EMISSION MONITORING SYSTEMS

We *care* about the environment

HANDHELD MULTIGAS ANALYZER

BEST PERFORMANCE BEST PRICE

LOW WEIGHT: LESS THAN 800 gr.

Now availiable with true 7 sensors: additional H_2S and CO_2

MRU since 1984 ®
AIR fair
EMISSION MONITORING SYSTEMS

OPTIMA 7

THE MOST POWERFUL HANDHELD MULTIGAS ANALYZER FOR INDUSTRIAL COMBUSTIONS, EMISSION AND PROCESS MONITORING MEASUREMENTS USING UP TO 7 SENSORS

O_2 | CO_2 NDIR | CO | CO low | NO | NO low | NO_2 | NO_x | SO_2 | H_2S

Now availiable with true 7 sensors: additional H_2S and CO_2

optma7

THE SLIM MULTI TALENT HANDHELD FLUE GAS ANALYZER USING UP TO 7 SENSORS

Suitable for emission monitoring of combustions and industrial processes

Main features:

- Modern, slimline enclosure with fixing magnets
- Super bright, colour 3,5" TFT-display with LED backlight
- Mini-USB for cable data transfer
- IRDA interface for high speed infrared printer
- Integrated condensate separator with PTFE filter and LED backlight
- Menu guided software and function keys
- Robust stainless steel gas connectors
- Rechargeable Lithium-Ion battery for min. 15 hours, or NiMH for min. 6 hours operation
- Less than 800 gr. weight (for instrument only)

Mini-USB for cable data transfer and power supply or battery charging

IRDA printer interface

Bluetooth for wireless data transmission

2GB SD-card for data storage

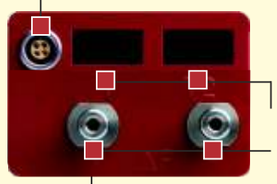
PC software for wireless or cable data acquisition

3,5" TFT display Super bright, colour 3,5" TFT display with backlight and zoom function

CO-sensor protection by fresh air purging pump

Menu guided software and function keys

User friendly, dirt and moisture resistant keypad



AUX universal auxiliary socket, for connection of HC or CO gas detector, other pressure, temperature external sensors

K-type temperature sockets

Robust stainless steel gas connectors

Condensate separator Effective, backlit condensate separator with reusable Teflon filter for protection against dirt and soiling

Measurement of:	
O_2	0 ... 21,00 %
CO_2 IR bench	0 ... 40/60 %
CO_2 calculated value	0 ... 20,00 %
CO low	0 ... 500 ppm
CO/H_2 compensated	0 ..10.000 ppm
NO low	0 ... 300 ppm
NO	0 ... 5.000 ppm
NO_2	0 ... 1.000 ppm
NO_x	0 ... 5.000 ppm
SO_2	0 ... 5.000 ppm
H_2S	0 .. 2.000 ppm
CO high	0 ... 2,0 %
CO very high	0 ... 10,00 %
Combustion air temperature	up to 100 °C
Stack gas temperature	up to 1.100 °C *
Stack draft measurement	± 100 hPa
Differential pressure	± 100 hPa
Differential temperature	-40 ... 1.200 °C *

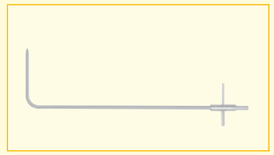
* with adequate probes

Transport case including infrared high speed printer

Shoulder strap

CE

TÜV By RgG 280 VDI 4206-1



Gas flow velocity measurement with m/s, absolute pressure sensor and different pitot tubes

Probes and hoses MRU offers a wide range of standard (up to 650 °C) and industrial probes (up to 1.100 °C) with various lengths

Technical Specifications

OPTIMA 7 GAS ANALYZER	Handheld analyzer with up to 7 sensors	
Fuel types	natural gas, liquid gas, oil heavy, oil light, pellets, wood, bio diesel, expandable fuel type list	
Measurement components:	*range*	*accuracy*
Oxygen O_2	0 ... 21,0 Vol-%	± 0,2 Vol-% abs.
Carbon dioxide CO_2 IR bench	0 ... 40/60 Vol-%	± 0,3 % or** 5 % of the measured value
Carbon monoxide CO (H2-comp)	0 ... 4.000 ppm * overload up to 10.000 ppm	± 10 ppm or** 5 % reading up to 4.000 ppm or** 10 % reading up to 10.000 ppm
Carbon monoxide CO low (special software and calibration)	0 ... 500 ppm (with 0,1 ppm resolution)	± 2,0 ppm or** 5 % reading
Carbon monoxide CO very high	0 ... 4,00 % * overload up to 10,00 %	± 0,02% or** 5 % reading up to 4,00 % or** 10 % reading up to 10,00 %
Nitric monoxide NO	0 ... 1.000 ppm * overload up to 5.000 ppm	± 5 ppm or** 5 % reading up to 1.000 ppm or** 10 % reading up to 5.000 ppm
Nitric monoxide NO low (special software and calibration)	0 ... 300 ppm (with 0,1 ppm resolution)	± 2,0 ppm or** 5 % reading
Nitric dioxide NO_2	0 ... 200 ppm * overload up to 1.000 ppm	± 5 ppm or** 5 % reading up to 200 ppm or** 10 % reading up to 1.000 ppm
Sulfur dioxide SO_2	0 ... 2.000 ppm * overload up to 5.000 ppm	± 10 ppm or** 5 % reading up to 2.000 ppm or** 10 % reading up to 5.000 ppm
Hydrogen sulfide H_2S	0 ... 500 ppm * overload up to 2.000 ppm	± 5 ppm or** 5 % reading up to 500 ppm or** 10 % reading up to 2.000 ppm
Stack gas temperature T. Gas	0 ... 650 °C (stainless steel tube) 0 ... 1.100 °C (Inconel steel tube)	± 2 °C ... < 200 °C or**1 % reading up to 200 °C ± 2 °C ... < 200 °C or**1 % reading up to 200 °C
Combustion air temperature T. Air	0 ... 100 °C	± 1 ° C
Temperature / Differential temperature T1 / T2	-40 °C ... 1.200 °C (with thermocouple type K)	± 2 °C or**1 % reading
Draft / Differential pressure	- 100 ... + 100 hPa	± 0,02 hPa
Calculated values: (fuel type depending)		
Carbon dioxide CO_2	0 ... 20 %	± 0,3 Vol-% abs.
Heat losses qA	0 ... 99,9 %	
Efficiency η	0 ... 120 %	
Air Ratio λ	1,... 9,99 %	
Excess Air	0... 99,9 %	
Combustion calculations	based on the large fuel type list like: CO_2, excess air, heat losses, combustion efficiency, flue gas dew point, CO / CO_2 ratio	
Emission calculations	mg/Nm^3, NOx as mg/m^3 NO_2 true measurement of NOx = NO + NO_2, including O_2 referencing (normalisation) to user settable value	
CO-sensor purge (option)	using 2nd pump, for sensor protection	
General specifications:		
Operation temperature	+ 5 ... + 45 °C, max. 95 % RH, none condensing	
Storage temperature	0 ... + 50 °C	
Power supply	High energy Lithium-Ion battery 15 h operation or NiMH battery, min. 6 h operation	
Mains	wall-plug grid power supply, 100 - 240 Vac / 50 ... 60 Hz	
Protection class	IP 20	
Weight	approx. 750 g (with 2 sensors)	* for SHORT-TERM measurements only !
Dimensions	(W x H x D) 110 x 225 x 52 mm	** which ever is larger!

DATA SUBJECT TOCHANGE WITHOUT NOTICE

OPTIMA 7 – Amazing Functionality & Versatility in a Handheld Analyzer
MRU – Always a safe and sustainable decision

Dealer:

MRU ® since 1984
AIR fair
EMISSION MONITORING SYSTEMS

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