

Sub Aspida

O2 & CO2 Portable Safety Monitor



KEY FEATURES

Pressure corrected to prevent false alarms with fluctuations of pressure - the only gas monitor on the market with this functionality

Ideal for emergency situations - can be used with AA batteries when there is no power source available

Provides continuous monitoring

Audio-visual and vibration alarms

Easy to maintain and configure

Easy to calibrate, oxygen sensor can be calibrated in fresh air - no need for gas cylinders

Data logging capability

A cost-effective alternative to colorimetric tube testing

Designed specially with diesel-powered military submarines in mind, this compact and robust monitor is capable of detecting both O2 & CO2. The unit offers continuous monitoring of partial pressure O2 and volumetric CO2, making it ideal for confined space entry onboard submarines and monitoring of portable or transportable decompression chambers.

Relatively small increases in the levels of CO2 can be harmful, causing health effects which could impair the pilot's judgement during critical manoeuvres. Maintaining safe O2 levels is also vital for working safely under water. The Sub Aspida provides a quick response so that immediate action can be taken.

The Sub Aspida includes a 'man down' alarm, audio/visual alarms (which can be disabled if required), data logging and can be powered with batteries (12 hours life from one charge) or a power supply. The inclusion of a pressure sensor in the Sub Aspida provides accurate, pressure compensated O2 and CO2 readings across a pressure range of 800 to 1200 mbar, resulting in a more accurate reading that you can trust. This combination of a partial pressure O2 sensor with a % CO2 sensor ensures the avoidance of spurious O2 alarms caused by the pressure variations on board a submarine.

The Sub Aspida is commonly used in submersibles, clipped onto the operator panel, but can just as easily be worn on the belt by an operator for portable, personal protection. It can be used as a back-up to the primary routine atmosphere monitoring system on a submarine or in confined spaces (like the ballast tank) which may not be covered by the primary routine atmosphere monitoring system, as well as in the dual compartment of Submarine Rescue Vehicles/Deep Submergence Vehicles, in order to keep staff safe while they are away from the submarine. In diving chambers, the Sub Aspida can be mounted on the control panel and provided with a pressure reduced sample line from the chamber.

Users of the Analox Sub Aspida will never need to worry about maintenance schedules again. The device uses intelligent software which lets you know what requires maintenance and when - ensuring optimum performance of your unit.

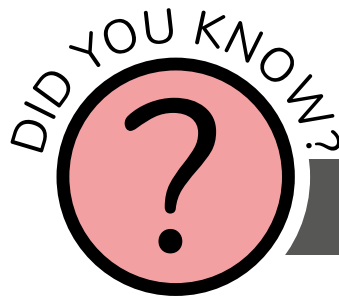


Manufactured
in Great Britain

SUBMARINE
ATMOSPHERE
MONITORING
SYSTEMS

ANALOX
Military Systems

SPECIFICATIONS



The Sub Aspida is endorsed by The Royal Dutch Navy and is used on their Walrus Class submarines

System

Operating temperature: 0 to 50 °C
Operating pressure: 800 to 1200 mbar
Display: High-visibility, Organic Light Emitting Diode (OLED) display
Alarm horn: 95dB @ 30cm (110db - man-down alarm)
LED indicators: 1 x Green - OK, 1 x Amber - Fault, 3 x Red - Alarm
Internal data log: 1 log every 30 seconds for at least 7 days of continuous use
Batteries: 2 x NiMH 2100 mAh AA batteries
Battery discharge time: 12 hours under normal operation (passive atmospheric monitoring, minimal user interaction, no alarms)
Battery lifespan: 2 years
Battery charge time: 4.5 hours (from flat)
Charge power supply rating: 9v DC to 0.55A, DC jack 5.5x12.0x2.1mm centre +ve
Calibration adapter max flow: 0.5 l/min
EMC performance: Portable unit fully satisfies MIL STD 461F Charger compliant @ 14cm for emissions RE101 2004/108/EC
Weight: 335g
Dimensions: 127 x 44 x 90 mm (LxDxW)
Weight: Dual 335g, O₂, 350g, CO₂ 335g

CO₂ Sensor

Sensor type: Analox infrared MIR
Range: 0.01 to 50.00 mbar ppCO₂ (0.01 to 5.00% at 1000mbara)
Accuracy (at standard temperature and pressure): ±(1% of full scale+ 2% of reading)
Response time: T₉₀ <60 seconds
Sensor life span: 5 years

O₂ Sensor

Sensor type: electrochemical
Range: 0.1 to 2000.0 mbar ppO₂ (0.1 to 100.0% O₂ at 1000mbara)
Accuracy (at standard temperature and pressure): ±1% of full scale
Response time: T₉₀ <30 seconds
Sensor life span: 1 year (expected)

Analox has a policy of continuous improvement and we reserve the right to upgrade or change specifications without prior notice. Full technical specifications are available upon request and can be found in the User Manual. If you require a datasheet in another language please contact us.

www.analoxmilitarysystems.co.uk



+44 (0) 1642 711400



info@analox-military.net

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Military Systems