

SWG 100 BIOGAS

LANDFILL & BIOGAS ANALYSIS

For optimizing production, performance, and reporting



- Industry compatible rugged design for harsh industrial use
- Sampling from low suction up to high pressure gas
- Direct and continuous / discontinuous measurement
- No dilution of the sample gas
- Easy installation & start-up



since 1984 ®

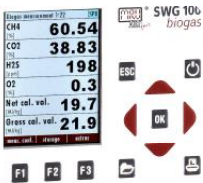
AIR fair

EMISSION MONITORING SYSTEMS

Over 30 years of innovative gas analysis!

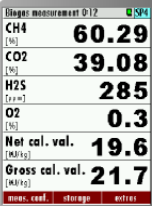
THE COMPLETE SOLUTION ...

DIRT resistant keypad and bright display



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

Customisable display with 6 or 2 values per screen



- Continuous or Semi-continuous operation
- Efficient gas prep provides fast and reliable measurements
- Sampling from low suction to high pressure
- Up to 10 sites monitoring via Time Sharing
- Fresh air auto zero
- Multiple inputs / outputs of (4) 4 to 20mA, (2) alarm relays, RS485 Modbus, Ethernet even Profibus
- Safety: Monitored ventilation fan, gas flow restrictor, optional %LEL detector and fame arrester
- Fast & easy installation: Connect and go with no need for compressed air for dilution
- Optional Auto Calibration

OPTIONAL with AUTO-Calibration



OPTIONAL with gas cooler



Field replaceable pre-calibrated sensors



Gas cooler
(Peltier type)

Up to 10 switching biogas inlets
(time sharing)
with fail-safe shut off solenoid
valves and flow restrictor orifice

Gas sampling pump

Combustible gas
detector (%LEL)

Condensate
draining pump

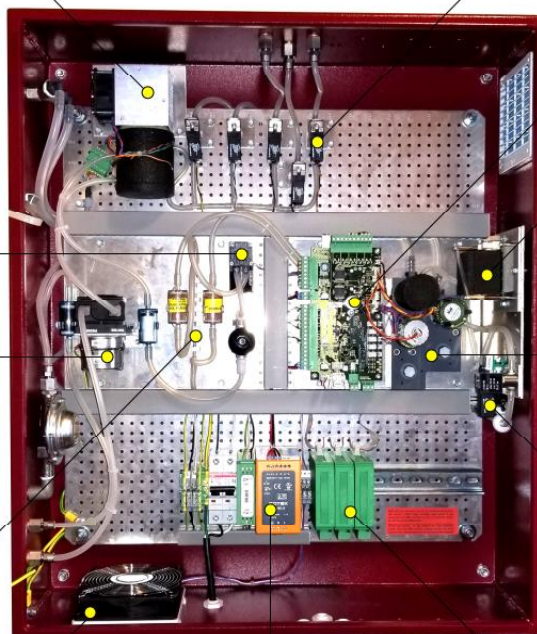
NDIR module for
CH₄ and CO₂
measurement

Internal sample
flow monitoring

Electro-chemical cells
O₂/ H₂S low and high / H₂

Continuous monitored
ventilation fan with alarm
Optional: cabinet heater

Cut-off and purge
for H₂S



Universal power supply
90 - 240 Vac 47 - 63 Hz / 90 W

Up to 10 analog output modules
4 x 4 to 20 mA, RS 485
2 x alarm relays

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



Sample gas inlet port (ports)

Vent outlet

Display

Keypad

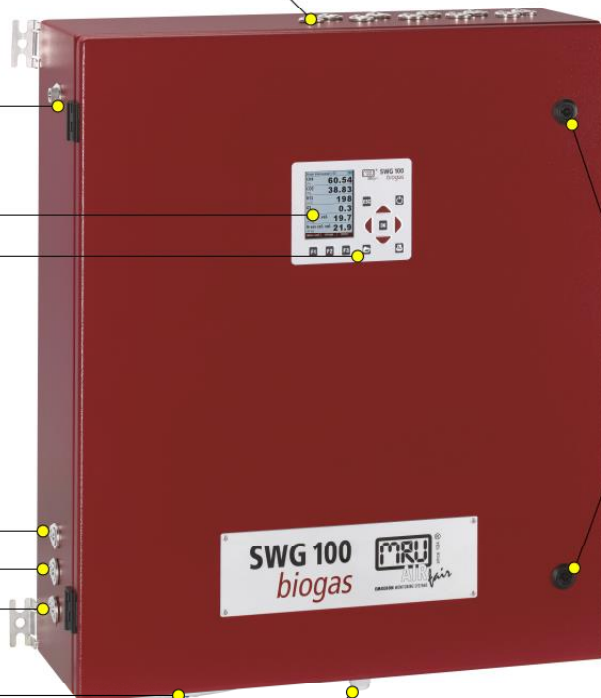
Calibration gas inlet

Zero gas inlet

Condensate outlet

Cabinet ventilation

Inlet cable gland



Cabinet lock

TECHNICAL SPECIFICATIONS

Measurement components		Measuring range	Measuring method	
CH4	Methane	0 – 100 %	NDIR	
CO2	Carbon dioxide	0 – 100 %	NDIR	
O2	Oxygen	0 – 25 %	electrochemical, continuous	
H2S	Hydrogen sulfide	LOW	0 - 200 / 1,000ppm	electrochemical, discontinuous
H2S	Hydrogen sulfide	STANDARD	0 - 2,000ppm / 4,000ppm	electrochemical, discontinuous
H2S	Hydrogen sulfide	HIGH	0 - 10,000ppm / 50,000ppm	electrochemical, continuous
H2	Hydrogen	0 - 1,000ppm	electrochemical, discontinuous	
Calculated component		Calorific value: 0 – 50 MJ/m ³ ; MJ/kg		
HMI human machine interface		3.5" TFT color display Backlit keyboard, password protected operation 4x analog output 4-20 mA, floating, max. load 500R 2 alarm relays, potential free contacts 24 Vdc/5 A RS485 digital interface (Modbus RTU) DIN-rail RS485 / Profibus converter		
System safety components		Monitored cabinet ventilation fan Stainless steel flow restrictor orifice Sample gas shut-down solenoid valve LEL (CH4) monitoring inside cabinet		
Sample preparation		Stainless steel gas fittings with 1/8" ID threads Electric gas cooler Teflon particulate filter, internal Viton hosing Monitored and regulated sample flow 40...60 l/h Sample inlet pressure: -40 inH2O to +120 inH2O (-100 mbar to +300 mbar) Sample venting: atmosphere pressure		
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)		

Data subject to change without notice

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