



Rapidox 7100 Biogas Analyser

The Rapidox 7100 Biogas Analyser is a high specification benchtop or rack mountable instrument designed for the on-line analysis, control, monitoring and calculation of calorific value for biogas produced from the anaerobic digestion of organic materials.



Benchtop - Front and rear



Rack Mountable - Front and rear



The Rapidox 7100 Biogas Analyser can be used in a laboratory or on-site at a fertilisation plant, landfill site, farm or sewage plant to measure both gas content (CH_4 / H_2S / O_2 / CO_2) and energy content (calorific value, CV) for biogas produced in a digester from biomass; up to six gases can be measured simultaneously meaning that other gases can be analysed as well, if required. The Rapidox 7100 Biogas Analyser is available as either a benchtop version for the laboratory or in a 19" rack mountable case which can be housed in a suitable enclosure for use in an external or hazardous area.

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 and when sampling from a source at a greater atmospheric pressure, the pump can be deactivated, allowing the gas to flow directly through the analyser. Gas flow is regulated manually via a rotary knob on the fascia and displayed electronically on the screen.

The Rapidox 7100 Biogas Analyser is highly configurable to suit individual biogas customer requirements and incorporates the following features to enhance functionality:

- Bespoke sensor combination
- Two programmable alarms
- 7" full-colour touchscreen
- Continuous data logging and 4GB internal data storage
- Multi-language
- Worldwide mains voltage
- Password protection

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

Accessories



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

Specification

CH₄ (methane)	0-100%, IR sensor (other ranges available)
CO₂ (carbon dioxide)	0-100%, IR sensor (other ranges available)
O₂ (oxygen)	0-30%, electrochemical sensor
H₂S (hydrogen sulphide)	0-2000ppm or 0-10,000ppm / 0-1% (other ranges available)
Other gases	Contact us for further information
Normal Operating Conditions	Temperature 0°C to 40°C / Humidity 10 - 90% RH / Pressure 900 to 1100 mbar absolute.
Sampling	Fixed or continuous sampling modes
Warm-up Time	3-4 minutes at 20°C
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
Alarms	Relay circuits, user programmable
Sample Connections	6mm OD or 1/4" Swagelok fittings. Rear positioning
Calibration	Calibration by the user using zero and span gases An optional Auto-Cal system can be installed on certain models
Display	7" (180mm) full-colour LCD with touchscreen operation; resolution 0.01ppm or 0.01%
Supply Voltage	90-260 VAC, 50/60Hz
Analyser Dimensions	Rack Mount: 132mm(H) x 482mm(W) x 365mm(D) / Benchtop: 180mm (H) x 570mm (W) x 345mm (D)
Weight	Rack Mount: 6.5kg / Benchtop: 6.5kg

For detailed specs on individual sensor performance, please contact us.