INNOVATION:

The Bio Gas Monitor is a continuously working analyser for CH₄, CO₂, O₂ and H₂S



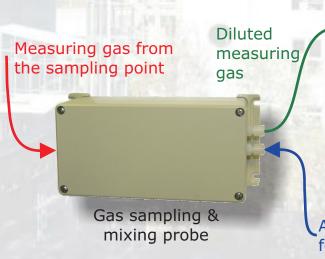
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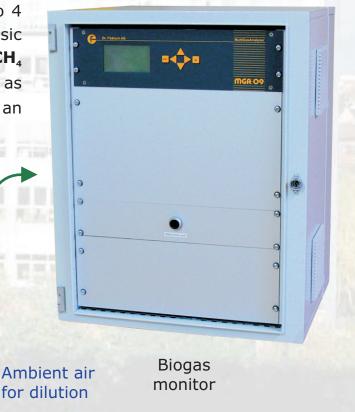
Product information Biogas-Monitor

Field of application

The biogas industry has experienced a substantial boom because of the price increase for oil and gas. Operating a modern biogas plant is hardly possible without a continuous control of the gas composition. Knowing the gas composition helps the operator to increase the efficiency of the plant and to counteract promptly wrong developments. In addition more and more manufacturers of combined heat and power units demand for the compliance with pollutant limit values - especially for the aggressive H2S - in order to keep warranty.

The biogas monitor can monitor up to 4 gas components **continuously**. The basic version includes the measurement of **CH**₄ and **CO**₂ by means of an infrared cell as well as **O**₂ and **H**₂**S** by means of an electrochemical cell.





Examples for applications

- Process monitoring and optimisation
- □ Determination of energy content (CH₄ measurement)
- Protection of engines (H₂S measurement)
- Biogas plants, dry fermentation
- with modified devices:
 - biogas and landfill gas
 - wood gasification and pyrolysis



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Device characteristics

- compact analysis system as 3-parts wall case with integrated analyser modul and separate mixing probe
- on-site diagnosis of the plant state by high-resolution graphique display with bar diagram
- display possibility in in ppm and Vol%
- excellent price / performance ratio

General technical data

Case: 3-parts wall-case

Dimensions: $610 \times 750 \times 480 \text{ mm}$ (W x H x D), weight ca. 25 kg

Ambient temperature: +5 ... +35 °C

Power supply: 230 VAC / 50 - 60 Hz

Probe

Principle: gas sampling via flame barrier

mix of extracted measuring gas with inert gas in the

proportion of 1:50

Analyser

Measuring principle: infrared photometer (CH₄, CO₂)

Electro-chemical cell (O₂, H₂S)

Display: LC-Display, 240 x 128 Pixel, back-lighted

Keyboard: keypad
Operation: menu driven

Detection limits: < 2 % of the respective measuring range

Zero point correction: automatically

Sensitivity correction: manually with calibration gas

Baro correction: Internally

Response time: $T_{90} < 180$ seconds (depending on plant and chosen

component)

Orift: < 5% in maintenance interval Analogue outputs: 4 ... 20 mA (CO₂, CH₄, H₂S and O₂)

Digital signals: failure, maintenance, maintenance request, limit values

Interfaces: RS 232, Profibus (optionally)

Maintenance and service: at least half-yearly

Measuring ranges

□ CO₂ 0 ... 100 Vol%

□ CH₄ 0 ... 100 Vol%

□ H₂S 0 ... 10.000 ppm

□ O₂ 0 ... 25 Vol%

other components and measuring ranges on request