

# E9000

## Portable Emissions Analyzer For Boiler, Engine, Furnace, Kiln, & Other Combustion Applications



### Accurate / Reliable / Robust / Fast

- Up to **NINE** (9) Gas Sensors
- NDIR Sensors Available
- True NO<sub>x</sub> & Low NO<sub>x</sub> Measurements
- Built-In Thermoelectric Chiller
- Automatic Condensate Drain
- Full Color Graphic Display
- Upgraded Memory (16,000 Tests)



O<sub>2</sub>, CO, CO<sub>2</sub>, NO, NO<sub>2</sub>, SO<sub>2</sub>, C<sub>x</sub>H<sub>y</sub> (HC), H<sub>2</sub>S



Heated Probe & Sample Head



Built-In Printer  
Non-Fading Paper



PC Software with Bluetooth®



US EPA CTM-30 &  
CTM-034 Compliant



iOS and Android Mobile Applications

Parameter	Sensor	Range	Resolution	Accuracy
O <sub>2</sub>	Electrochemical	0 - 25 %	0.1 %	±0.2 % vol
CO H <sub>2</sub> compensated w/ built-in NOx filter	Electrochemical	0 - 8000 ppm	1 ppm	±8 ppm <200 ppm ±5 % rdg up to 2000 ppm ±10 % rdg for >2000 ppm
CO diluted	Electrochemical	0.8 - 10.00 %	0.1 %	±10 % rdg
CO	NDIR	0 - 15.00%	0.1 %	±3 % rdg
CO <sub>2</sub>	Calculated	0 - 99.9 %	0.1 %	
CO <sub>2</sub>	NDIR	0 - 50.0 %	0.1 %	±3 % rdg <8 % ±5 % rdg <50 %
NO	Electrochemical	0 - 5000 ppm	1 ppm	±5 ppm <100 ppm ±5 % rdg for >100 ppm
NO <sub>2</sub>	Electrochemical	0 - 1000 ppm	1 ppm	±5 ppm <100 ppm ±5 % rdg for >100 ppm
Low NO and/or Low NO <sub>2</sub>	Electrochemical	0 - 100.0 ppm	0.1 ppm	±1.5 ppm <40 ppm ±5 % rdg for <100ppm
NOx	Calculated	0 - 5000 ppm	1 ppm	
SO <sub>2</sub>	Electrochemical	0 - 5000 ppm	1 ppm	±5 ppm <100 ppm ±5 % rdg for >100 ppm
Low SO <sub>2</sub>	Electrochemical	0 - 100.0 ppm	0.1 ppm	±1.5 ppm <40 ppm ±5 % rdg for <100ppm
CxHy (HC)	NDIR	0 - 50,000 ppm	1 ppm	±50 ppm <2,500 ppm ±2 % >2,500 ppm
H <sub>2</sub> S	Electrochemical	0 - 500.0 ppm	0.1 ppm	±5 ppm <125 ppm ±4 % rdg for <500ppm
Tair	Pt100	-4 to 248 °F -20 to 120 °C	0.1 °F 0.1 °C	±1 °F ±1 °C
Tgas	Tc K	-4 to 2280 °F -20 to 1250 °C	0.1 °F 0.1 °C	±2 °F ±2 °C
Differential temperature	Calculated	-4 to 2280 °F -20 to 1250 °C	0.1 °F 0.1 °C	-

#### All E9000 Kits Include:

- Thermoelectric Chiller with Automatic Condensate Drain
- Built-In Printer
- New iOS & Android App (Remote Display & QR Scanning)
- CO<sub>2</sub> % Calculation
- Combustion Efficiency, Losses, & Excess Air Calculations
- Draft & Differential Pressure
- Temperature Measurements
- Large Color Display
- 16,000 Test Internal Memory
- Bluetooth Connectivity
- Rechargeable Battery Pack & AC Charger
- Gas Sampling Probe & Hose
- PC Software & USB Cable
- Operating Manual
- Calibration Certificate
- Aluminum Carrying Case

#### Standard Configuration

Model #	Description
E9000-OCN-0-12	Standard E9000 Configuration with <b>O<sub>2</sub>, CO, NO</b> Gas Sensors, <b>Upgradeable</b> to 9 Gas Sensors Total

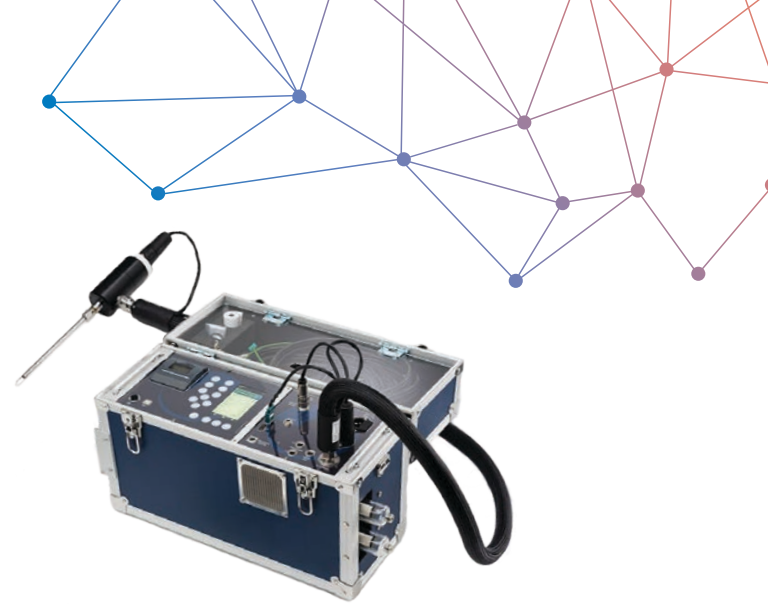
#### Ordering Information Part # 9000 - Table A - Table B - Table C

Table A	Electrochemical Sensors (Maximum of Six)
O	O <sub>2</sub> Sensor (0 - 25 %)
C	CO Sensor (0 - 8000 ppm) with Dilution Auto-Range up to 10%
N	NO Sensor (0 - 5000 ppm)
NL	Low NO Sensor (0 - 100.0 ppm)
D	NO <sub>2</sub> Sensor (0 - 1000 ppm)
DL	Low NO <sub>2</sub> Sensor (0 - 100.0 ppm)
S	SO <sub>2</sub> Sensor (0 - 5000 ppm)
SL	Low SO <sub>2</sub> Sensor (0 - 100.0 ppm)
H	H <sub>2</sub> S Sensor (0 - 500 ppm)

Table B	NDIR (non-dispersive infrared) Sensors
IR	CO <sub>2</sub> Sensor (0 - 50 %), CxHy Sensor (0 - 5 %), and High CO Sensor (0 - 15 %)
0	No NDIR sensors

Table C	Sampling Probes and Hoses
12	12" (300 mm) Probe, 1470 °F (800 °C) max, with 10' (3 m) Dual Hose
30	30" (750 mm) Probe, 1470 °F (800 °C) max, with 10' (3 m) Dual Hose
40	40" (1 m) Probe, 2190 °F (1200 °C) max, with 10' (3 m) Hose for High Temperature Combustion Applications
60	60" (1.5 m) Probe, 2190 °F (1200 °C) max, with 10' (3 m) Hose for High Temperature Combustion Applications
12H	12" (300 mm) Probe, 1470 °F (800 °C) max, with 10' (3 m) Heated Sample Hose & Probe Head
40H	40" (1 m) Probe, 2190 °F (1200 °C) max, with 10' (3 m) Heated Sample Hose & Probe Head
SINT1	Sintered Filter with Half Shield for Probe Tip





# E9000

## Ordering Code

### Part # 9000 - Table A - Table B - Table C

Table A	Electrochemical Sensors (Maximum of Six)
O	O <sub>2</sub> Sensor (0 - 25 %)
C	CO Sensor (0 - 8000 ppm) with Dilution Auto-Range up to 10 %
N	NO Sensor (0 - 5000 ppm)
NL	Low NO Sensor (0 - 100.0 ppm)
D	NO <sub>2</sub> Sensor (0 - 1000 ppm)
DL	Low NO <sub>2</sub> Sensor (0 - 100.0 ppm)
S	SO <sub>2</sub> Sensor (0 - 5000 ppm)
SL	Low SO <sub>2</sub> Sensor (0 - 100.0 ppm)
H	H <sub>2</sub> S Sensor (0 - 500 ppm)

Table B	NDIR (non-dispersive infrared) Sensors
IR	CO <sub>2</sub> Sensor (0 - 50 %), CxHy Sensor (0 - 5 %), and High CO Sensor (0 - 15 %)
0	No NDIR sensors

Table C	Sampling Probes and Hoses
12	12" (300 mm) Probe, 1470 °F (800 °C) max, with 10' (3 m) Dual Hose
30	30" (750 mm) Probe, 1470 °F (800 °C) max, with 10' (3 m) Dual Hose
40	40" (1 m) Probe, 2190 °F (1200 °C) max, with 10' (3 m) Hose for High Temperature Combustion Applications
60	60" (1.5 m) Probe, 2190 °F (1200 °C) max, with 10' (3 m) Hose for High Temperature Combustion Applications
12H	12" (300 mm) Probe, 1470 °F (800 °C) max, with 10' (3 m) Heated Sample Hose & Probe Head
40H	40" (1 m) Probe, 2190 °F (1200 °C) max, with 10' (3 m) Heated Sample Hose & Probe Head
SINT1	Sintered Filter with Half Shield for Probe Tip

#### All E9000 Kits Include:

- Built-In Printer
- New iOS & Android App (Remote Display & QR Scanning)
- CO<sub>2</sub> % Calculation
- Combustion Efficiency, Losses, & Excess Air Calculations
- Draft & Differential Pressure
- Temperature
- Measurements
- Large Color Display
- 2000 Test Internal Memory
- Bluetooth Connectivity
- Long Lasting Rechargeable Battery & AC Charger
- Gas Sampling Probe & Hose
- Water Trap with Filter Cartridge
- Magnetic Rubber Holster
- PC Software & USB Cable
- Operating Manual
- Calibration Certificate
- ABS Hard Carrying Case

#### Standard Configuration

Model #	Description
E9000-OCN-0-12	Standard E9000 Configuration with <b>O<sub>2</sub>, CO, NO</b> Gas Sensors, <b>Upgradeable</b> to 9 Gas Sensor Total



Parameter	Sensor	Range	Resolution	Accuracy
O <sub>2</sub>	Electrochemical	0 - 25 %	0.1 %	±0.2 % vol
CO H <sub>2</sub> compensated w/ built-in NOx filter	Electrochemical	0 - 8000 ppm	1 ppm	±8 ppm <200 ppm ±5 % rdg up to 2000 ppm ±10 % rdg for >2000 ppm
CO diluted	Electrochemical	0.8 - 10.00 %	0.1 %	±10 % rdg
CO	NDIR	0 - 15.00%	0.1 %	±3 % rdg
CO <sub>2</sub>	Calculated	0 - 99.9 %	0.1 %	
CO <sub>2</sub>	NDIR	0 - 50.0 %	0.1 %	±3 % rdg <8 % ±5 % rdg <50 %
NO	Electrochemical	0 - 5000 ppm	1 ppm	±5 ppm <100 ppm ±5 % rdg for >100 ppm
NO <sub>2</sub>	Electrochemical	0 - 1000 ppm	1 ppm	±5 ppm <100 ppm ±5 % rdg for >100 ppm
Low NO and/or Low NO <sub>2</sub>	Electrochemical	0 - 100.0 ppm	0.1 ppm	±1.5 ppm <40 ppm ±5 % rdg for <100ppm
NOx	Calculated	0 - 5000 ppm	1 ppm	
SO <sub>2</sub>	Electrochemical	0 - 5000 ppm	1 ppm	±5 ppm <100 ppm ±5 % rdg for >100 ppm
Low SO <sub>2</sub>	Electrochemical	0 - 100.0 ppm	0.1 ppm	±1.5 ppm <40 ppm ±5 % rdg for <100ppm
CxHy (HC)	NDIR	0 - 50,000 ppm	1 ppm	±50 ppm <2,500 ppm ±2 % >2,500 ppm
H <sub>2</sub> S	Electrochemical	0 - 500.0 ppm	0.1 ppm	±5 ppm <125 ppm ±4 % rdg for <500ppm
Tair	Pt100	-4 to 248 °F -20 to 120 °C	0.1 °F 0.1 °C	±1 °F ±1 °C
Tgas	Tc K	-4 to 2280 °F -20 to 1250 °C	0.1 °F 0.1 °C	±2 °F ±2 °C
Differential temperature	Calculated	-4 to 2280 °F -20 to 1250 °C	0.1 °F 0.1 °C	-

### Ordering Information

Model #	Description
E9000-OCN-0-12	Standard E9000 Configuration with <b>O<sub>2</sub>, CO, NO</b> Gas Sensors, <b>Upgradeable</b> to 9 Gas Sensors Total

### Electrochemical Sensors (Maximum of Six):

- O: O<sub>2</sub> Sensor
- C: CO Sensor with Dilution Auto-Range up to 10 %
- N: NO Sensor
- NL: Low NO Sensor
- D: NO<sub>2</sub> Sensor
- DL: Low NO<sub>2</sub> Sensor
- S: SO<sub>2</sub> Sensor
- SL: Low SO<sub>2</sub> Sensor
- H: H<sub>2</sub>S Sensor

### NDIR (Non-Dispersive Infrared) Sensors:

- IR: CO<sub>2</sub> Sensor, CxHy Sensor, & High CO Sensor
- 0: No NDIR Sensors

### All E9000 Kits Include:

- Thermoelectric Chiller with Automatic Condensate Drain
- Built-In Printer
- New iOS & Android App (Remote Display & QR Scanning)
- CO<sub>2</sub> % Calculation
- Combustion Efficiency, Losses, & Excess Air Calculations
- Draft & Differential Pressure
- Temperature Measurements
- Large Color Display
- 16,000 Test Internal Memory
- Bluetooth Connectivity
- Rechargeable Battery Pack & AC Charger
- Gas Sampling Probe & Hose
- PC Software & USB Cable
- Operating Manual
- Calibration Certificate
- Aluminum Carrying Case

