



Landfill & contaminated land

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, CSA, MCERTS and UKAS calibration (ISO17025)
- Measures % CH₄, CO₂, and O₂
- Measures barometric pressure and relative pressure
- Peak and previous readings shown
- Choice of user settings and simple gas reading function
- Simultaneous display of all gases
- 3 year warranty
- CH₄ and CO₂ accuracy ± 0.5% after calibration
- Modular and upgradeable
- Memory: 2,000 IDs* and 4,000 readings (* with GAM software)
- Data logging and profiling function
- Up to 6 gases monitored

Options (available at purchase or later)

- Choice of additional gases including H₂S to 10,000ppm, and H₂ compensated CO
- Borehole gas flow (l/h)
- Flow logging for improved borehole analysis
- 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 4 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.			
Standard gas cells	Cell	Range	Typical accuracy (range : accuracy)	Typical accuracy (range : accuracy)
	CH ₄	0-100%	0-70% : ±0.5% (vol)	70-100% : ±1.5% (vol)
	CO ₂	0-100%	0-60% : ±0.5% (vol)	60-100% : ±1.5% (vol)
	O ₂	0-25%	0-25% : ±1% (vol)	
Optional gas cells	Cell	Range	Typical accuracy	
	CO	0-500ppm	± 2.0% FS	
	CO	0-1,000ppm	± 2.0% FS	
	CO	0-2,000ppm	± 2.0% FS	
	CO (H ₂) ⁺	0-2,000ppm	± 1.0% FS	
	H ₂ S	0-50ppm	± 1.5% FS	
	H ₂ S	0-200ppm	± 2.0% FS	
	H ₂ S	0-500ppm	± 2.0% FS	
	H ₂ S	0-1,000ppm	± 2.0% FS	
	H ₂ S	0-5,000ppm	± 2.0% FS	
	H ₂ S	0-10,000ppm	± 5.0% FS	
	NH ₃	0-1,000ppm	± 10.0% FS	
	H ₂	0-1,000ppm	± 2.5% FS	
Response time, T90	CH ₄	≤ 10 seconds		
	CO ₂	≤ 10 seconds		
	O ₂	≤ 20 seconds		
	CO	≤ 30 seconds		
	H ₂ S	≤ 30 seconds		
	NH ₃	≤ 90 seconds		
	H ₂	≤ 90 seconds		
Typical accuracies	All typical accuracies quoted are after calibration			
*Hydrogen compensated CO measurement	Hydrogen cross gas effect on carbon monoxide approximately 1%. Do not use where hydrogen is in excess of 10,000ppm			

Technical specifications

GA5000

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

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 ptfе water traps.

*Gas Analyser Manager software required

Technical specifications

GA5000

CERTIFICATION RATING

ATEX	II 2G Ex ib IIA T1 Gb (Ta = -10°C to +50°C)
MCERTS	MC130238
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)

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.

