Rapidox 2100 OEM-RSB-MAP

The Rapidox 2100 OEM-RSB-MAP is a special Modified Atmosphere Packaging (MAP) version of our existing Rapidox OEM zironica 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 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 4.5" x 3" (114mm x 76mm) **Circuit Board Dimensions** <0.5kg in enclosure, OEM board 120g Weight **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 $10^{\text{-}20}\text{ppm}$ to 30% Zirconia version. $10^{\text{-}26}$ extended range available on request O₂ Sensor Range O₂ Sensor Accuracy ±1% of the actual measured oxygen content OR 0.5ppm (whichever is the greater) O₂ Sensor Response 4 seconds for a T90 step change @1L per min flow O2 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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Cambridge Sensotec Limited. Unit 29 Stephenson Road, St Ives, Cambs, PE27 3WJ, United Kingdom Due to continuous product development necessary changes to speci ications may be made without prior notice. Issue no: V1-2023