



MGA1000 Transportable Gas Analyser



Pure gas analysis
Waste incineration
Glass production
Refinery processes
Appliance testing and compliance
Solvent incineration
Power generation
Paper manufacturing
Cement production
Food processing
Pharmaceutical
Natural gas
Crematoria
Combustion control
Land fill gases
Clean Development Mechanism (CDM)
Wood burning boilers
Particulate emissions

The MGA1000 series instrument is designed for bench or rack mounting and provides a measurement of gas concentration according to specific user requirements. Single, dual or triple gas versions are available utilising one or more IRGA optical benches and/or chemical cells.

Most instruments incorporate IRGA benches that generate a signal proportional to the infra-red absorption of the measured gas. Providing the gas concentration lies within the designed range of the instrument, the signal is periodically compared with reference gas (usually at zero and a convenient mid-span condition). Calibration is achieved manually via simple front panel controls.

Some instruments may include a chemical cell which reacts with the specific gas and which provides an electrical output on proportion to the reaction. Gas concentrations are indicated on a front display panel together with both analogue and digital signal outputs.

Gas connections to and from the instrument are via suitable fittings on the rear panel. The gas flow is maintained via an internal sample pump.

- **The best price performance on the market - designed with user requirements foremost in mind**
- **Tried and tested technology with proven reliability - 1 year warranty**
- **Up to three gases, simultaneously analysed - upgrades available to protect investments**
- **Excellent gas selectivity**
- **Compact 3U-rack mount wall design with menu-driven, easy to use front panel controls**

Experts in Gas Analysis

Technical Specification

Criteria	Gas Correlation Filter Technology (GC)	Single Beam Technology (SB)	Electrochemical Cell Technology (ECC)
Gases Measured	C2H2, CO, CO2, HCl, CH4, N2O, NO, NO2, SO2,	C4H10, CO, CO2, CH4, SO2	O2, H2S, NO2
Measurement Technique	Non dispersive infrared absorption with solid state detector	Non dispersive infrared absorption with solid state detector	Electrochemical Cell
Measurement Range	Up to 100% for gases and saturation concentration for vapours	Up to 100% for gases and saturation concentration for vapours	0-25%, O2 0-50ppm others
Resolution	Display: 0.1% fsd Output: 0.1% fsd	Display: 0.1% fsd Output: 0.5% fsd	Display: 0.1% fsd Output: 0.025% fsd
Detection Limit	0.1% fsd	0.1% fsd	-
Intrinsic Accuracy	1.0% of reading	1.0%	0.1%
Noise	1.0% fsd	0.5% fsd	0.1%
Zero Stability	1% over a week	1% over a week	Absolute Zero
Span Stability	0.5% over a week	0.5% over a week	0.5% over 12 months
Temperature Effect on Zero	+0.1% fsd per C	+0.25% fsd per C	+0.1% fsd per C
Temperature Effect on Span	+0.2% fsd per C	+0.25% fsd per C	+0.1% fsd per C
Cell Response T90	Typically 4 seconds dependant upon cell size	Typically 4 seconds dependant upon cell size	Typically 4 seconds dependant upon cell size

Criteria	Gas Correlation Filter Technology (GC)
Flow Rate	Typically 0.1 to 1 litre per min
Flow Meter	0.2 to 2ml per minute
Sample Pump	0.4 to 1 litre per minute
Electrical Connections	Single 8 pin DIN for all Analogue Outputs
Gas Connections	M6 Compression fitting rear panel entries
Installation	19" Rack mount - 3U or 6U High
Operating Conditions	0-40% C Ambient Temperature. 0-96% Relative humidity
Gas Conditions	0-50C Non Condensing at Analyser entry
Power Requirements	Nominal 110V/220V/230V User selectable. Frequency Independent 120VA Maximum
Dimensions	H133mm x W483mm x D500mm - 19" Rack
Weight	From 12kg to 15kg dependent upon configuration

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