



Rapidox 2100 OEM-RSB-MAP

The Rapidox 2100 OEM-RSB-MAP is a special Modified Atmosphere Packaging (MAP) version of our existing Rapidox OEM zirconia oxygen gas analyser. Supplied as a miniaturised 24V circuit board, the more compact design (4.5" x 3.0") allows integration into the tightest of spaces yet comes with the exact same performance specs and features of our existing oxygen gas analysers.



The board is fitted with a modified zirconia sensor and special gas sensor manifold to reduce sample volume to only 0.5cm³ (500mm³), which is ideal for providing fast and accurate remote in-situ gas analysis in low gas volume applications over the full oxygen range 10-20ppm to 30% O₂.

Zirconia oxygen sensors are extremely rugged and fast responding making them particularly suitable for MAP gas analysis in packing machinery and inert gas flushing. The MAP version can also provide an on-line pressure sensor that connects in line with the sensor manifold to give true pressure corrected readings of oxygen.

The OEM-MAP analyser is supplied in four packages to meet the demands of any customer: a basic circuit board, a custom DIN rail enclosure and a full metal enclosure with or without local display and keypad. The sensor cable can be made to any length up to 25m. The sensor manifold is small and compact and designed to allow sensors to be exchanged quickly and efficiently without the need for any special tools. 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 standard. The analyser is designed specifically for seamless integration to PLC systems on packaging machinery.

New Features for this model include:

- Compact planar zirconia sensor and sample housing requiring only 0.5cm³ (500mm³) of sample gas.
- Special pre-calibrated sensors for quick and easy swap out - no cal gas needed and unit can remain in situ
- 24V power requirement (20W)
- Bespoke DIN rail mountable enclosure with ultra bright OLED screen & keypad

Applications



O₂ Inert Gas Blanketing



Modified Atmosphere Packaging (MAP)

Specification

Supply Voltage	24V VDC +/-10%
Power	20W
Circuit Board Dimensions	4.5" x 3" (114mm x 76mm)
Weight	<0.5kg in enclosure, OEM board 120g
Din Rail Option	DIN Rail Mountable enclosure
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 supplied with special ultra-low volume sample chamber
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