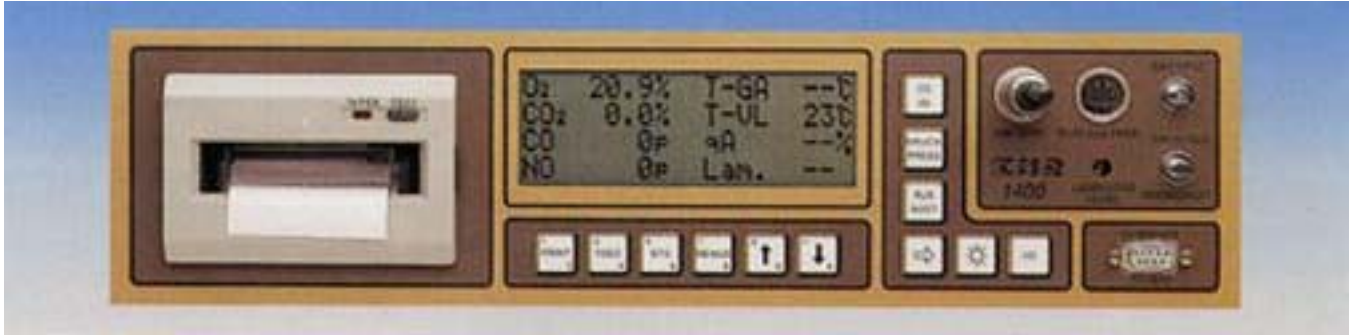




Environmental Equipment, Inc.

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www.imrusa.com

COMBUSTION GAS ANALYZER IMR 1400



IMR 1400

Portable, continuous measuring flue gas analysis instrument housed in an aluminum case for measuring air temperature, flue gas temperature, Oxygen O₂, Carbon monoxide CO (H₂ comp.), Nitric oxide NO, Nitric dioxide NO₂, Sulfur dioxide SO₂, Hydrocarbon HC, losses, excess air, combustion efficiency, Carbon dioxide CO₂, draft and soot. Simultaneous display of eight measured variables on the illuminated LCD. Integrated thermal printer and RS232 interface. Measurement printout or service printout, both include date, time and fuel type. ppm, mg, mg/kWh, mg (ref.O₂) units are selectable. Automatic and manual CO-bypass. Memory for 220 measurements. Case has additional space for spare parts.



STANDARD INSTRUMENT

Gas analyzer in an aluminum case
Memory
Thermal printer
Gas sampling probe S, length 10.5" (270mm), flexible hose 11.5 ft. (3.5m)
Condensation trap with integrated filter
Soot filter paper, soot comparison table
Power cord
User manual

Model		Part-No.
1400 P	O ₂ , CO	14280
1400 PL	O ₂ , CO, NO	14290
1400 PS	O ₂ , CO, NO, SO ₂	14295
	NO ₂ or HC instead of SO ₂	

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*****
* IMR 1400 - USA *
*****
I M R USA
Env. Equip. Inc.
5401 Central Ave.
St. Petersburg
FL , 33710
Ph: 888-746-4467
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*****
Date      Time
09/18/98  00:06:23am
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Natural gas
CO2max  11.7 %

GasTemp  66 °F
RoomTemp 64 °F
O2        8.5 %
CO2       11.4 %
CO        253 PPM
CO (0%O2) 259 PPM
NO        181 PPM
NO (0%O2) 183 PPM
SO2       8 PPM
SO2(0%O2) 8 PPM
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```
Exc. air  2.2 %
Losses   -- %
Effic.   -- %
NO(x)-Corr. - %
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THE PRIDE OF THE COMPANY - MADE IN USA -



STANDARD EQUIPMENT

- Illuminated display with simultaneous display of 8 measured values
- Languages: D, GB, F, USA, E, TR, etc.
- 7 programmed and 5 programmable fuels
- Measurement display is switchable between ppm, mg, mg(O₂) and mg/kwh
- Automatic zero calibration within 3 minutes. Re-calibration within 30 sec.
- Interface RS 232
- Printout of all measured and calculated parameters
- Electronic controlled soot measurement
- Automatic and manual CO overflow shut-off
- Battery status is shown on the measurement display
- After 1000 operating hours a "Service needed" note appears on the display..
- Integrated self-check program for all functions and parameters
- Gas sampling probe, length 10.5" (270mm), NiCr-Ni, flexible hose 11.5 ft. (3.5m)
- Air probe, length 5" (130mm), line 11.5 ft. (3.5m)
- Condensation trap with Integrated filter
- Operating temperature 50°F..104°F (10°C..40°C)
- Storing temperature -4°F..122°F (-2°C..50°C)
- Power supply 230V/50Hz, 110V/60Hz, 12VDC

TECHNICAL DATA

PARAMETER	MEASUREMENT PRINCIPLE	RESOLUTION	ACCURACY	RANGE	STANDARD 1400 P
O₂ Oxygen	Electrochem. sensor	0.1 Vol. %	± 0.2 %	0-20.9 Vol. %	✓
CO Carbon monoxide	Electrochem. sensor	1 ppm	Z	0-2000 ppm	✓
CopCarbon monoxide Undiluted	Calculation	1 ppm	Z		✓
NO Nitric oxide	Electrochem. sensor	1 ppm	Z	0-2000 ppm	1400PL 1400PS
NO₂ Nitric dioxide	Electrochem. sensor	1 ppm	Z	0- 100 ppm	1400PS
SO₂ Sulfur dioxide	Electrochem. sensor	1 ppm	Z	0-4000 ppm	1400PS
HC Hydrocarbons		0.1%	Z	0-100% LEL	1400PS
TG Gas temperature	NiCr-Ni thermocouple	1 K	± 2 %	-4°F..2192°F -20°C..1200°C	✓
TA Air temperature	Semiconductor	1 K	± 0.5 K	4°F..248°F -20°C..120°C	✓
P Draft	Solid state	0.004" H ₂ O 0.01 hPa	± 2 %	-12"H ₂ O/+20"H ₂ O -30hPa/+50hPa	✓
CO₂ Carbon dioxide	Calculation	0.1 Vol. %	± 0.2 %	0- CO ₂ max	✓
Combustion Efficiency	Calculation	1 %	± 0.5 %	0-99,9 %	✓
Losses	Calculation	1 %	± 0.5 %	0-99,9 %	✓
Excess air	Calculation	1 %	± 2 %	1,0-9,99	✓
Soot	Filter paper				✓
Dimensions	w x d x h			16.7 x 7.3 x 11.4 in. (425 x 185 x 290 mm)	
Weight					13 lb. (5.8 kg)

*Other measurement ranges are available upon request.
Maximum of 4 sensors for IMR 1400 PS (4th sensor is customer specified)*

Z = 0 - 20 % of whole measurement range ± 1 % of maximum measurement
21 - 100 % of whole measurement range ± 5 % of displayed measurement