

Rapidox 5100

Rapidox gas analysis range



RAPIDOX 5100

Portable multigas analysis with laboratory performance

amperis

www.amperis.com



C/ María Barbeito, 14
27003, Lugo, Spain

✉ Contact

T [+34] 982 20 99 20
info@amperis.com | www.amperis.com

Up to six gases measured simultaneously from a heavy-duty IP66 case.

Product overview



7-inch full-colour touchscreen with soft menu keys

Six gases in a single measurement

The analyser combines up to six high-precision sensors, each calibrated to prevent cross-interference with the background process gas. Where the application requires it, flashback arrestors are fitted in the measuring circuit.

Configurable gases include O₂, CO, CO₂, O₃, moisture (H₂O), H₂, H₂S, NO, NO₂, N₂O, SO₂, Cl₂, CH₄ and C₂H₄.

Calorific value calculated on site

With energy-containing samples such as biogas or syngas, the calorific value is derived by thermodynamic calculation and displayed and logged together with the readings.

Main features

- Modular design with a sensor combination built to order.
- Heavy-duty IP66 case: field instrument with laboratory functionality.
- Lithium battery for more than 8 h of operation (4-6 h charge).
- Continuous data logging; Excel-compatible download via USB stick.
- Integrated thermal printer for results on demand.
- Programmable alarms, multi-language interface and password protection.



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Operation, applications and accessories

Two sampling modes

An optional pump (0-1 l/min) draws the sample when the source is at atmospheric pressure or below. From pressurised sources the pump is switched off and the gas flows through the analyser; flow is set by a rotary knob and shown electronically on screen.

Applications

- Biogas plants and anaerobic digestion.
- Syngas and gasification processes.
- Fermentation control.
- Combustion and emissions monitoring.
- Gas quality checks in industrial processes.
- Research and development.

Accessories

- Calibration kit and calibration service.
- Gas recovery bag.
- Sample probe, collapsible sample probe and probe filters.

Servicing

Periodic zero and span calibration keeps measurements reliable and repeatable; a full service through automated calibration stations is available.



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RAPIDOX 5100 – TECHNICAL SPECIFICATIONS

Ambient operating temperature	-10 °C to 40 °C
Warm-up time	3-4 min at 20 °C
Measurement time	Approx. 2-4 min, depending on sensor configuration
Battery life	More than 8 h (up to 500 cycles); 4-6 h charge
Supply voltage (charging)	90-260 V AC, 50/60 Hz
Sample connections	Rectus-type close-coupled fittings, 4 mm ID / 6 mm OD
Maximum inlet conditions	50 °C; 10 bar gauge
Optional pump	0-1 l/min
Data output	Excel-compatible data via USB memory stick
Data storage	4 GB internal, approx. one year of continuous monitoring
Calibration	Zero and span with two user-selectable gas compositions
Display	7-inch (180 mm) full-colour LCD touchscreen
Printer	Integrated thermal printer
Dimensions	180 mm (H) × 480 mm (W) × 360 mm (D)
Weight	7 kg

Sensor matrix: O₂, CO₂, CH₄, H₂O, CO, Cl₂, NO, NO₂, C₂H₄, O₃, H₂S, He/H₂, NH₃ and SO₂ with electrochemical, infrared, tunable-laser, capacitance and thermal-conductivity sensors; ranges from 0-10 ppm up to 0-100 %.

Not every sensor combination is possible owing to interference and cross-sensitivity effects.



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