



Protecting your crew in high-risk spaces



The Analox APM (Atmosphere Protection Module) is a unique, configurable, modular system, which can be used as a stand-alone atmosphere monitor and can be integrated with your existing PMS (platform management systems).

This device offers life saving, reliable sensing capability onboard both surface vessels & submarines including Frigates AIP, Diesel Electric and Nuclear and is optimized for both new vessel designs, or mid-life upgrades.

Integrated displays provide absolute clarity, notifying crew in the immediate area of hazards, helping to ensure their safety.

#### **Benefits**

- Configurable system ensuring it can be tailored to your needs and future proofing the system against a change in legislation or requirements
- Local notifications of a change in gas levels improves safety and response time
- Shock & vibration protected
- Fully user maintainable, in country, minimizes costs and downtime
- Capable of integrating with your existing PMS

## **Applications**

- AIP Submarines
- Diesel Submarines
- Nuclear Submarines
- Frigates
- Minesweepers

### **Features**

- Measure up to 2 gasses with a choice from the following:
  - O2 (Oxygen)
  - CO2 (Carbon dioxide)
  - R134a (Refrigerant gas)
  - VOC's (Volatile organic compounds)
- Crystal clear backlit display
- MODBUS RTU communications protocol
- Temperature compensated sensors with PressureSync technology
- 2 relays

### **Gases Detected**

O<sub>2</sub> / CO<sub>2</sub> / R134a / VOC's



## **FACT**

The APM is designed to be compatible with our distributed atmosphere monitoring solution, the DAMS.

# **Atmosphere monitoring with NO LIMITS**

## **Technical Specifications**

Operating pressure	700-1300 mBar			
Operating temperature	0°C - 45°C (32°F - 113°F)			
Operating humidity	0-95% RH			
Power	24VDC (nominal) as standard			
Calibration interval	Before mission and / or every 3 months			
Communications	MODBUS RTU			
Relays	2 as standard			
Sensing method	Sample Draw			
Compliance	MIL-STD-740-2 Structure Borne Noise MIL-STD-167-1A Vibration RoHS	MIL-S-901D Shock MIL-STD-461G EMC CE & UKCA		

### **Sensor Module Solutions**

Gas	Danger	Source	Solution	Technology
O <sub>2</sub> (Depleted)	Asphyxiation	Refrigerants / Crew Consumption	0-35% / 0-350mBar O <sub>2</sub> Sensor	Electrochemical
O2 (Enriched)	Fire / Explosion	O <sub>2</sub> Candles / LOX Plant	0-35% / 0-350mBar O <sub>2</sub> Sensor	Electrochemical
CO <sub>2</sub>	Toxic	Crew Exhalation	0-5% / 0-50mBar CO₂ Sensor	NDIR
R134a	Asphyxiation	Water Chiller / Refrigeration System	0-1000 ppm R134a Sensor	NDIR
VOCs	Toxic	Aerosols / Cooking / Machinery	0-20 ppm VOC Sensor	PID

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