

**COMBUSTION GAS ANALYZER
IMR 1400 SERIES – COMPACT****IMR 1400 – COMPACT**

- ❖ Designed to measure flue gases on
 - Boilers
 - Burners
 - Engines
- ❖ Developed to meet the customers need
- ❖ High quality combustion gas analyzer using the latest sensor technology
- ❖ Easy to use and measures all the important parameters to adjust and optimize the combustion process
- ❖ Applications: Boilers, Burners, Engines, Turbines, Cars, Trucks, Plants, Chemical Industries, Steel Plants, Refineries, etc.

IMR 1400-C**STANDARD FEATURES**

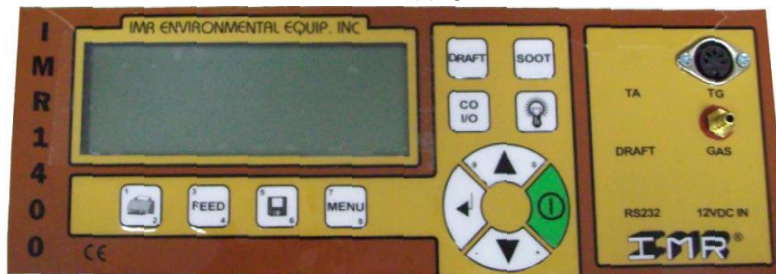
- ❖ Portable and very compact combustion gas analyzer housed in a rugged aluminum case
- ❖ Simultaneous measurement of
 - O₂ Oxygen
 - CO Carbon Monoxide
 - TG Flue-gas temperature
- ❖ Calculation of following parameters according ASME-equations
 - Combustion efficiency
 - Losses
 - Excess Air
 - CO₂ Carbon Dioxide
- ❖ 7 Fuels are programmed – 5 fuels are programmable
- ❖ Automatic zero calibration
- ❖ Integrated self-check program
- ❖ Simultaneous display of eight parameters on the illuminated display
- ❖ Unit selection:
ppm - mg - mg (ref O₂) – mg/kWh

- ❖ Gas sampling probe E: – length 250mm (0.8ft.), hose 2.5m (8ft.)
- ❖ Probe useable in temperatures up to 2192°F / 1200°C
- ❖ Rechargeable battery with integrated charger
- ❖ Selectable power supply 120V or 230V

OPTIONAL FEATURES

- ❖ Gas sampling probes with different lengths
- ❖ Electronic controlled soot measurement
- ❖ Draft measurement
- ❖ NO-measurement
- ❖ SO₂-measurement
- ❖ NO₂-measurement
- ❖ H₂S-measurement
- ❖ HC/CH₄-measurement
- ❖ CO₂-measured (NDIR sensor)
- ❖ CO-bypass valve with purging pump
- ❖ 12V DC power jack
- ❖ RS232 interface for real-time uploading of measurements to PC
 - Memory for 200 measurements

IMR 1400-C


IMR 1400C Basic

Parameter	Principle	Resolution	Range
O ₂ – Oxygen	Electro-Chemical	0.1 % vol.	0-20-9% vol.
CO – Carbon Monoxide	Electro-Chemical	1 ppm	0-2000/4000ppm
CO ₂ – Carbon Dioxide	Calculated	0.1 % vol.	0-CO ₂ max
TG – Temperature Gas	NiCr-Ni Thermocouple	1°C / 1°F	-20-1200°C 0-2192°F
Combustion Efficiency	Calculated	1 %	0-100 %
Heat Losses	Calculated	1 %	0.0-99.9 %
Excess Air	Calculated	1 %	1.0-9.0 %

Optional Possible Sensors

SO ₂	Electro-Chemical	1 ppm	0-4000 ppm
NO	Electro-Chemical	1 ppm	0-2000 ppm
NO ₂	Electro-Chemical	1 ppm	0-100 ppm
H ₂ S	Electro-Chemical	1 ppm	0-200 ppm
HC/CH ₄	Pellistor	0.1 % vol.	0-100 % lel
CO ₂	NDIR	0.1 % vol.	0-20% vol.

Optional Possible Features

Soot Measurement	Filter Paper Method		
Draft	Solid State	hPa	0-40 hPa
12V DC Charging			
RS232	Upload to PC in real-time		
Memory	200 Measurements		

Other measurement ranges are available upon request

Tolerance ± 2%

Equipped with 4 sensors max

IMR 1400 Series - Compact

Model Selection

	O2, CO, CO2, Flue Temp., Efficiency, Losses, Excess Air	Soot Measurement, Soot Gas Probe, Soot Filter & Comparison Scale, Draft, 12V DC charging, RS232, Memory
	Item #	Item #
IMR 1400C (Basic)	14000	14000-S
IMR 1400C + NO	14090-NO	14090-NO-S
IMR 1400C + NO ₂	14092	14092-S
IMR 1400C + SO ₂	14091-SO2	14091-SO2-S
IMR 1400C + H ₂ S	14093	14093-S
IMR 1400C + HC	14094	14094-S
IMR 1400C + NO & SO ₂	14095-NO/SO2	14095-NO/SO2-S

Customized sensor configuration available on request.

Different gas probe lengths available: Select from 250mm, 750mm*, 1500mm*
*additional cost

ASM
Dimensions: 12"x9"x4.6"
Weight: 6.7lb

Metric
Dimensions: 305x228.6x117mm
Weight: 2.9kg

IMR Environmental Equipment, Inc. reserves the right to adopt technical modifications without prior notice.

Optional Equipment

RPM Meter
Tachometer: 180-10,000 RPM
DC: 200mV to 1000V
AC: 200V to 750V



Pitot Tube
Measure flow in m/s



Soot Meter
Measures precise soot number from 0.0 to 9.9
More accurate than a paper scale



IMR Data Software
Upload stored measurements or
upload data in real time



Dealer: