

# THE ULTIMATIVE ANALYZER FOR PROFESSIONALS

Hightech flue gas analysis



**NOVA**  
*compact*

- » Fast and accurate measurements of all gas, oil and solid fuels combustions
- » Suitable also for CHP's (cogeneration heat and power engines)
- » Flow velocity measurements
- » Pipe leakage tests
- » Burner diagnosis software
- » Differential temperature measurement
- » Differential pressure measurement



# Emission measuring technique since 1984

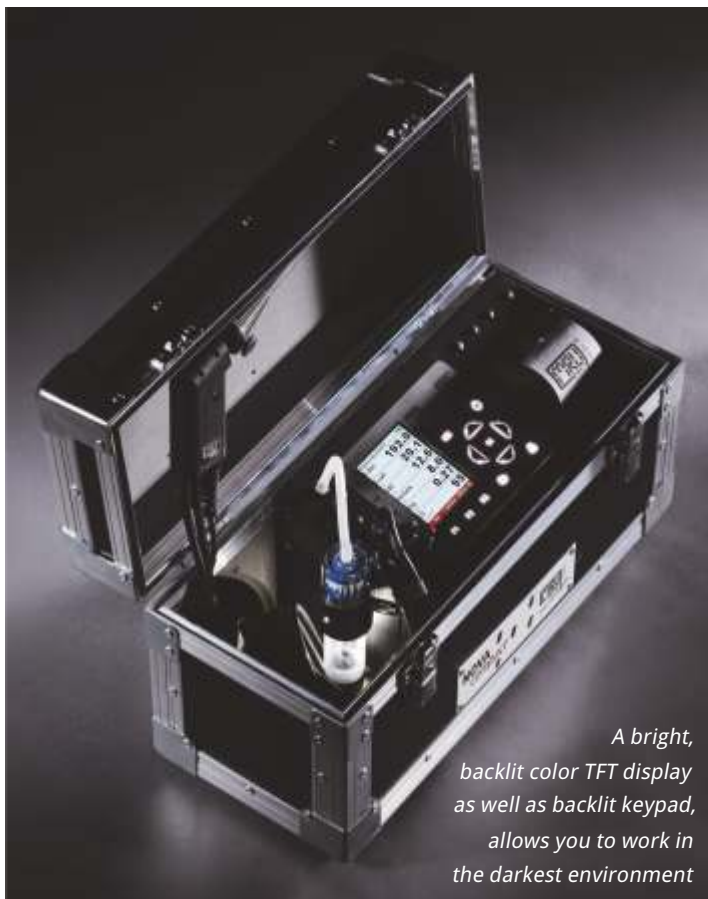
for residential boilers and industrial sites as well

MRU, manufacturer of measuring instruments for flue gases and environmental protection, is specialized since 1984 in designing, manufacturing and sales of modern flue gas analyzers made in Germany.

The handheld, portable and stationary products of MRU are being used worldwide to measure emissions at all combustion sources.

The Optima7 is the most power full handheld flue gas analyzer world-wide.

Products, news and other information are available at [www.mru.eu](http://www.mru.eu)



*A bright, backlit color TFT display as well as backlit keypad, allows you to work in the darkest environment*



## NOVAcompact

New cutting edge technology

This analyzer is mounted inside a small, rugged aluminum framed case (6.8 kg weight) and the technology inside the unit is everything the professionals and installers need to measure all fuel type combustions including cogeneration heat and power engines. Great advantage:

Wireless data transfer over bluetooth to smartphone or tablet using MRU smart data app.



*Rugged aluminum framed transport case, versatile usable*

*Wireless bluetooth data transfer to smartphone or tablet*



## Let us introduce:

**the new standard**

**NOVAcompact** offers complete, unachieved, innovative features for day to day measurements:

- » Fast and accurate measurements of all gas, oil and solid fuels combustions, HVAC residential and commercial
- » Suitable also for CHP's (cogeneration heat and power engines)
- » Useful for wood chips, Pellets burner and boiler adjustment
- » Best suited for all industrial boilers, gas and diesel engines, cement furnaces and kilns, power plants, refineries, petrochemical plants and many more.

**NOVAcompact** is perfectly suited for long time adjustments of residential burners & boilers and industrial sites with:

- » Electric gas cooler (Peltier) and condensate draining pump for long time measurements
- » Integrated fast, thermal printer
- » Bluetooth interface
- » SD-card reader and mini-USB interface
- » Integrated Lithium-Ion battery
- » 250 / Ø8 mm stainless steel gas sampling tube with fixing cone and 2,2 m flexible tripple hose
- » AUX connector for additional transducers/sensors measurements
- » Small, compact and rugged case
- » Keypad with backlight



## TECHNICAL SPECIFICATION

<b>NOVAcompact analyzer</b>	Portable analyzer with up to 5 electrochemical sensors
Fuel types	natural gas, liquid gas, oil light, pellets, wood, coal, user definable fuels
<b>Measurement components</b>	<b>Measuring range</b>
Oxygen O <sub>2</sub>	0 ... 21,0 Vol-%
Carbon monoxide CO (H <sub>2</sub> -comp)	0 ... 4.000 ppm / 10.000 ppm*
Carbon monoxide CO low	0 ... 500 ppm / with 0,1 ppm resolution**
Carbon monoxide COhigh	0 ... 4.000 ppm / 20.000 ppm*
Carbon monoxide COvery high	0 ... 4 % / 10 %*
Nitric monoxide NO	0 ... 1.000 ppm / 5.000 ppm*
Nitric monoxide NO low	0 ... 300 ppm / with 0,1 ppm resolution**
Nitric dioxide NO <sub>2</sub>	0 ... 200 ppm / 1.000 ppm*
Sulfur dioxide SO <sub>2</sub>	0 ... 2.000 ppm / 5.000 ppm*
	*overload range recommend only for short time measurements **are not separate sensors; selected sensors are used with special calibration
Stack gas temperature T <sub>gas</sub>	0 ... 650 °C / 1.100 °C (with stainless steel / Inconel steel tube)
Differential temperature	up to 1.100 °C (with suitable material of sampling tube)
Combustion air temperature T <sub>air</sub>	0 ... 100 °C
Stack / Differential pressure	-100 ... +100 hPa
Gas flow velocity measurement	1 ... 40 m/s (using Pitot tube)
<b>Calculated values (fuel type depending)</b>	
Carbon dioxide CO <sub>2</sub>	0 ... CO <sub>2</sub> max.
Heat losses q <sub>A</sub>	0 ... 99,9 %
Efficiency	0 ... 100 % / 120 %
Air Ratio (Lambda)	1 ... 9,99
Excess Air	0 ... 99,9 %
CO/CO <sub>2</sub> ratio	0 ... 10
<b>General specifications</b>	
Operation temperature	+ 5 ... + 45 °C, max. 95 % RH, none condensing
Storage temperature	-20 ... + 50 °C
Ambient conditions	not in aggressive, corrosive or high dust ambience, not for use in hazardous areas
Power supply	Lithium-Ion battery, 10 h operation, (with gas cooler 2 ... 3 h)
Grid power supply	100 - 240 Vac / 50 ... 60 Hz / 60 W
Weight	approx. 6,8 kg
Dimensions	(W x H x D) 423 x 240 x 176 mm

DATA SUBJECT TO CHANGE WITHOUT NOTICE

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