THERMOX®

PROCESS INSTRUMENTS

BULLETIN P-420

THE RIGHT ANALYZER FOR *YOUR* APPLICATION!

CG1000 Oxygen Analyzer

QUICKLY RESPONDS TO NET OXYGEN CHANGES
FROM 0.1 PPM TO 100% O_2

The CG1000 is a portable oxygen analyzer designed for industrial and laboratory applications. It has a wide operating range (0.1 ppm to 100% O_2, autoranging), a fast response to oxygen changes, and advanced electronic capabilities for easy system integration.

FEATURES

- Lightweight, compact case with handle makes it easy to move the analyzer to different sampling locations.
- User-friendly, menu-driven software includes helpful system status messages, allowing you to begin using the CG1000 quickly. Advanced software diagnostics and on-line help simplify operations.
- Electronic flow sensor eliminates the high maintenance and potential leaks associated with mechanical flow meters. This allows you to reliably monitor the flow of gases into the analyzer, and can even trigger a flow alarm if flow to the analyzer stops.
- Optional built-in pump allows you to pull samples from processes under vacuum and compensate for pressure when measuring oxygen under vacuum. Simply press a key on the front panel display to turn the pump on.
- Reduce calibration gas expenses by calibrating with percent gases and then reading accurately in low PPM ranges.
- Easy to integrate into your overall control scheme using RS-485 serial communications, 0 - 20/4 - 20 mA current outputs, and digital alarms.
- The zirconium oxide sensor will not fail to a zero oxygen reading, as with other sensor technologies. Therefore, your process is always protected.

APPLICATIONS

- Cryogenic gas generating systems
- Nitrogen purity systems
- Blanket gas analysis
- Inert gas purity
- Welding atmospheres
- Air separation
- Atmospheric oven control
- Glove box applications
- Semiconductor manufacturing processes

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SPECIFICATIONS

Operating Range: 0.1 ppm O_2 to 100% O_2

Accuracy: ± 2% of reading or .05% O_2 absolute (0.5 PPM O_2 absolute for PPM range), whichever is greater

Response Time: Less than 5 seconds at 150 sccm over one decade

Repeatability: ± 0.5% of reading or 0.1% O_2 absolute (0.1 PPM O_2 absolute for PPM range), whichever is greater

Environment:
Ambient Temperature: 41°F to 104°F (5°C to 40°C)
Relative Humidity: 10% to 80%, non-condensing

Max. Inlet Temperature: 160°F (71°C)

Sample Flow: 50 to 200 sccm (150 sccm is recommended)

Power Requirements
115 VAC, 60 Hz, 150 VA
230 VAC, 50 Hz, 150 VA

Calibration Gas Requirements: Use calibration gases @ 50 to 200 sccm (150 sccm is recommended)

Zero Gas: From 0.1 PPM to 10% O_2, balance N_2

Span Gas:One decade above zero gas (10 times greater) recommended

Display: Four line x 20 character vacuum fluorescent. Displays combinations of oxygen (0.1 PPM O2 to 100%, autoranging), time and date, cell temperature, user programmable text, thermocouple mV, cell mV, flow, and pressure. Password protection and context-sensitive help are also provided.

Analog Output: Two isolated linear current outputs. Select O_2, cell temperature, thermocouple mV or cell mV. Each output can be 4-20 mA, 0-20 mA, 20-4 mA or 20-0 mA, and is fully scalable. Hold or track during calibration and select degree of damping. Maximum load 1200 ohms.

Alarms: Two independent alarms, each high or low selectable. Alarms can be assigned as oxygen, flow, calibrate or verify. Set relays to energize or deenergize on alarm. Contact rating max. 30VA, 30V max. non-inductive load.

Diagnostics: Watchdog timer and service alarms. System test for A/D, RAM, EEPROM and keypad. Display line 4 reserved for full text error and diagnostic messages. Twenty entry exception log for automatically detected system events.

Communications: RS-485, 2-way addressable

Calibration: Store last calibration and verification data. Selectable calibration gas run time and process recovery time. Oxygen cell lifetime extender. Calibrate or verify calibrations.

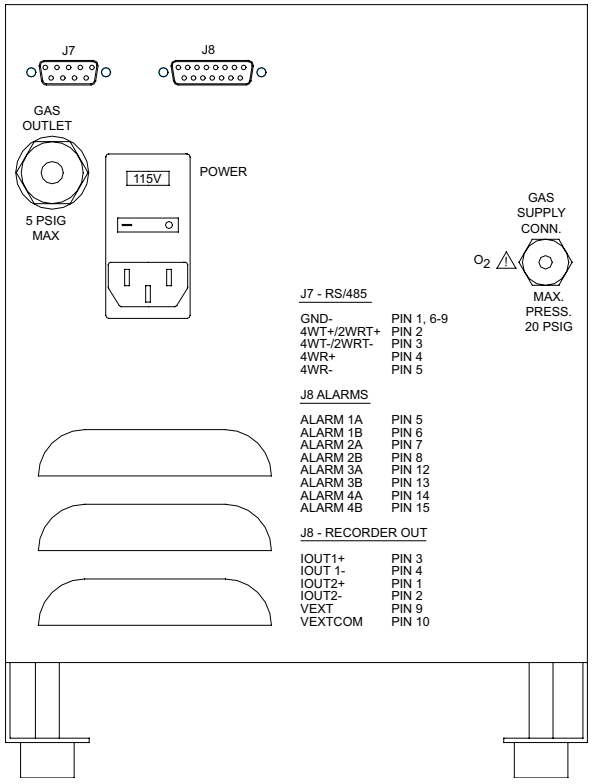
Enclosure: General Purpose.

Dimensions (H x W x D): 10.75" x 7.9" x 16" (27.3 cm x 20.2 cm x 40.6 cm).

Note: Pop-up feet raise analyzer another 1.25" (3.2 cm)

Weight: Approx. 19 lb (8.6 kg)

System Compliance:
EMC Directive 89/336/EEC
Low Voltage Directive 73/23/EEC



Rear Panel of CG 1000 Analyzer

One of a family of innovative process analyzer solutions from AMETEK Process Instruments. Specifications subject to change without notice.

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REGISTERED ISO 9001 MANAGEMENT SYSTEM

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