

SWG 100 BIOGAS EX

LANDFILL & BIOGAS ANALYSIS

For use in hazardous area zone 2, with compliance to EN 60079-0, EN 60079-15 and cabinet marking II 3G Ex nA nC IIC T3 Gc



Up to 4
sites monitoring
via
Time Sharing



since 1984 ®

EMISSION MONITORING SYSTEMS

Over 30 years of innovative gas analysis!

Rugged, ready to use industrial gas analyzer for:

- Biogas (anaerobic digestion) plants
- Ethanol plants, pulp & paper plants
- Cogeneration heat and power engines (CHP)
- Biomethane plants / Coal seam gas sites
- Landfill gas monitoring and CHP
- Waste water treatment plants

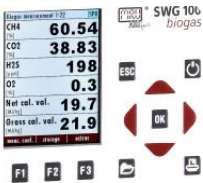
THE ATEX CERTIFIED ANALYZER

ATEX certification according to II 3G Ex nA nC IIC T3 Gc

Measuring CH₄, CO₂, O₂, H₂S (high & low ranges), H₂ and calculated caloric values

- Industry compatible rugged design with stainless steel IP 65 cabinet
- Efficient sample gas preparation with peltier gas cooler and condensate draining pump
- Sampling from low suction up to high pressure gas
- No dilution of the sample gas, neither use of compressed air is required
- Direct and continuous / discontinuous measurement, with pressure and temperature compensation and event data logging
- Up to 4 sites monitoring (time sharing) with only one analyzer
- Ready to run delivery, minimum installation work

Dirt resistant keypad and bright display



Customizable display with 6 or 2 values per screen

Stage measurement D12	
CH ₄	60.29
CO ₂	39.08
H ₂ S	285
O ₂	0.3
Net cal. val.	19.6
Gross cal. val.	21.7

OPTIONAL with AUTO-Calibration



OPTIONAL with gas cooler



Field replaceable pre-calibrated sensors



4 sample gas inlet ports

Peltier gas cooler

Condensate draining pump

Internal sample flow monitoring

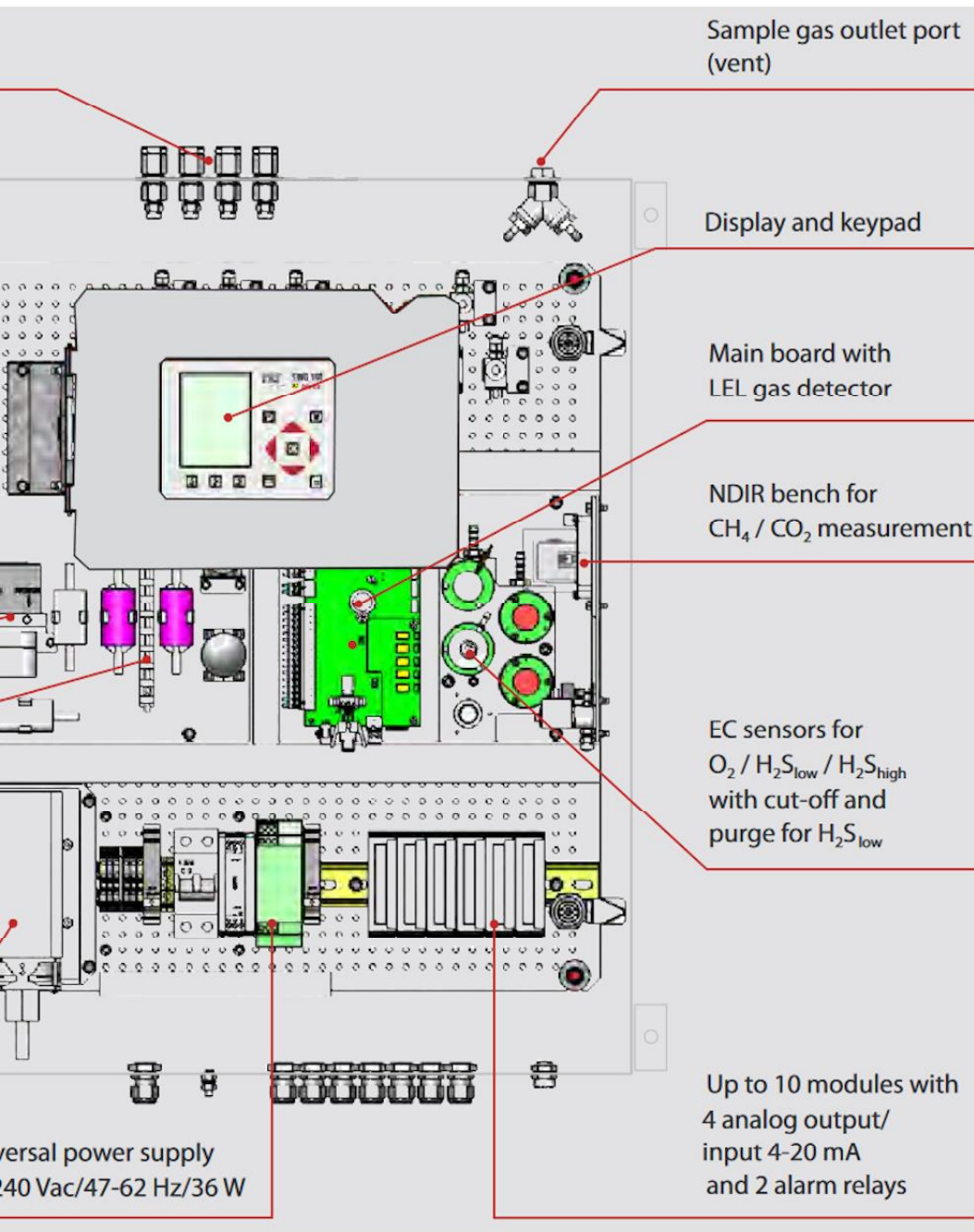
Pressure regulator for automatic span gas calibration

Cabinet heater with temperature regulation

Univ
90-2

THE IDEAL SOLUTION FOR ...

- Landfill sites
- Anaerobic digesters
- CHP / WTE cogeneration engines
- Municipal or industrial waste water treatment plants
- Flare inlet / outlets
- CPG production
- Food or animal waste process plants
- Coal bed methane sites



SWG 100

BIOGAS EX

TECHNICAL SPECIFICATIONS

Measurement components		Measuring range	Resolution	Accuracy	Measuring method
CH4	Methane	0 – 100 %	0.01%	± 0,3 Vol% or 3 % of reading**	NDIR
CO2	Carbon dioxide	0 – 100 %	0.01%	± 0,3 Vol% or 3 % of reading**	NDIR
O2	Oxygen	0 – 25 %	0.1%	0.2 % abs.	ec, continuous
H2S	Hydrogen sulfide	LOW 0 - 200 / 1,000ppm *	1ppm	± 10 ppm or 10 % of reading**	ec, discontin.
H2S	Hydrogen sulfide	STANDARD 0 - 2,000ppm / 4,000ppm *	1ppm	± 5 ppm or 10 % of reading**	ec, discontin.
H2S	Hydrogen sulfide	HIGH 0 - 10,000ppm / 50,000ppm *	1ppm	± 5 ppm or 5 % of reading**	ec, continuous
H2	Hydrogen	0 - 1,000ppm / 2,000ppm *	1ppm	± 10 ppm or 10 % of reading**	ec, discontin.

* overload measuring range

** the higher value applies

Calculated component	Calorific value: 0 – 50 MJ/m ³ ; MJ/kg
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HMI human machine interface	<p>3.5" TFT color display</p> <p>Backlit keyboard, password protected operation</p> <p>4x analog output 4-20 mA, floating, max. load 500R</p> <p>4x analog input 4-20 mA, passive inputs</p> <p>2 alarm relays, potential free contacts 24 Vdc/5 A</p> <p>RS485 digital interface (Modbus RTU)</p> <p>DIN-rail RS485 / Profibus converter</p>
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System safety components	<p>Monitored cabinet ventilation fan</p> <p>Stainless steel flow restrictor orifice</p> <p>Sample gas shut-down solenoid valve</p> <p>LEL (CH4) monitoring inside cabinet</p>
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Sample preparation	<p>Stainless steel gas fittings with 1/8" ID threads</p> <p>Electric gas cooler</p> <p>Teflon particulate filter, internal Viton hosing</p> <p>Monitored and regulated sample flow 40...60 l/h</p> <p>Sample inlet pressure: -40 inH₂O to +120 inH₂O (-100 mbar to +300 mbar)</p> <p>Sample venting: atmosphere pressure</p>
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Cabinet dimensions	Aluminum with anti-corrosive structural painting 27.55" x 23.61" x 8.26" (700 x 600 x 210 mm) (H x W x D) for wall or rack mounting
Weight / Protection	55lbs (25kg) / IP54
Ambient temperature	41°F ...113°F (+5°C...+45°C) or -4°F ...113°F (-20°C...+45°C) with cabinet heater
Installation site	Indoor or outdoor (rain and sun shade is mandatory user scope of supply)
Cabinet conditioning	Continuous, monitored fan ventilation Cabinet heater 200 W (option)

Power supply	Universal 90 - 240 Vac / 47 - 63 Hz / 90 W (300 W with cabinet heater)
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Data subject to change without notice

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