3634 Central Ave. · St. Petersburg, Florida 33711 · Phone 727-328-2818 · 800-RING-IMR · FAX 727/328-2826 · **E-mai**l: IMRUSA@GTE.net www.imrusa.com

# COMBUSTION GAS ANALYZER IMR 1400 series – compact

### IMR 1400 - compact

- has been designed to measure flue gases on
  - □ Boilers
  - Burners
  - Engines
- has been developed to meet the customers need
- is a high quality combustion gas analyzer using the latest sensor technology
- is easy to use and measures all the important parameters to adjust and optimize the combustion process



#### STANDARD FEATURES

- Portable and very compact combustion gas analyzer housed in a rugged aluminum case
- Simultaneous measurement of

O<sub>2</sub> Oxygen

CO Carbon Monoxide

TG Flue-gas temperature

Calculation of following parameters according ASME-equations

Combustion efficiency

Losses

Excess Air

CO<sub>2</sub> 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 O<sub>2</sub>) mg/kWh
- Gas sampling probe E length 0.8 ft, hose 8 ft
- Rechargeable battery with charger
- Power supply 110V or 230V

#### **OPTIONAL FEATURES**

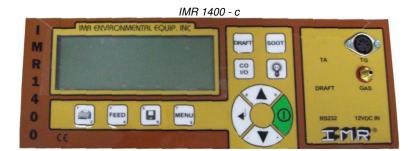
- Ambient air temperature probe
- Gas sampling probe with heated handle
- Gas sampling probes with different lengths
- Electronic controlled soot measurement
- Draft measurement
- NO-measurement
- ♦ SO₂-measurement
- NO<sub>2</sub>-measurement

- CO<sub>2</sub>-measured (NDIR sensor)
- HC-measurement
- CO-bypass valve with purging pump
- RS 232 interface
- Memory for 200 measurements
- 12V DC power jack
- Printer (1400 C/P)



## **Environmental Equipment, Inc.**

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PARAMETER	PRINCIPLE	RESOLUTION	ACCURACY	RANGE	STANDARD
O <sub>2</sub> Oxygen	Electro-chemical cell	0.1 Vol.%	± 0.2 %	0-20.9Vol. %	✓
CO Carbon monoxide	Electro-chemical cell	1 ppm	5 %	0-2000/4000ppm	✓
COp CO pure	Calculation	1 ppm	5 %		✓
NO Nitric oxide	Electro-chemical cell	1 ppm	5 %	0-2000 ppm	
NO <sub>2</sub> Nitric dioxide	Electro-chemical cell	1 ppm	5 %	0- 100 ppm	
SO <sub>2</sub> Sulfur dioxide	Electro-chemical cell	1 ppm	5 %	0-4000 ppm	
HC Hydrocarbons	Sensor	0.1%	5 %	0-100% LEL	
TG Flue gas temperature	NiCr-Ni	1 K	± 2 %	-4°F / 2192°F	✓
	thermocouple				
TA Air temperature	Semiconductor	1 K	$\pm$ 0.5 K	-4°F / 248°F	
P Draft	Solid state	0.004" H <sub>2</sub> O	± 2 %	- 12" / 20" H <sub>2</sub> O	
CO <sub>2</sub> Carbon dioxide**	Calculation	0.1 Vol.%	± 0.2 %	0- CO <sub>2</sub> max	✓
Efficiency	Calculation	1 %	± 0.5 %	0-999 %	$\checkmark$
Losses	Calculation	1 %	± 0.5 %	0-999 %	$\checkmark$
Excess Air	Calculation	1 %	± 2 %	0-999 %	$\checkmark$
Soot	Filter paper method				

Other measurement ranges are available upon request

Equipped with max 4 sensors

MODEL IMR 1400 – c Dimensions (inch): 12 x 9 x 4.6 Weight: 6.7 lb. (2.9kg)	PART-NO. IMR 14000
IMR 1400 – c/p (printer) Dimensions (inch): 16.7 x 7.3 x 11.4	IMR 14100

Weight: 13 lb. (5.8kg)



Represented by:

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

<sup>\*\*</sup>Optional: measured by CO2 NDIR sensor