

Rapidox 1100EP & 1100ER Electrochemical Oxygen Gas Analyser



Description

The Rapidox 1100EP is a special panel mountable version of the highly successful 1100E bench unit.

Supplied with a 3mm thick anodised aluminium bezel that is 300mm wide and 4U high, the unit can be conveniently flush-mounted with all gas connections and cables at the rear. Similarly the Rapidox 1100ER connections are also housed at the rear of the analyser, however this version remains bench mountable. The analyser can be returned to a standard 1100E unit very quickly if ever required. Bezels up to 19" rack-mount size can be supplied upon request.

The Rapidox 1100EP oxygen analyser allows accurate oxygen analysis over the range 0 to 100% O₂ in steps of 0.1%. The analyser provides continuous on-line oxygen analysis, with a typical response time of 20 seconds for a 90% response to a step change in gas compositions.

At the heart of the Rapidox 1100EP is a Yuasa electrochemical oxygen sensor, which has a five year life expectancy and can be used in a wide range of gases such as nitrogen, argon, helium, carbon dioxide.

Features

- Supplied ready for panel mounting with 300mm x 4U aluminium bezel.
- Fast measurement response (typically 20 seconds for a 90% response).
- Wide measurement range available (0 to 100% O₂).
- Accuracy ± 1% of the full scale oxygen.
- Easy calibration procedure requiring any two gas mixtures (ordinary room air is usually one).
- Low maintenance, sensor life expectancy typically 3-5 years.
- Powerful diaphragm pump fitted for sampling the gas at 0 to 1.2 ltr.min⁻¹
- Large back-lit LCD display (16 x 2 characters).
- RS232, 0-10V and 4-20mA current loop outputs (both fully programmable).
- Fully programmable alarm circuits (high and low conditions).
- Full data-logging software accessed via RS232 connection to a PC (RS485 available on request).
- PIN code protected menu access.
- Printer & Peli-case available.

The sensor is not affected by the presence of hydrocarbons.

The analyser contains a powerful diaphragm pump that draws a gas sample at a flow rate set by the user between zero and 1.2 litres per minute. An on-board pressure sensor compensates for any pressure fluctuations in the sample gas. Alternatively the pump can be independently switched off and operated under flowing gas conditions.

The analyser includes two fully programmable alarm circuits (voltage free contacts), programmable analogue outputs (0-10V and 4-20mA), easy calibration (using 2 user selectable gases), RS232 (optionally RS485) communications and a full set of communications/data-logging software with live-time graphing.

Optional printer, pellicase and gas sample filters are available.

CONTINUED ON NEXT PAGE



Cambridge Sensotec Ltd.

Unit 29 Stephenson Road
St Ives
Cambs
PE27 3WJ
ENGLAND

Telephone

+44 (0)1480 462142

Facsimile

+44 (0)1480 466032

Mobile

+44 (0)7866 624236

Email

sales@cambridge-sensotec.co.uk

Web

www.cambridge-sensotec.co.uk

Rapidox 1100EP & 1100ER

Electrochemical Oxygen Gas Analyser

Applications

- Laboratory scale experiments where the control and monitoring of residual oxygen is critical.
- Air separation plants
- Medical Monitoring
- Industrial processes using low oxygen environments. E.g. wave soldering under nitrogen, vacuum welding, testing nitrogen generators
- Glove Boxes
- Control of critical oxygen atmospheres where high partial pressures are required.
- Food production.
- Testing the purity of oxygen gas cylinders.
- Gases containing hydrogen, helium or CH₄.
- Gases containing VOCs, solvents and fuels.

Panel Mount Spec

- Measuring 300 X 4U (300 X 177mm)
- The panel mount plate is made from 3mm thick anodised aluminium
- please note different sizes can be supplied to order

Technical Data: Analyser	
Voltage	90-260Vac, 50/60Hz
Analyser dimensions	250mm X 263mm X 150mm
Weight	3.5 kg
Display	16 x 2 character (9mm) back lit LCD
Warm up time	5 minutes at 20°C
Operating temperature	5°C to 35°C
Voltage outputs	0-10V linear, user-programmable
Current outputs	4-20mA linear, user-programmable
Digital outputs	RS232 (RS485 option available): data streamed on demand
Calibration	Requires 1 or 2 user selectable gas mixtures
Sample pump	24Vdc diaphragm pump

Technical Data: Sensor & Pump	
Flow Rate	0 - 1.5 litres per minute (user selectable)
Noise level	44db (max) at 1 meter
Maximum inlet temperature	50°C
Life expectancy O ₂	3-5 years
O ₂ sensor range	0-100%
Response time O ₂ (gas flow rate 1ltr.min ⁻¹)	Approximately 20 secs for a 90% step change
Accuracy O ₂	±1% of full scale
O ₂ sensor stability	±2% of full scale per month
Sample connections	6mm ID / 4mm OD nipple type

Cambridge Sensotec Ltd.

Unit 29 Stephenson Road
St Ives
Cams
PE27 3WJ
ENGLAND

Telephone

+44 (0)1480 462142

Facsimile

+44 (0)1480 466032

Mobile

+44 (0)7866 624236

Email

sales@cambridge-sensotec.co.uk

Web

www.cambridge-sensotec.co.uk