Oxygen—Carbon Dioxide Monitor

Model O2CO2000

This unique and compact dual monitor from Air Liquide is ideal for the continuous monitoring of both O\textsubscript{2} and CO\textsubscript{2} gases simultaneously to alert and protect personnel from entering potentially hazardous situations where inert gases may accumulate. This includes nitrogen gas storage areas, CO\textsubscript{2} beverage gas distribution areas, confined spaces and other locations where low oxygen or elevated carbon dioxide levels may pose a health hazard.

Unlike continuously depleting electrochemical sensor cells, the Dual Air Check monitor features exclusive zirconium and patented NDIR cells to provide stable readings. O\textsubscript{2} and CO\textsubscript{2} readings are stable even in areas where temperature, barometric pressure and humidity levels are continually changing. The O\textsubscript{2} sensor requires no quarterly calibration or annual maintenance, while the CO\textsubscript{2} sensor automatically adjusts to ambient levels. Dual Air Check automatically adjusts to ambient CO\textsubscript{2} levels on a weekly basis, or on-demand if desired. In addition, there are no zero or span adjustments to make or expensive maintenance required. Simply plug Dual Air Check into any standard AC outlet and depend on continual, maintenance and error-free air monitoring.

Dual Air Check has individual dedicated user-selectable relays that can be used to operate on-off valves for the control of CO\textsubscript{2} injection in grow rooms while simultaneously activating alarms when O\textsubscript{2} levels get too low. The O\textsubscript{2} sensor can also be used for controlling nitrogen generators for hypobaric rooms while using the CO\textsubscript{2} sensor to alarm to TLV levels of CO\textsubscript{2}. A built-in CPU provides an inexpensive monitor with local display, safety alarms and control for both O\textsubscript{2} and CO\textsubscript{2} simultaneously.

Benefits/Features

Zero maintenance zirconium O\textsubscript{2} cell and long life CO\textsubscript{2} sensor
No calibration required for O\textsubscript{2}
Self-calibrating CO\textsubscript{2} sensor
Unaffected by environmental temperature, humidity and barometric variations
Three (3) year warranty
Local backlit concentration display

Specifications

Sampling Method and Range: Diffusion, 0–25% O\textsubscript{2}, 0–10,000 ppm CO\textsubscript{2}
Accuracy: ±1% of full scale
Operating Temperature: 32°F to 131°F (0°C to 55°C)
Humidity: 0–95% RH (non-conforming)
Display: 3/4” backlit LCD digital
Signal Outputs:
- Audible Alarm: 90 db
- Alarm Indicator for O\textsubscript{2}: Red LED
- Alarm Indicator for CO\textsubscript{2}: Orange LED
Response Time: Within 1 second of any change in O\textsubscript{2}
Repeatability: ±1%
Approvals: Ce approved and factory-calibrated against a NIST-traceable reference standard
Required Calibration: O\textsubscript{2}: none
CO\textsubscript{2}: none when Auto Cal function is activated
Minimum Detection: 200 ppm
Signal Outputs: One user-adjustable alarm relay for O\textsubscript{2}, one user adjustable alarm relay for CO\textsubscript{2} (rated at 2 amps 24 VDC/240 VAC)
Analog Output: 4-20mA selectable for either O\textsubscript{2} or CO\textsubscript{2}
Power Requirements: 24 VDC 350mA (unit supplied with 110 VAC power adapter with 6 ft. power cord)
Dimensions: 6.5” W x 3.5” H x 3.25” D (165 mm x 89 mm x 83 mm)
Enclosure: Polycarbonate plastic, general purpose
Weight: 1.6 lbs. (0.8 kg)

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