

SWG 100 BIOGAS

LANDFILL & BIOGAS ANALYSIS

For optimizing production, performance, and reporting



since 1984 ®

AIR fair

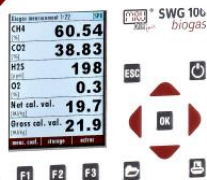
EMISSION MONITORING SYSTEMS

Over 30 years of innovative gas analysis!

- Easy installation & start-up
- Best in Class Accuracy
- Plug-n-play sensors for simple serviceability
- Designed with safety in mind

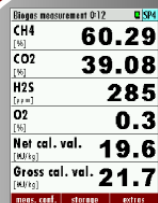
THE COMPLETE SOLUTION ...

Direct instant keypad and bright display



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

Customizable 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 flame 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)

Gas sampling pump

Condensate
draining pump

Internal sample
flow monitoring

Continuous monitored
ventilation fan with alarm
Optional: cabinet heater

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

Combustible gas
detector (%LEL)

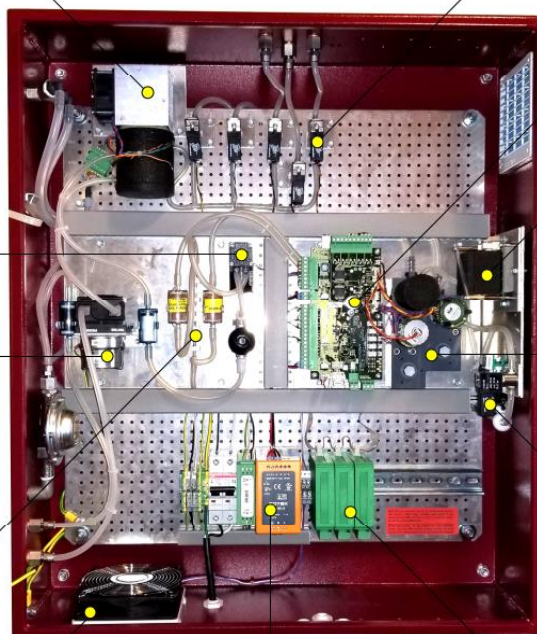
NDIR module for
CH₄ and CO₂
measurement

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

Cut-off and purge
for H₂S

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

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



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

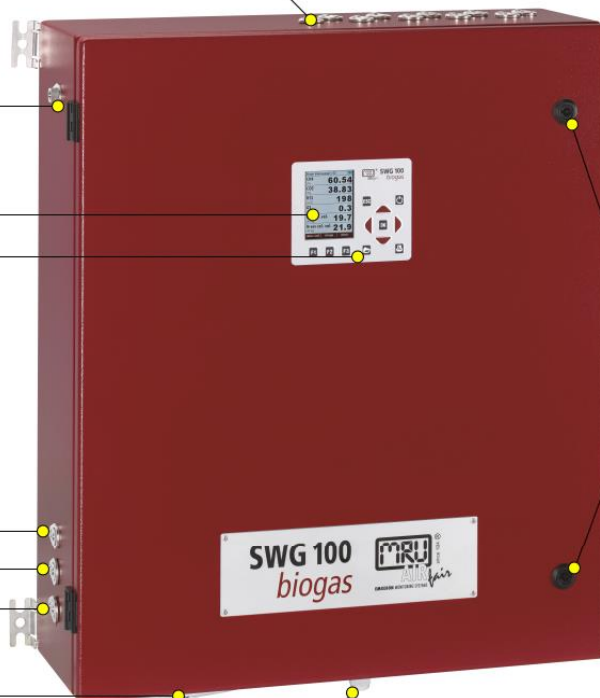
Calibration gas inlet

Zero gas inlet

Condensate outlet

Cabinet ventilation

Inlet cable gland



Cabinet lock

TECHNICAL SPECIFICATIONS

Measurement components	Measuring range	Measuring method
CH ₄ Methane	0 – 100 %	NDIR
CO ₂ Carbon dioxide	0 – 100 %	NDIR
O ₂ Oxygen	0 – 25 %	electrochemical, continuous
H ₂ S Hydrogen sulfide LOW	0 - 1,000ppm	electrochemical, discontinuous
H ₂ S Hydrogen sulfide HIGH	0 - 10,000ppm	electrochemical, continuous
H ₂ 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 (CH ₄) 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 inH ₂ O to +120 inH ₂ O (-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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