GA3000 PLUS

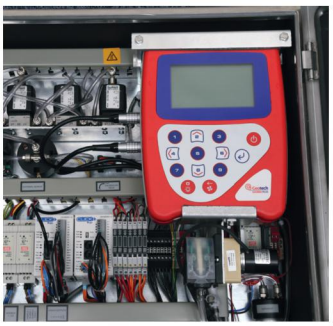
CH_4 CO O_2 H_2S H_2 CO

HATECH GASDETECTIETECHNIEK

Geotech
A subsidiary of LANDTEC

FIXED BIOGAS AND LANDFILL GAS ANALYSER | ANAEROBIC DIGESTION

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



SECTOR

Biogas
Landfill gas

APPLICATIONS

- Anaerobic digestion
- Biogas monitoring
- Landfill gas monitoring

FEATURES

- CH4, CO2 and O2 measurement
- Optional H2S, H2 and CO measurement
- Multi-point sampling (up to 3 gas sample points)
- H2S ranges from 0-50ppm to 0-10,000ppm
- Monitor before and after desulphurisation
- Continuous monitoring option[1]
- Large and clear backlit display
- Four x 4-20mA outputs
- Modbus communication
- Optional profibus and profinet communication
- IP65 rated stainless steel enclosure
- ATEX certified for use in zone 2 areas
- Optional auto-drain pump for moisture removal

BENEFITS

- No training required
- Low cost of ownership
- Calibration accredited to ISO 17025
- Quick and easy self-installation
- Compact self-contained system
- Moisture removal included as standard
- Zero service downtime
- Field proven equipment
- Simple user calibration

Hatech
Brasem 51, 4941 SE, Raamsdonksveer

hatechgas.com | info@hatechgas.com | +31 (0)162 510 004

GA3000 PLUS

TECHNICAL SPECIFICATIONS

GENERAL SPECIFICATION				
Number of sampling points	1-3			
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[1] CH_4, CO_2 and O_2 option available			
Operating temperature range	0°C to +50°C without heater, -20°C to +50°C with heater			
POWER				
Mains options	110-230 VAC 50/60 Hz			
Consumption	0.2A ± 5% without heater, 0.42A ± 5% with heater			
Instrument backup memory	Lithium manganese backup battery for memory retention			
GAS RANGES				
Gases measured	CH_4 and 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		
Range	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*		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	
	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)	
* 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%				
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			

Hatech
Brasem 51, 4941 SE, Raamsdonksveer
hatechgas.com info@hatechgas.com +31 (0)162 510 004

GA3000 PLUS

TECHNICAL SPECIFICATIONS *CONTINUED*

PUMP	
Flow	300ml / min typically
Flow-fail point	-375 mbar vacuum
Maximum vacuum restart	-375 mbar
COMMUNICATIONS	
Output channels	Up to four analogue 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 point systems)
Relay outputs	Single pole changeover 6A 250V relay volt free
ENVIRONMENT CONDITIONS	
Operating temperatures	0°C to +50°C without heater, -20°C to +50°C with heater
Operating pressures	-350 mbar to +350 mbar
IP rating	IP65
Humidity	0-95% non-condensing humidity
PHYSICAL	
Weight	36.5kg
Size	650 x 600 x 210mm (with supplied wall mounting brackets)
Enclosure	Stainless steel, 600 x 600 x 210mm, IP65 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 filters	User replaceable microfibre filter
Heater option	Optional 100W mains powered ATEX certified heater
CERTIFICATION RATING	
ISO17025	Calibrated under UKAS accreditation (certificate number 4533)
ATEX marking	Ex II 3 G Ex nA IIA T1 Gc (-20°C ≤ Ta ≤ +50°C)
BS EN 61010-1:2010	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

[1] Continuous option will include a minimum 3 minute daily air purge

Hatech
Brasem 51, 4941 SE, Raamsdonksveer
hatechgas.com info@hatechgas.com +31 (0)162 510 004