

**PRODUCT OVERVIEW**

# 707 Handheld Multi-Gas Emissions Analyzer



**Fast**

**Accurate**

**Low Maintenance**

- Easy to hold, hand-held emissions analyzer for industrial combustion, emissions, and process monitoring
- Measure up to seven different gases
- Can be equipped with up to 6 electrochemical sensors and a CO<sub>2</sub> IR-bench for simultaneous measurements

# Lightweight, Handheld Flue Gas Analyzer

Suitable for emission monitoring of combustions and industrial processes now with seven sensors.  
**CO<sub>2</sub> 0-20% (IR-Bench) & H<sub>2</sub>S 0-500 ppm (EC Sensor).**

## Main Features

- Modern, slimline enclosure with fixing magnets
- Super bright color 3.5" TFT-display with LED backlight
- Mini-USB for cable data transfer
- IRDA interface for high speed infrared printer
- Integrated condensate trap with PTFE filter and LED backlight
- Menu guided software and function keys
- Robust stainless steel gas connectors
- Rechargeable lithium-ion battery for minimum 15 hrs. or NiMH for minimum 6 hrs operation
- Lightweight – less than 800 gr. (1.7 lbs) weight

Measurement of:	
O <sub>2</sub>	0 – 21,00%
CO <sub>2</sub> IR bench	0 – 20,00%
CO <sub>2</sub> calculated value	0 – 20,00%
CO low	0 – 300 ppm
CO/H <sub>2</sub> compensated	0 – 10,000 ppm
NO low	0 – 300 ppm
NO	0 – 5,000 ppm
NO <sub>2</sub>	0 – 1,000 ppm
NOx	0 – 5,000 ppm
SO <sub>2</sub>	0 – 5,000 ppm
H <sub>2</sub> S	0 – 500 ppm
CO high	0 – 2,0%
CO very high	0 – 10,00%
Combustion air temperature	up to 100°C (212°F)
Stack gas temperature	up to 1,100°C (2,012°F)*
Stack draft measurement	± 100 hPa
Differential pressure	± 100 hPa
Differential temperature	up to 1,100°C (2,012°F)*

\* with adequate probes



ABS transport case including infrared high speed printer



Shoulder strap



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/1,202°F) and industrial probes (up to 1,100°C/2,012°F) with various lengths

## TECHNICAL SPECIFICATIONS

Optimal Seven Gas Analyzer Fuel types	Handheld analyzer with up to five electrochemical sensors natural gas, liquid gas, oil heavy, oil light, pellets, wood, bio diesel, expandable fuel type list	
Measurement components:	Range	Accuracy
Oxygen O <sub>2</sub>	0 – 21,0 Vol-%	± 0.2 Vol-% abs
Carbon dioxide CO <sub>2</sub> IR bench	0 – 20 Vol-%	± 0.4 Vol-% abs
Carbon monoxide CO (H <sub>2</sub> -comp)	0 – 4,000 ppm * Overload up to 10,000 ppm	± 10 ppm or** 5% reading up to 4,000 ppm or** reading up to 10,000 ppm
Carbon monoxide CO low (special software and calibration)	0 – 300 ppm (with 0,1 ppm resolution)	± 2.0 ppm or** 5% reading
Carbon monoxide CO high	0 – 4,000 ppm * Overload up to 20,000 ppm	± 100 ppm or** 5% reading up to 4,000 ppm or** 10% reading up to 20,000 ppm
Carbon monoxide CO very high	0 – 4,000 ppm * 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 <sub>2</sub> low (special software and calibration)	0 – 300 ppm (with 0,1 ppm resolution)	± 2.0 ppm or** 5% reading
Nitric dioxide NO <sub>2</sub>	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 <sub>2</sub>	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 <sub>2</sub> S	0 – 50 ppm * Overload up to 500 ppm	± 5 ppm or** 5% reading up to 100 ppm or** 10% reading up to 500 ppm
Stack gas temperature T.Gas	0 – 650°C (32 – 1,202°F) (stainless steel tube) 0 – 1,100°C (32 – 2,012°F) (inconel steel tube)	± 2 – <200°C (±35.6 – < 392°F) or** 1% reading up to 200°C (392°F)
Differential temperature	up to 650°C (1,202°F) or up to 1,100°C (2,012°F) (with suitable temperature sampling tube)	
Combustion air temperature T.Air	0 – 100°C (32 – 212°F)	
Draft/Differential pressure	-1 – + 100hPa	

Calculated values: (fuel type depending)		
Carbon dioxide CO <sub>2</sub>	0 – 20%	
Heat loss 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 <sub>2</sub> , excess air, heat losses, combustion efficiency, flue gas dew point, CO/CO <sub>2</sub> ratio	
Emission calculations	mg/Nm <sup>3</sup> , NOx as mg/m <sup>3</sup> NO <sub>2</sub> true measurement of NOx = NO + NO <sub>2</sub> , including O <sub>2</sub> referencing (normalisation) to user settable value	
CO-sensor purge (option)	using second pump, for sensor protection	
General specifications		
Operation temperature	+5 – =45°C (+41 – = 113°F), max. 95% RH, none condensing	
Storage temperature	0 – +50°C (32 – +122°F)	
Ambient conditions	not in aggressive, corrosive or high dust ambience, not for use in hazardous areas	
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 (1.65lbs) (with 2 sensors)	
Dimensions	(W x H x D) 110 x 225 x 52 mm (4.3 x 8.9 x 2 inches)	

\* For SHORT-TERM measurements only!

\*\* Whichever is larger!

## GAIN REAL-TIME INSIGHT INTO YOUR PROCESS

Process Insights manufactures and delivers premium sensors, monitors, detectors, analyzers, instrumentation, and software that are mission-critical to keep your operations, personnel, and the environment safe – every day across the globe.

Get the most reliable, precision analytical technologies available on the market today. We will work to match your needs and budget, and provide the optimal, and most stable process analysis solution for your application.

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For a complete range of products, applications, systems, and service options, please contact us at: [info@process-insights.com](mailto:info@process-insights.com)

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