# BIOGAS300

Geotech

## FIXED GAS ANALYSER | ANAEROBIC DIGESTION

Easy to self-install, operate and maintain, the BIOGAS 300 is a cost effective fixed system biogas analyser for $CH_4$ monitoring. Ideal for 500kW or reduced scale Anaerobic Digestion plants, from agricultural to food waste typical applications.



### FEATURES

- Simple to operate- push button operation
- 0-100% $CH_4$ measurement
- Single sample point monitoring
- Easy to read backlit display through transparent enclosure door
- Last reading stored for on-screen viewing
- IP65 rated ABS enclosure
- Modbus data output

### 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

### SECTOR

Biogas

### APPLICATIONS

- Farm waste AD (small scale)
- Mixed food waste AD
- Agricultural waste (small scale)

### OPTIONS

(AVAILABLE AT PURCHASE OR LATER)

- 4-20mA output (with optional isolator) as an alternative to Modbus
- Pumped version



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# BIOGAS300

## TECHNICAL SPECIFICATIONS

| | | |
|---|---|---|
| **GENERAL SPECIFICATION** | | |
| Number of sampling points | 1 | |
| Gases monitored | $CH_4$ | |
| Sample pressure | Non-pump version suitable for +10 to +50 mb sample points<br>Pumped version suitable for-100 to +350 mb sample points | |
| Operating temperature range | 0°C to +50°C | |
| Detects low flow and blockages | | |
| Reading obtained by user pressing sample button | | |
| **POWER** | | |
| Mains | 110-240 Vac 50/60 Hz | |
| Power | 12W | |
| Real time clock back up | Lithium manganese dioxide coin cell | |
| **GAS RANGES** | | |
| Gases measured | $CH_4$ | By dual wavelength infrared cell with reference channel |
| Range | $CH_4$ | 0-100% |
| Typical accuracy-<br>after calibration* | $CH_4$ | ±2.0% vol |
| Response time, T90 | $CH_4$ | 120 seconds** |
| **PUMP** (OPTIONAL) | | |
| Flow | 100ml/min typically | |
| Maximum vacuum restart | -100mb | |
| Maximum sample pipe length | 50 meters*** | |
| **COMMUNICATION OPTIONS** | | |
| Output channels | Modbus (as standard)<br>4-20mA current sink (optional)<br>4-20mA current source via a loop powered isolator (optional) | |
| **PHYSICAL** | | |
| Weight | max 10 kg | |
| Size | 500 x 400 x 200mm | |
| Enclosure | ABS, IP65 rated (with supplied wall mounting brackets) | |
| Operation keys | Tactile five button membrane keypad and sample button | |
| Display | Liquid crystal display with 20 x 2 characters and white LED backlight | |
| Moisture removal filters | User replaceable inline PTFE filter and coalescing filters | |
| **COMPLIANCE** | | |
| BS EN 61010-1: 2010 | Safety requirements for electrical equipment for measurement, control, and laboratory use.<br>Part 1: General requirements | |
| BS EN 50270: 2006 | Electromagnetic compatibility- electrical apparatus for the detection and measurement<br>of combustible gases, toxic gases or oxygen | |

* Plus accuracy of calibration gas used.

** T90 taken from point gas enters the system at ambient pressure and 100ml/min flow rate.
Different applications will increase or decrease time accordingly.

*** Note: sample pipe length will affect response times.



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