



7100 Multigas Analyser

The Rapidox 7100 Multigas Analyser is a high specification instrument designed for the analysis, control and monitoring of process gas in a wide range of industries.



Up to six gases are simultaneously measured using a range of high precision gas sensors; each sensor is specifically designed and calibrated to avoid any cross-interference effects with the background process gas. Measurable gases include oxygen (O₂), carbon monoxide (CO), carbon dioxide (CO₂), ozone (O₃), moisture (H₂O), hydrogen (H₂), hydrogen sulphide (H₂S), nitric oxide (NO), nitrogen dioxide (NO₂), nitrous oxide (N₂O), sulphur dioxide (SO₂), chlorine (Cl₂), methane (CH₄) and ethylene (C₂H₄).

When configured for applications where the gases contain energy (e.g. Biogas, Syngas) the calorific value of the gas sample is determined using thermodynamic calculations and simultaneously logged and displayed on-screen. Data is downloadable via USB memory stick, and 4GB of internal data storage allowance allows for approximately one year of continuous monitoring.



An optional pump enables two modes of operation. For samples that are taken from a gas source at atmospheric pressure or below, the pump is activated to draw a sample through the analyser. Alternatively, the pump can be deactivated when sampling from a source at a greater atmospheric pressure, allowing the gas to flow through the analyser. Gas flow is regulated manually via a rotary knob on the fascia and displayed electronically on the screen.

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

Though highly configurable to suit individual customer requirements, the Rapidox 7100 range possesses a number of standard features to enhance functionality.

- Bespoke sensor combination
- 7" full-colour touchscreen
- 19" rack mountable enclosure
- Continuous data logging downloaded via USB
- Multi-language
- Six programmable alarms
- Operates on worldwide mains voltage
- Password protection

Applications



Biogas



Chemicals



Combustion



Food



Gas



Glove Boxes



Inert Gas Blanketing



Manufacturing



Medical



Metal Heat Treatment



Research & Development



Syngas

Accessories



1



2



3



4



5



6

- 1 Calibration Kit
- 2 Multiplex Sampling System
- 3 Gas Recovery Bag
- 4 Thermal Printer
- 5 Calibration Service
- 6 Gas Filters

Specification

Ambient Operating Pressure	900mbar to 1100mbar absolute
Ambient Operating Temperature	0°C to 40°C
Temperature Sensor	0-1250°C range Type K termocouple, ±1°C accuracy
Warm-up Time	3-4 minutes at 20°C
Voltage	90-260 VAC, 50/60Hz
Voltage Outputs	0-10V, user programmable
Current Outputs	4-20mA linear, user programmable
Digital Outputs	RS232 (RS485 option available) Data streamed on demand. Modbus RTU/Ethernet
Data Output	Excel compatible data via USB memory stick
Sample Connections	6mm OD or 1/4" Swagelok fittings. Rear positioning
Display	7" (180mm) full-colour LCD with touchscreen operation
Analyser Dimensions	132mm(H) x 482mm(W) x 365mm(D)
Weight	6.5kg
Alarms	Relay circuits, user programmable

Rapidox 7100 Sensor Matrix

Gas	O2	O2	O2	CO2	CH4	H2O	CO	CO	Cl2	NO	NO2	C2H4	N2O	O3	H2S	H2	He	NH3	SO2	SO2	TC
Sensor Type	Zr	EC-E	EC-L	IR	IR	CAP	IR	EC	EC	EC	EC	IR	IR	EC	EC	TCD	TCD	EC	EC	IR	Type K
Life Span (mth)	24	60	12	>60	>60	>36	>60	24	12	12	12	>60	>60	12	24	>60	>60	24	24	>60	>36
Accuracy	+/- 1% LOG	+/- 1% FS	+/- 2% FS	+/- 1% FS	+/- 1% FS	+/- 2°Cdp	+/- 1% FS	+/- 2% FS	+/- 2% FS	+/- 2% FS	+/- 2% FS	+/- 1% FS	+/- 1% FS	+/- 2% FS	+/- 2% FS	+/- 1% FS	+/- 1% FS	+/- 2% FS	+/- 1% FS	+/- 1% FS	+/- 1°C
Cal. (mth)	12	12	6	12	12	12	12	12	6	6	6	12	12	6	12	12	12	12	12	12	N/A
0 - 100%																					
0 - 80%																					
0 - 60%																					
0 - 30%																					
0 - 10%																					
0 - 5%																					
0 - 3%																					
0 - 1%																					
0 - 5,000ppm																					
0 - 3,000ppm																					
0 - 2,000ppm																					
0 - 1,000ppm																					
0 - 500ppm																					
0 - 250ppm																					
0 - 100ppm																					
0 - 60ppm																					
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

Key: Zr = Zirconia Oxygen Sensor EC-E = Electrochemical Oxygen Sensor % EC-L = Electrochemical Oxygen Sensor ppm IR = Infra-Red Sensor CAP = Capacitance dewpoint Sensor TCD = Type K Thermocouple