

# OPTIMAX BIOGAS

The Ultimate, Professional, Handheld Biogas Analyzer

O2 CO2 CH4 H2S CO NOx NO NO2 H2 N2





## **OPTIMAX** BIOGAS

## The most versatile handheld biogas analyzer

The OPTIMAX analyzes biogas, measures biogas pressure and temperature, gas flow velocity and flow rate calculations.

OPTIMAX Bio-gas can optionally measure CHP engine exhaust gases.

#### These are your special advantages:

- Biogas measurement: CH4, CO2, O2, H2S
- Exhaust gas measurement: O2, CO2, CO, NO, NO2
- Ambient air measurement: CH4 (LEL), H2S
- Different measuring units, user definable
- Intuitive navigation menu with function keys
- Fiber glass reinforced enclosure with rear magnets
- Large, internal data memory and interfaces to App and PC software
- Strong Lithium-Ion battery for at least 15 h continuous operation



## The device in detail

## An overview of special features



#### Condensate and dirt removal

Large capacity condensate separator with proven pleated filter including water stop function



#### Operation and color display

Intuitive guidance through all measurement programs, large color display, easy interaction via. keypad



#### Store, transfer and print measurement data

SD card, Mini-USB, WLAN and Bluetooth for data transfer to Smartphone, Tablet or PC – or infrared speed printer



#### Practical accessories to carry along

Optionally: transport case, gas sampling probe, MRU speed printer and nylon transport bag



## Simultaneous measurement of bio-gas and flow velocity

Measurement of bio- or landfill gas, using special S-type probe, with 2 ... 100 m/s and calculation of the flow rate in m<sup>3</sup>/h



#### **US LFG probe**

For simultaneous biogas extraction, temperature measurement, pressure and flow measurement



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## **TECHNICAL SPECIFICATIONS**

Measuring components		Measuring method	Measuring range min./ max.	Resolu- tion	Repeatability
CH4	Methane	NDIR	0 100%	0.1 %	± 0.3 % or 3 % reading*
CO <sub>2</sub>	Carbon dioxide	NDIR	0 100%	0.01 %	± 0.3 % or 3 % reading*
H <sub>2</sub> S	Hydrogen sulfide	Electro-chemical	0 2,000 ppm / 5,000 ppm	1 ppm	$\pm5$ ppm or 5 % (0 500 ppm), 10 % (> 500 ppm) reading
02	Oxygen (Long Life)	Electro-chemical	0 25 %	0.01 %	± 0.2 % absolute
H2	Hydrogen	Electro-chemical	0 1,000 ppm / 2,000 ppm	1 ppm	$\pm5$ ppm or 5 % (0 500 ppm), 10 % (> 500 ppm) reading
N2	Nitrogen	Calculated	0 100%	0.1 %	
Hu	Calorific value	Calculated	0 36 MJ/m3	0.01 MJ/m3	
со	Carbon monoxide	Electro-chemical	0 10,000 / 20,000 ppm	1 ppm	$\pm$ 10 ppm or 5 % (0 4,000 ppm), 10 % (> 4,000 ppm) reading
NO	Nitric monoxide	Electro-chemical	0 1,000 / 5,000 ppm	1 ppm	$\pm5$ ppm or 5 % (0 1,000 ppm), 10 % (> 1,000 ppm) reading
NO <sub>2</sub>	Nitric dioxide	Electro-chemical	0 200 / 1,000 ppm	1 ppm	± 5 ppm or 5 % (0 200 ppm), 10 % (> 200 ppm) reading
NOx	Nitrogen oxide	Calculated	0 5,000 ppm	1 ppm	$\pm5$ ppm or 5 % (0 1,000 ppm), 10 % (> 1,000 ppm) reading
Gas flow velocity		S-type probe	1 100 m/s	0.1 m/s	± 0.2 m/s (2 10 m/s), ± 0.5 % (> 10 m/s)
Flow rate		Calculated	0.1 6,000 m3/s	0.1 m3/s	user settable cross section area
Differential temperature		NiCrNi	-40 2192 °F (-40 +1,200 °C)	1°F	± 4 °F (2 °C), 0.5 % reading*
Differential pressure		Piezo	± 120"H2O (300 hPa)	0.01 hPa	± 0.01"H2O (0.03 hPa), 1 % reading*

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Operation conditions	41°F 113°F (5 45°C) max. 95 % RH, none condensing
Storage conditions	4°F 122°F (-20°C 50°C)
Data storage	32,000 data sets
Interfaces	SD card reader, USB, IRDA, WLAN, Bluetooth (Bluetooth is not available for LFG version)
Internal power supply	Lithium-lon battery, 15 h operation time
Mains power supply	wall plug unit 100 240 Vac, 50 60 Hz, 5 V DC, 1.2 A
Protection class	IP 30
Dimensions (W x H x D)	4.45" x 8.82" x 2.13" (113 x 244 x 54 mm)
Weight	approx. 1.7 lbs. (750 g)

since 1984

MRU Representative:



Data subject to change without notice. | \* which ever is larger | N-12812GB-K0-10-920-SDE