

MRU –
over 30 years of
innovative gas
analysis

SWG 100 BIOcompact Biogas Analyser

Biogas or landfill gas monitoring
at combined heat and power (CHP) engines



This biogas analyser is designed for use in the harsh industrial environment of combined heat and power (CHP) engine gas monitoring.

The analyser may be installed outside or inside. It samples dry biogas, pressurized or low pressure gas and can be used for single or dual point sampling of:

- cogeneration heat and power engines (CHP)
- municipal or industrial waste water treatment sites
- small scale AD plants with dry fermentation
- landfill sites

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Biogas Analyser

Main features:

- cost effective stationary biogas analyser
- accurate measurements, incl. plug&play, pre-calibrated sensors
- safety in use with gas flow restrictor orifice at gas inlet and ventilation
- sampling from low suction up to high pressure gas
- sample gas conditioning for fast and reliable measurements
- no dilution of the sample gas, nor use of compressed air is required
- discontinuous measurement, user settable up to 24 measurements per 24 hours
- up to 2 sites monitoring (time sharing technique) with only 1 analyser
- IP 54 cabinet for use in harsh environment
- ready to run delivery, minimum installation work, low service downtime

Technical specifications

* overload for short term measurements only

Measured components	CH ₄ 0 ... 100 %	(infrared NDIR)
Measuring ranges	CO ₂ 0 ... 100 %	(infrared NDIR)
Measuring principle	O ₂ 0 ... 25 %	(electrochemical)
	H ₂ S 0 ... 2.000/4.000*ppm	(electrochemical)
Calculated component	Calorific value 0 ... 50 MJ/m ³ ; MJ/kg	
HMI Human machine interface	3,5" TFT color display with backlight Tactile keyboard and password protected operation RS 485 digital interface (Modbus RTU) Data storage and event logging on SD card	
System safety components	Stainless steel flow restrictor orifice Sample gas shut-down solenoid valve	
Sample conditioning	Stainless steel gas fittings with 1/8" ID threads Condensate trap with automatic condensate draining pump Teflon particulate filter, internal Viton hosing Sample inlet pressure: -100 ... +300 mbar Sample venting: atmosphere pressure	
Cabinet dimensions	400x500x300 (WxHxD), wall or rack mounting	
Weight/ protection class	appr. 14 kg / IP 54	
Ambient temperature	+5 ... 45 °C or -10 ... +45 °C with cabinet heater	
Installation site	indoor or outdoor (rain and sun shade is mandatory and user scope of supply)	
Power supply	Universal 90 ... 240 Vac, 47 ... 63 Hz, 42 W (242 W with cabinet heater)	
Options	Flame arrestor I/O-module with: 4x analog output 4...20 mA, floating, max. load 500R, 2x alarm relays, potential free contacts 24 Vdc/5A, DIN rail RS 485, Profi bus converter, cabinet heater 200 W LEL (CH ₄) monitoring inside cabinet	



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