MRU AIR fair since 1984 ®
EMISSION MONITORING SYSTEMS

CH_4 | CO_2 | H_2S | O_2 | H_2

SWG100 BIOcompact

The versatile biogas analyzer.

Landfill gas or biogas analysis for discontinuous measurements

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Landfill gas or biogas analysis for discontinuous measurements

This biogas analyser has been engineered for discontinuous applications at diverse facilities.The analyser may be installed indoor aswell as outdoor. Itmeasures dry, pressurized or pressureless biogas and can analyse 1 or 2 sites.

These are the advantages we offer you:

- particularly suitable for applications at CHPs, municipal or waste water treatment sites, small scale AD plants or landfill sites
- cost effective stationary biogas analyser
- continuous ventilation through cabinet
- safety in use with gas flow restrictor orifice at gas inlet
- sampling from low suction up to high pressure gas
- sample gas conditioning for fast and reliable measurements
- no dilution of the sample gas, nor use of compressed air is required
- discontinuous measurement, user settable up to 24 measurements per 24 hours
- up to 2 sites monitoring (time sharing technique) with only 1 analyser
- IP 54 cabinet for use in harsh environment
- ready to run delivery, minimum installation work, low service downtime

The unit in detail

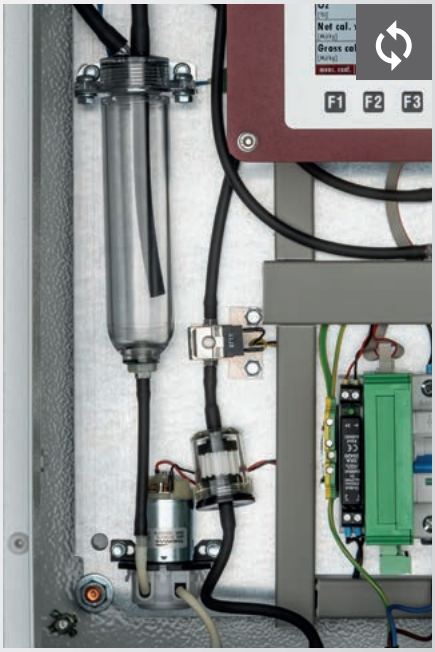
An overview of its special features

Thermal condensate monitoring

for safe operation

Cabinet heating

temperature regulated, for use in environment from –5°C



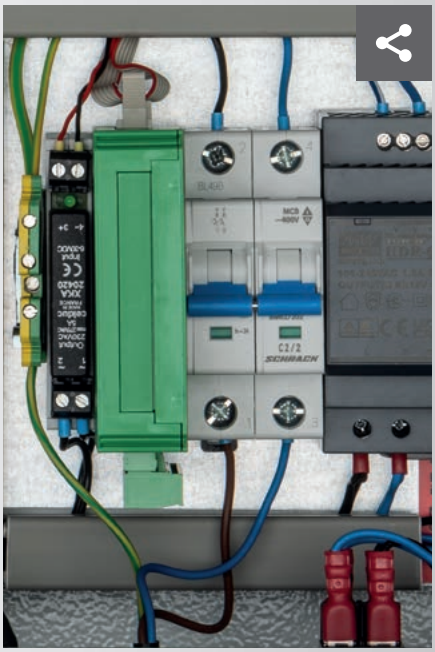
Condensate catch pot and draining pump

Electrochemical sensors

for H_2S and O_2 measurements

NDIR-bench

for CH_4/CO_2 analysis, for biogas and landfill gas measurements



I/O-Modul

with 4-chanel, 4 ... 20 mA analog output and 2 alarm relais (NO-contacts)

SWG 100 BIOcompact

Technical data

Measured components	Measuring method	Range	Resolution	Accuracy
Methane CH_4	NDIR	0 ... 100 %	0,01 Vol.-%	±0,3 Vol-% or 3 % of reading** or 0,1 % of reading after calibration**
Carbon dioxide CO_2	NDIR	0 ... 100 %	0,01 Vol.-%	±0,3 Vol-% or 3 % of reading** or 0,1 % of reading after calibration**
Oxygen O_2	EC	0 ... 25 %	0,01 Vol.-%	±0,2 % abs.
Hydrogen sulfide H_2S	EC	0 ... 2.000/4.000 ppm*	1 ppm	±5 ppm or 5 % of reading**
Hydrogen sulfide H_2S low	EC	0 ... 50/250 ppm*	1 ppm	±2 ppm or 10 % of reading**
Hydrogen sulfide H_2S high	EC	0 ... 5.000/10.000 ppm*	1 ppm	±5 ppm or 5 % of reading**
Hydrogen H_2	EC	0 ... 1.000/2.000 ppm*	1 ppm	±10 ppm or 10 % of reading**

Calculated values	Range	Resolution
Nitrogen background N_2	0 ... 79 %	0,1 %
Gross calorific value	0 ... 40 MJ/m³ / 0 ... 56 MJ/kg	0,1 %
Net Calorific value	0 ... 36 MJ/m³ / 0 ... 50 MJ/kg	0,1 %

General technical data	
HMI / interfaces	3,5" TFT color display Dirt resistant keypad, password protected calibration 4 x analog output 4 ... 20 mA, galvanically isolated max. load 500R 2 Alarm relais, potential free contacts 24 Vdc / 5 A RS485 digital interface (Modbus RTU) RS485 to USB or Ethernet or ProfiBus converter (options)
System safety components	Continuous cabinet ventilation Stainless steel flow restrictor orifice and sample gas shut-down solenoid valve LEL (CH_4) monitoring inside cabinet (option)
Sample gas preparation	Stainless steel gas fittings with 1/8" ID threads Condensate catch pot and draining pump Teflon particle filter Sampling pump 40 ... 60 l/h Sample inlet pressure: –100 mbar up to +200 mbar Sample venting: atmospheric pressure
Cabinet dimensions	400 × 500 × 300 mm (H × W × D) for wall or rack mounting
Weight / Protection class	25 kg / IP54
Installation site	Indoor or outdoor (rain and sun shade is mandatory user scope of supply)
Ambient temperature	+5° C ... +45° C or –5° C ... +45° C with cabinet heater
Cabinet	Steel cabinet with corrosion protective laquer
Power supply	Universal 90 ... 240 Vac / 47 ... 63 Hz / 60 W (360 W with heater)

*overload range of ECS is usable only for short duration | ** which ever is larger | N-13668EN-K0-0M-0423
Data subject to change without notice. | EC = elektrochemical sensor, NDIR = non-dispersive infrared spectroscopy

SWG 100 Biogas

SWG 100 Bio-Ex
for Ex-Zone 2

OPTIMA Biogas
handheld unit

MRU – Competence in gas analysis. Since 1984.

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