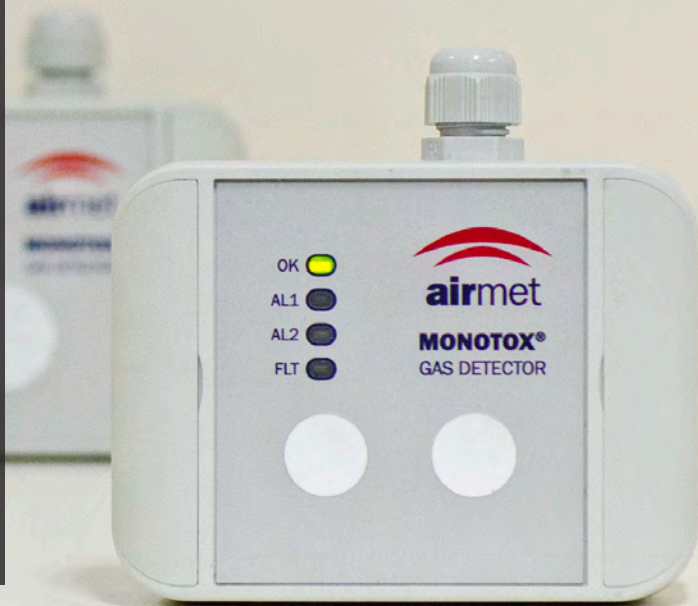


MONOTOX[®] LAB OPTICAL O₂/CO₂ DETECTOR

LONG-LIFE OPTICAL BASED DETECTION TO MEET THE UNIQUE REQUIREMENTS OF LABORATORY, UNIVERSITY AND MEDICAL O₂ AND CO₂ MONITORING APPLICATIONS



The Air-Met Scientific Monotox[®] Lab-Series range utilises the latest technology sensors for oxygen depletion and carbon dioxide monitoring to ensure personnel safety in areas where traditional sensors may produce false alarms and inaccurate readings.

The Lab-Series monitors are long-life, low-maintenance detectors that are available in multiple configuration and installation options that allow for easy integration into any life-safety or building management system.

The unique optical, partial-pressure O₂ sensor overcomes the spurious alarm conditions that can result from the use of traditional electrochemical O₂ sensors within negatively or positively pressurised rooms and provides accurate O₂ level readings in CO₂ or helium enriched environments.



FEATURES

- Multiple configuration options
- Optical, temperature compensated, partial-pressure oxygen sensor
- NDIR, ultra-low power CO₂ Sensor
- LED alarm and status annunciators
- Programmable alarm thresholds
- 2 x open collector outputs for control of local area strobe / sirens
- Alarm acknowledgement / mute button
- Optional modem for remote alarm notification or datalogging via Air-Met's data portal
- IP54 rated, unobtrusive enclosure design for integration with modern building aesthetics

BENEFITS

- Low power, long-life sensors (rated >5 years)
- Low maintenance
- Suitable for applications where CO₂ or Helium may be present
- Ideal for pressurised rooms where transient pressure changes (e.g. door opening) may result in spurious alarms from traditional electrochemical sensor-based detectors.

APPLICATIONS

- MRI Rooms
- Laboratories
- Universities
- Medical facilities
- Gas handling and production facilities
- Breweries



TECHNICAL SPECIFICATIONS

GENERAL

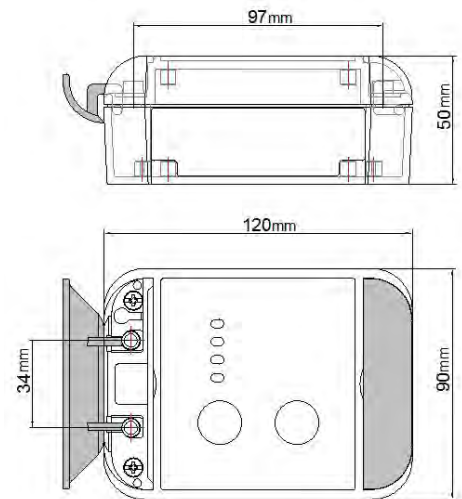
Supply Voltage	12 - 36 VDC (24VDC Nominal)
Current Consumption	max. 70mA @ 24VDC (O ₂ + CO ₂ , no peripherals)
Sensor Configurations	CO ₂ , O ₂ , CO ₂ /O ₂
Analog Outputs	4 - 20mA, 0 - 20mA, , 0 - 10VDC, Combination Max. load 800Ω @ 24VDC
Communications	RS485 (Modbus RTU)
Other Outputs	2 x open collector (programmable)
Alarms	Visual; LED (Alarm 1, Alarm 2)

SENSOR SPECIFICATIONS

Sensor	O ₂ Sensor	CO ₂ Sensor
Technology	Luminescence-based optical	Non-Dispersive Infra-Red
Measurement Range	0-25%vol O ₂	0-5%vol CO ₂
Accuracy	± 1%vol O ₂	± 70ppm ± 5% of reading
Resolution	0.01%vol O ₂	0.001%vol CO ₂
Response Time (T90)	<90s	<50s

INSTALLATION

Enclosure	ABS RAL 7035, Light Grey
Dimensions (mm)	120 x 90 x 50
Operating Temperature	0 - 50°C
Humidity	0 - 95% non-condensing
Pressure	O ₂ : 500 – 1200mbar CO ₂ : 950mbar – 10bar Dual: 950 – 1200mbar
IP Rating	IP54 with supplied glands
Cable Entry Options	1 x M16 Gland 2 x M16 Glands Rear Entry
Cable Requirements	3 / 4 core shielded, 0.5mm ² (configuration dependent)



ACCESSORIES

PART NO.	ACCESSORY
96844636-R	Strobe/Siren (Red)
Maestro-E224	Modem/Logger
AMS-MTX-CALAPT	Calibration Adaptor
FF-100-.5	0.5/L Flow Regulator
AMSDATA12	Data Portal Subscription (12 Months)
-	Calibration Gas

