



PGA



Portable Gas Analyser

Simple reliable field absolute analyser for a variety of geoscience applications



- Proven IRGA technology
- Large range of gases
- Battery portable
- Sample pump
- Simple to use

Gases Include:
Carbon Dioxide
Methane
Oxygen
Carbon Monoxide

Selectivity, sensitivity and repeatability

The PGA Portable Gas Analyser is a self-contained portable measurement device for a wide range of geoscience research applications. It is available for measuring a wide number of gases in a wide variety measurement ranges.

The single beam infrared technology provides unparalleled selectivity, sensitivity and repeatability for such a portable device.

For measuring oxygen the PGA can be fitted with a Paramagnetic analysis cell. The PGA is also available with a dual gas option.

The PGA features an integral sample pump and an autozero. The PGA is simple to use and calibrate.

RS232 and USB is provided for real time monitoring and recording.

True field portability

The new PGA is the latest addition to the ADC BioScientific range of Geoscience research analysers. Weighing just 5kg and offering 8 hours of continuous use, the battery operated PGA is set to offer new levels in portability and performance for a field portable gas analyser.

CO₂ analysis

Probably the gas most commonly analysed in related geoscience, environmental science and atmospheric science is CO₂.

The PGA is available in ranges from 0-2000ppm CO₂ to 0-100% with a resolution of 0.5% full scale deflection (fsd). This corresponds to 10ppm resolution for the 0-2000ppm instrument.

This extensive range makes the PGA suitable for a wide range of experimental studies including elevated CO₂ studies, atmospheric CO₂ monitoring, FACE experimentation and up to high concentration natural CO₂ springs.



PGA Gas Ranges

GAS	Symbol	Minimum Range Available		Lowest Detection Limit	
		SB Single Beam Technology	ECC Chemical Cell	SB	ECC
Carbon Dioxide	CO ₂	2000ppm		10ppm	
Carbon Monoxide	CO	5000ppm	50ppm	50ppm	1ppm
Sulphur Dioxide	SO ₂	1.0%	50ppm	100ppm	1ppm
Sulphur Hexafluoride	SF ₆	1000ppm		10ppm	
Nitric Oxide	NO	2%	50ppm	200ppm	1ppm
Nitrous Oxide	N ₂ O	2000ppm		10ppm	
Ammonia	NH ₃	2.0%		200ppm	
Methane	CH ₄	1.0%		100ppm	
Ethane	C ₂ H ₆	1.0%		100ppm	
Propane	C ₃ H ₈	1.0%		100ppm	
Butane	C ₄ H ₁₀	0.5%		50ppm	
Pentane	C ₅ H ₁₂	0.5%		50ppm	
Hexane	C ₆ H ₁₄	0.5%		50ppm	
Heptane	C ₇ H ₁₆	2.0%		200ppm	
Freons	-	2.0%		200ppm	
Oxygen			100ppm		1ppm
Hydrogen	H ₂		50ppm		1ppm
Hydrogen Sulphide	H ₂ S		50ppm		1ppm

Specification

Measurement technique: Non-dispersive infrared absorption with solid state detector.

Measurement range: Up to 100% for gases and saturation concentrations for vapours.

Resolution: 0.5% fsd

Repeatability: +/- 1.0% fsd

Noise: 0.5% fsd

Span stability: 0.5% fsd over 24 hours

Response time: Typically 4 seconds to T90 dependent on cell size.

Flow rate: Typically 0.2 - 1 litre per minute

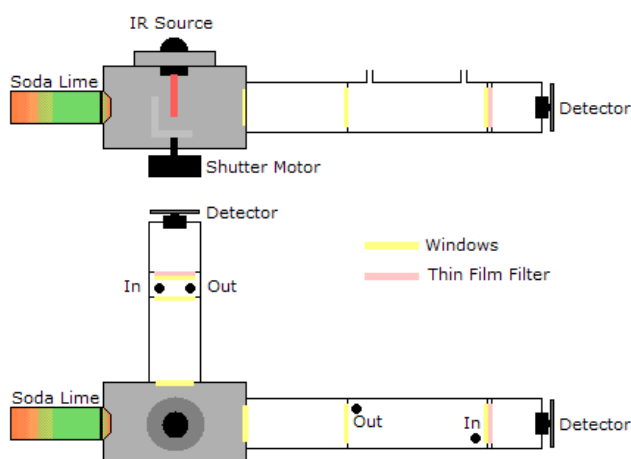
Operating temperature range: 5°C - 40°C

Battery: Rechargeable 3.2Ah lead acid allowing 8 hours of continuous operation.

Dimensions: 260 x 80 x 300mm

Weight: 5kg

Single beam Infrared gas analyser



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