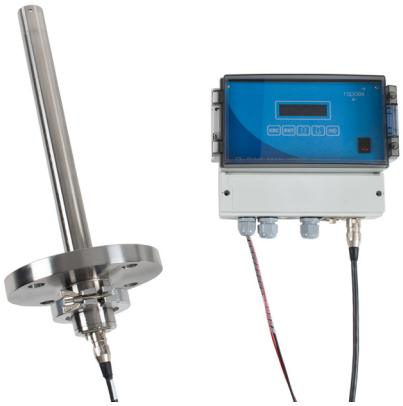
Rapidox 2100-OEM-RSB-WALL

O_2 Gas Analyser

The Rapidox 2100-OEM-RSB-WALL is a special wall mount version of our existing high-performance zirconia oxygen (O_2) analyser.



The Rapidox 2100 OEM-RSB-WALL is a wall mount version of our miniaturised 24V OEM oxygen (O_2) analyser. The compact (4.5" x 3.0") circuit is integrated into a neat IP65 wall mount polycarbonate box, with a clear smoked hinged lid. Behind this is a clear OLED display and menu keypad. The box is completely electrically isolated and meets all UL and IEC standards for these types of enclosures. There are cable entry glands on the base for power cables and analogue / digital / alarm leads The analyser comes with a robust cabled zirconia sensor, which is ideal for providing fast and accurate remote in-situ gas analysis over the the full oxygen range 10^{-20}ppm to 30% O_2. An optional external pressure sensor socket is included as standard.

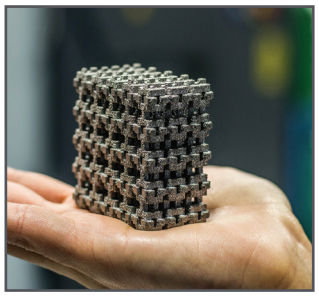
Zirconia oxygen sensors are extremely rugged and particularly suitable for monitoring inert atmospheres and aggressive industrial applications directly within manufacturing processes such as metal 3D printers, soldering ovens and furnaces. High temperature (650°C) and vacuum applications are particularly suited to this model. The OEM has auxiliary sensor and temperature (type K) inputs for connecting additional sensors such as pressure, vacuum and dewpoint and can also monitor local ambient temperature and humidity conditions for improved stability.

The oxygen sensor cable can be made to any length up to 25m and there are a choice of sensor mounting options including aluminium and stainless manifolds as well as vacuum fittings (ISO-KF and CF). The analyser 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 standard. The analyser is designed specifically for seamless integration to PLC systems. Finally, the Rapidox 2100-OEM-RSB-WALL also complies with EMC Directive 2004 / 108 / EC. UL/ETL Certification Number: UL-61010-1.

The Rapidox 2100-OEM-RSB-WALL has a compact wall mount design for convenient mounting, with high performance specifications; and a wide choice of options.

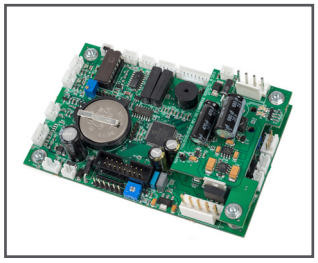
- Zirconia sensor supplied with bespoke cable
- IP65 wall mount polycarbonate enclosure
- Fast and accurate measurement of oxygen
- Pre-calibrated sensors for uninterrupted service
- Fully programmable analogue outputs
- Data logging software
- Two programmable alarms
- Type K thermocouple option
- 24Vdc 20W power
- Password protected menu system

Applications

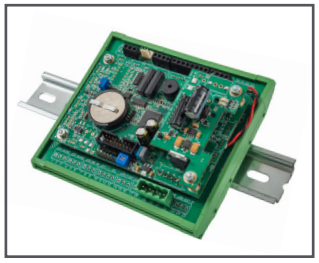


- Additive Manufacturing
- Metal Powder Processing
- Combustion Ovens
- Forming Gas
- Glove Boxes
- Inert Gas Blanketing
- Solder Reflow Ovens
- Metal Heat Treatment
- Research and Development
- Manufacturing

Scope of supply



1 Rapidox 2100-OEM-RSB



2 Rapidox 2100-OEM-DIN

3 Rapidox 2100-OEM-INS

4 Rapidox 2100-OEM-WALL

All versions are supplied with a zirconia sensor on a 2m cable as standard.

Specification

Supply Voltage	24V VDC +/-10%
Power	20W
Dimensions	235 x 185 x 119 mm
Weight	<1kg in enclosure, OEM board 120g
Din Rail Option	N/A
Ambient Operating Temperature	5-35°C 0-95% RH non condensing
Ambient Operating Pressure	800 to 1200mbar absolute
Warm-up Time	1-2 minutes at 20°C
Sensor Cable	2m high temp as standard. Any length up to 25m available on request
Display	OLED display & keypad on enclosure version
Sample connections	Nipple or swagelok
O_2 Sensor Range	10^{-20}ppm to 30% Zirconia version. 10^{-26} extended range available on request
O_2 Sensor Accuracy	±1% of the actual measured oxygen content OR 0.5ppm (whichever is the greater)
O_2 Sensor Response	4 seconds for a T90 step change @1L per min flow
O_2 Sensor Life Expectancy	>17,000 hours
Calibration	Any two or three gases - Pre calibrated Sensors Available
Voltage Outputs	0-5V (0-10V on request)
Current Outputs	4-20mA
Digital Outputs	RS232 / RS485 & Modbus RTU
Max Sample Gas Pressure	Up to 10 bar gauge (200bar burst pressure)
Max Sample Gas Temperature	650°C
Alarm	2 alarm relay circuits, fully user-configurable

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