

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

- ❖ 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
- ❖ Integrated Printer: each printout includes all information on the display
- ❖ Applications: Boilers, Burners, Engines, Turbines, Cars, Trucks, Plants, Chemical Industries, Steel Plants, Refineries, etc.

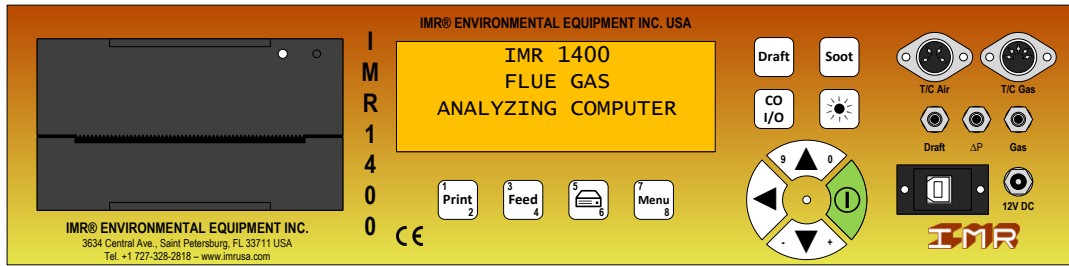
IMR 1400-CP**STANDARD FEATURES**

- ❖ 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
- ❖ Printer with programmable print out cycles
- ❖ 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
- ❖ USB interface for real-time uploading of measurements to PC
 - Memory for 200 measurements

IMR 1400-CP



IMR 1400CP 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 | | | |
| USB | 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 - Printer

Model Selection

| | O2, CO, CO2, Flue Temp., Efficiency, Losses, Excess Air | Soot Measurement, Soot Gas Probe, Soot Filter & Comparison Scale, Draft, 12V DC charging, USB, Memory |
|-----------------------------------|--|--|
| | Item # | Item # |
| IMR 1400CP (Basic) | 14100 | 14100-S |
| IMR 1400CP + NO | 14190-NO | 14190-NO-S |
| IMR 1400CP + NO ₂ | 14192 | 14192-S |
| IMR 1400CP + SO ₂ | 14191-SO2 | 14191-SO2-S |
| IMR 1400CP + H ₂ S | 14193 | 14193-S |
| IMR 1400CP + HC | 14194 | 14194-S |
| IMR 1400CP + NO & SO ₂ | 14195-NO/SO2 | 14195-NO/SO2-S |

Customized sensor configuration available on request.

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

ASM
Dimensions: 16.7"x11.4"x7.3"
Weight: 13lb

Metric
Dimensions: 425x290x185mm
Weight: 5.8kg

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: