

# BIOGAS 300



## 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<sub>4</sub> monitoring. Ideal for 500kW or reduced scale Anaerobic Digestion plants, from agricultural to food waste typical applications.



### SECTOR

Biogas

### APPLICATIONS

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

### FEATURES

- Simple to operate- push button operation
- 0-100% CH<sub>4</sub> 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

### OPTIONS

(AVAILABLE AT PURCHASE OR LATER)

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



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## TECHNICAL SPECIFICATIONS

GENERAL SPECIFICATION		
Number of sampling points	1	
Gases monitored	CH <sub>4</sub>	
Sample pressure	Non-pump version suitable for +10 to +50 mb sample points 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 <sub>4</sub>	By dual wavelength infrared cell with reference channel
Range	CH <sub>4</sub>	0-100%
Typical accuracy - after calibration*	CH <sub>4</sub>	±2.0% vol
Response time, T90	CH <sub>4</sub>	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) 4-20mA current sink (optional) 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. Part 1: General requirements
BS EN 50270: 2006	Electromagnetic compatibility - electrical apparatus for the detection and measurement of combustible gases, toxic gases or oxygen

- \* Plus accuracy of calibration gas used.
- \*\* T 90 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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