GA5000
Portable gas analyser



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 % CH_4, CO_2, and O_2
- Peak and previous readings shown
- Choice of user settings and simple gas reading function
- Simultaneous display of all gases
- 3 year warranty
- CH_4 and CO_2 accuracy ± 0.5% after calibration
- Modular and upgradeable
- Memory:2,000 IDs*, 4,000 readings and 2,000 events* (* with GAM software)
- Event log
- Data logging and profiling function
- Up to 6 gases monitored

Options (available at purchase or later)
- Choice of additional gases including H_2S to 10,000ppm, and H_2 compensated CO
- Borehole gas flow (l/h)
- GPS / field navigator
- Gas Analyser Manager software for data download
- ATEX certified anemometer

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_2S, 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	

Standard gas cells	Cell	Range	Typical accuracy (range : accuracy)	Typical accuracy (range : accuracy)
	CH_4 CO_2 O_2	0-100% 0-100% 0-25%	0-70% : ±0.5% (vol) 0-60% : ±0.5% (vol) 0-25% : ±1% (vol)	70-100% : ±1.5% 60-100% : ±1.5%

Optional gas cells	Cell	Range	Typical accuracy
	CO CO (H_2)* H_2S H_2S H_2S H_2S H_2S H_2S	0-500ppm 0-2,000ppm 0-50ppm 0-200ppm 0-500ppm 0-1,000ppm 0-5,000ppm 0-10,000ppm	± 2.0% FS ± 1.0% FS ± 1.5% FS ± 2.0% FS ± 2.0% FS ± 2.0% FS ± 2.0% FS ± 5.0% FS
Response time, T90	CH_4 CO_2 O_2 CO H_2S	≤ 10 seconds ≤ 10 seconds ≤ 20 seconds ≤ 30 seconds ≤ 30 seconds	
Typical accuracies	All typical accuracies quoted are after calibration		
*Hydrogen compensated CO measurement	Compensated for interference from up to 2,000ppm hydrogen. Hydrogen cross gas effect on carbon monoxide 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

Geotech
A subsidiary of LANDTEC

Tel: +44 (0)1926 338111
Fax: +44 (0)1926 338110
Email: sales@geotech.co.uk

GA5000	
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.

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Tel: +44 (0)1926 338111
Fax: +44 (0)1926 338110
Email: sales@geotech.co.uk