



Rapidox 7100 Green Hydrogen Analyser

The Rapidox 7100 Green Hydrogen (H₂) Analyser is a high specification rack mountable, or bench top instrument designed for the gas analysis, dewpoint measurement and calculation of calorific value for hydrogen produced from the electrolysis of water, suitable either in a research laboratory or on-site.



Benchtop - Front and rear



Rack mountable - Front and rear



The Rapidox 7100 Green H₂ Production Analyser can be used in a laboratory or on-site to analyse the output of your hydrogen production process. Using a combination of Thermal Conductivity (TCD), and Electrochemical (EC) sensors with the option of including Ceramic Moisture (DP) sensor technology, the Rapidox 7100 offers accurate analysis that can be relied upon.

The analyser will measure the gas composition providing % or ppm values for Hydrogen (H₂) and Oxygen (O₂) as well the Water (H₂O) content generated. With our bespoke design of the analyser, we can include a range of other sensors also if your production methods have any other gases which require monitoring. Our customer designed firmware for the analyser will also calculate and record the Gross Calorific Value (GCV) of the gas throughout the measurement.

The Rapidox 7100 Green H₂ Production 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. The Rapidox 7100 Green H₂ Production Analyser is highly configurable to suit individual H₂ production 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



Accessories



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

Specification

H2 (hydrogen)	0-100% TCD sensor with background gas correction. $\pm 1\%$ full scale accuracy. 0.1% resolution
O2 (oxygen)	0-30% or 0-100% electrochemical sensor. $\pm 1\%$ full scale accuracy. 0.01% resolution
H2O Dewpoint (optional)	-60°C to +20°C or -100°C to +20°C Dewpoint sensor
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.