



Landfill

Applications

- Landfill gas monitoring
- Waste to energy
- Site investigation

Benefits

- Easy to use and calibrate
- Supports environmental legislation compliance
- Market leading reliability
- Standardises monitoring routines
- Easy transfer of data

Features

- Certified: ATEX, IECEx, MCERTS (applied for), CSA and UKAS calibration (ISO17025)
- Measures % CH₄, CO₂, and O₂
- Peak and previous readings shown
- Simultaneous display of all gases
- 3 year warranty
- CH₄ and CO₂ accuracy $\pm 0.5\%$ after calibration
- Modular and upgradeable
- Memory: 2,000 IDs*, 4,000 readings and 2,000 events* (* with GAM software)
- Event log

Options (available at purchase or later)

- Choice of additional gases including H₂S to 10,000ppm, and H₂ compensated CO
- Borehole gas flow (l/h)
- GPS / field navigator
- Gas Analyser Manager software for data download
- ATEX certified anemometer



Technical specifications

GA5000

POWER SUPPLY

Battery type	Rechargeable nickel metal hydride battery pack (not user replaceable)
Battery life	Typical use 8 hours from fully charged
Battery charger	Separate intelligent battery charger powered from mains supply (100-240V)
Charge time	Approximately 3 hours from complete discharge

GAS RANGES

Gases measured	CO ₂ and CH ₄	By dual wavelength infrared sensor with reference channel		
	O ₂	By internal electrochemical sensor		
	CO (hydrogen compensated), H ₂ S, NH ₃ and H ₂ (optional)	By internal electrochemical sensor		
	A full range of internal gas cells can be specified at the time of manufacture.			
Oxygen cell lifetime other chemical cell lifetime	Approximately 3 years in air Suitable for sampling applications - not for continuous use			
Range	CH ₄	0-100%		
	CO ₂	0-100%		
	O ₂	0-25%		
	CO	0-2000ppm		
	H ₂ S	0-5,000ppm or 0-10,000ppm		
Typical accuracy after calibration	CH ₄	0-70%	±0.5% (vol)	70-100% ±1.5% FS
	CO ₂	0-60%	±0.5% (vol)	60-100% ±1.5% FS
	O ₂	0-25%	±1.0% (vol)	
	CO	0-500ppm	± 2.0% FS	
	CO (H2)*	0-2000ppm	± 1.0% FS	
	H ₂ S	0-500ppm 0-1000ppm 0-5,000ppm 0-10,000ppm	± 2.0% FS ± 2.0% FS ± 2.0% FS ± 5.0% FS	
Response time, T90	CH ₄	≤ 10 seconds		
	CO ₂	≤ 10 seconds		
	O ₂	≤ 20 seconds		
	CO	≤ 30 seconds		
	H ₂ S	≤ 30 seconds		
*Hydrogen compensated carbon monoxide measurement	Compensated for interference from up to 2,000ppm hydrogen. Hydrogen cross gas effect on CO approximately 1%.			

PUMP

Flow	550 ml/min typically
Flow fail point	-200 mbar vacuum - user settable
Maximum vacuum restart	-375 mbar approximately with flow rate of approximately 80ml/ min

Technical specifications

GA5000 cont'd.

FACILITIES

Temperature measurement	-10°C to +75°C with optional probe
Temperature accuracy	±0.5°C with optional probe
Flow from borehole	0-20 l/hr internal measurement
Flow from borehole accuracy	±0.3 l/hr
Alarm	User selectable alarm levels
Communications	Via USB lead or wireless Bluetooth *
Relative pressure measurement	±500 mbar
Relative pressure accuracy	±4 mbar typically (should be zeroed before reading) to ±15 mbar maximum
Barometric pressure measurement	500 to 1500 mbar, ±5 mbar accuracy
GPS sensor	Location and positioning
Available memory	2,000 IDs*, 4,000 readings, 2,000 events*

ENVIRONMENTAL CONDITIONS

Operating temperature range	-10°C to +50°C
Atmospheric pressure range	700 to 1200 mbar
Relative humidity	0-95% non condensing
Case seal	IP65

PHYSICAL

Weight	1.6 kilograms
Size	L 220mm, W 155mm, D 60mm
Case material	ABS/ polypropylene with rubber over-moulding
Keys	Alpha-numeric keypad with "tactile" membrane
Display	Ultra-clear high resolution 4.3" full colour TFT
Connections	Colour coded gas inlet, outlet and pressure ports. Waterproof USB port, anemometer and charger/ temperature probe connections.
Gas sample filters	External user changeable 2.0µm ptfe water traps.

CERTIFICATION RATING

ATEX	II 2G Ex ib IIA T1 Gb (Ta = -10°C to +50°C)
MCERTS	Applied for
ISO17025	Calibration to UKAS certificate number 4533
CSA	Ex ib IIA T1 (Ta= -10°C to +50°C) (Canada), AEx ib IIA T1 (Ta= -10°C to +50°C) (USA)

* Gas Analyser Manager software required

Important Note: The information in this document is correct at the time of generation. We do, however, reserve the right to change the specification without prior notice as a result of continuing development.

