MRU INSTRUMENTS

SWG100 BIOGAS

For optimizing production, performance, and reporting

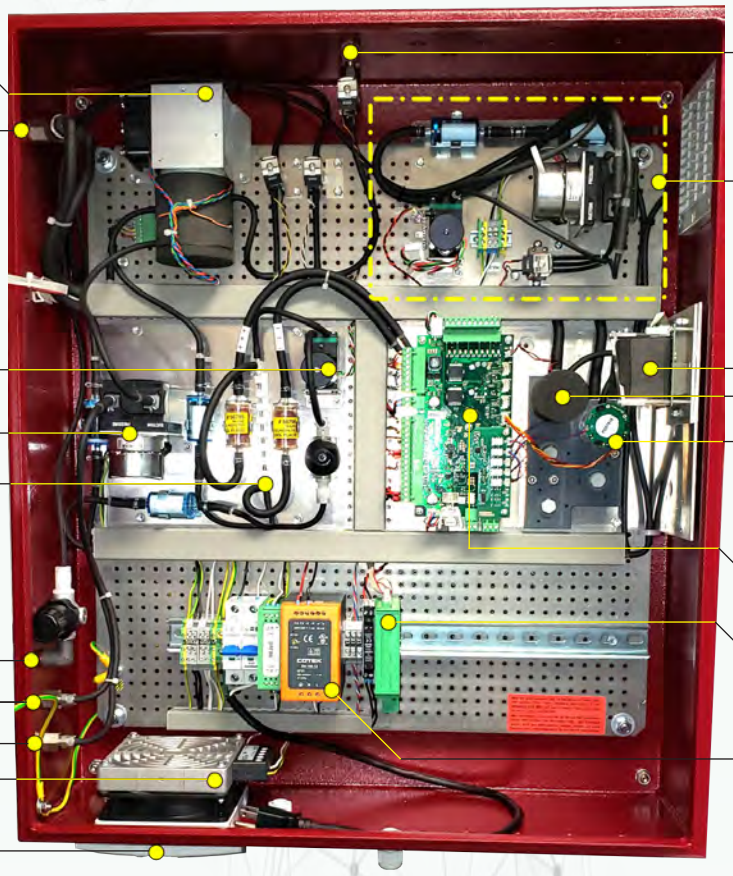
Up to 10 sites monitoring via. time sharing

O_2 | CO_2 | CH_4 | H_2S | H_2 | CO

SWG100 BIOGAS

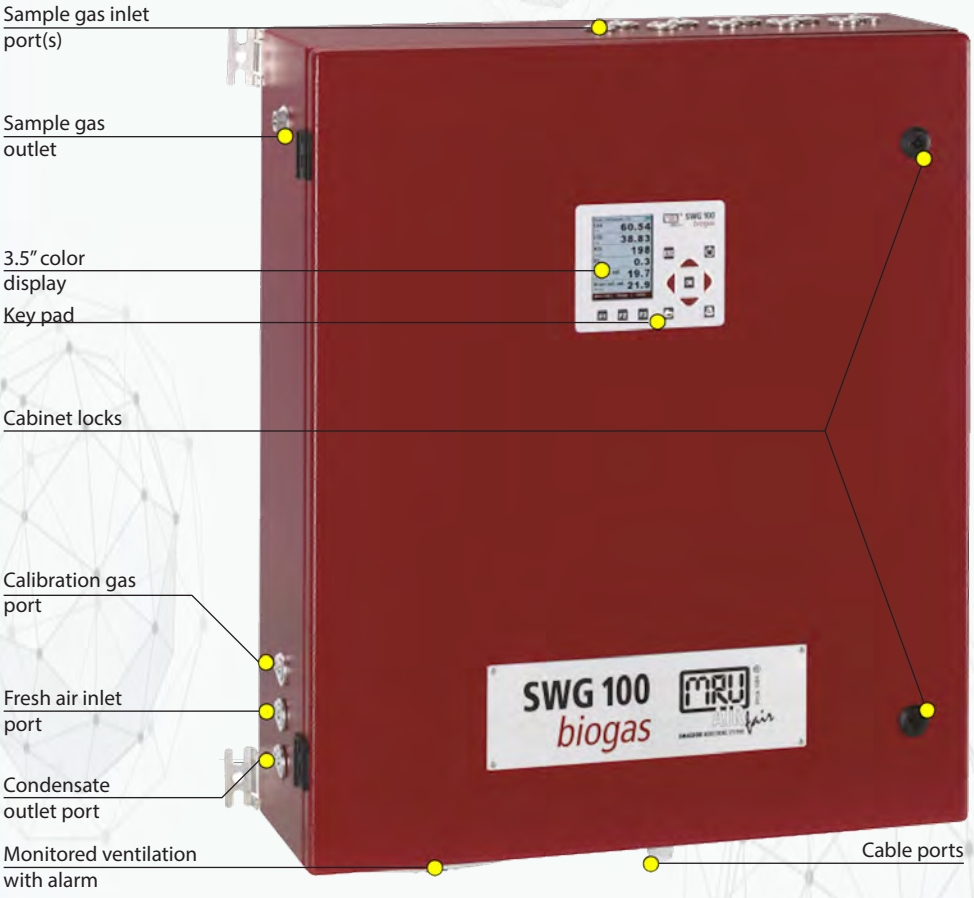
Measuring CH4, CO2, H2S (high & low ranges), H2, CO and calculated caloric values

- Industry compatible rugged design for harsh industrial use
- Up to 10 sites monitoring via. time sharing
- Efficient gas prep provides fast and reliable measurement
- Fresh air and auto zero
- Auto calibration
- Sampling flow from low suction up to high pressure gas
- Direct and continuous / discontinuous measurement
- Optional, dilution of the H2S sample gas
- Multiple in / outputs: Ethernet, RS485 Modbus / Profibus / 4 … 20 mA / Alarm relays
- Fast & Easy installation and start-up / no need for compressed air for dilution



THE IDEAL SOLUTION FOR …

- **Landfill sites**
- **Anaerobic digesters**
- **CHP/WTE cogeneration engines**
- **Municipal or industrial wastewater treatment plants**
- **Flare inlets / outlets**
- **RNG production**
- **Food or animal waste process plants**
- **Coal bed methane sites**



SWG *100* BIOGAS

TECHNICAL SPECIFICATIONS

Measured components	Measuring method	Measuring range	Resolution	Accuracy
Methane CH4	infrared	0 … 100%	0.1 Vol%	± 0.3 Vol% / 3 % of reading**
Carbon dioxide CO2	infrared	0 … 100%	0.01 Vol%	± 0.3 Vol% / 3 % of reading**
Oxygen O2	ec, continously	0 … 25%	0.01 Vol%	0.2 % abs.
Hydrogen sulfide H2S	ec, discontinously	0 – 2.000/4.000 ppm*	1 ppm	± 10 ppm / 10 % of reading**
Hydrogen sulfide H2S low	ec, discontinously	0 – 200/1.000 ppm*	1 ppm	± 5 ppm / 10 % of reading**
Hydrogen H2	ec, discontinously	0 – 1.000/2.000 ppm*	1 ppm	± 10 ppm / 10 % of reading**
Carbon monoxide CO	ec, discontinously	0 – 10.000/20.000 ppm*	1 ppm	± 10 ppm / 3 % of reading**

H2S dilution systems 50:1

for landfills and other high H2S applications, not only has the range been extended, but additionally, high resiliency sensors can be used providing better accuracy and stability, especially in difficult applications such as landfills, dairy digesters, etc.

Calculated component	Calorific value: 0 – 50 MJ/m3; 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 with alarm Stainless steel flow restrictor orifice Sample gas shut-down solenoid valve LEL (CH4) monitoring inside cabinet (option)
Sample preparation	Stainless steel gas fittings with 1/8" ID threads Electric gas cooler (Peltier type) (option) Teflon particulate filter, internal Viton hosing Sampling biogas with condensate of max. 14ml/min Monitored and regulated sample flow 40…60 l/h Sample inlet pressure: -40 inH2O to +80 inH2O (-100 mbar to +200 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 14°F …113°F (-10°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 * overload for short-term measurements only ** the higher value applies

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