



SWG100 **BIOcompact**

The versatile biogas analyzer

Landfill gas or biogas analysis for discontinuous measurements

O₂ | CO₂ | CH₄ | H₂S | H₂



SWG100 BIOcompact

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 as well as outdoor.

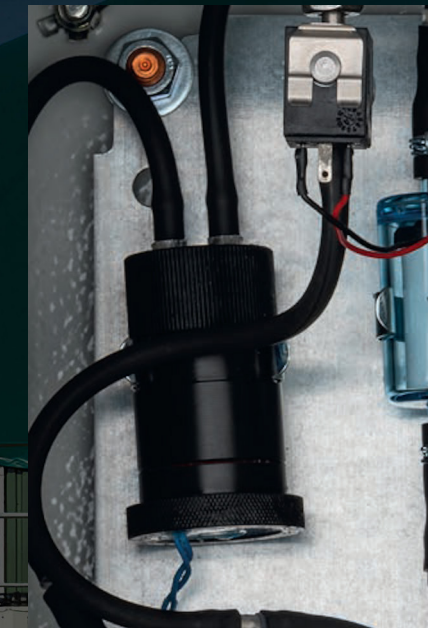
It measures dry, pressurized or pressureless biogas and can analyse 1 or 2 sites.

These are the advantages we offer you:

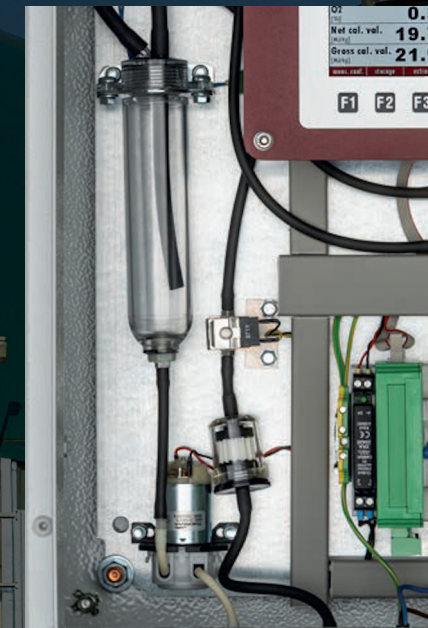
- particularly suitable for applications at CHPs, municipal or waste water treatment sites, small scale AD plants or landfill sites
- cost effective stationary biogas analyser
- continuous ventilation through cabinet
- safety in use with gas flow restrictor orifice at gas inlet
- sampling from low suction 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

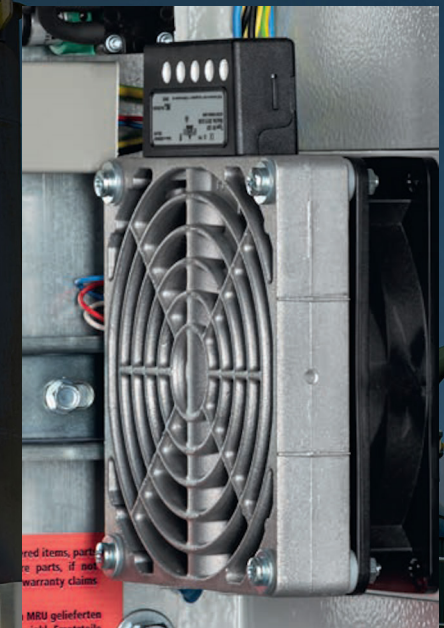
An overview of its special features



Thermal condensate monitoring for safe operation



Condensate catch pot and draining pump



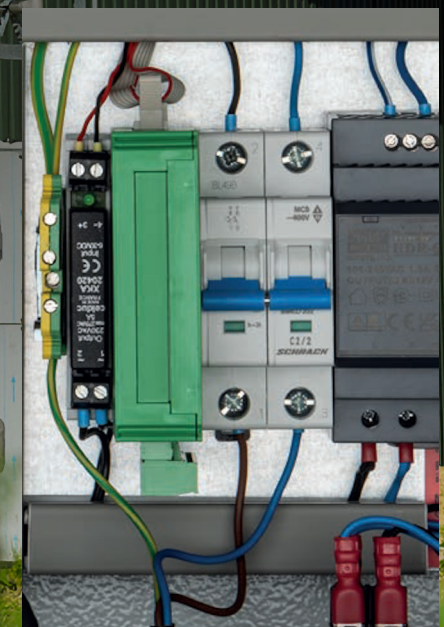
Cabinet heating temperature regulated, for use in environment from -5°C



NDIR-bench for CH₄/CO₂ analysis, for biogas and landfill gas measurements



Electrochemical sensors for H₂S and O₂ measurements



I/O-Modul with 4-channel, 4 ... 20 mA analog output and 2 alarm relays (NO-contacts)



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TECHNICAL DATA

Measured components	Measuring method	Measuring range	Resolution	Accuracy
CH4 Methane	NDIR	0 ... 100%	0.01 Vol%	± 0.3 Vol% / 3 % of reading**
CO2 Carbon dioxide	NDIR	0 ... 100%	0.01 Vol%	± 0.3 Vol% / 3 % of reading**
O2 Oxygen	Electro-chemical	0 ... 25%	0.01 Vol%	0.2 % abs.
H2S Hydrogen sulfide	Electro-chemical	0 – 2,000/4,000 ppm*	1 ppm	± 5 ppm / 5 % of reading**
H2S Hydrogen sulfide low	Electro-chemical	0 – 50/250 ppm*	1 ppm	± 2 ppm / 10 % of reading**
H2S Hydrogen sulfide high	Electro-chemical	100 – 5,000/10,000 ppm*	1 ppm	± 50 ppm / 5 % of reading**
H2 Hydrogen	Electro-chemical	0 – 1,000/2,000 ppm*	1 ppm	± 10 ppm / 10 % of reading**

Calculated values	Range	Resolution
Nitrogen background N2	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 %

HMI human machine interface	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 relays, 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 (CH4) monitoring inside cabinet (option)
Sample 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	Steel cabinet with corrosion protective lacquer 16" x 20" x 12" (400 x 500 x 300 mm) (H x W x D) for wall or rack mounting
Weight / Protection	30 lbs. (14 kg) / IP54
Ambient temperature	41°F ... 113°F or 14°F ... 113°F with cabinet heater (+5° C ... +45° C or -10° C ... +45° C)
Installation site	Indoor or outdoor (rain and sunshade is mandatory user scope of supply)
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 | IN-13688EN-K0-0M-1022
Data subject to change without notice. | EC = electrochemical sensor, NDIR = non-dispersive infrared spectroscopy



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