

Rapidox 1100Z - OEM - RSB & 1100ZR3 - OEM - RSB

The Rapidox 1100Z-OEM-RSB is the World's first miniature zirconia oxygen analyser with pump designed to be DIN rail mounted into customers equipment as a true OEM. The Rapidox 1100Z-OEM-RSB is a cost effective 24Vdc OEM version of our sampling 1100 zirconia analyser range.



Rapidox 1100Z-OEM-RSB
Enclosure configuration



Rapidox 1100ZR3-OEM-RSB
Instrument configuration



The analyser package has been reduced in size and simplified to fit onto a DIN rail in an electrical cabinet, and comprises a compact control unit (with or without OLED display and menu keypad), a zirconia sensor with sample connection points, a particle filter and a powerful miniature sample pump capable of drawing a gas sample at up to 1.2 litres per minute through 6mm OD/4mm ID flexible tubing.

For larger installations, there is a ZR3 multiplex option to allow three separate sample points to be controlled and measured with a single zirconia sensor. The ZR3 unit comprises a programmable three way solenoid unit to control the gas flow from channels 1, 2 & 3 all operating on 24Vdc from the same DIN rail housing.

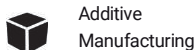
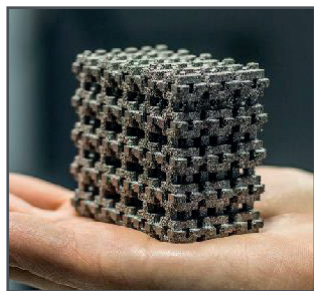
Zirconia oxygen sensors are commonly used for providing fast and accurate gas analysis over the low ppm oxygen range. They are particularly suitable for monitoring inert atmospheres and aggressive industrial applications within manufacturing processes such as additive manufacturing and solder reflow ovens.

The Rapidox 1100-OEM-RSB 1100ZR3-OEM-RSB range can also be used to control an external proportional flow control valve (PFC) or a single solenoid relay using a remote signal output (RSO). These are exceptionally useful within inert gas blanketing applications, where the analyser can automatically regulate the level of inert gas flow based on the measurement of oxygen via the PFC or RSO control function.

Please contact Cambridge Sensotec for further information or to discuss your requirements.

- Zirconia sensor & control unit housed on a DIN rail mount
- Powerful long life sample pump & filter
- Basic metal enclosure or OLED & keypad option
- Three channel multiplex option
- Fast and accurate measurement of oxygen
- Pre-calibrated sensors for uninterrupted service
- Fully programmable analogue & digital outputs
- Data logging software
- Two programmable alarms
- Modbus RTU communication protocol
- 24Vdc 20W power
- Password protected menu system

Applications



Additive Manufacturing



Gas



Combustion



Solder Reflow



Glove Boxes



Metal Heat Treatment



Chemicals



Manufacturing



Research & Development

Accessories



1



2



3

- 1 Calibration Kit
- 2 Pre - Calibrated Sensors
- 3 Fittings and Filters

Sensor Specification

O ₂ Sensor Range	0.5ppm to 30% (30,000ppm)
Oxygen Sensor Cable	Short cable with quick-fit plug
Max Sample Gas Pressure	+/- 100 mbar gauge
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

Analyser Specification

Ambient Operating Temperature	5°C to 35°C
Supply Voltage	24V VDC +/-10%
Power Consumption	20W
Analyser Dimensions	320mm (L) x 120mm (W) x 120mm (H) single gas version // 375mm (L) x 120mm (W) x 120mm (H) three-gas multiplex version
Weight	1.20kg single gas version / 1.85kg three-gas multiplex version
Display	OLED display & keypad on enclosure version
Warm-up Time	3-5 minutes as standard
Operating Temperature & Operating Pressure	60°C, 800-1200 mbara absolute
Voltage Outputs	0-10V user-programmable
Current Outputs	4-20mA user-programmable
Digital Outputs	RS232 / RS485 & Modbus RTU
Alarms High and Low	Independent relay circuits. Fully user programmable
Sample Connections	4mm ID / 6mm OD nipple type connected to metal manifold. Rectus or Swagelok options. Front or rear positioning
Calibration	Any two or three gases - Pre calibrated Sensors Available
Sample connections	Push fit tube connections for 6mmOD / 4mmID FEP tubing or similar. Other types can be fitted on request.
Pump Option	Diaphragm pump. Variable speed 0-1.2 litres per min
Din Rail Option	Yes - two mounting points