



# PRODUCT BROCHURE





# PIONEERING IN GAS ANALYSIS

**Beyond Analysers - Committed to Excellence**





**Luke Shields**  
Managing Director



**Mike Parish**  
Sales & Marketing  
Director



**Layla Greenhall**  
Finance Director



**Nigel Gregg**  
Director of Research

**Mark Swetnam, Donald Kings, and Victor Stekly** founded Cambridge Sensotec in 2000, driven by their shared passion for innovation in gas analysis.

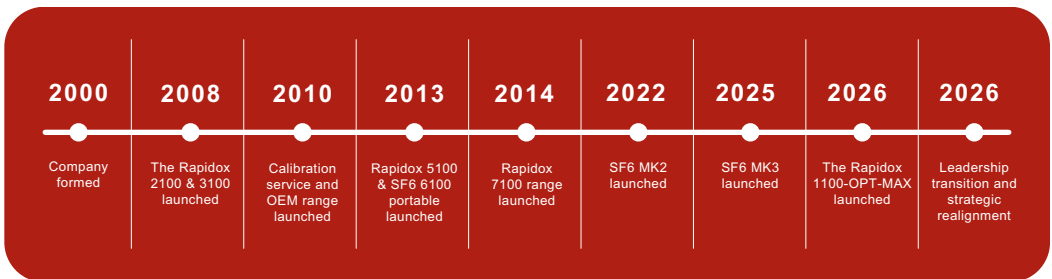
Today, the company is led by **Managing Director, Luke Shields**, whose technical background and long-standing experience within the business guide its strategic direction and continued evolution.

**Sales and Marketing Director, Mike Parish**, leads the company's commercial strategy, strengthening global partnerships and driving sustainable revenue growth across key markets.

**Finance Director, Layla Greenhall**, oversees financial governance and operational efficiency, ensuring robust processes that support long-term stability and scalable growth.

**Director of Research, Nigel Gregg**, provides technical leadership, driving innovation in sensor and analyser development and ensuring the company remains at the forefront of gas analysis technology.

Together, the leadership team builds on the founders' vision, advancing Cambridge Sensotec's position as a trusted global leader in gas analysis solutions.



# WHY CHOOSE US?

We combine world-class expertise with innovative gas analysis solutions tailored to your exact requirements.

With over two decades of experience, we deliver precision, reliability, and exceptional service across a wide range of industries and applications.

Cambridge Sensotec provides advanced gas analysis technology to customers worldwide, supporting research and development, industrial processes, scientific institutions, academic environments, and beyond.



# ADVANCING EXCELLENCE

## Customer-Led Solutions

- We engage closely with our clients to define precise, application-specific solutions.
- Precision-built, bespoke gas analysis solutions.

## Dedicated Support

- Responsive, expert after-sales service.
- Rapid technical assistance when you need it most.

## Expert Calibration

- For maintaining peak performance and long-term reliability of your analyser.
- Ensures consistent accuracy you can trust.

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**TRUSTED  
WORLDWIDE  
SINCE 2000**

# INDUSTRIES WE SERVE



**3D Printing**



**Welding**



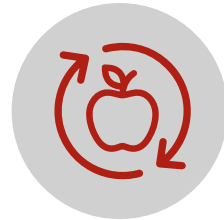
**Manufacturing**



**Research &  
Development**



**Chemicals**



**Food &  
Beverage**



**Inert Gas  
Applications**



**Glove Boxes**



**Metal Heat  
Treatment**



# PRODUCT OVERVIEW

# RAPIDOX 1100 SERIES

Single Gas Analyser



Choice of Zirconia, Electrochemical or Optical O<sub>2</sub> sensor technology meaning more flexibility for the user

## Key Features

- Measuring ppm levels up to 100% gas
- O<sub>2</sub>, CO<sub>2</sub>, CO, CH<sub>4</sub>, H<sub>2</sub>, He, Ar, Zirconia, EC, IR & TCD sensors
- Three-channel multiplex option available
- Low maintenance and long-life sensor expectancy



## Why Rapidox 1100?

*"We have used their gas analysis technology in our welding gloveboxes for many years to give our products the cutting edge. We would highly recommend Cambridge Sensotec not only for their product quality, but also their after sales service."*

*Ricky Hart, Weldlogic Europe Ltd*

## Specifications

<b>Variations</b>	Available gas sensors – O <sub>2</sub> , CO <sub>2</sub> , CO, CH <sub>4</sub> , H <sub>2</sub> , He and Ar Stainless steel IP54 case available
<b>Display</b>	20 x 4 character OLED display
<b>Sensor Range</b>	1ppm to 100% depending on sensor type
<b>Alarms</b>	Alarms with latching option to align with standard equipment features
<b>Pump</b>	Long-life diaphragm pump, variable speed 0-1.2 litres per minute
<b>Input/Output Specifications</b>	<ul style="list-style-type: none"><li>• 0-10V / 4-20mA linear, user-programmable</li><li>• RS232 (RS485 option available), with data streamed on demand</li><li>• Modbus RTU / Ethernet</li></ul>

## Key Applications:

- Glove Boxes
- Welding
- Monitoring Inert Atmospheres
- Solder Reflow Ovens
- Additive Manufacturing
- Metal Heat Treatment

\*other applications relevant

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# RAPIDOX 2100 SERIES

Remote Sensor Gas Analyser



## Key Features

- Zirconia sensor on remote cable
- Metal manifold or vacuum coupling
- Type K thermocouple sensor included
- Capable of multiple measurements
- Electrochemical and Optical sensor options
- Optional pressure, vacuum or dewpoint sensors



## Why Our Analysers?

*"I've been using several Rapidox gas analyzers regularly since I joined Los Alamos National laboratory. They are excellent with our high-temperature furnaces compared to others I've tried. We have very specific requirements as we work in the 10<sup>-8</sup>ppm to 10<sup>-18</sup>ppm O<sub>2</sub> range."*

*Michal Pate, Los Alamos National Laboratory*

## Specifications

<b>Variations</b>	Zirconia, Electrochemical, Optical sensor and Special forming gas (FGA) version
<b>Display</b>	20 x 4 character OLED display
<b>Sensor Range</b>	10 <sup>-20</sup> ppm to 30% O <sup>2</sup> as standard, extended to 100% O <sup>2</sup> in high partial pressure applications. 10 <sup>-30</sup> ppm extended range available
<b>Alarms</b>	Alarms with latching option to align with standard equipment features
<b>Software</b>	Bespoke live results via on-screen graphs or Excel format
<b>Input/Output Specifications</b>	<ul style="list-style-type: none"><li>• 0-5V / 4-20mA linear, user-programmable</li><li>• RS232 (RS485 option available), with data streamed on demand</li><li>• Modbus RTU / Ethernet</li></ul>

## Key Applications:

- Glove Boxes
- Research & Development
- Manufacturing
- Chemicals
- Additive Manufacturing
- Metal Heat Treatment
- \*other applications relevant

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# RAPIDOX 3100 SERIES

Multi-Gas Analyser



## Key Features

- Single, dual, and triple gas analysis
- A bench version or a 19" rack-mounted
- Excel-compatible format
- Independent temperature measurements
- Flow gauge/needle valve



## Understanding Your Needs First:

*Cambridge Sensotec provides invaluable support, both before and after purchase, with unmatched expertise in addressing our specific needs. Their readiness to share crucial technical information has been vital, improving our understanding of sensor and system communication. Their delivery of customized firmware ensures seamless communication with our system's PLC, complementing the development of the standard sensor.*

*Adam Steinmark, Early Charm*

## Specifications

<b>Variations</b>	Up to three measurable gases from: O <sub>2</sub> , CO <sub>2</sub> , CO, H <sub>2</sub> , Cl <sub>2</sub> , N <sub>2</sub> O, CH <sub>4</sub> , NO, NO <sub>2</sub> , C <sub>2</sub> H <sub>4</sub> , O <sub>3</sub> , H <sub>2</sub> S, He, NH <sub>3</sub> , HF and SO <sub>2</sub>
<b>Display</b>	20 x 4 character OLED display
<b>Pump</b>	Long-life diaphragm pump variable speed 0-1.2 litres per minute
<b>Alarms</b>	Alarms with latching option to align with standard equipment features
<b>Flow Gauge</b>	An adjustable external flow gauge
<b>Input/Output Specifications</b>	<ul style="list-style-type: none"><li>• 0-10V / 4-20mA linear, user-programmable</li><li>• RS232 (RS485 option available), with data streamed on demand</li><li>• Modbus RTU / Ethernet</li></ul>

## Key Applications:

- Biogas & Syngas
- Glove Boxes
- Metal Heat Treatment
- Food
- Medical
- Manufacturing
- \*other applications relevant

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# RAPIDOX 5100 SERIES

Portable Multigas Analyser



## Key Features

- Up to 8hr lithium battery life
- Housed in a heavy-duty IP66 case
- Measures up to 6 gases
- Thermal printer
- Live continuous test results
- Excel & USB compatible
- Biogas & Syngas



## Related Accessories

Sample Probes

Filters

## Specifications

<b>Variations</b>	Measurable gases: O <sub>2</sub> , CO <sub>2</sub> , CO, H <sub>2</sub> , H <sub>2</sub> S, C <sub>2</sub> H <sub>4</sub> , H <sub>2</sub> O, CH <sub>4</sub> , SO <sub>2</sub> , Cl <sub>2</sub> , NO, NO <sub>2</sub> , O <sub>3</sub> , He, NH <sub>3</sub> and VOCs
<b>Display</b>	7" (180mm) full-colour LCD with touchscreen operation
<b>Data</b>	4 GB internal data storage, exportable Excel-compatible data via USB memory stick
<b>Dimensions</b>	180mm (H) x 480mm (W) x 360mm (D)
<b>Weight</b>	7 kg without accessories
<b>Battery Life</b>	Up to 8 hours lithium battery use with 4-6 hours charging time

## Key Applications:

- Biogas & Syngas
- Glove Boxes
- Metal Heat Treatment
- Food
- Medical
- Manufacturing

\*other applications relevant

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# RAPIDOX 6100 SERIES

Zero Emissions SF<sub>6</sub> Analyser



## Key Features

- Editable test locations and user names
- Housed in a heavy-duty IP66 case
- Measures up to 8 gases
- Zero emissions with pumpback
- Thermal printer
- Live continuous test results
- Excel & USB compatible



## Related Accessories

Gas Recovery Bag  
Hoses  
Filters



## Specifications

<b>Variations</b>	Measurable gases: SF <sub>6</sub> , SO <sub>2</sub> , H <sub>2</sub> O, CF <sub>4</sub> , HF, O <sub>2</sub> , H <sub>2</sub> S, CO
<b>Display</b>	7" (180mm) full-colour LCD with touchscreen operation
<b>Data</b>	4 GB internal data storage, exportable Excel-compatible data via USB memory stick
<b>Dimensions</b>	180mm (H) x 480mm (W) x 360mm (D)
<b>Weight</b>	21 kg
<b>Battery Life</b>	Up to 8 hours lithium battery use with 4-6 hours charging time

## Key Applications:

- Gas Insulated Electrical Switchgear
- Transformers
- Circuit Breakers
- Substations
- Capacitors

\*other applications relevant

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# RAPIDOX 6100 QU4D

Multi-Gas Pumpback Analyser



## Key Features

- Portable and user-friendly
- Multi-switchgear compatibility
- Customisable options
- Featuring IR technology
- Battery operated
- Integrated thermal printer
- IP66 Peli case for protection
- Rapid Analysis and data logging

## Specifications

<b>Variations</b>	Measurable gases: SF <sub>6</sub> , C4-FN, C5-FK, Clean Air
<b>Display</b>	7" (178mm) Colour LCD touch screen interface with soft menu keys
<b>Data</b>	4GB internal data storage allowing for approximately 1 year of continuous monitoring
<b>Dimensions</b>	270mm(H) x 560mm(W) x 450mm(D)
<b>Weight</b>	21kg (Total instrument and case)
<b>Battery Life</b>	Up to 8 hours. 4-6 hour charge

# RAPIDOX 7100 SERIES

State-of-the-art Multigas Analyser



## Key Features

- Bespoke sensor combinations
- Permanent or sampling modes
- A benchtop or a 19" rack-mounted version
- Excel-compatible format
- Optional pump & Multiplexer



## Specifications

<b>Variations</b>	Measurable gases: O <sub>2</sub> , CO <sub>2</sub> , CO, H <sub>2</sub> O, C <sub>2</sub> H <sub>4</sub> , SO <sub>2</sub> , CH <sub>4</sub> , H <sub>2</sub> , H <sub>2</sub> S, SF <sub>6</sub> , Cl <sub>2</sub> , NO, NO <sub>2</sub> , N <sub>2</sub> O, O <sub>3</sub> , He, NH <sub>3</sub> , HF, CF <sub>4</sub> , VOC, SO <sub>2</sub> F <sub>2</sub>
<b>Display</b>	7" (180mm) full-colour LCD with touchscreen operation
<b>Data</b>	4 GB internal data storage, exportable Excel-compatible data via USB memory stick
<b>Dimensions</b>	Rack Mount: 132mm (H) x 482mm (W) x 365mm (D) Benchtop: 180mm (H) x 570mm (W) x 345mm (D)
<b>Alarms</b>	Relay circuits, user programmable
<b>Input/Output Specifications</b>	<ul style="list-style-type: none"><li>• 0-10V / 4-20mA linear, user programmable</li><li>• RS232 (RS485 option available), with data streamed on demand</li><li>• Modbus RTU / Ethernet</li></ul>

### Key Applications:

- Biogas & Syngas
- Metal Heat Treatment
- Chemicals
- Glove boxes
- Inert gas blanketing
- Manufacturing
- SF<sub>6</sub> Analysis

\*other applications relevant

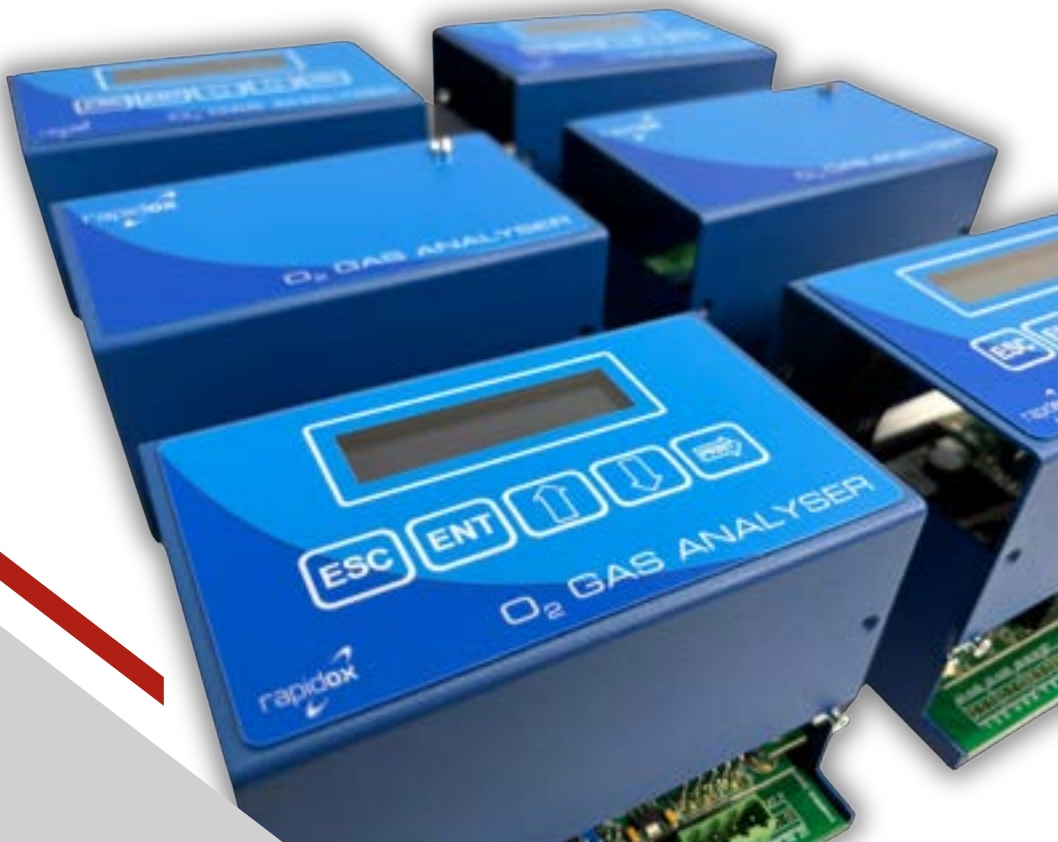
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# RAPIDOX OEM SERIES

- Simplicity and Ease of Use
- Flexibility in Configurations
- Plug-and-Play Compatibility
- Exceptional Accuracy



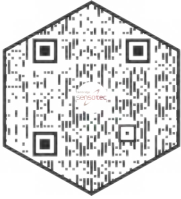
# RAPIDOX OEM SERIES



Specifications	2100-OEM-RSB	2100 OEM-RSB-ENC / INS
<b>Supply Voltage</b>	24V VDC	24V VDC
<b>Weight</b>	120g	<0.5kg in enclosure
<b>Dimensions</b>	114mm x 76mm	114mm x 76mm
<b>Two Alarms, Fully-Configurable</b>	✓	✓
<b>OLED Display</b>	N/A	✓
<b>Applications</b>	<ul style="list-style-type: none"> <li>Additive Manufacturing</li> </ul>	<ul style="list-style-type: none"> <li>Additive Manufacturing</li> <li>Inert Gas Blanketing</li> <li>Modified Atmosphere Packaging (MAP)</li> </ul>

\*for full OEM range please visit our website

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Specifications	1100ZR3 OEM-RSB DIN Rail Multiplex	3100 OEM-3 3 Sensor OEM System
Supply Voltage	24V VDC	90-260 VAC, 50/60Hz
Weight	1.85kg	3.5kg
Dimensions	375mm x 120mm x 120 mm	350mm x 263mm x 150mm
Two Alarms, Fully-Configurable	✓	✓
OLED Display	*Optional ✓	N/A
Applications	<ul style="list-style-type: none"><li>• Additive Manufacturing</li><li>• Solder Reflow</li><li>• Glove Boxes</li><li>• Metal Heat Treatment</li></ul>	<ul style="list-style-type: none"><li>• Additive Manufacturing</li><li>• Forming Gas</li><li>• Inert Gas Blanketing</li><li>• Metal Heat Treatment</li><li>• MLCC Manufacturing</li></ul>

# RAPIDOX OEM SERIES



Specifications	Rapidox 2100 OEM-SIL2
Supply Voltage	24V VDC +/-10%
Weight	<0.5kg in enclosure, OEM board 120g
Dimensions	70mm x 130mm x 105mm
Two Alarms, Fully-Configurable	✓
OLED Display	✓
Applications	<ul style="list-style-type: none"> <li>• Additive Manufacturing</li> <li>• Combustion</li> <li>• Manufacturing</li> <li>• Research &amp; Development</li> <li>• Metal Powder Processing</li> <li>• Glove Boxes</li> <li>• Inert Gas Blanketing</li> <li>• Solder Reflow Oven</li> <li>• Metal Heat Treatment</li> <li>• Forming Gas</li> </ul>

\*for full OEM range please visit our website

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