

Analox Sub MKIIF Hyperbaric Monitoring System



Analox Sub MKIIF in use at the HBOT facility in New Zealand.



Real time monitoring of;

Oxygen
Carbon Dioxide
Depth

Temperature
Relative Humidity
Time

Benefits and Features

Various configurations available to ensure compatibility with your system requirements;

- a range of power supply options: 24VDC, 110/230VAC
- Analogue and digital output capability
- Alarm relay contact option
- Information can be displayed in either partial pressure or Surface Equivalent Values (SEV)

Straightforward user interface to allow adjustments in patient treatment;

- All parameters have user adjustable alarm options
- Calibration is via easy to use front panel push buttons

Instrumentation is specifically designed for hyperbaric use;

- Partial pressure O₂ sensors are used and pressure correction is applied to chamber mounted CO₂ sensors

Information displayed is quick and easy to read;

- Conditions are displayed both inside and outside the chamber
- Large alphanumeric LCD with backlight and contrast control

Description

Analox Sub MKIIF panel mount hyperbaric monitoring system

The Analox Sub MKIIF is a highly accurate solid state microprocessor driven panel mounted monitor. It is capable of monitoring up to six parameters and displaying them simultaneously on its large alphanumeric backlit LCD display.

The monitor consists of the external panel mount main unit fitting into a half 19 inch rack or panel cut out and up to two sensor modules. It is designed to provide the operator with accurate and reliable information about the atmosphere in the hyperbaric chamber. The standard sensor unit can withstand pressures up to 10 Bar Absolute and speciality monitors can be supplied up to 60 Bar Absolute.

The monitor operates using a number of sensing techniques depending on the parameter to be monitored.

Oxygen	-	Electrochemical
Carbon Dioxide	-	Infra Red
Temperature	-	Thermistor
Humidity	-	Capacitance
Depth or Pressure	-	Ceramic Strain
Time	-	Quartz Crystal

The sensor modules contain the following sensors:

Analox Sub MKIIF REM1 contains O₂, CO₂ and Depth sensors. **Analox Sub MKIIF REM2** contains temperature and Humidity sensors.

The REM1 can be placed inside the pressure environment while the REM2 must always be in the measured environment. If the REM1 is placed inside, the sensors operate by diffusion and no sampling system is required. Both sensors are supplied with power from the panel mounted main unit and the sensor signals are transmitted back via an RS485 serial communication link. A 4 core penetrator is required irrespective of how many sensor modules are placed in the pressure environment. The monitor is equipped with 5 membrane switches allowing the unit to be auto zeroed, calibrated, muted, alarm values changed and have its data downloaded. A facility also exists for permanent RS232 data link to a central computer.

Operating Conditions

Max pressure	:	10 Bar or 60 Bar
Temperature	:	-5 - +40°C
Humidity	:	5-100%RH non condensing

Accessories and Options

- Volt free relay contacts for each alarm set point (max=6)
- Analogue output for each channel (not time) 0-2.5 volts or 4-20mA
- Data download communication software
- Standard power supply is 24V DC optional power supplies are 110V AC, 230V AC

Specification

Range CO ₂	:	0-2.000% SEV Recommended for therapeutic decompression treatments 0-100mBar ppCO ₂ Recommended for enclosed submarine environments
Range O ₂	:	0-100.0% (10Bar/100MSW only) 0-2000mBar ppO ₂
Range Depth Other units are available	:	0-10.00 Bar 0-60.00 Bar 0-100.0 MSW 0-600.0 MSW
Range Temp	:	0-100.0°C 32-212.0°F
Range Humidity	:	0-100.0% RH
Range Time	:	0-24:00 Hrs
Power Options	:	24VDC 110V AC 240V AC



Outputs optional	:	RS232 0 - 2.5V, 4-20mA all channels
Inputs	:	RS485 addressable
Alarms	:	2 per channel fully adjustable
Optional Relays	:	2 CO ₂ , 2 O ₂ & 2 other
Panel Unit Dimensions mm	:	w240 x h134 x d240
REM Unit Dimensions mm	:	w160 x h120 x d90
Panel Unit Cut out Dimensions mm	:	w210 x h112
Data Storage	:	6000 data points

Analox has a policy of continuous improvement and we reserve the right to upgrade or change specifications without prior notice.

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