



SAFETY – PROCESS INDUSTRY LABORATORY & RESEARCH

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LANDFILL APPLICATIONS



LANDFILL



FLARE



BIOGAS PLANT

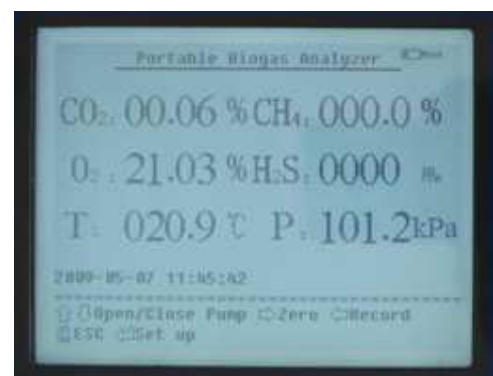
Portable GAS3200L Biogas Analyser

$O_2\%$ + $CO_2\%$ + $CH_4\%$ + H_2S ppm
+ optional N_2 value calculation



Applications

- Biogas plants
- Anaerobic digestion
- Waste water treatment plants
- Sludge digestion
- Biomethane production plants
- Landfill sites



SPECIFICATIONS

Measurement	CO ₂ , CH ₄ , O ₂ , H ₂ S, Tamb(optional), Pamb(Optional) N ₂ calculation in option
Technology	CO ₂ , CH ₄ : proprietary dual beam NDIR detectors O ₂ , H ₂ S : industrial electrochemical cells
Ranges	CO ₂ : 0-50%, CH ₄ : 0-100% , O ₂ : 0-25% H ₂ S: 0-1000/2000/5000/9999ppm
Resolution	CO ₂ , CH ₄ , O ₂ : 0,01% H ₂ S : 1 ppm
Accuracy	CO ₂ , CH ₄ : ≤ ± 2% FS O ₂ , H ₂ S : ≤ ± 3% FS
Repeatability	≤ 2%
Zero	Auto-zeroing function via keyboard interface
Flow	0,7 to 1,2L/min, internal gas sampling pump
Inlet pressure	2 to 50 kPa
Gas conditions	No dust, water vapour, tar
Operating conditions	Tamb : 0-50°C Pamb : 86 to 108 kPa RH : 0-95% non condensing
Response time (T90)	≤ 15 sec (NDIR + O ₂) ≤ 60 sec H ₂ S
Warm-up time	15 min
Communication interface	RS232 (real time and memory data download software included)
Power supply	External 220 VAC-50Hz Internal with battery and charger; Autonomy of > 4h with pump in operation
Data logging	Up to 1500 sets of 6 data
Display	LCD 320 x 240 display with back-lit function
Casing	Robust casing in aluminium with cover and shoulder trap
Dimensions and weight	380 × 140 × 255 mm / 5 kg max

ACCESSORIES & OPTIONS

Standard accessories

- Nylon carrying bag for analyzer and accessories
- Gas in/out tubing
- Power cable 220 VAC
- RS232 cable
- Operation manual
- Test & calibration report



RS232 cable

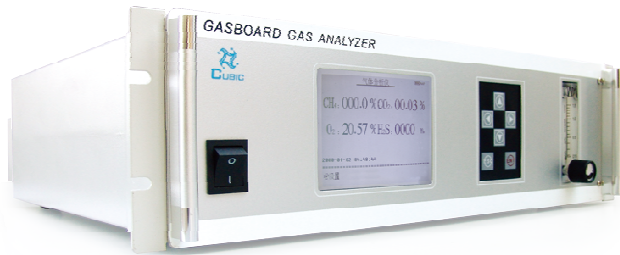


Optional Gas conditioning device



On line rack type GAS3200 Biogas Analyser

$O_2\% + CO_2\% + CH_4\% + H_2S\%$ ppm



It is based on the single source two beams non-dispersion infrared (NDIR) method for CH₄, CO₂, fuel cell method (ECD) for H₂S and O₂. This analyzer is designed with 19 inches 3U smaller physical dimensions and the simple digital pulsable infrared source and two beam systems.

Applications

- Biogas plants
- Anaerobic digestion
- Waste water treatment plants
- Sludge digestion
- Biomethane production plants
- Landfill sites

Standard measuring ranges*

GAS 3200 biogas

CO₂: 0-50%

CH₄: 0-100%

O₂: 0-25%

H₂S: 0-9999PPM

General Features

- Proprietary infrared dual beam NDIR detectors for CH₄ and CO₂
- Proprietary thermal conductivity detector for H₂
- Industrial galvanic fuel cell for O₂ (0-25%)
- LCD display (240 x 128) with backlit function
- Keyboard interface for configuration and calibration
- 1x 4-20mA analogue output per measuring channel
- 2 alarm relays per measuring channel, with 2 freely configurable gas alarm levels
- RS232 serial COM port (for real time data download to external PC or laptop as text file, software included)
- Programmable auto-zero function, including internal pump, relay and solenoid valve
- Stainless steel connectors for gas inlet/outlet and zero air inlet ports

* Other range available on request



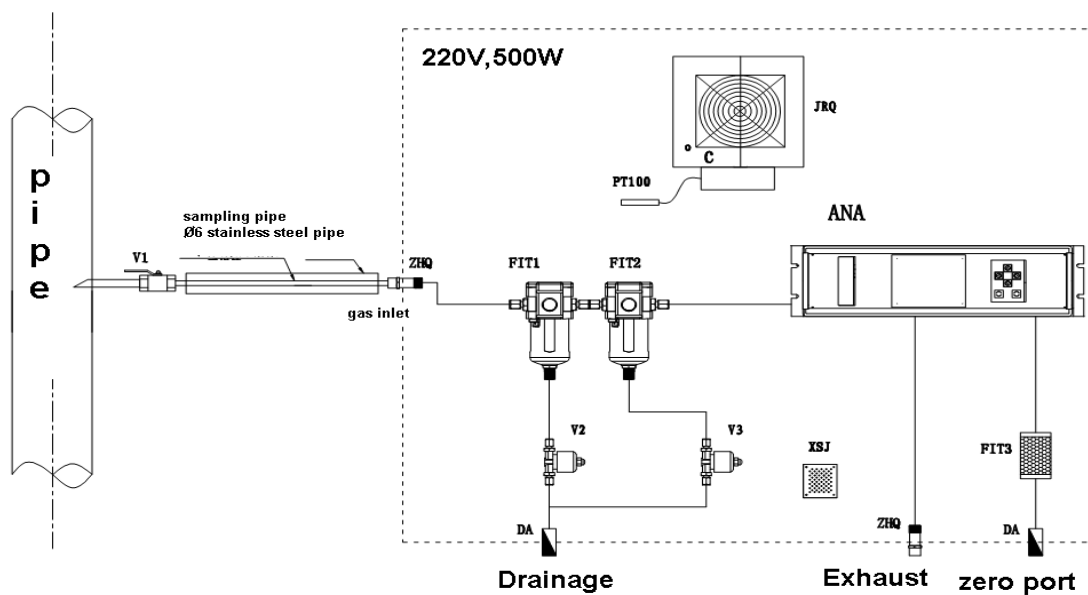
Biogas Wall Mounted Landfill Analysis System

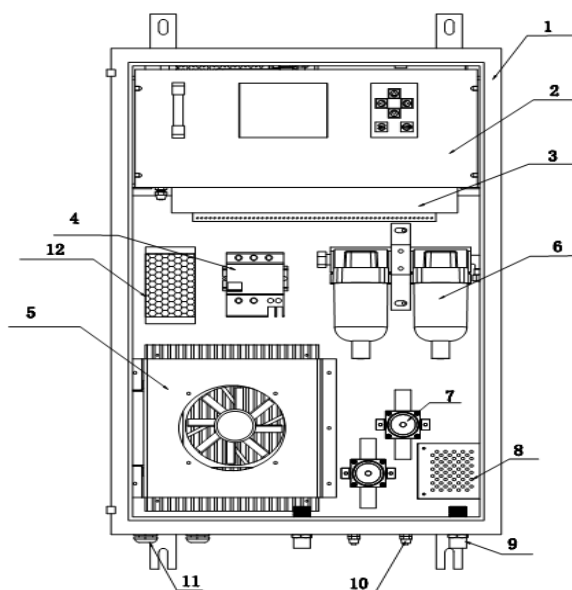
Professional online gas analysis systems for continuous monitoring of Biogas



Landfill gas analysis systems are the best tooling to help you:

- to check whether the gas is still being produced to decide when the land can be reclaimed.
- to check the quality of the gas being produced prior to use in some industrial process.
- To continuously monitor the efficiency of H₂S scrubber installations





Item 1	Name	No
1	Cabinet	1
2	Analyzer	1
3	Signal output	1
4	Air switch	1
5	Heater	1
6	Filter	1
7	Solenoid valve	2
8	Absorbent	1
9	Flame arrester	2
10	Air cock	2
11	Power	2
12	Filter	1

4-gas analyzer for Biogas process monitoring

Gas name	Symbol	Technology	Range ¹	Resolution	Accuracy	T90
Oxygen	O ₂	Fuel cell	0-25% Vol	0.01%	±2% FS	< 15 s
Carbon dioxide	CO ₂	NDIR	0-50% Vol	0.01%	±2% FS	< 10 s
Methane	CH ₄	NDIR	0-100% Vol	0.1%	±2% FS	< 10 s
Hydrogen Sulphide	H ₂ S	Electrochemical cell	0-9999 ppm ²	1 ppm	±3% FS	< 30 s

Wall mounted cabinet with basic equipments

Wall-mount IP54 stainless steel cabinet for outdoor installation.

Mechanical specifications

- Dimensions: H700 x W450 x D220 mm
- Material: stainless steel, plate thick 2 mm
- 4 brackets for wall mounting
- Hinged front door with visualization window (255 x 100 mm), with handle
- Door clamping with 6 bolts M8
- Internal compartment for Biogas analyzer

Environmental conditions

- Operating temperature range:-15°C to +45°C
- Operating humidity range : 0-95% RH non condensing
- Operating pressure range : 800-1200 hPa

Pneumatic specifications

- Stainless steel connector for gas inlet, gas outlet, zero air inlet and drain ports
- Manual valve for measure/calibration selection
- Flow meter

Gas sampling and conditioning

(accessible via the internal access front door)

- Pre-filtration by coalescing filter with peristaltic pump for continuous condensate removal
- Built-in heater avoid water condensate block the pipe in the winter