



## ANALYSER FOR MEASUREMENT IN PRESSURISED ENVIRONMENTS

The Hyperbaric analyser is designed to measure carbon dioxide, oxygen, and pressure levels in pressurised environments. It has been developed to incorporate the latest design and technology to provide the user with a fast, simple-to-use, and accurate analyser that is intended for use in commercial and military environments.

### FEATURES

- CO<sub>2</sub> 0 – 30,000ppm SEV measurement
- O<sub>2</sub> 0 – 250% SEV measurement
- Pressure measurement range 0.75 – 10 bar absolute
- Pressure compensated gas measurements
- User calibration function to maintain accuracy in extreme conditions
- IP65 rated for waterproofing
- Alarms and fault notifications
- Up to 24 hour battery life
- 28Vdc external supply support
- Clear, visual and informative display

### BENEFITS

- Approved by Naval Experimental Diving Unit (NEDU)
- Crew safety during operations from dry deck shelter
- Product longevity and reliability
- Ease of operation
- Local support for peace of mind



### SECTOR

Marine

### APPLICATIONS

- Dry deck shelter monitoring
- Submarine bank gas screening
- Room monitoring
- Submarine atmosphere control



© Product designs and specifications are subject to change without notice. User is responsible for determining suitability of product.



# HYPERBARIC ANALYSER

## TECHNICAL SPECIFICATIONS

POWER SUPPLY				
Battery type	Rechargeable nickel metal hydride battery pack (not user replaceable)			
Battery life	Up to 24 hours			
Battery lifetime	Minimum 1000 charge cycles			
Battery charging	28Vdc external power supply and internal charging circuit. Compatible with 100-240Vac supplies			
Charge time	Approximately 3 hours			
Alternative power	28Vdc power supply if used with additional custom-made lead			
GAS RANGES				
Gases measured	CO <sub>2</sub>	By custom dual wavelength infra-red including reference channel		
	O <sub>2</sub>	By electrochemical cell		
Oxygen cell lifetime	Approximately 18 months in air			
	Cell	Range	Typical accuracy*	Repeatability
Gas ranges	CO <sub>2</sub>	0-30,000ppm SEV	±10% of reading	±1% of reading
	O <sub>2</sub>	0-250% SEV	±5% of reading	±0.2% vol
Units of measurement	CO <sub>2</sub>	ppmSEV (surface equivalent value)		
	O <sub>2</sub>	User selectable- %vol (volume) or ppATA (partial pressure)		
Resolution	CO <sub>2</sub>	10ppm		
	O <sub>2</sub>	0.1% vol		
Response time (T <sub>90</sub> )	CO <sub>2</sub>	≤20 seconds		
	O <sub>2</sub>	≤40 seconds		
PRESSURE MEASUREMENT				
Units of measurement	User selectable – mbar (millibar), atm (atmospheres), fsw (feet of sea water)			
Typical accuracy	±2% of reading			
Repeatability	±1% of reading			
Resolution	1 mbar			
Pressure compensation	Oxygen gas reading can be compensated in real time			
PUMP				
Type	Diaphragm fitted with brushless motor			
Flow	Approx. 300 ml/min			
Flow fail point	User selectable – -200 to -400mbar vacuum			
Maximum vacuum restart	-400 mbar maximum			

\*Plus accuracy of calibration gas used

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# HYPERBARIC ANALYSER

## TECHNICAL SPECIFICATIONS CONTINUED

FACILITIES	
Display	Large, easy to read, backlit, LCD display
Alarms	User selectable alarms for CO <sub>2</sub> , O <sub>2</sub> , and pressure that provide a visual and audible indicator to the user
Available memory	1100 readings and 450 events**
Communications	USB via a custom waterproof connector**
Software	Analyser Data Manager software available for download of instrument readings and viewing of the instrument event log
ENVIRONMENTAL CONDITIONS	
Operating temperature	0°C to +50°C (32°F to 122°F)
Storage temperature	-10°C to +60°C (14°F to 140°F)
Pressure range	0.75 to 10 bar absolute
Relative humidity	0 to 100% non-condensing
IP rating	IP65
PHYSICAL	
Weight	1.5kg approx. (3.3lb)
Size	L 235mm, W 230mm, D 55mm (L 9.5", W 9", D 2.25")
Case material	ABS plastic
Keys	Numeric keypad with 'tactile' membrane
Display	320 x 240 pixels, white LED backlight
Filters	Inlet, outlet, and vent are all user-replaceable 1.0µm PTFE filters

Note: The information in this document is correct at the time of generation. We do however, reserve the right to change the specification without prior notice as a result of continuing development.

\*\*Analyser Data Manager software will be required to communicate with the instrument and download readings and events.



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