

DAMS by ANALOX

(Distributed Atmosphere Monitoring System)

Discover a Submarine Atmosphere Monitor with **NO LIMITS**

The DAMS (Distributed Atmosphere Monitoring System) is a flexible, robust and fully configurable, submarine atmosphere monitoring system.

Designed with you in mind, this life-saving, mission critical equipment offers multi-point sensing for AIP or Diesel Electric subs and is suitable for new submarine designs or mid-life upgrades.

Gas sensors are monitored centrally via the PLC and offer local sensing and alerts for the crew in the aft, middle and fore of your boat, giving you true peace of mind throughout the duration of your patrol.

The DAMS uses a modular system architecture enabling it to be customised to your specific boat requirements.

- Designed for submarines, proven in use
- 1 person calibration
- User maintainable, in country
- Full through life support from Analex
- Partial pressure sensing ensures accurate readings even with pressure fluctuations
- Shock & pressure tested system
- MIL-STD-461F Compliant

Gases Detected

(O₂, CO₂, CO, H₂, Refrigerants)

Features

PLC with 12" touch screen digital display

- Optional integration with Submarine PMS (Platform Management System)
- Customised User Interface/HMI
- Data logging & download port
- Visual alarms & alarm location
- Password Protected

Sensor Modules

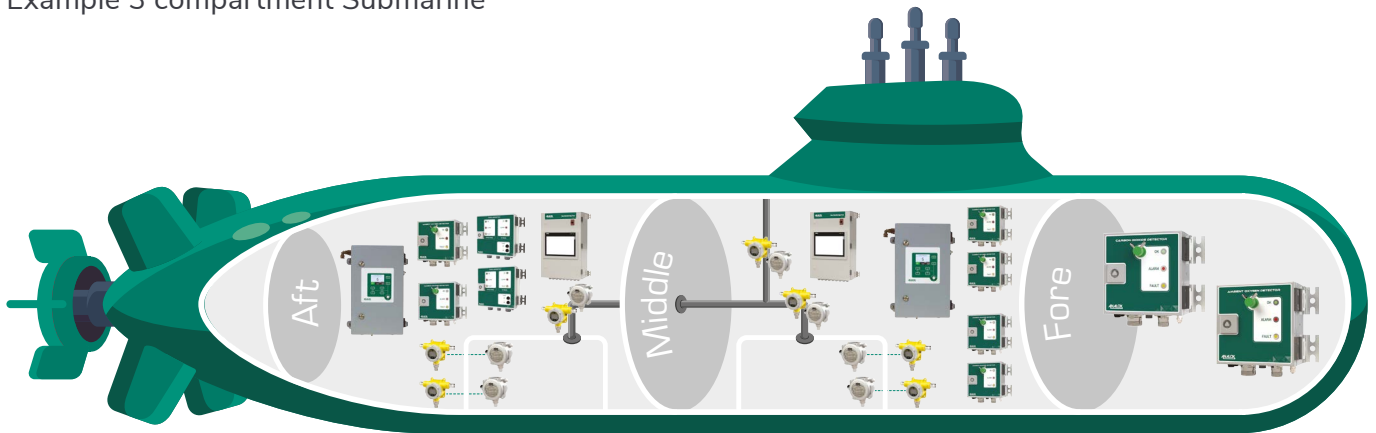
- Choose from multiple gases such as: O₂, CO₂, CO, H₂, Refrigerants
- Single or dual sensor modules
- Local visual alarm
- Diffusion or Pumped
- Optional Relay
- Temperature Compensated

Your Challenge, **Our Passion**

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Example 3 compartment Submarine



PLC Central Display
Programmable Logic Controller

Centrally located PLC user interface linked to discrete gas sensors or sensor modules located around the boat. Used for system operation, alarming and data transfer.



COSAMS+
Carbon Monoxide Submarine Atmosphere Monitoring System

Real-time continuous monitoring of carbon monoxide in living accommodation and machinery spaces on submarines.



Single Diffused Sensor

These sensors are available as O₂ & CO₂. Notification LED show alarm and fault state.



Single/Dual Pumped Sensor

Sensors available as O₂, CO₂ & Refrigerant. They can also come as a combination of 2 gases (e.g. O₂ & CO₂). Notification LED show alarm and fault state.



Hydrogen Sensor

Available as a stand alone detector or as a split sensor/transmitter. It has a built in display for alarm and fault notifications.

Tech Spec

Operating Pressure	700 to 1300mBar
Operating Temperature	0 to +45°C
Data logging	90 days of data
Power	24V DC as standard
Calibration	Before Mission and/or every 3 months

Why Analox?

...because we can be relied upon in a crisis situation

When the Kursk accident occurred, Analox were called upon to provide a Sub Escape analyser to assist in rescue. Within 24 hours the unit was sent by motorcycle courier and used in the recovery operation.

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FACT

The first submarine not propelled by human power was the French vessel named 'Plongeur'. Launched in 1863, it used compressed air for propulsion

Sensor Module Solutions

Gas	Danger	Source	Solution	Technology
CO	Toxic	Kitchen, Machinery, Crew exhalation	CO Module - 0-200ppm	GFC
H ₂	Fire Explosion	Batteries	H ₂ Module - 0 to 100% LEL or 0-4% vol	Catalytic Bead
O ₂ (depleted)	Asphyxiation	Refrigerants, Crew consumption	O ₂ Module - 0 to 25% Option to display in mBar (0 to 1000mBar O ₂)	Electrochemical
O ₂ (enriched)	Fire Explosion	O ₂ Candles LOX Plant	O ₂ Module - 0 to 25% Option to display in mBar (0 to 1000mBar O ₂)	Electrochemical
CO ₂	Toxic	Crew exhalation	CO ₂ Module - 0 to 5% Option to display in mBar (0 to 50mBar CO ₂)	NDIR
Refrigerant	Asphyxiation	Water chiller, refrigeration system	R134a Module - 0 to 1000ppm	NDIR

Your gas not on the list?
Just give us a call!

You can call us UK/Global: +44 (0) 1642 711 400
You can email us info@analoxgroup.com
Visit our website analoxgroup.com

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