

COMBUSTION GAS ANALYZER

THE ALL NEW

IMR 2800 P Series

NEW FEATURES OF THE 2800P-Series

- Latest sensor technology for a more accurate measurement and longer life time
 - Improved interior design for easier service and better unit protection
 - Continuously and simultaneously measuring up to 18 parameters
 - Larger display for a better reading
 - Applications: Boilers, Burners, Engines, Turbines, Cars, Trucks, Plants, Chemical Industries, Steel Plants, Refineries, etc



STANDARD FEATURES

- Portable combustion gas analyzer housed in a rugged aluminum case
 - Simultaneous measurement of

O ₂	Oxygen	NO ₂	Nitrogen dioxide
CO	Carbon Monoxide	SO ₂	Sulfur dioxide
NO	Nitric oxide	TG	Flue-gas temperature
TA	Ambient Air temperature		
 - Calculation of following parameters

Losses / Efficiency	NO _x	Nitrogen Oxides
Excess Air / Lambda	CO ₂	Carbon Dioxide
 - 23 Fuels are programmed – 4 fuels are programmable
 - Automatic zero calibration
 - Integrated self-check program
 - Simultaneous display parameters on the illuminated display
 - Printer with programmable print out cycles
 - Standard deviation and average value calculation
 - Draft measurement with optional upgrade for differential draft and velocity measured with a Pitot tube
 - Unit selection : ppm – mg/Nm³ – mg/Nm³(ref O₂)
 - Gas sampling probe E – length 0.8 ft (250mm), hose 8 ft (2.5m)
 - Rechargeable battery with charger
 - Power supply 110V or 230V or 12VDC Power Jack

OPTIONAL FEATURES

- ◆ HCl, N₂O, Cl₂, H₂, NH₃, HC or H₂S measurement
 - ◆ CO₂, CH₄/HC and N₂O NDIR sensors available
 - ◆ Speed RPM
 - ◆ Prepared for high temperature measurement
(up to 2732 °F / 1500 °C)
 - ◆ Gas sampling probes with different lengths
 - ◆ Soot measurement
 - ◆ Pitot Tube
 - ◆ Gas Flow m/s
 - ◆ Additional Instruments: RPM Meter, Soot Meter

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PARAMETER		PRINCIPLE	RESOLUTION	ACCURACY	RANGE**	STANDARD
O ₂	Oxygen	Electro-chemical cell	0.1 Vol.%	± 0.2 Vol. %	0-20.9 Vol. %	✓
CO	Carbon monoxide	Electro-chemical cell	1 ppm	Z	0-2000/4000ppm	✓
		NDIR	0.001 Vol.%		0-10/20 Vol.%	NDIR Optional
NO	Nitric oxide	Electro-chemical cell	1 ppm	Z	0-2000 ppm	✓
NO ₂	Nitrogen dioxide	Electro-chemical cell	1 ppm	Z	0- 100 ppm	✓
SO ₂	Sulfur dioxide	Electro-chemical cell	1 ppm	Z	0-4000 ppm	✓
H ₂ S	Hydrogen Sulfide	Electro-chemical cell	1 ppm	Z	0- 200 ppm	
HC/CH ₄	Hydrocarbons	Pellistor or NDIR	0.1 %	Z	0-100% LEL	
TG	Flue gas temperature	NiCr-Ni thermocouple	1 K	± 2 %	-4°F - 2192°F 0°C - 1200°C	✓
TA	Air temperature	Semiconductor	1 K	± 0.2 K	-4°F / 248°F 0°C - 120°C	✓
P	Draft	Solid state	0.01 hPa	± 2 %	±40 hPa	✓
NO _x	Nitrogen oxides	Calculation	1 ppm	Z	0-NO _x max	✓
CO ₂	Carbon dioxide	Calculation	0.1 Vol.%	± 0.2 Vol. %	0- CO ₂ max	✓
CO ₂	Carbon dioxide	NDIR	0.01 Vol.%	± 0.2 Vol. %	0-20 Vol. %	
NH ₃	Ammonia	Electro-chemical	1 ppm	Z	0-1000/5000 ppm	
N ₂ O	Nitrous Oxide	NDIR	0.001 Vol. %	Z	0-1 Vol. %	
HCl	Hydrogen Chloride	Electro-chemical	1 ppm	Z	0-200 ppm	
Cl ₂	Chlorine	Electro-chemical	1 ppm	Z	0-5000 ppm	
H ₂	Hydrogen	Electro-chemical	1 ppm	Z	0-10000 ppm	
Losses / Efficiency		Calculation	0.1 %	± 0.1 %	0-99.9 %	✓
Excess Air / Lambda		Calculation	0.1 %	± 0.1 %	1.0-9.99	✓
Soot		Filter paper method			0-9	
Velocity with Pitot tube		Solid state	0.01 m/s	± 2 %	0-80 m/s	
RPM Meter		Solid state	100 RPM	± 2 %	180-10000 RPM	

** Different/customized ranges available.

Equipped with a maximum of 8 gas sensors

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

MODEL
IMR 2800 P
Dimensions (inch): 15 x 6.5 x 12.4
(375mm x 165mm x 300mm)
Weight: 17 lbs. (8 kg)

PART-NO.
IMR 28000

* IMR 2800 *

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fuel oil ex.lsh.

OPTIONAL ITEM



PART-NO.
Soot Meter



RPM Meter



Pitot Tube

Represented by:

T-room 29°C
T-gas 29°C
CO2 0.0 %
O2 20.9 %
CO 0 ppm
SO2 0 ppm
NO 0 ppm
NOx +++ ppm
qA +++++ %
LAMBDA +++++ %

Pitot Tube