

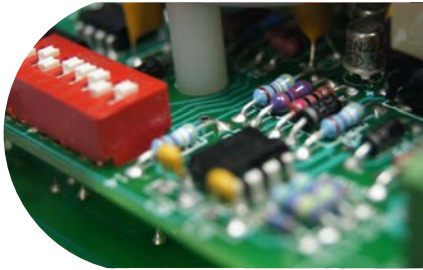
# MODEL OEM 100



**Neutronics**  
Gas Analysis Solutions

## Oxygen analyzer - panel mount

For safety critical applications in the workplace



### Compact. Accurate. Reliable.

- 0 to 20% and 0 to 25% O<sub>2</sub> dual measurement range
- Two adjustable alarm setpoints with relays
- Alarm horn with silence switch
- Large 1/2" high LED display
- Electrochemical sensor unaffected by background gases

#### Description

The OEM 100 O<sub>2</sub> is a panel mounted analyzer that accurately measures oxygen in the range of 0 to 20% and 0 to 25%. Designed for continuous operation, this analyzer measures and displays the level of oxygen in a workplace area and provides audible and visual alarms if the level exceeds predetermined setpoints.

#### Reliable low cost sensor

The electrochemical sensor ensures reliable performance and fast response for safety critical measurements. The sensor is a small fuel cell that measures oxygen directly. It is easily replaceable and unaffected by most background gases.

#### Simple operation

The analyzer is provided with a flow through sensor base so that the sensor can be remote mounted in the sample flow at a distance of up to 1,000 feet from the analyzer. As the sample gas from the area passes across the O<sub>2</sub> sensor, the sensor produces a small current proportional to the amount of O<sub>2</sub> in the sample stream. The current is amplified, filtered, and electronically conditioned by the analyzer circuit board. The resulting signal is then shown on the LED display and compared with the two adjustable alarms.

#### Two adjustable alarms

The OEM 100 O<sub>2</sub> analyzer features two alarms that are fully adjustable over the entire operating range of 0 to 25%. Each alarm has a dedicated relay that is de-energized in alarm condition with both normally open and normally closed contacts. Alarm LED status indication is provided for each alarm on the front panel. Both alarms activate a piezoelectric horn. The "set alarms" switch and potentiometers are used to adjust the setpoints.

#### Horn silence

A 90 dB alarm horn is mounted on the front panel. The "horn silence" switch will disable the horn. The alarm horn will stay disabled as long as it remains in the silence position.

#### Low power/switch open alarm

The low power/switch open (LPSO) alarm detects a power supply problem and the status of an external switch or relay. The LPSO red LED will illuminate if the supplied power drops below 6.5 VDC or if an external switch or relay wired to the main terminal block is in the open state.

#### Voltage output

A 0 to 2.5V signal corresponding to 0 to 25% oxygen is available.

#### Loop powered current output

The OEM 100 O<sub>2</sub> analyzer is available with loop powered 4-20mA current output calibrated to 0 to 25% oxygen.

#### Easy to use and maintain

Ensuring safe and reliable operation of the analyzer requires periodic calibration and sensor replacement. The sensor has an expected service life of 9 to 12 months. The sensor will need to be replaced when the monitor cannot be adjusted to match the span gas during calibration or if the current output is < 0.97mA in air.

#### Calibration

The OEM 100 O<sub>2</sub> analyzer should be calibrated every month. The calibration procedure requires the use of a span gas with a known level of oxygen. The zero and span potentiometers located on the front panel are used to adjust the display to match the correct gas concentrations.



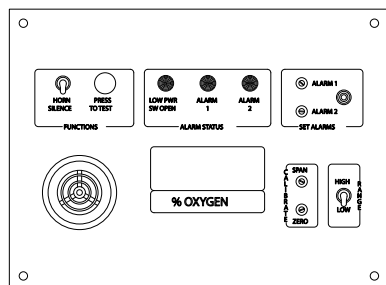
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## Oxygen analyzer - panel mount

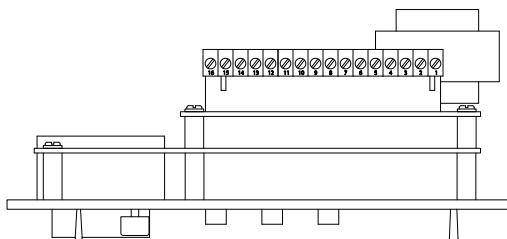
### Specifications

Type	Panel mount oxygen analyzer
Operating range	0 to 20% and 0 to 25% O <sub>2</sub>
Resolution	0.1% O <sub>2</sub>
Sensor type	Electrochemical
Expected sensor service life	9 to 12 months at standard temperature and pressure
Accuracy	±1% full scale
Response time	T <sub>95</sub> < 20 seconds per step change
Temperature range	41° to 104° F (5° to 40° C)
Relative humidity	15 to 90% continuous, non-condensing
Sample flow rate	100 to 1,000 ccm
Warm up time	5 seconds
Alarms	(2) oxygen activated, ascending or descending; (1) switch activated
Relays	(2) oxygen relays, Form C
Outputs	0 to 2.5 VDC; 4-20mA non-isolated available (external 12 - 30 VDC supply Required)
Display	Red LED, 0.5" high, 3 1/2 digit
Power supply	115/230 VAC ±20%, 50/60 Hz @ 50mA or 9 -15 VDC @ 400mA
Area classification	Non-hazardous
Analyzer warranty	12 months from date of shipment
Sensor warranty	6 months from date of shipment
Dimensions	6.75" (171 mm) length x 5.00" (127mm) width x 3.81" (97mm) height
Weight	1.5 lbs. (0.68 kg)

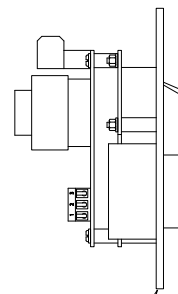
Specifications are subject to change without notice.



Front view



Top view



Side view

### Order information

#### Part

Model OEM 100 analyzer  
 Model OEM 100 analyzer (4-20mA output)  
 Replacement 0 to 25% sensor with O-ring  
 Replacement 20" long sensor interface cable  
 Potentiometer adjustment tool  
 90 dB horn

#### Part number

7-06-1000-08-0  
 7-06-1000-10-0  
 8-01-1000-02-2  
 6-02-1001-31-0  
 2-03-1000-00-0  
 1-15-3002-00-0



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