

pCO2 Monitoring System OceanPack SAE (SubCtech)

**Attention:**

Please note: The system runs continuously during all cruises. Support is given by the board electricians. Please ask them if you need specific info, or contact the responsible AWI scientist.

Summary

The OceanPack Sea-Air-Exchange system measures the partial pressure of CO2 (pCO2) in seawater using membrane equilibration and Li-cor IR analyser for CO2 detection. The instrument reports mole fraction of CO2 in wet air in ppm. Values of pCO2 in microatm can only be obtained with shore-based data processing.

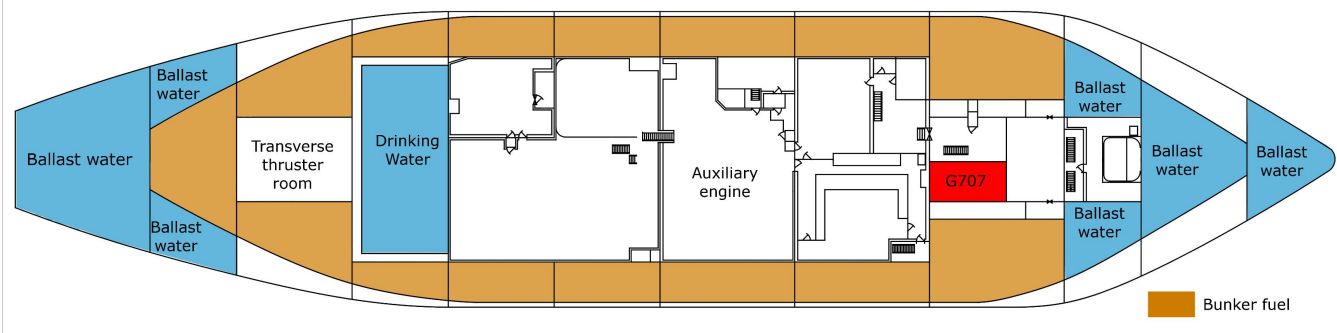
Manufacturer	subCtech GmbH
Model	OceanPack SAE pCO2 Analyzer
Serial No.	n/a
Type	pCO2 Sensor
REGISTRY-Link	REGISTRY (74)

Ocean Pack pCO2 analyzer



schematic drawing of Polarstern deck G

location of room G707 (General Oceanics and Ocean Pack pCO2 systems, Ferrybox, ADCP electronics)



Contacts

Name	Institution	Role
------	-------------	------

Mario Hoppema	Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research	Principal Investigator, Data Scientist
Thomas Liebe	F. Laeisz	Engineer In Charge

Components

Position

Info	no xyz-position given, device located in G707
X	0.0 (no unit given) (no description given)
Y	0.0 (no unit given) (no description given)
Z	0.0 (no unit given) (no description given)

Data logging, storage and archiving

Logged parameters

Parameter	O2ARegistry Output Type	Unit
CO2 air	CO2	ppm
CO2 corrected water	CO2	ppm
H2O air	wet bulk density	ppt
H2O density	wet bulk density	mol/m3
xCO2 dry	CO2	mol/mol
CO2 density	CO2	mol/m3

Central geographical ship's position and time standard

Rawdata storage on board

Dship

Data archiving on land

Documentation

- [Factsheet: pCO2 Analyser on R.V. Polarstern \(Article\)](#)
Factsheet for pCO2 Analyser on board of R.V. Polarstern
- [OceanPack RACK MK-2 datasheet \(Factsheet, 325 kB\)](#)