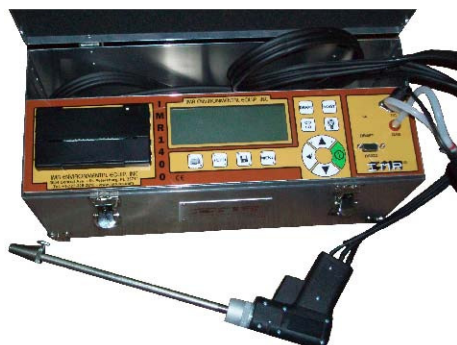


COMBUSTION GAS ANALYZER IMR 1400



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 | Default Sensors | Number of Optional Sensors | Optional Sensors | Part-No. |
|---------|---------------------|----------------------------|--|----------|
| 1400 P | O ₂ , CO | 0 | None | 14280 |
| 1400 PL | O ₂ , CO | 1 | NO, NO ₂ , SO ₂ , HC, H ₂ S | 14290 |
| 1400 PS | O ₂ , CO | 2 | NO, NO ₂ , SO ₂ , HC, H ₂ S | 14295 |

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*****
* IMR 1400 - USA *
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      I M R USA
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5401 Central Ave.
St. Petersburg
FL , 33710
Ph: 800-746-4467
    
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Natural gas
CO2max  11.7 %

Gastemp  66 °F
Roomtemp 64 °F
O2        0.5 %
CO2       11.4 %
CO        253 PPM
CO (Ø%O2) 259 PPM
NO        181 PPM
NO (Ø%O2) 183 PPM
SO2       8 PPM
SO2(Ø%O2) 8 PPM

Exc. air  2.2 %
Losses   -- %
Effic.   -- %

NO(x)-Corr. - %
    
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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, 6VDC

TECHNICAL DATA

| PARAMETER | MEASUREMENT PRINCIPLE | RESOLUTION | ACCURACY | RANGE** | STANDARD 1400 P |
|---|-----------------------|------------|--------------|--|-----------------|
| O₂ Oxygen | Electrochem. sensor | 0.1 Vol. % | ± 0.2 Vol. % | 0-20.9 Vol. % | ✓ |
| CO Carbon monoxide | Electrochem. sensor | 1 ppm | Z | 0-2000 ppm | ✓ |
| CO_p Carbon monoxide O₂ corrected | 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 | 1400PL 1400PS |
| SO₂ Sulfur dioxide | Electrochem. sensor | 1 ppm | Z | 0-4000 ppm | 1400PL 1400PS |
| HC Hydrocarbons | Pellistor | 0.1% | Z | 0-100% LEL | 1400PL 1400PS |
| H₂S Hydrogen Sulfide | Electrochem. sensor | 1 ppm | Z | 0-200 PPM | 1400PL 1400PS |
| TG Gas temperature | NiCr-Ni thermocouple | 1 K | ± 2 % | -4 °F..2192 °F -20 °C..1200 °C | ✓ |
| TA Air temperature | Semiconductor | 1 K | ± 0.2 K | -4 °F..248 °F -20 °C..120 °C | ✓ |
| P Draft | Solid state | 0.01 hPa | ± 2 % | ±40hPa | ✓ |
| CO₂ Carbon dioxide | Calculation | 0.1 Vol. % | ± 0.2 Vol. % | 0- CO ₂ max | ✓ |
| Combustion Efficiency | Calculation | 0.1 % | ± 0.1 % | 0-99.9 % | ✓ |
| Losses | Calculation | 0.1 % | ± 0.1 % | 0-99.9 % | ✓ |
| Excess air | Calculation | 0.1 % | ± 0.1 % | 1.0-9.99 | ✓ |
| Soot | Filter paper | | | 0-9 | ✓ |
| 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) |

** Different/customized ranges available.

Maximum of 3 sensors for IMR 1400 PL (3rd sensor is customer specified)

Maximum of 4 sensors for IMR 1400 PS (3rd sensor and 4th sensor are customer specified)

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