



Biogas/ AD  
CDM  
Landfill Gas

## GA3000

The ATEX certified GA3000 builds on field-proven, robust gas analysis technology to offer cost effective online monitoring with local data outputs

### Benefits

- No training required
- Low cost of ownership
- Calibration accredited to ISO 17025
- Quick and easy self-installation
- Compact, self-contained system
- Gas conditioning included as standard
- Zero service downtime - "Hot Swap" capability
- Clear servicing schedules
- Field-proven, industry standard equipment
- Start-up configuration wizard
- Simple user calibration

### Features

- CH<sub>4</sub>, CO<sub>2</sub>, O<sub>2</sub> measurement
- H<sub>2</sub>S measurement 0 - 5000ppm (optional)
- H<sub>2</sub>S clean air purge
- Large, clear, backlit display
- 4-20mA outputs for each gas
- Alarm relays (user configurable)
- Gas return-to-process option
- User replaceable H<sub>2</sub>S sensor
- IP54 rated weather-proof enclosure
- ATEX certified for use in Zone 2 areas
- Modbus communication



## Technical Specifications

GA3000				
GENERAL SPECIFICATION				
Number of Sampling Points	1			
Gases To Be Monitored	CH <sub>4</sub> , CO <sub>2</sub> , O <sub>2</sub> , H <sub>2</sub> S (optional)			
Reading Intervals	Continuous For CH <sub>4</sub> , CO <sub>2</sub> , & O <sub>2</sub> Configurable For H <sub>2</sub> S			
Operating Temperature Range	-5°C to +40°C			
POWER				
Mains Options	110 - 230 VAC 50/60 Hz			
Consumption	0.1A ± 5%			
Instrument Backup Memory	Lithium Manganese Backup Battery For Memory Retention			
GAS RANGES				
Gases Measured	CH <sub>4</sub> & CO <sub>2</sub> O <sub>2</sub> H <sub>2</sub> S	By dual wavelength infrared cell with reference channel By internal electrochemical cell By external module (electrochemical cell)		
Range	CH <sub>4</sub> CO <sub>2</sub> O <sub>2</sub> H <sub>2</sub> S	0 - 100% 0 - 100% 0 - 25% 0 - 5000ppm		
Typical Accuracy - after calibration*	Gas CH <sub>4</sub> CO <sub>2</sub> O <sub>2</sub> H <sub>2</sub> S	0-5% vol ±0.5% (vol) ±0.5% (vol) ±1.0% (vol) 0-5000PPM	5-15% vol ±1.0% (vol) ±1.0% (vol) ±1.0% (vol) ±100ppm or ±5% of reading (if greater)	15% - FS ±2.0% (vol) ±2.0% (vol) ±1.0% (vol)
* plus accuracy of calibration gas used				
Response Time, T90	CH <sub>4</sub> CO <sub>2</sub> O <sub>2</sub> H <sub>2</sub> S	≤20 seconds ≤20 seconds ≤20 seconds ≤60 seconds		
Oxygen Cell Lifetime	Approximately 3 years in air			
H <sub>2</sub> S Cell Lifetime	Approximately 2 years in air			
PUMP				
Flow	350 ml/min typically			
Flow-Fail Point	-375 mbar Vacuum			
Maximum Vacuum Restart	-375 mbar			
COMMUNICATIONS				
Output Channels	Up to Four 4-20mA Output Channels (outputs are current sink)			
Alarm Notifications	2 user definable alarms which can be triggered when above or below a set value. Alarms can be latched to advise user if an alarm has occurred. Recovery values can also be defined.			
Relay Outputs	3 single pole changeover 6A 250V relays volt free. Two relays for alarms and one for fault condition			


## Technical Specifications

### GA3000 continued

#### PHYSICAL

Weight	29 Kilograms
Size	650 x 600 x 210mm
Enclosure	Painted Steel 600 x 600 x 210mm IP54
Operation Keys	Membrane Panel Keypad
Display	Liquid crystal display, 40 x 16 characters Fibre optic woven back-light for low light conditions - Red Alarm Function
Gas Conditioning Filters	User replaceable microfibre filter

#### CERTIFICATION RATING

ISO17025	Calibrated Under UKAS Accreditation (Certificate Number 4533)
ATEX	 II 3 G Ex nA nL nC d IIA T1 Gc (-5<= Ta <=40)
BS EN 61010	Safety Requirements for electrical equipment for measurement, control, and laboratory use.
BS EN 50270: 2006	Electromagnetic compatibility - Electrical Apparatus for the detection and measurement of combustible gases, toxic gases or oxygen.