

NOVA compact

THE ULTIMATE ROBUST AND COMPACT ANALYZER FOR PROFESSIONALS



Simultaneous measurement of
up to **4** gas components



since 1984 ®

AIR fair

EMISSION MONITORING SYSTEMS

O₂

CO₂

CO

CO
HIGH

NO

NO_x

NOVA compact

For professionals who are looking for an extremely compact and rugged analyzer
Equipped with everything needed for daily checks for combustions of all kinds
Intuitive and user-friendly

Functions of the NOVAcompact

- >> Simultaneous measurements of up to 5 gas components!
E.g. O₂, CO, NO, NO(x), CO-high, CO-very high
- >> Gas temperature measurement up to 2,012°F (use stainless steel up to 1,200°F, use Inconel tubes up to 2,012°F)
- >> Large condensate separator with PTFE (Teflon) coated filter
- >> Air purging pump for CO-sensor protection
- >> Built-in printer with easy paper loading
- >> Internal data storage for up to 16,000 measurements!
- >> Battery and grid power operation:
High energy Li-Ion battery (up to 10 hours operation time / with gas cooler approx. 2 - 3 hrs.)
Wall-plug, universal grid power supply, 100-240Vac/50-60Hz / 12V dc
- >> Color backlit TFT display
- >> Durable and dirt resistant LED lit keypad
- >> Compact and robust transport case

Continuous analysis of:

O₂ Long-life (0...21.0 Vol.-%)
CO H₂-compensated (0 ... 4,000 / Overload 10,000 ppm)
Combustion air temperature (short plug included)
Stack gas temperature
Stack pressure
Differential pressure
Differential temperature

Combustion calculations (fuel type dependent):

CO₂
CO/CO₂ ratio
Dew point
Excess air and air ratio (Lambda)
Combustion efficiency
Heat losses

Interfaces:



USB:
Data Transfer



SD Card:
4 GB data memory

OPTIONAL *



Bluetooth*:
Data transfer



AUX*:
For additional
external sensors

NOVA compact

Don't compromise accuracy for portability!

The NOVAcompact gives you the best of both!

FLUE GAS
measurement



TEMPERATURE
measurement



PRESSURE
measurement



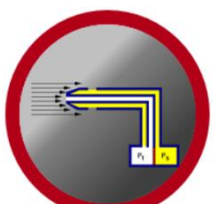
GAS LEAKAGE
detection



PROBE TUBES
are available



FLOW - SPEED
measurement



SPEED PRINTER
built in



GAS COOLER
low energy

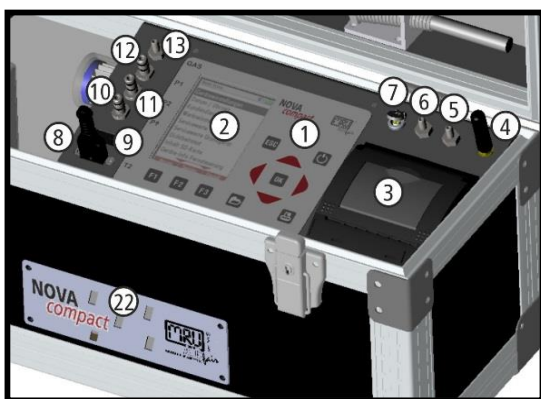


PROBES
and hoses

MRU offers a wide range of probes and hoses of all kind of applications

Standard probes for up to 1200°F
Industrial probes for up to 3000°F

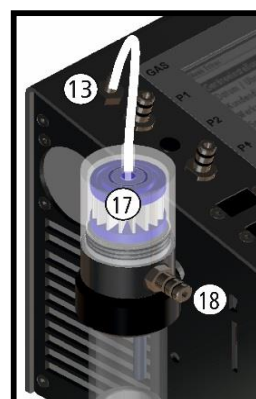
Between
4" and 80"



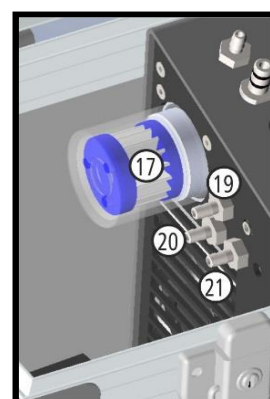
Front view



Side view



Condensate separator



Gas cooler version

- 1 Illuminated keypad
- 2 Display
- 3 Printer
- 4 Bluetooth antenna
- 5 Connector external filter inlet
- 6 Connector external filter outlet
- 7 AUX port
- 8 Connector Temp 1 (T Air)
- 9 Connector Temp 2 (T Gas)
- # Connector pressure / draft -
- # Connector TRGI (not for USA)

- # Connector pressure / draft +
- # Connector sample gas
- # Mini USB port
- # SD-card reader
- # Connector power supply
- # PTFE filter
- # Connector sample gas probe
- # Connector NOx/SOx filter inlet
- # Connector NOx/SOx filter outlet
- # Condensate outlet
- # Gas outlet

TECHNICAL SPECIFICATIONS

DATA SUBJECT TO CHANGE WITHOUT NOTICE

NOVAcompact analyzer	Portable analyzer with up to 4 electrochemical sensors
Fuel types	Natural gas, liquid gas, oil light, pellets, wood, coal, user definable fuels

Measurement components	Measuring range	Accuracy
O2 Oxygen	0 ... 21.0 Vol-%	± 0.2 Vol-% abs.
CO Carbon monoxide (H2 compensated)	0 ... 4,000 ppm overload 10,000ppm *	± 20 ppm or 5 % reading < 4,000 ppm / 10 % reading > 4,000 ppm
CO Carbon monoxide low	0 ... 500 ppm with 0.1 ppm resolution **	± 2.0 ppm or** 5 % reading
CO Carbon monoxide high	0 ... 4,000 ppm overload 20,000ppm *	± 20 ppm or 5 % reading < 4,000 ppm / 10 % reading > 4,000 ppm
CO Carbon monoxide very high	0 ... 40,000 ppm overload 100,000ppm *	± 0.02% or 5 % reading < 0.4% / 10 % reading > 0.4%
NO Nitric oxide	0 ... 1,000 ppm overload 5,000ppm *	± 5 ppm or 5 % reading < 1,000 ppm / 10 % reading > 1,000 ppm
NO Nitric oxide low	0 ... 300 ppm with 0.1 ppm resolution **	± 2.0 ppm or** 5 % reading

*overload range recommend only for short time measurements

**are not separate sensors; selected sensors are used with special calibration

Stack / Flue gas temperature	0 ... 1,200°F / 2,012°F (with stainless steel / Inconel steel tube)	± 4°F ... < 392°F / 1 % reading > 392°F
Primary-air / Ambient temperature	0 ... 212°F	± 2°F
Differential temperature	up to 2,012°F (with suitable material of sampling tube)	± 4°F ... < 392°F / 1 % reading > 392°F
Stack / Differential pressure	+/- 40 inH2O (100hPa)	
Gas flow velocity measurement	1 ... 40 m/s (using Pitot tube)	

Calculated values (fuel type dependent)

Carbon dioxide	0 ... CO2 max.	Air Ratio (Lambda)	1 ... 9.99
Heat losses qA	0 ... 99.9 %	Excess Air	0 ... 99.9
Efficiency	0 ... 100 % / 120 %	CO/CO2 ratio	0 ... 10

General specifications

Operation temperature	41°F 113°F, max. 95 % RH, non condensing
Storage temperature	-4°F 122°F
Ambient conditions	not in aggressive, corrosive or high dust environments, 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. 15lbs (6.8 kg)
Dimensions	16.65" x 9.45" x 6.93" (W x H x D) 423 x 240 x 176 mm