# IM 1440H

## PROFESSIONAL FLUE GAS ANALYSIS

*„The new IM1440H is the ideal instrument for heating technicians!“*

The IM1440H is easy to use and still very rugged. It measures not only all the needed parameters but it also has an automatic pressure test for gas pipes.

***Highlights of the new IM1440H:***

- Easy to operate
- Automatic pressure test
- High speed thermal printer with an easy paper loading system
- Volume controlled soot measurement
- Draft / Pressure measurement
- Additional differential pressure measurement
- CO-bypass valve with additional purge pump
- Rugged case with additional compartment

| MEASURED PARAMETERS | |
|---|---|
| Oxygen | O2 in Vol.% |
| Carbon Monoxide | CO in ppm |
| Flue gas temperature | TG in °C |
| Ambient temperature | TA in °C |
| Draft / Pressure | P in hPa |
| Soot | Filter paper 0-9 |

| CALCULATED VALUES | |
|---|---|
| Carbon Dioxide | CO2 in Vol.% |
| Heat losses | qA |
| Combustion efficiency | |
| Excess Air | LAMBDA |

**FEATURES**

- Rugged case with additional compartment
- Condensation trap with integrated filter
- 4-lines, backlit LCD Display for simultaneous display of 8 values
- RS232 interface
- Memory for 200 measurements
- Rechargeable battery with status indicator; up to 6 hours
- Volume controlled soot measurement
- High speed thermal printer with an easy paper loading system
- CO-bypass valve with purge pump to protect the CO-Sensor
- Diagnostic program
- Gas sampling probe
- Manual, soot filter, soot scale
- Power cord

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## TECHNICAL DATA

| PARAMETER | | PRINCIPLE | RESOLUTION | ACCURACY | RANGE |
|---|---|---|---|---|---|
| $O_2$ | *Oxygen* | Electrochemical | 0.1 Vol.% | ± 0.2 % | 0-20.9 Vol. % |
| *CO* | *Carbon Monoxide* | Electrochemical | 1 ppm | Z | 0-2000 ppm |
| *NOx* | *Nitric Oxide* | Electrochemical | 1 ppm | Z | 0-2000 ppm |
| *SO2* | *Sulfur Dioxide* | Electrochemical | 1 ppm | Z | 0-4000 ppm |
| *TG* | *Flue gas temperature* | Thermocouple K | 1 K | ± 2 % | -20/1200°C |
| *VL* | *Ambient temperature* | Semiconductor | 1 K | ± 0.5 K | -20/120°C |
| *P* | *Draft / Pressure* | Solid state | 0.1 hPa | ± 2 % | ±350 hPa |
| $CO_2$ | *Carbon Dioxide* | Calculation | 0.1 Vol.% | ± 0.2 % | 0-$CO_2$ max |
| *ETA* | *Efficiency* | Calculation | 0.1 % | ± 0.5 % | 0-99.9 % |
| *qA* | *Losses* | Calculation | 0.1 % | ± 0.5 % | 0-99.9 % |
| $\lambda$ | *Excess Air* | Calculation | 0.01 | ± 2 % | 1-9.99 |
| | *Pressure Test* | Solid state | 0.1 hPa | ± 2 % | ±350 hPa |
| | *Soot* | Filter paper | | | |

| | |
|---|---|
| Fuels: | Natural Gas, Oil Light, Town Gas, Coalgas, Liquid Gas, Coal, Wood |
| Gas sampling probe: | Heated probe handle, sheath length 270mm, hose 3,5m |
| Measuring unit: | ppm, mg/m3, mg/kWh, mg (Bez.O2) |
| Power supply: | 240V/50Hz; 120V/60Hz; rechargeable battery |
| Dimensions: | 425 x 185 x 290mm |
| Weight: | 5.8 kg |
| Operating temperature: | 0-40°C; 10-90% RH, non condensing |

| | | |
|---|---|---|
| ***IM1440H*** | ***O2, CO*** | ***Art.-No. 14400*** |
| ***IM1440H3*** | ***O2, CO, add. 3rd sensor*** | ***Art.-No. 14410*** |
| ***IM1400H4*** | ***O2, CO, add. 4th sensor*** | ***Art-No. 14420*** |

*Other measuring ranges / sensors / fuels upon request* *Max. 4 sensors*

Z = 0-20% of the measuring range ± 1% of the maximum value
= 21-100% of the measuring range ± 5% of the displayed value

## ACCESSORIES

- IMData – Data transfer software
- Longer probes, flexible probes
- Longer hoses
- Hose extensions
- Differential pressure measurement
- Gas leak detector CD100A
- Densitometer to measure the soot spot IM900
- IR thermometer INF155
- Refrigerant leak detector RLD10
- CO-Detector CO71A / CO91
- Hygrometer with IR-thermometer DTH51


IM Environmental Equipment Germany GmbH reserves the right to adopt technical modifications without prior notice.

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