# SWG 100 BIOGAS

# LANDFILL & BIOGAS ANALYSIS

**For optimizing production, performance, and reporting**


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

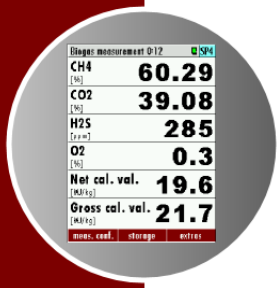
MRU AIR fair since 1984 ®
EMISSION MONITORING SYSTEMS

Over 30 years of innovative gas analysis!

# THE COMPLETE SOLUTION ...


## Measuring $CH_4$, $CO_2$, $O_2$, $H_2S$ (high & low ranges), $H_2$, plus calculated caloric values

- 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




Gas cooler (Peltier type)

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 $CH_4$ and $CO_2$ measurement

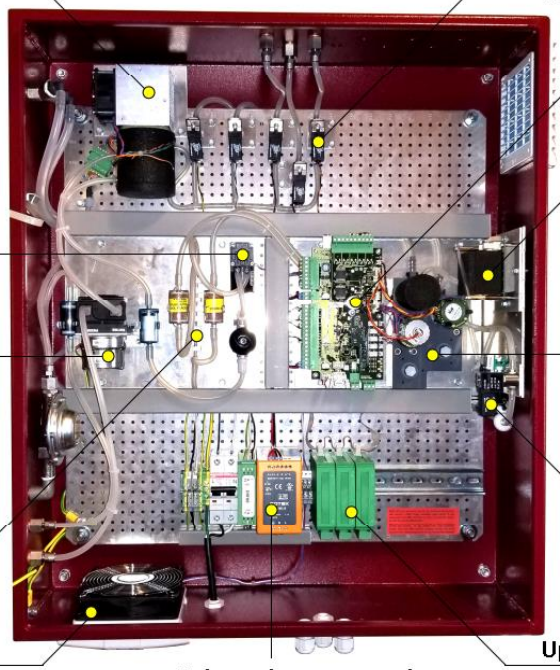
Gas sampling pump

Condensate draining pump

Electro-chemical cells $O_2$/ $H_2S$ low and high / $H_2$

:ernal sample
ow monitoring

Cut-off and purge for $H_2S$



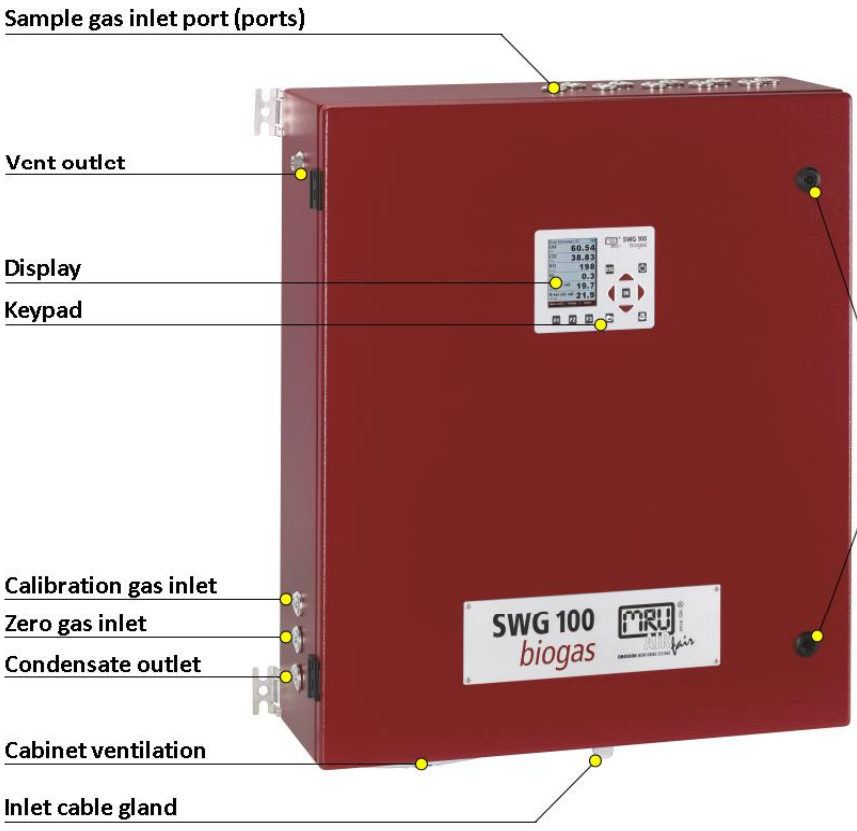
Continuous monitored ventilation fan with alarm
Optional: cabinet heater

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




# SWG 100 BIOGAS

## 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 - 1,000ppm | electrochemical, discontinuous |
| H2S | Hydrogen sulfide | HIGH | 0 - 10,000ppm | electrochemical, continuous |
| H2 | Hydrogen | | 0 - 1,000ppm | electrochemical, discontinuous |

| | |
|---|---|
| **Calculated component** | Calorific value: 0 – 50 MJ/m3; MJ/kg |
| **HMI human machine interface** | 3.5” TFT color display<br>Backlit keyboard, password protected operation<br>4x analog output 4-20 mA, floating, max. load 500R<br>2 alarm relays, potential free contacts 24 Vdc/5 A<br>RS485 digital interface (Modbus RTU)<br>DIN-rail RS485 / Profibus converter |
| **System safety components** | Monitored cabinet ventilation fan<br>Stainless steel flow restrictor orifice<br>Sample gas shut-down solenoid valve<br>LEL (CH4) monitoring inside cabinet |
| **Sample preparation** | Stainless steel gas fittings with 1/8” ID threads<br>Electric gas cooler<br>Teflon particulate filter, internal Viton hosing<br>Monitored and regulated sample flow 40…60 l/h<br>Sample inlet pressure: -40 inH2O to +120 inH2O (-100 mbar to +300 mbar)<br>**Sample venting: atmosphere pressure** |
| **Cabinet dimensions** | Aluminum with anti-corrosive structural painting<br>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<br>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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