

BIOGAS5000

PORTABLE GAS
ANALYZER
INSTRUMENTATION

WWW.DIAMONDSCI.COM



- ▼ SIX TIMES MORE ACCURATE AND TWICE AS FAST
- ▼ NEW ANNUAL RECOMMENDED FACTORY SERVICE
- ▼ STORES READINGS AND CALIBRATION DATA

Accurate Validation for Carbon Credit Exchange

Designed to meet Global Renewable Energy and Carbon Credit digester project requirements, the BIOGAS5000 is the ideal field instrument for anaerobic digester gas analysis. Easy-to-use and portable, the BIOGAS5000 measures gas composition and flow with repeatable accuracy on farms, food processing plants and waste water treatment facilities.





▼ **FEATURES**

- Measures CH₄, CO₂, and O₂ % Volume, Static, Differential and Barometric pressures
- Measures H₂S gas (optional)
- Reads gas temperature with optional Temperature Probe
- Calculates Balance Gas and Flow (SCFM)
- Compatible with the LANDTEC System software (Bio Pro) www.landtecbiogas.com
- ATEX Certified
- Easy Field Calibration by user
- Self-test & self-monitoring on start up
- Stores readings and calibration data
- Easy-to-read screen with back light
- User interchangeable filters

▼ **APPLICATIONS**

- Farm Digester
- Food Processing
- Waste Water
- Methane Recovery

▼ **KEY BENEFITS**

- Enables consistent collection of data for improved analysis and accurate reporting
- Validates flow and gas composition for Carbon Credit trading
- Provides calibration audit trail and backup documentation when used with Bio Pro software
- Agency accepted methodologies (i.e. onboard data storage, direct data download, stored calibration records, etc.)
- Field proven technology

▼ **TECHNICAL SPECIFICATION**

Gas Ranges

Gases Measured	CH ₄	By dual wavelength infrared cell with reference channel		
	CO ₂	By dual wavelength infrared cell with reference channel		
	O ₂	By internal electrochemical cell		
	H ₂ S	By internal electrochemical cell		
Ranges	CH ₄	0-100% (vol)		
	CO ₂	0-100% (vol)		
	O ₂	0-25% (vol)		
	H ₂ S	0-5000ppm**		
Gas Accuracy*	CH ₄	0-5% ± 0.3% (vol)	0-70% ± 0.5% (vol)	70-100% ± 1.5% FS
	CO ₂	0-5% ± 0.3% (vol)	0-60% ± 0.5% (vol)	60-100% ± 1.5% FS
	O ₂	0-25% ± 1.0% (vol)		
	H ₂ S	0-5000ppm ± 2.0% FS		

* Typical accuracy after calibration as recommended in the operations manual.
** Additional ranges available, contact LANDTEC for more information

Other Parameters

	Unit	Resolution	Comments
Static Pressure	in. H ₂ O	0.01 in. H ₂ O	Direct Measurement
Differential Pressure	in. H ₂ O	0.001 in. H ₂ O	Direct Measurement

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.

Pump

Flow	Typically 550cc/min
Flow with 80 in. H ₂ O vacuum	Approximately 80cc/min

Environmental Conditions

Operating Temperature Range	14°F – 122°F (-10°C - 50°C)
Operating Pressure	-100 in. H ₂ O, +100 in. H ₂ O (-250mbar, +250mbar)
Relative Humidity	0-95% non condensing
Barometric Pressure	± 14.7 in.Hg (±500mbar) from calibration pressure
Barometric Pressure Accuracy	± 1% typically

Power Supply

Battery Life	Typical use 8 hours from fully charged
Charge Time	Approximately 3 hours from complete discharge

Certification Rating

ATEX	II 2G Ex ib IIA T1 Gb (Ta= -10°C to +50°C)
ISO17025	ISO/IEC17025:2010 Accreditation #66916
CSA	Ex ib IIA T1 (Ta= -10°C to +50°C) (Canada), AEx ib IIA T1 (Ta= -10°C to +50°C) USA

