Infrared Biogas Analyzer

SAFETY – PROCESS INDUSTRY LABORATORY & RESEARCH

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Handheld Gasboard 3200plus Biogas Analyzer

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

Optional H2, CO, gas flow measuring

Main Application:

- Biogas plants
- landfill sites
- water treatment
- sludge digestion, biomethane production
- CDM project
- anaerobic digestion and other fermentation processes

Gasboard 3200 Plus adopts non -thermostat container design, greatly eliminate temperature impact on NDIR sensors by special calculation method, to realize auto correction on sensors drift. It is the best option for industrial or laboratory biogas application designed with smart appearance to measure the quantity and quality of methane.

Handheld Gasboard 3200plus
Biogas Analyzer

Main Features:

- Modular design for CH4, CO2, O2, H2S sensors
- Blue tooth communication to connect data timely
- Colored LCD to display data real time
- Optional H2, CO, gas flow measuring
- Rechargeable Lithium battery
- GPS positioning and location.

Handheld Gasboard S3200plus Biogas Analyzer

Measuring gases	CH_4, CO_2	NDIR
	O_2, H_2S	ECD
Measuring rang	CH_4	0～100 %
	CO_2	0～50 %
	O_2	0～25 %
	H_2S	0～10000 ppm
Accuracy	CH_4	±2%FS
	CO_2	±2%FS
	O_2	±3.0%FS
	H_2S	±3.0%FS
Repeatability	CH4, CO2、H2S, O2	≤1.5%
Lithium battery pack	2200mAh	
Power supply	DC5V 2A	
Flow	（0.7-1.2 ）l/min	
Warm up time	90seconds once power on	
GPS sensor	Positioning and location	
Working temperature	（-10～40） ℃	
Ambient pressure	（700 ～ 1200） mbar	
Relative humidity	0～95% non-condensing water	
Dimension	276 × 195 × 66 mm （Length×width×height）	
Casing material	ABS/ Polypropylene and rubber molding	
Kepboard	Film panel keyboard	
Display	High-resolution colored 3.2-inch	
Communication	Micro USB port, bluetooth 4.0	

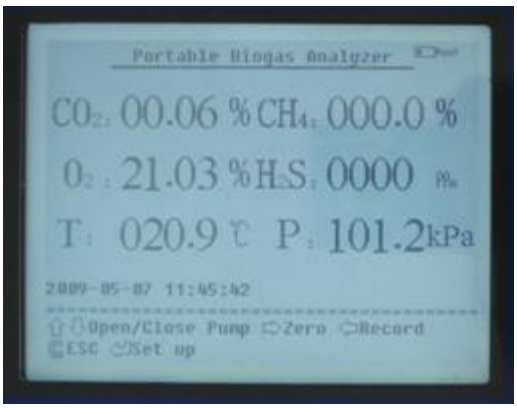
Portable GAS3200L Biogas Analyzer

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

Model: Gasboard 3200L

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_2S, Tamb(optional), Pamb(Optional) N_2 calculation in option
Technology	CO_2, CH_4 : proprietary dual beam NDIR detectors O_2, H_2S : industrial electrochemical cells
Ranges	CO_2: 0-50%, CH_4 : 0-100% , O_2: 0-25% H_2S: 0-1000/2000/5000/9999ppm
Resolution	CO_2, CH_4, O_2 : 0,01% H_2S : 1 ppm
Accuracy	CO_2, CH_4,: ≤ ± 2% FS O_2 ,H_2S : ≤ ± 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_2S
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

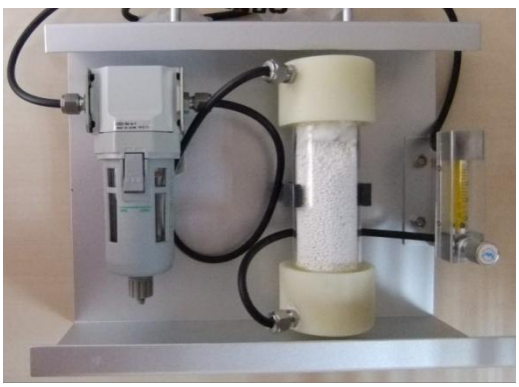
ACCESSORIES & OPTIONS

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 Analyzer

O_2% + CO_2% + CH_4% + H2S% 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

CO_2: 0-50%
CH_4: 0-100%
O_2: 0-25%
H2S:0-9999PPM

* Other range available on request

General Features

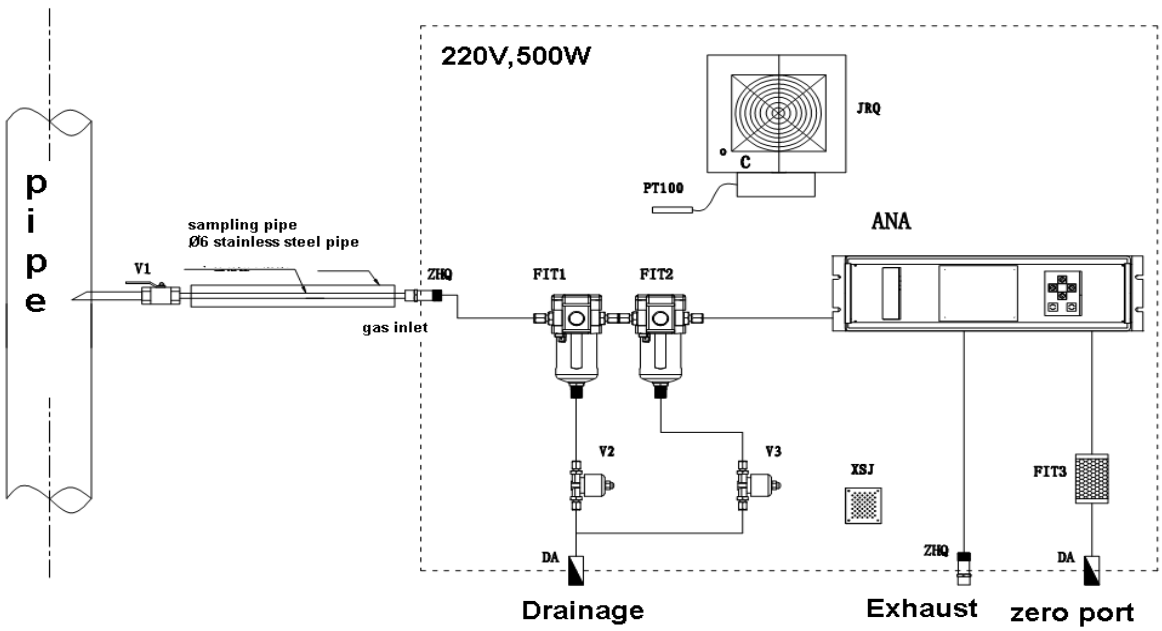
- Proprietary infrared dual beam NDIR detectors for CH_4 and CO_2
- Proprietary thermal conductivity detector for H_2
- Industrial galvanic fuel cell for O_2 (0-25%)
- LCD display (240 x 128) with backlit function
- Keyboard interface for configuration and calibration
- 1x 4-20mA analogue output per 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

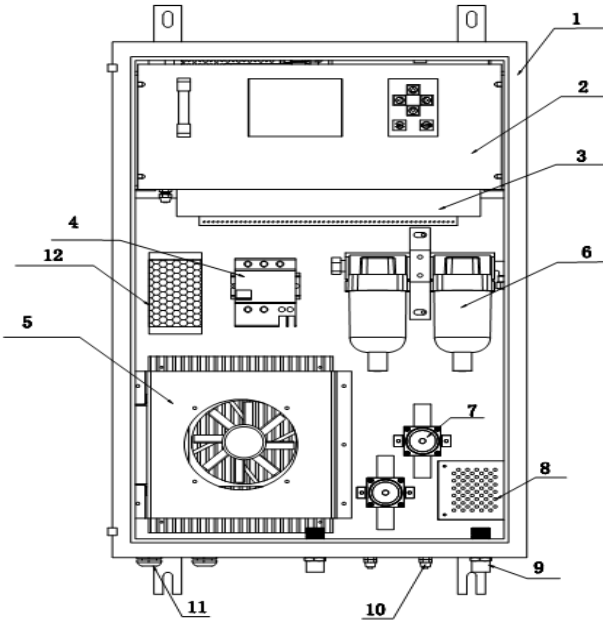
Wall Mounted Biogas Analysis System Gasboard 9060

Professional online gas analysis systems for continuous monitoring of Biogas

Wall mounted biogas 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 H_2S 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_2S	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

APPLICATIONS

LANDFILL

FLARE

BIOGAS PLANT