



Rapidox 3100 OEM

The Rapidox 3100 OEM-3 is a special three-channel version of our high-performance oxygen (O₂) OEM analyser.



Supplied in a boxed controller, the Rapidox 3100 OEM comprises three individual zirconia sensors on bespoke length cables with several options for fittings. All three channels are controlled by a single RS485 communications link to a PC or PLC.

Ideal for providing fast and accurate in-situ gas analysis over the full oxygen range 10⁻²⁰ppm to 30% O₂ from three separate remote locations. Zirconia oxygen sensors are extremely rugged and particularly suitable for monitoring inert atmospheres and aggressive industrial applications directly within manufacturing processes such as metal 3D printers, soldering ovens and furnaces. High temperature and vacuum applications are also suited to this model. The 3100 OEM system is housed in a metal enclosure with quick release sensor fittings. Communications to a PC are made via a high speed industrial RS485 controller box. It is possible to run two complete systems from a single high-spec PC, providing users with up to six channels.



A bespoke configuration and scope of supply service for customers allows for a flexible, seamless and cost effective integration into machinery, products or processes.

The 3100 OEM can be supplied with a variety of sensor fittings and cable lengths together with an optional local display or keyboard. It has fully programmable analogue (voltage and current) outputs and alarm relays as well as RS485 digital signalling as standard. In addition to the standard Rapidox digital communications protocol and software, Modbus-RTU is included as a standard option. The OEM-3 is designed specifically for seamless integration to PLC systems. Please contact Cambridge Sensotec for further information or to discuss your requirements.

The Rapidox 3100 OEM comprises three individual zirconia sensors on bespoke length cables with several options for fittings.

- Three independent zirconia sensors
- Up to six sensors per PC system
- Fast and accurate response
- Simple calibration procedure
- Password protection
- Fully programmable outputs per sensor
- Data logging software
- Two programmable alarms per sensor

Applications



Additive Manufacturing



Glove Boxes



Research and Development



Chemicals



Inert Gas Blanketing



Combustion



Manufacturing

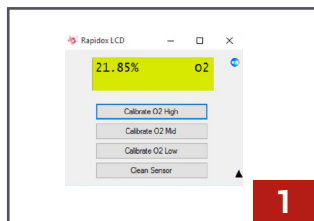


Gas



Metal Heat Treatment

Accessories



1



2



3

1 Rapidox Software

2 Gas Filter

3 Water Trap



4



5



6

4 High Speed RS485

5 Display & Keypad

6 Vacuum Fitting

Specification

O ₂ Sensor Range	10 ⁻²⁰ ppm to 30% Zirconia version 0-100% Electrochemical version
O ₂ Sensor Accuracy & Response	±1% of the actual measured oxygen content OR 0.5ppm (whichever is the greater) 4 seconds for a T90 step change @1L per min flow
O ₂ Sensor Life Expectancy	>17,000 hours Zirconia version, five years for the Electrochemical version
Operating Pressure	800 to 1200mbar absolute
Max Gas Pressure	Up to 10 bar gauge (200bar burst pressure)
Max Gas Temperature	650°C
Operating Temperature	5-35°C
Warm-up Time	1-2 minutes at 20°C
Voltage	90-260VAC, 50/60Hz
Power	300W max
Voltage Outputs	0-5V
Current Outputs	4-20mA
Digital Outputs	RS485 via Easysync adapter
Calibration	Two gas calibration
Sample Connections	Nipple or swagelok
Circuit Board Dimensions	W350mm X D263mm X H150mm
Weight	5.5kg
Alarms	2 alarm relay circuits, fully user-configurable