EMISSION MONITORING SYSTEMS

We care about the environment

NOVA 2000
A MULTI PURPOSE ANALYZER

MRU® AIRfair
EMISSION MONITORING SYSTEMS

NOVA 2000 –
WORLD CLASS

O_2 CO CO high NO NO_2 SO_2

NOVA 2000

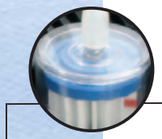
IN A CLASS BY ITSELF

Light, robust and portable.
The Nova 2000:
built to meet the most stringent requirements.

- Complete basic instrument, ready to take measurements.
- Upgradable to top-of-the-line capabilities using versatile hardware and software.
- Very secure: select materials used in construction and most functions are monitored electronically.
- Up to 4 electrochemical cells
- Suitable for solid fuel combustion measurements.

Shelf with lid for grid power supply and accessories

Condensate separator with special star filter, optional electric gas cooler



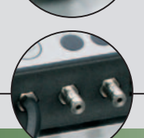
Control LED for battery charge, main power supply, probe heating, electric gas cooler and sample flow

Light-weight, elegant round profile designer case

High speed thermal printer with easy paper loading

Robust quick connector for electrical connections

Robust metal fittings for sample gas and pressure measurements



MMC card for additional data storage

USB and RS 232 interface

"Purafil" filter protects against acid gases

8-line backlit graphical display

OPTIONS:

- Soot measurement incl. heated probe grip
- Simulanteous diff. pressure measurement ± 100 hPa and gas measurement
- Landis & Staefa and Satronic burner control failure reading software
- Electric gas cooler for sample gas drying with automatic condensate draining
- Internal heater (freeze protection)
- Use of 2 additional electrochemical cells (e.g. NO, NO_2 or SO_2)
- MMC (SD) card for additional data storage
- Integrated USB interface for data transfer to PC
- Integrated BlueTooth interface for data transfer to PDA
- AUX connector for external universal transmitter data logging
- Separate filter set for solid fuel combustions
- User administration with PIN code protection
- Automatic interval measurement (with average, store and print)
- Differential temperature measurement
- Sample gas flow monitor and tightness check

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TECHNICAL DATA:

Fuel types	Light oil No 2 & 6, natural gas, coke oven gas, blast furnance gas, propane, butane, coal, pellets (others on request)		
Components	**Measuring range**	**Accuracy** (whichever is higher)	**Resolution**
O_2	0 - 21 Vol-%	± 0.2 Vol-% abs.	0.1 %
CO (H_2 compensated)	0 - 4,000 ppm, overload up to 10,000 ppm	± 20 ppm or 5 % reading / £ 4,000 ppm	1 ppm
		10 % reading / > 4,000 ppm	1 ppm
CO high (option)	0 - 4,000 ppm, overload up to 20,000 ppm	± 100 ppm or 5 % reading / £ 4,000 ppm	1 ppm
		10 % reading / > 4,000 ppm	1 ppm
CO very high (option)	0 - 40,000 ppm, overload up to 100,000 ppm	± 200 ppm or 5 % reading / £ 40,000 ppm	1 ppm
		10 % reading / > 40,000 ppm	1 ppm
NO (option)	0 - 1,000 ppm, overload up to 5,000 ppm	± 5 ppm or 5 % reading / £ 1,000 ppm	1 ppm
		10 % reading / > 1,000 ppm	1 ppm
NO_2 (option)	0 - 200 ppm, overload up to 1,000 ppm	± 5 ppm or 5 % reading / £ 200 ppm	1 ppm
		10 % reading / > 200 ppm	1 ppm
SO_2 (option)	0 - 2,000 ppm, overload up to 5,000 ppm	± 10 ppm or 5 % reading / £ 2,000 ppm	1 ppm
		10 % reading / > 2,000 ppm	1 ppm
Stack gas temp. T_G	0 - 650 °C (32 - 1202°F) using SS sampling tube	± 2 °C / < 200 °C	1 °C
	0 - 1,100 °C (32 - 2012 °F) using Inconel samp.tube	1 % reading > 200 °C	0.1 °C
Comb. air temp. T_A	0 - 100 °C (32 - 2012 °F)	± 1 °C	0.1 °C
Draft measurement	± 100 hPa	± 0.03 hPa or 1% reading	0.5 Pa
Differential pressure	± 100 hPa	± 0.03 hPa or 1% reading	0.5 Pa
Soot measurement	automatic, heated filter paper method		
Calculated values	dependent on fuel		
CO_2	0 - CO_2 max	± 0.3 Vol-% abs.	0.1 %
Dewpoint	°C		
Losses	0 - 99.9 %		
Efficiency	0 - 120 %		
Measured values as	mg/Nm³ referenced to O_2, mg/KWh, NOx as mg/Nm³ NO_2		
Operation temp.	+ 5 - + 45 °C (41 - 113 °F), max. 95 % humidity, not condensing		
Storage temperature	- 20 - + 50 °C (-4 - 122 °F)		
Power supply	internal: 12 V / 1.8 Ah battery, 8 h operation (without gas cooler) external: universal grid power, 110 - 230 Vac / 12 Vdc		
Protection class	IP 20		
Weight	Approx. 8.0 kg (17.5 lbs)		
Dimensions	(W x H x D) 420 x 300 x 266 mm (16.5 x 12 x 10.5 inches)		

MRU
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