LANDTEC

A QED COMPANY

BIOGAS3000

FIXED GAS ANALYZER

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- CH_4, CO_2 AND O_2 MEASUREMENT
- OPTIONAL H_2S, H_2 AND CO MEASUREMENT
- EASY INSTALLATION AND MAINTENANCE
- LOW COST OF OWNERSHIP
- MULTI-POINT SAMPLING

THE BIOGAS3000 BUILDS ON FIELD-PROVEN GAS ANALYSIS TECHNOLOGY TO OFFER COST-EFFECTIVE ONLINE MONITORING.

The BIOGAS3000 is our next generation fixed analyzer that offers optimal continuous monitoring of the gas production process, using up to four sample ports to monitor CH_4, CO_2, O_2, H_2S and H_2 levels. The BIOGAS3000 design builds on previous analyzer strengths and incorporates easy installation with on-site maintenance of all parts, resulting in zero operational downtime for servicing.

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FEATURES

- Up to 4 sample points to monitor the complete gas control process
- Monitor before and after desulphurization
- Continuous monitoring Option
- Easy-to-Read, Full Color display
- Calibration to ISO/IEC 17025 for optimum accuracy
- Built-in Liquid level monitoring with dedicated alarm or moisture removal drain
- Gas alarms and fault notifications
- IP65 Rated enclosure
- Certified for use in ATEX and IECeX Zone 2 areas
- Modbus RTU communication
- Optional Profibus and Profinet communication
- 5000 Series Platform

APPLICATIONS

- Anaerobic Digestion
- Biogas Monitoring
- Landfill Gas Monitoring

KEY BENEFITS

- No training required
- Zero service downtime – optional Hot-Swap
- Simple user calibration
- Field proven technology
- Quick and easy self-installation
- Low cost of ownership
- Compact, self-contained system
- Moisture removal with alarm
- Faster Processing than GA3000

GENERAL SPECIFICATIONS

Number of Sampling Points	1-4
Gases To Be Monitored	CH_4, CO_2 and O_2 with optional H_2S, H_2 and CO (choice of up to 5)
Reading Intervals	User definable, with a continuous CH_4, CO_2 and O_2 option available*
Operating Temperature Range	32°F to +122°F without heater, -4°F to +122°F with heater

*Continuous options will include a minimum 3 minute daily air purge

GAS RANGES

Gases Measured	CH_4 & CO_2	By dual wavelength infrared cell with reference channel		
	O_2	By internal electrochemical cell		
	$H_2S/H_2/CO$	By internal/external electrochemical cell		
Ranges	CH_4	0 - 100%		
	CO_2	0 - 100%		
	O_2	0 - 25%		
	H_2S	0 - 50ppm, 0-200ppm, 0-500ppm, 0-1,000ppm, 0-5,000ppm or 0-10,000ppm		
	H_2	0-1,000ppm		
	CO	0-1,000ppm		
Typical Accuracy - after calibration*	Gas	0-5% vol	5-15% vol	15%-FS
	CH_4	± 0.5% (vol)	± 1.0% (vol)	± 2.0% (vol)
	CO_2	± 0.5% (vol)	± 1.0% (vol)	± 2.0% (vol)
	O_2	±1.0% (vol)	± 1.0% (vol)	± 1.0% (vol)
H2 and CO typical accuracy - after calibration	H_2	0-1,000ppm	±1.5% FS	
	CO	0-1,000ppm	+3.0% FS	
H2S typical accuracy - after calibration*	H_2S	0-50ppm	± 1.5% FS	
	H_2S	0-200ppm	± 1.5% FS	
*plus accuracy of calibration gas used **when above 70% of concentration between temperatures of 41°C and 50°C the accuracy is up to +3.8%	H_2S	0-500ppm	± 2.0% FS	
	H_2S	0-1,000ppm	± 2.0% FS	
	H_2S	0-5,000ppm	± 100ppm or 5% of reading (if greater)	
	H_2S	0-10,000ppm	± 200ppm or 5% of reading (if greater)	
Response Time, T90	CH_4	≤20 seconds	H2S (0-50ppm)	≤30 seconds
	CO_2	≤20 seconds	H2S (0-200ppm)	≤35 seconds
	O_2	≤20 seconds	H2S (0-500ppm)	≤35 seconds
			H2S (0-1,000ppm)	≤35 seconds
	H_2	≤50 seconds	H2S (0-5,000ppm)	≤40 seconds
	CO	≤40 seconds	H2S (0-10,000ppm)	≤40 seconds
Cell Lifetime	O_2 cell is 3 years in air, all other cells 2 years in air			

POWER

Power Supply	110 - 230 VAC 50/60 Hz
Consumption	155W max.
Instrument Backup Memory	Lithium manganese dioxide backup battery for memory retention

PUMP

Flow	300 ml/min typically
Flow-Fail Point	-100 H_2O vacuum
Maximum Vacuum Restart	-100 H_2O vacuum

COMMUNICATIONS

Output Channels	Up to four 4-20mA output channels plus Modbus digital output, optional profibus module
Alarm Notifications	2 user-definable alarms can be triggered when above or below a set value, recovery values can also be defined. (Alarm option only available on single sample systems)
Relay Outputs	Single pole changeover 6A 250V relay volt free.

PHYSICAL

Weight	80 lbs
Size	25" x 24" x 8" (with supplied wall mounting brackets)
Enclosure	Stainless Steel, 25" x 24" x 8", IP65 / NEMA4 Rated
Operation keys	Membrane panel keypad
Display	Liquid crystal display, 40 x 16 characters Fibre optic woven back-light for low light conditions
Moisture removal filter	User replaceable microfibre filter
Heater option	Optional 100W mains powered ATEX certified heater

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