



# Combustion Analyzer with EOS CO<sub>2</sub> Sensor Technology and High Altitude Compensation



### Functions

- Flue temperature: 32° to 1112°F
- Inlet temperature: Internal sensor 32° to 112°F
- Inlet temperature: External sensor 32° to 1112°F
- O<sub>2</sub>: 21%
- CO: 2000 ppm
- CO<sub>2</sub>: 20%
- Efficiency Net/Gross 99.9%
- Efficiency: Highcalculated 119.9%
- Excess Air: 250%
- CO/CO<sub>2</sub> ratio: 0.999
- Differential pressure

### Features

- EOS Technology
- Pre-programmed fuels: Natural Gas, Propane, Butane, LPG, Light Oils (28/35 sec), Wood Pellets, Town Gas, Coke Gas, Bio Gas, Bio Fuel
- Memory positions: 30
- 6 line backlit display
- High Altitude compensation
- User customizable parameter views
- Individual report printouts
- Real time clock
- 1-Year limited warranty

Includes	C165	C165BTKIT	C165KIT	C165OILKIT	C165NOKIT	C165NOOILKIT
Analyzer	•	•	•	•	•	•
Stainless Steel Flue Probe	•	•	•	•	•	•
Inlet Tube Connector	•	•	•	•	•	•
Case	•	•	•	•	•	•
Rechargeable Batteries AA (3)	•	•	•	•	•	•
Quick Start Guide	•	•	•	•	•	•
USB Charger/Adapter	•	•	•	•	•	•
K-Type Thermocouples (2)		•	•	•	•	•
Tubing		•	•	•		•
Spare Filter		•	•	•	•	•
Infrared Printer			•	•	•	•
Spare Paper Roll			•	•	•	•
Installed NO sensor					•	•
Smoke Pump Test Kit						•
Installed Wireless Module	Optional	•	Optional	Optional	Optional	Optional

### Dynamic Warranty

- 1-Year Limited Warranty
- Warranty is extended one year with each annual recertification, up to 6 years



Manual



Data Sheet





### Specifications

#### TEMPERATURE MEASUREMENT

Parameter	Range	Resolution	Accuracy
Flue temperature	32° to 1112°F	0.1°F	+3.6°F +0.3% rdg
Inlet temperature (internal sensor)	32° to 112°F	0.1°F	+1.8°C +0.3% rdg
Inlet temperature (external sensor)	32° to 1112°F	0.1°F	+3.6°F +0.3% rdg

#### FLUE GAS

Parameter	Range	Resolution	Accuracy
Oxygen	0 to 21%	0.1%	+0.3%
Carbon Monoxide	0 to 20ppm	1ppm	+3ppm +5% rdg
	21 to 2000ppm		
	Above 2000ppm Purge pump operates		Unspecified
Carbon Dioxide	0 to 20%	0.1%	+0.3% volume
Efficiency (Net or Gross)	0 to 99.9%	0.1%	+1.0% rdg
Efficiency High (C)	0 to 119.9%	0.1%	+1.0% rdg
Excess Air	0 to 250%	0.1%	+0.2% rdg
CO/CO2 ratio	0 to 0.999%	0.0001	+5% rdg

#### PRESSURE (DIFFERENTIAL)

Parameter	Range	Resolution	Accuracy
Nominal range ±80mbar maxim over range without damage is ±400mbar	±0.08" WC (+0.2mbar)	Maximum 0.001" WC <9.9999"	±0.0002" WC (±0.005mbar)
		WC 0.001"	
		WC >10.00" WC (0.001mbar <24.99mbar) (00.1mbar >25mbar)	
	±0.4" WC (±1mbar)		±0.01" WC (±0.03mbar)
	±32"WC (±80mbar)		+3.6°F +0.3% rdg

#### PRE-PROGRAMMED FUELS

Natural Gas, Propane, Butane, LPG, Light Oils (28/35sec), Wood Pellets, Town Gas, Coke Gas, Gio Oil, Bio Gas

#### USER PROGRAMMED FUELS

5 User defined fuels

#### STORAGE CAPACITY

- 60 Combustion tests
- 20 Pressure & Temperature Tests
- 20 Heat Exchanger Tests
- 20 Temperature Tests
- 20 Commissioning Tests

### Backed by Industry-Leading Service

- 2-Business day turnaround on standard recertification
- Flat rate pricing
- ISO/IEC Accredited Facilities (Indianapolis and Vancouver B.C.)
- NIST
- Factory-certified technicians



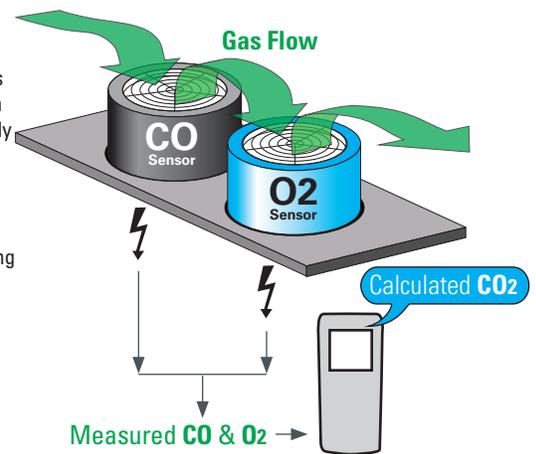
## No O2 Sensor - What it means to you

### The Challenge

Direct contact between flue gases and O2 sensors will eventually wear down the sensor and force costly replacement.

Even when your analyzer is "off" the O2 sensor is still in Oxygen, accelerating the process.

Over your analyzer's lifetime, the cost adds up.

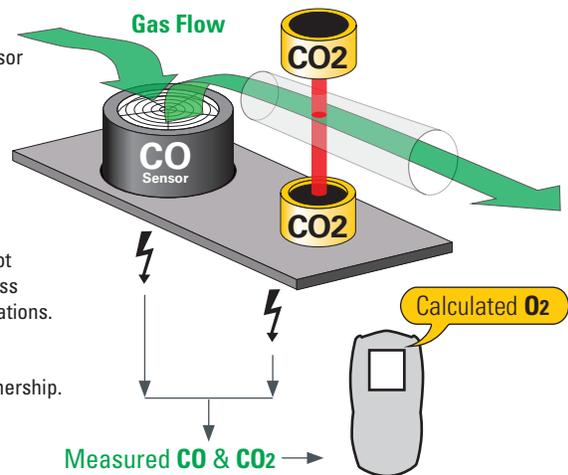


### The Solution

Replace the Oxygen sensor with UEi's "EOS" Carbon Dioxide (CO2) sensor. Our technology protects the sensor because flue gases don't make direct contact with it.

Because the sensor is not wearing down, there's less risk of inaccurate calculations.

No O2 sensor to replace means lower cost of ownership.



## One Less Sensor to Worry About!