

PORTABLE GAS ANALYSER | ANAEROBIC DIGESTION



VISIONARY MODULAR DESIGN. CREATING CHOICE.

Geotech BIOGAS AD instruments feature QED's unique intelligent modular architecture, allowing users to replace or add gas modules as required. A high definition touch screen display along with the option of using large tactile keys makes for an easy and intuitive user experience.

FEATURES

- Pre-calibrated Modular design
- 1-7 gases configured
- Measures % CH₄, CO₂, O₂ and more
- Intuitive touchscreen or keypad control
- Field replaceable battery pack
- Utilises GAMSsoft software
- Zone 1 hazardous area certification
- 3-Year factory warranty

BENEFITS

- No requirement for return to base service and calibration
- Modules do not require re-calibration after installation
- Configuration and functional flexibility – future proofing industry requirements
- More time in the field ensuring the digester process is running efficiently
- Protects equipment from corrosive gases
- Consistent & accurate readings
- Up to 10 hours of field operation between battery changes
- Compliance and monitoring reporting and over the air firmware updates

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BIOGAS AD PRO

WiFi, Bluetooth and GPS

High Definition IPS Touchscreen

Integrated Help Function

Fast Self Test Sequence on Power Up

Hot Swappable Battery Pack

Four Gas Connection Ports
with Serviceable Filters

Fast Navigation buttons

Large, Backlit Hard Keys



TECHNICAL SPECIFICATIONS

POWER SUPPLY						
Battery Type	Rechargeable nickel metal hydride battery pack (user replaceable in Zone 1 hazardous areas)					
Battery Life	Typical use 8-10 hours from full charge					
Battery Charger	Battery charger powered from mains supply (100-240V), Battery packs can be charged separately from the instrument					
Charge Time	Approximately 3 hours from complete discharge to full charge					
GAS RANGES						
Gases measured	Gas	Sensor	Range	Typical Accuracy*	Resolution	T90
	CH4	Dual Wave Infrared	0- 100%	± 0.5% (0-70%) Volume	0.1%	≤ 10 seconds
	CH4 CO2	Dual Wave Infrared	0- 100%	± 0.5% (0-70%) Volume	0.1%	≤ 10 seconds
			0- 100%	± 0.5% (0-60%) Volume	0.1%	≤ 10 seconds
	O2	Electrochemical Cell	0- 21%	± 0.3% Volume	0.1%	≤ 20 seconds
	H2S	Electrochemical Cell	0- 50 ppm	± 1.5% range	0.1 ppm	≤ 30 seconds
	H2S		0- 200 ppm	± 2.0% range	1.0 ppm	≤ 30 seconds
	H2S		0- 500 ppm	± 2.0% range	1.0 ppm	≤ 30 seconds
	H2S		0- 1,000 ppm	± 2.0% range	1.0 ppm	≤ 30 seconds
	H2S		0- 5,000 ppm	± 2.0% range	1.0 ppm	≤ 30 seconds
	H2S		0- 10,000 ppm	± 5.0% range	2.0 ppm	≤ 30 seconds
	H2S		0- 40,000 ppm	± 5.0% range	5.0 ppm	≤ 30 seconds
	CO	Electrochemical Cell	0- 500 ppm	± 2.0% range	1.0 ppm	≤ 30 seconds
	CO		0- 1,000 ppm	± 2.0% range	1.0 ppm	≤ 30 seconds
	CO		0- 2,000 ppm	± 2.0% range	1.0 ppm	≤ 30 seconds
	H2	Electrochemical Cell	0- 1,000 ppm	± 2.5% range	1.0 ppm	≤ 90 seconds
NH3	Electrochemical Cell	0- 1,000 ppm	± 10.0% range	1.0 ppm	≤ 90 seconds	
*Typical Accuracy	All accuracies quoted are after calibration plus accuracy of calibration gas used					

Data Sheet Reference : DS080 Issue 01

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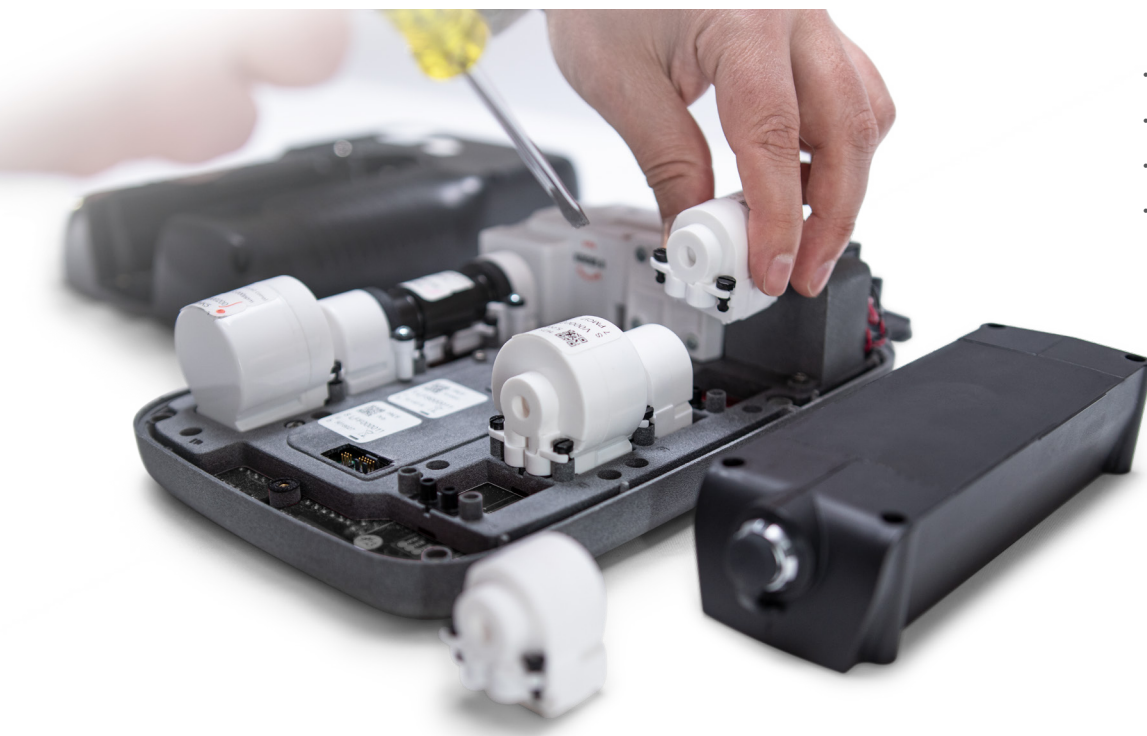
 800.624.2026
734.995.2547

TECHNICAL SPECIFICATIONS CONTINUED

PUMP		
Flow	700 ml/min typically	
Flow Fail Point	-100 to-375 mbar vacuum- user settable	
Maximum Vacuum Restart	-375 mbar approximately with flow rate of approx 200 ml/min	
FACILITIES		
Temperature measurement / accuracy *	(-10°C to 100°C (14°F to 212 °F) with optional probe / ±0.5°C (1°F)	
Flow (anemometer) accuracy *	0.7 to 40 m/s / ±1.0% full scale plus ±3.0% reading	
Alarms and targets	User defined alarm and target levels through GAMSoft	
Communications	WIFI or Bluetooth to GAMSoft and Affinity	
Relative pressure measurement / accuracy	±500 mbar / ±4 mbar to ±15 mbar max (should be zeroed before reading)	
Barometric pressure measurement / accuracy	500 to 1500 mbar / ±5 mbar accuracy	
GPS sensor	Location and positioning	
Memory	10 IDs, 500 readings	
ENVIRONMENT CONDITIONS		
Ambient Range	700 to 1200 mbar /-10° C to +45° C (15° F to 120°F)	
Relative Humidity	0-95% non-condensing	
IP rating	IP65	
PHYSICAL		
Case material	High impact ABS composite with rubber over-moulding	260 x 170 x 65mm / 1.9 kg
Display	HD 5” touchscreen LCD	
Gas sample filters	Internal user changeable 2.0µm PTFE moisture and dust filter	
AFFINITY WIRELESS COMMUNICATOR		
Case Material	High impact ABS composite (124 x 74 x 30mm)	
Ambient Range	-10°C to +50°C	
Relative Humidity	0- 95% non-condensing	
IP Rating	IP65	
Communications	Bluetooth to i-Q Series	
Compatible with	Temperature probe, Anemometer	
Battery Type	Only use 2 x AA Type Energizer L91 batteries	
Battery Life	Approx. 10 days, based on 8-hours per day	
UKEX / ATEX / IECEx	Ex ib IIA T1 Gb (Ta =-20°C to +50°C)	
North America	CLASS 1, ZONE 1, Aex ib IIA T1 (Ta =-20°C to +50°C)	
CERTIFICATION RATING		
UKEX / ATEX / IECEx	Ex ib IIA T1 Gb (Ta =-10°C to +45°C)	
SGS	CLASS 1, ZONE 1, AEx ib IIA T1 (Ta=-10°C to +45°C) (USA) CLASS 1, ZONE 1, EX ib IIA T1 (Ta=-10°C to +45°C) (Canada)	



Intelligent, factory calibrated and user replaceable modules for the measurement of gas or pressure



- Completely configurable
- Completely scalable
- Completely user-upgradeable
- Completely user-maintainable

BIOGAS AD instruments with modular architecture give users complete control of instrument

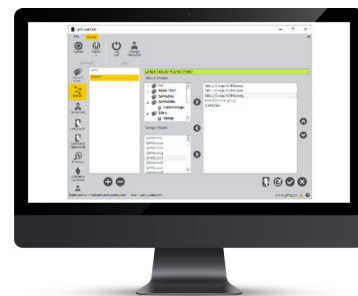
- Gas and pressure modules are designed to be serviced by the customer, and fully supported with factory inventory
- Pre-calibrated replacement modules come from QED ready to be installed with the ability to download the certificate of calibration through GAMSsoft software.
- Replacement gas cells arrive with a certificate of calibration, maintaining compliance in between yearly inspection and service
- The BIOGAS AD can be converted to any other configuration (up to seven gases) in the field
- Affinity wireless communications module allows for Bluetooth connection between the BIOGAS AD and temperature probe and anemometer
- Long battery life and field swappable battery capability means less interruption for recharging with optional spare battery pack



GAMSsoft™ Control and Compliance Software

GAMSsoft is a single software package which manages data collection and reporting

- Proprietary gas extraction management software
- Report generation for compliance
- Upload existing field data to new software to speed up adoption
- Interfaces with BIOGAS AD via WIFI or Bluetooth for fast and secure data updates
- Secure data stream uploads to customer database and allows enterprise specific security protocols to be applied as required by users
- Over the air firmware updates support keeping the new BIOGAS AD in the field where it belongs
- Manage instrument module configuration and calibration records



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