

CG1100 Oxygen Analyzer

Provides fast response over a wide range of oxygen concentrations

BENEFITS

- || Fast Response over Wide Operating Range
Responds rapidly over an operating range of 0.1 ppm to 100% oxygen
- || Easy to Integrate into Your Host Controller and Data Acquisition System
The CG1100 is equipped with an RS-232 and two RS-485 ports. It comes with configurator software for initial setup of operating parameters and accepts user-provided software for efficient integration with a host controller, or Dycor System 2000 software to record and process data.
- || Integral Mass Flow Meter
Reads sample and calibration gas flow.
- || Zirconium Oxide Sensor
Will not fail to a zero oxygen reading. It is always protected - something not possible with other sensor technologies.
- || Compact
8" x 8" x 8" cube houses all electronics, RS-232 port, (2) RS-485 ports, I/O port and analog output (4-to-20 mA) isolated.
- || Optional System 2000 Software
Provides enhanced interface and process monitoring with graphical user interface for Windows XP and Vista format.
- || Optional Vacuum Generator (Aspirator)
Uses plant air to pull the sample through the sensor eliminating the need for a sample pump.

DESCRIPTION

The CG1100 is capable of detecting oxygen in your sample from 0.1 ppm to 100%. This analyzer is designed specifically for use in applications where fast response over a wide range of oxygen is required. The sample can be pulled through the analyzer using an aspirator (optional) thereby eliminating the need for a sample pump. The CG1100 uses a zirconium oxide sensor that provides quick response, is non-depleting, and will not fail to zero reading, thereby protecting your process.

APPLICATIONS

- || Oven/Furnace Atmospheres
- || Blanket /Purge Gases
- || Welding Gases
- || Food Packaging
- || Component Aging Chambers
- || Carbon Dioxide Purity
- || Nitrogen Purity
- || Semiconductor Purge Cycle



The CG1100 oxygen analyzer uses an integral mass flow meter is used to read sample and calibration gas flow.



Performance Specifications

Operating Range:

0.1 ppm O₂ to 100% O₂

Accuracy:

± 2% of reading or .05% O₂ absolute (0.5 ppm O₂ 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% O₂ absolute (0.1 ppm O₂ absolute for ppm range), whichever is greater.

Maximum Inlet Temperature:

160°F (70°C)

Environment:

For Indoor Use Only

Ambient Temperature:

0°C to 40°C (32°F to 104°F).

IEC Installation Category II

IEC Pollution Degree 2

Maximum Altitude:

2000 meters

Relative Humidity:

10% to 90%, non-condensing

Sample Flow:

50 to 200 sccm according to user application requirements. The flow rate is factory calibrated at 150 sccm. An integral mass flow meter is used to read sample and calibration gas flow.

Maximum Inlet Pressure:

600 to 1795 Torr. Absolute maximum allowable inlet pressure is 1795 Torr (20 PSIA).

Minimum Inlet/Outlet Pressure:

A higher flow rate will result in faster response and requires higher pressure differential between inlet and outlet pressure. A lower flow rate will result in a slower response and require a lower pressure differential.

Calibration Gases:

Zero Gas: From 0.1 ppm to 10% O₂, balance N₂.

Span Gas: At least one decade above zero gas (10 times greater) recommended.

Indicators:

LEDs for status of power, communications, and fault conditions.

Software:

Configurator software to configure and calibrate the analyzer. Runs on a PC with Windows XP or Vista with an RS-232 serial port. Communicates with a single analyzer using either an RS-232 cable or multiple units over an RS-485 network.

Communications:

Optically isolated RS-232 (one DB-9F connector) and RS-485 (two DB-9F connectors). RS-232 selected if RTS signal is set. Multiple units can be networked on an RS-485 network. RS-485 node address is set via externally accessible selector switch. Baud rate is software selectable to 9600 or 19200 baud.

I/O:

DB-15F connector. Software configurable alarm for oxygen. Two additional outputs for System Fault and Watchdog alarms. Optically isolated analog output, 4-20 MA (optionally 0-5V, 0-10V) for oxygen.

Power Requirements:

24VDC ±5%, 2.5A, less than 100 mv noise or ripple. An optional external 24V power supply is available with 100-250 VAC, 47-63 Hz input (AMETEK PN: 25446JE). When using an external power supply, a power connector plug (AMETEK # 19675JE) is required.

Enclosure:

8"H x 8"W x 8"D. Powder coat black finish. A clearance of at least 1/4" is required on sides and bottom of unit for air circulation.

CE Compliance:

EN61326 EMC Directive and EN61010-1 Low Voltage Directive
UL Classified and c-UL Classified



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

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