



# NOVA<sup>plus</sup> BIOGAS

Advanced analyzer for Biogas,  
engine emissions tuning and  
compliance reporting

BIOGAS: O<sub>2</sub> | CO<sub>2</sub> | CH<sub>4</sub> | H<sub>2</sub>S

EMISSION: O<sub>2</sub> | CO | NO<sub>x</sub> | NO | NO<sub>2</sub>

**With Wireless Remote Control Unit**





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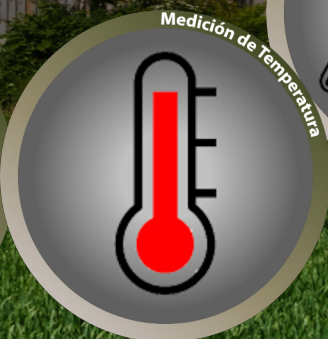
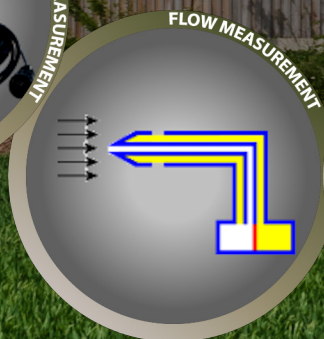
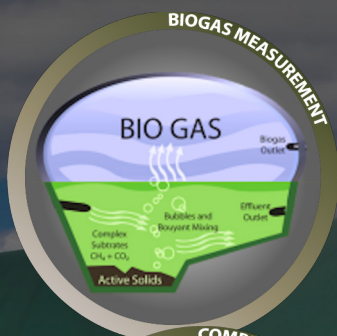
Whenever your analyzer needs to achieve more

## BASE Unit Features and Options:

- Peltier Gas Cooler
- Integrated High Speed Printer
- High energy Lithium Ion Battery provides up to 10 hours of run time
- Compact and robust transport case

## Functions and options of the RCU:

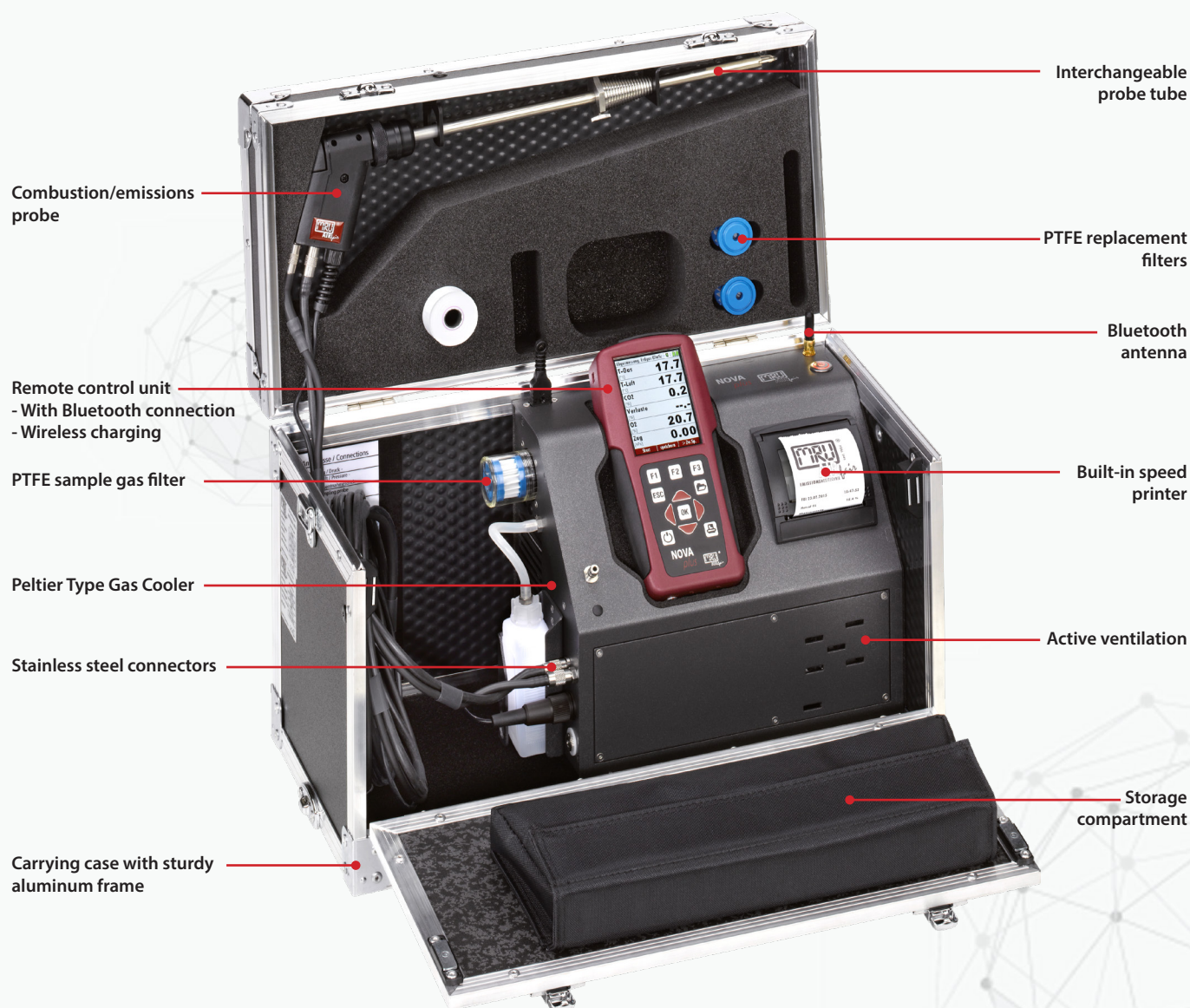
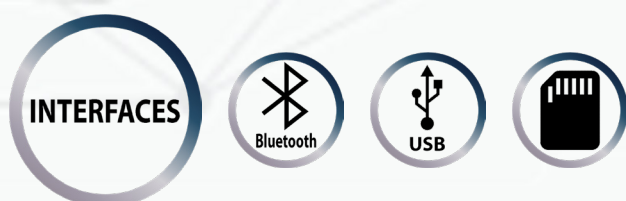
- Remote control unit for analyzer operation:
- Bluetooth communication with the base unit
- OPTIONAL
- Differential temperature measurement
- Differential pressure measurement
- Flow velocity measurement
- AUX port for additional parameters
- Internal data storage of up to 16,000 data sets
- Large back lit color display with zoom function
- Durable and dirt resistant keyboard
- High energy Lithium Ion battery provides up to 30 hours of run time





# BIOGAS - COMBUSTION - EMISSIONS

- With up to 7 real gas measurements
- Biogas: CH<sub>4</sub>, CO<sub>2</sub>, O<sub>2</sub>, H<sub>2</sub>S
- Emissions: O<sub>2</sub>, CO, NO, NO<sub>2</sub>
- Integrated solenoid valve for automatic zeroing
- Internal sample flow monitoring
- Robust and versatile



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## TECHNICAL SPECIFICATIONS

BIOGAS components			Measuring Ranges	Accuracy
CO <sub>2</sub>	Carbon dioxide	DUAL NDIR	0 ... 100 Vol %	± 0.3 % or 3 % of reading
CH <sub>4</sub>	Methane	DUAL NDIR	0 ... 100 Vol %	± 0.3 % or 3 % of reading
O <sub>2</sub>	Oxygen	(Long life)	0 ... 25%	± 0.2 Vol-% abs.
H <sub>2</sub> S	Hydrogen Sulfide	STD	0 ... 2,000 ppm / 5,000 ppm *	± 5 ppm or 5 % (0 ... 500 ppm), 10 % (> 500 ppm) reading
H <sub>2</sub> S	Hydrogen Sulfide	High	100 ... 5,000 / 10,000 ppm *	± 50 ppm or 5 % reading

EMISSION components			Measuring Ranges	Accuracy
O <sub>2</sub>	Oxygen	(Long life)	0 ... 25%	± 0.2 Vol-% abs.
CO	Carbon monoxide	(H <sub>2</sub> compensated)	0 ... 10,000 / 20,000 ppm *	± 20 ppm or 5 % of reading < 10,000 ppm / 10 % of reading > 10,000 ppm
CO	Carbon monoxide	(low)	0 ... 500 **	± 2.0 ppm or 5 % of reading
NO	Nitric oxide		0 ... 1,000 / 5,000 ppm *	± 5 ppm or 5 % of reading < 1,000 ppm / 10 % of reading > 1,000 ppm
NO	Nitric oxide	(low)	0 ... 300 **	± 2.0 ppm or 5 % of reading
NO <sub>2</sub>	Nitrogen dioxide		0 ... 200 / 1,000 ppm *	± 5 ppm or 5 % of reading < 200 ppm / 10 % of reading > 200 ppm
NO <sub>2</sub>	Nitrogen dioxide	(low)	0 ... 300 **	± 2.0 ppm or 5 % of reading

\* recommended overload range for short time measurements only

\*\* they are not separate sensors; selected sensors are used with a special calibration

Other measured components	Measuring Ranges	Resolution	Accuracy
Stack / Flue gas temperature	32 ... 1,202°F (0 ... 650°C) with stainless steel 32 ... 2,012°F (0 ... 1100°C) with Inconel	1 °F	± 4°F ... < 392°F / 1 % reading > 392°F ± 4°F ... < 392°F / 1 % reading > 392°F
Primary air / Ambient air temperature	32 ... 212°F (0 ... 100 °C)	1°F	± 2°F
Differential temperature	Up to 2,012°F (0 ... 1100°C) (with suitable material of sampling tube)	1°F	± 4°F ... < 392°F / 1 % reading > 392°F
Stack draft	+/- 40 inH <sub>2</sub> O (120hPa)	1 Pa	± 0.01 inH <sub>2</sub> O or 1% reading
Differential pressure	+/- 120 inH <sub>2</sub> O (120hPa)	1 Pa	± 0.01 inH <sub>2</sub> O or 1% reading
Gas flow velocity measurement	3 ... 100 m/s (using Pitot tube)	0.1 m/s	

### GENERAL SPECIFICATIONS

Internal memory	16,000 data sets
Data transmission	via USB, SD Card
Interfaces	USB
Display	3.5" TFT color display
Operation temperature	41°F ... 113°F (5 ... 45°C) max. 95 % RH, none condensing
Storage temperature	-4°F ... 122°F (-20°C ... 50°C)
Ambient conditions	not in aggressive, corrosive, or high dust ambience, not for use in hazardous areas
Battery operated	Lithium-Ion battery, 10 h operation time for base unit / 25h operation time for RCU
Grid power supply	100 - 240 V AC / 50 ... 60 Hz 1.4A
Protection class	IP 30 base unit / IP 20 base unit open
Weight	approx. 16.3 lbs.
Dimensions	(W x H x D) 18.5" x 9" x 12" complete unit / 7.36" x 3.54" x 1.5" RCU

Data subject to change without notice

#### Distributed By:



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