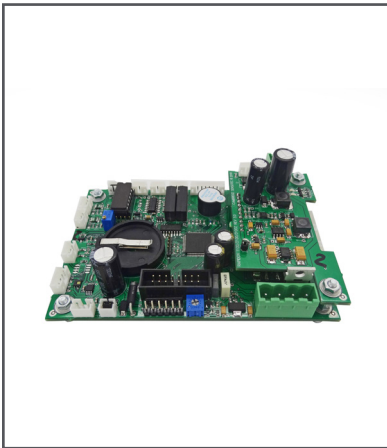




# Rapidox 2100-OEM-RSB

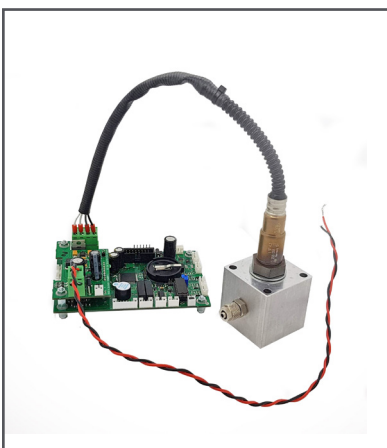
O<sub>2</sub> Gas Analyser

The Rapidox 2100-OEM-RSB (Reduced Size Board) is a special miniaturised 24V circuit board version of our existing high-performance oxygen (O<sub>2</sub>) OEM analyser.



The more compact design (4.5" x 3.0") allows integration into the tightest of spaces yet comes with the same performance specifications and features of our existing OEM analyser. The board is fitted with a robust cabled zirconia sensor, which is ideal for providing fast and accurate remote in-situ gas analysis over the full oxygen range 10<sup>-20</sup>ppm to 30% O<sub>2</sub>. 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 OEM has auxiliary and temperature (type K) inputs for additional sensors such as pressure, vacuum and dewpoint and can also monitor local ambient conditions for improved stability.

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



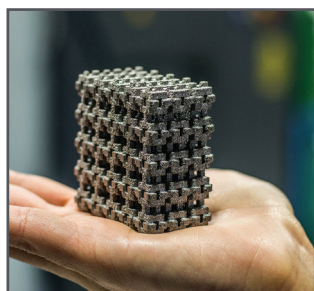
The OEM analyser can be supplied with a variety of enclosures, sensor fittings and cable lengths together with an optional local display or keyboard. It has fully programmable analogue (voltage and current) outputs and alarm relays as well as RS232 / RS485 digital signalling as standard. In addition to the standard Rapidox digital communications protocol and software, Modbus-RTU is included as a standard option. The analyser is designed specifically for seamless integration to PLC systems.

In rare instances where a zirconia sensor is unsuitable, a substitute OEM electrochemical sensor may be used instead. Electrochemical sensors are more suitable for gases where VOCs, flammable gases, CO, H<sub>2</sub> or He are present. Both ppm and percent versions are available. Please contact Cambridge Sensotec for further information or to discuss your requirements.

The Rapidox 2100-OEM-RSB has a compact design (4.5" x 3.0") allowing integration into the tightest of spaces with high performance specs.

- Zirconia sensor supplied with bespoke cable
- Miniature 4.5" x 3.0" circuit board
- Fast and accurate response
- Fully programmable outputs
- Data logging software
- Two programmable alarms
- Type K thermocouple option
- 24Vdc power
- Password protection

## Applications



Additive Manufacturing



Glove Boxes



Research and Development



Chemicals



Inert Gas Blanketing



Combustion



Manufacturing

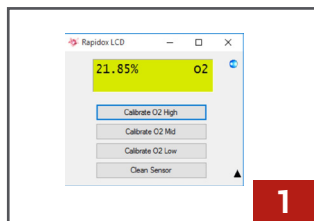


Gas



Metal Heat Treatment

## Accessories



1



2



3

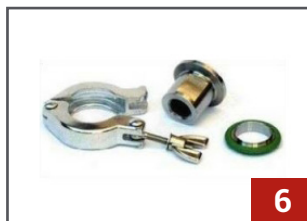
- 1 Rapidox Software
- 2 Gas Filter & Water Trap
- 3 DIN Housing Enclosure



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5



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- 4 High Speed RS485
- 5 Display & Keypad
- 6 Vacuum Fitting

## Specification

O <sub>2</sub> Sensor Range	10 <sup>-20</sup> ppm to 30% Zirconia version 0-100% Electrochemical version
O <sub>2</sub> 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 <sub>2</sub> Sensor Life Expectancy	>17,000 hours Zirconia version, five years for the Electrochemical version
Ambient Operating Pressure	800 to 1200mbar absolute
Ambient Operating Temperature	5-35°C
Max. Sample Gas Pressure	Up to 10 bar gauge (200bar burst pressure)
Max. Sample Gas Temperature	650°C
Warm-up Time	1-2 minutes at 20°C
Voltage	24V dc
Power	60W
Voltage Outputs	0-5V
Current Outputs	4-20mA
Digital Outputs	RS232 & RS485
Calibration	Any two or three gases
Sample Connections	Nipple or swagelok
Circuit Board Dimensions	4.5" x 3"0 (114mm x 76mm)
Weight	<0.5kg
Alarms	2 alarm relay circuits, fully user-configurable