

PORTABLE GAS ANALYSER | ANAEROBIC DIGESTION

Easy to use, calibrate and configure and enables consistent collection of data for improved analysis and accurate reporting, whilst helping to check the digester process is running efficiently.







FEATURES

- Certified: ATEX, IECEx, CSA, MCERTS and UKAS calibration (ISO17025)
- Robust design for market leading reliability
- CH4 and CO2 accuracy ± 0.5% after calibration
- Choice of user settings and simple gas reading function
- Measures % CH₄, CO₂ and O₂
- Modular and upgradeable
- 3 year warranty
- Stores and downloads readings
- User selected languages
- Event log
- Datalogging and profiling function
- Up to 6 gases monitored

BENEFITS

- Enables consistent collection of data for improved analysis and accurate reporting
- No need for self-certification of anemometer
- Easy to use and calibrate
- User configurable operation
- Helps check digester process is running efficiently

OPTIONS (AVAILABLE AT PURCHASE OR LATER)

- H₂S to 0-5,000ppm or 0-10,000ppm
- Additional gases including H₂ and NH₃
- Gas Analyser Manager software for data download
- External flow devices: anemometer (ATEX) / Pitot tubes
- ATEX certified temperature probe
- Bluetooth communications for data download

SECTOR

Biogas

APPLICATIONS

- Farm digester gas monitoring
- Food processing biogas monitoring
- Waste water biogas monitoring
- Methane recovery

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Data Sheet Reference: DS43 (Issue 16)



TECHNICAL SPECIFICATIONS

	ICATIONS				
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	CH ₄ and CO ₂	and CO ₂ By dual wavelength infrared sensor with reference channel			
		By internal electrochemical cell			
	02	<u>'</u>			
	H ₂ S / H ₂ / CO / NH ₃	By internal electrochemical cell			
	Cell	Range	Typical accuracy* (range : accuracy)	Typical accuracy* (range : accuracy)	
Standard gas cells	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% : ±1.0% (vol)		
Optional gas cells	Cell	Range	Typical accuracy*		
	H ₂ S	0-50ppm	±1.5% FS	±1.5% FS	
	H ₂ S	0-200ppm	±2.0% FS	±2.0% FS	
	H ₂ S	0-500ppm	±2.0% FS	±2.0% FS	
	H ₂ S	0-1,000ppm	±2.0% FS		
	H ₂ S	0-5,000ppm	±2.0% FS	±2.0% FS	
	H ₂ S	0-10,000ppm	±5.0% FS		
	СО	0-500ppm	±2.0% FS		
	СО	0-1,000ppm	±2.0% FS	±2.0% FS	
	СО	0-2,000ppm	±2.0% FS	±2.0% FS	
	CO (H ₂)**	0-2,000ppm	±1.0% FS	±1.0% FS	
	NH ₃	0-1,000ppm	±10.0% FS	±10.0% FS	
	H ₂	0-1,000ppm	±2.5% FS	±2.5% FS	
*Typical accuracies	All typical accuracies quoted are after calibration plus accuracy of calibration gas used.				
**Hydrogen compensated carbon monoxide measurement	Hydrogen cross gas effect on carbon monoxide approximately 1%. Do not use where hydrogen is in excess of 10,000 ppm.				
	CH ₄	≤10 seconds			
Response time, T90	CO ₂	≤10 seconds			
	O ₂	≤20 seconds			
	H ₂ S	≤30 seconds			
	СО	≤30 seconds			
	NH ₃	≤90 seconds			
	H ₂	<90 seconds	<90 seconds		

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TECHNICAL SPECIFICATIONS CONTINUED

PUMP				
Flow	550 ml/min typically			
Flow fail point	-200 mbar vacuum- user settable			
Maximum vacuum restart	-250 mbar approximately with flow rate of approx 250ml/min			
FACILITIES				
Temperature measurement	-10°C to +75°C with optional probe			
Temperature accuracy	±0.5°C with optional probe			
Flow measurement	Via Pitot tube, orifice plate, or anemometer			
Alarm	User selectable alarms			
Communications	Via USB lead or wireless Bluetooth*			
Relative pressure measurement	±250 mbar			
Relative pressure accuracy	±4 mbar typically (should be zeroed before reading) to ±15 mbar max			
Barometric pressure measurement	500 to 1500 mbar, ±5 mbar accuracy			
Available memory	10 IDs*, 500 readings			
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			
*Gas Analyser Manager software	required. Bluetooth is an optional extra.			







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TECHNICAL SPECIFICATIONS CONTINUED

PHYSICAL				
Weight	1.6kg			
Size	L 220mm, W 155mm, D 60mm			
Case material	High impact ABS composite 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 / IECEx	(x) II 2G Ex ib IIA T1 Gb (Ta =-10°C to +50°C)			
MCERTS	MC / 130240			
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.				















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