream humidity

1 mb

gas stream pressure

1 mb

calibration range

0 – 600 ppm*

temperature range

0 – 35 °C

Physical Characteristics *

size

length 33 cm (add 10 cm for connectors); 17.3 cm diameter

weight

9 kg in air

0.4 kg in water

housing

hard anodized aluminum

proof to 200 meters

Electrical Characteristics

input voltage

12 ± 0.5 Volts DC through 4 pin Impulse male connector

if equipped with power saving option: 9.5 – 18 V DC

power consumption

0.8 A at 12 Volts for warmup;

0.4 A during operation; not including pump power;

lower power consumption options are available

data storage

2 mega-bytes EPROM if equipped with data logger

data output

RS-232 serial output

sample rate

0.6 hertz

equilibration time constant

about 3 minutes depending on pump flow rate

- size or electrical specifications may change without notice

