

# IMR 1050X

## IMR 1050X

The newly redesigned IMR 1050X Combustion System Analyzer eliminates the number one hassle for combustion contractors; the annual replacement and calibration of the O<sub>2</sub> sensor. By replacing the electro-chemical O<sub>2</sub> sensor with the EOS Technology™ CO<sub>2</sub> sensor, the IMR 1050X now **takes direct CO<sub>2</sub> measurements** and calculates the O<sub>2</sub> level. This lowers the cost of ownership by doing away with the annual replacements of the O<sub>2</sub> sensor and reducing calibration drifting typically found with standard electro-chemical sensors. The EOS Technology sensor has an unmatched industry-leading **life expectancy of 10 years!**



## Features

- Measures: Differential flue temperature, Carbon Dioxide (CO<sub>2</sub>), flue & ambient carbon monoxide (CO) & Differential Pressure
- Calculates: oxygen, gross/net efficiency, excess air, & CO air free
- Worklight
- 4 line backlit LCD display
- 179 memory positions
- User customizable parameters view
- Individual report printouts
- Unique DMM style rotary selector
- Protective boot w/integral magnet
- Real time clock
- CO readings to 1 ppm
- Infrared printer port

## Measures, Calculates\*\* or Displays:

- |                                     |                                     |
|-------------------------------------|-------------------------------------|
| ➤ Oxygen (O <sub>2</sub> )**        | ➤ Temperature (flue, inlet & net**) |
| ➤ Carbon Monoxide (CO)              | ➤ Excess air**                      |
| ➤ Carbon Dioxide (CO <sub>2</sub> ) | ➤ CO Air Free**                     |
| ➤ Combustion efficiency**           | ➤ Battery level                     |
| ➤ Pressure (draft)                  | ➤ Fuel type                         |
| ➤ Date & time                       | ➤ Nitric Oxide (IMR 1050X-NO)       |

## IMR 1050X Specifications

Temperature Measurement	1050X	1050X-NO
Flue Temp Range	20~2400°F (-29~1315°C)	
Inlet Temperature (probe - T2) Inlet Temperature (ambient)	20~2400°F (-29~1315°C)	
Net Temperature (_T)**	32~112°F (0~50°C)	
Resolution	20~2400°F (-29~1315°C)	
Flue (T1, Inlet T2 & _T) Accuracy	0.1°C/F	
Inlet Temperature Accuracy	±(0.3% rdg +3.6°F(2°C))	
	±(0.3% rdg +1.8°F(1°C))	
Gas Measurement		
Oxygen	0~21%**	0~21%**
O <sub>2</sub> resolution / accuracy	0.1% / ±0.3%	0.1% / ±0.3%
Carbon Monoxide (CO)	0~2000 ppm(4000 max 15 min)*	
CO resolution / accuracy	1ppm / ±10ppm < 100ppm ±5% rdg > 100ppm	
Carbon Dioxide (CO <sub>2</sub> )	0~20%	0~20%
CO <sub>2</sub> Resolution / accuracy	0.1% / ±2%	0.1% / ±2%
Efficiency**	0~99.9%**	0~99.9%**
Efficiency resolution / accuracy	0.1% / ±3%	0.1% / ±3%
Excess Air**	0~250%	0~250%
Excess Air resolution / accuracy	0.1% / ±3%	0.1% / ±3%
CO / CO <sub>2</sub> ratio**	0~0.999	0~0.999
CO / CO <sub>2</sub> resolution / accuracy	0.001 / ±5% rdg	0.001 / ±5% rdg
Nitric Oxide (NO <sub>1</sub> )	-	0~100 ppm
NO <sub>1</sub> resolution / accuracy	-	±5 ppm < 100 ppm
Pressure (Differential)	Range	Accuracy
	±0.08" wc (±0.2mBar) ±0.4" wc (±1mBar) ±32" wc (±80mBar)	±0.002" wc (±0.005mBar) ±0.01" wc (±0.03mBar) ±3% rdg
Pressure Resolution	0.001" wc < 9.999" wg 0.01" wc < 10.0" wg 0.001 mBar < 24.999 mBar 0.01 mBar > 25 mBar	

\* Measured at STP (standard temperature and pressure)

\*\* Calculated value

<b>1050X</b>	O <sub>2</sub> , CO <sub>2</sub> , CO, draft, Condensation Trap, Flue Probe Particle Filter, Hard Case, Batteries, Quick Start Guide Owner's Manual
<b>1050X-NO</b>	O <sub>2</sub> , CO <sub>2</sub> , CO, NO, draft, Condensation Trap, Flue Probe, Particle Filter, Hard Case, Batteries, Quick Start Guide Owner's Manual
<b>1050X KIT</b>	1050X Analyzer, Flue Probe, IR Printer, (2) K-Type Temp Probes, (2) Static Pressure Hoses (1) True Draft Probe, Gas Tap and Hose, AC Adapter/Charger, Hard Case, (2) Printer paper rolls, (2) Particle filters, Batteries, Quick Start Guide, & Owner's Manual
<b>1050X-NO KIT</b>	1050X-NO Analyzer Flue Probe, IR Printer, (2) K-Type Temp Probes, (2) Static Pressure Hoses, (1) True Draft Probe, Gas Tap and Hose, AC Adapter/Charger, Hard Case, (2) Printer paper rolls, (2) Particle filters, Batteries, Quick Start Guide, & Owner's Manual

**More Details About IMR 1050X**



**COMBUSTION**

- Verify Ambient CO
- Verify CO Air Free
- Verify Proper Combustion
- Verify Combustion Gas, Make Up O<sub>2</sub>, CO, CO<sub>2</sub>, Excess Air
- Verify Stack Loss and Efficiency

Allows for live fire / real time analysis and trouble shooting, while verifying and documenting needed adjustments, repairs or replacements.

**MODULATING & MULTI STAGE SYSTEM SET UP & TESTING:**

The IMR 1050X allows the technician to simultaneously set gas pressure while doing a combustion test. Which allows for live fire viewing of combustion gases (over / under fire) while viewing and setting gas pressure to manufacture suggested specifications.

**USER PROGRAMMABLE AUXILIARY SCREEN:**

The auxiliary screen allows the tech to choose from an assortment of HVAC test parameters they want to view while performing various HVAC applications. This screen also allows a variety of test to be done simultaneously.

