

3100Z 19" Rack Mount Multigas Gas Analyser

The Rapidox 3100-Z Rack mount range includes precision single, dual and triple gas analysis instruments providing powerful functionality and extensive features.



Housed in a special 19" rack mount case, the analyser has a special backlit recessed flow gauge and gas connections on the rear to allow flush mounting inside glass door cabinets. This analyser is designed for more rugged process applications where rack mounting is the preferred option.

Typical gas analysis configurations include a combination of oxygen and another gas. However, many other compatible gas sensors arrangements can be specified. Measurable gases include oxygen (O_2) , carbon dioxide (CO_2) , carbon monoxide (CO), hydrogen (H_2) , moisture (H_2O) , ethylene (C_2H_4) , chlorine (CI_2) , methane (CH_4) , nitrous oxide (N_2O) , nitric oxide (NO), ammonia (NH_2) , sulfur dioxide (SO_2) and ozone (O_2) to suit the application.

The flow of test gas can be adjusted with the LED back-lit flow gauge/needle valve on the front panel. A powerful long-life pump draws a gas sample at a flow rate set by the user between 0-1 litres per minute. Alternatively the unit can be supplied without a pump for pressurised gas applications, or with an ejector for compressed air operation.



Standard features on all models include four fully programmable alarm circuits (volt free contacts), programmable analogue outputs (0-10V and 4-20mA) for each sensor, easy calibration (user selectable gases), RS232 / RS485 / ModBus-RTU communications and complete datalogging software. A type K thermocouple input and sensor is included for independent temperature measurements up to 1250°C, with readings displayed and data logged simultaneously with the gas analysis. This analyser complies with EMC Directive 2004 / 108 / EC. UL/ETL Certification Number: UL-61010-1.

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

Though highly configurable to suit individual customer requirements, the Rapidox 3100-Z range possesses a number of standard features to enhance

functionality.

- Bespoke sensor combination
- Fully configurable software
- Fast and accurate response
- Simple calibration procedure
- Fully programmable outputs
- Data logging

- Type K thermocouple
- · Four programmable alarms
- Operates on worldwide mains voltage
- Password protection

Applications





Biogas



Gas



Medical & Pharmaceutical



Metal Heat Treatment



Research & Development





Combustion

Chemicals



Food



Manufacturing

Inert Gas Blanketing

Glove Boxes

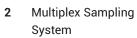
Accessories

























Specification	
Oxygen Sensor	10E ⁻²⁰ ppm-30% zirconia sensor. ±1% accuracy
Other Gas Sensors	For other sensors, see the sensor matrix
Temperature Sensor	0-1250°C range Type K thermocouple, ±1°C accuracy
Max Gas Temperature	60°C
Ambient Operating Pressure	900mbar to 1100mbar absolute
Ambient Operating Temperature	5°C to 35°C
Warm-up Time	2-5 minutes at 20°C as standard
Supply Voltage	90-260 VAC, 50/60H
Voltage Outputs	0-5V linear, user programmable
Current Outputs	4-20mA linear, user programmable
Digital Outputs	RS232 (RS485 option available): ModBus-rtu protoco
Digital Outputs	data streamed on demand
	4mm ID / 6mm OD nipple type
Sample Connections	Rectus or Swagelock
	Rear positioned
Display	Four line OLED displa
Analyses Dimensions	132mm (H) x 482mm (W) x 365mm (D
Analyser Dimensions	4U 19" Rack mount enclosure
Weight	6.5kg as standard
Pump Option	0-1 litres per minute, user selectable

Rapidox 3100 Sensor Matrix

TC	Type K	>36	N/A																											
SO ₂	ш	>60	12																											
SO ₂	EC	24	12																											
NH _s	EC	24	12																											
He/H ₂	TCD	>60	12																											
H ₂ S	EC	24	12																											
N ₂ O	Œ	>60	12																											
C_2H_4	æ	>60	12																											
NO ₂	EC	12	9																											
ر ت	EC	12	9																											
8	EC	24	12																											
8	Ш	>60	12																											
H ₂ 0	CAP	>36	12																											
CH ₄	TLD	>60	12																											
CH ₄	Œ	>60	12																											
CO ₂	뜨	>60	12																											
0	Zr	24	12																											
Gas	Sensor Type	Life (Month)	Cal (Month)	0 -100%	%08 - 0	%09 - 0	0 - 50%	0 - 30%	0 - 20%	0 - 10%	% 9 - 0	0 - 3 %	0 - 2 %	0 - 1 %	0 - 5,000ppm	0 - 3,000ppm	0 - 2,500ppm	0 - 2,000ppm	0 - 1,000ppm	0 - 500ppm	0 - 250ppm	0 - 200ppm	0 - 100ppm	0 - 60ppm	0 - 50ppm	0 - 20ppm	0 - 10ppm	-65°C to +20°C	-100°C to + 20°C	0 - 1250°C

Note: Not all sensor combinations are possible due to interference and cross-sensitivity effects. Please contact Cambridge Sensotec for advice

CAP = Capacitance dewpoint Sensor

EC = Electrochemical Sensor