

Accurate. Reliable. Cost Effective.

Emissions Monitoring for Compliance & Process Improvement



In-Situ Zirconium Oxygen Monitor - Model 1000

Technology

The In-Situ Zirconium Oxygen Monitor utilizes proven detector technology for superior performance and rugged design.

The Model 1000 is used to continuously measure oxygen concentration in combustible exhaust gas of industrial boilers and furnaces in a range of 2 to 50% increments.

Insertion of the detector probe directly into the combustion exhaust flow eliminates the need for sample gas handling and provides quick response. The controller is comprised of signal processing, I/O communications display and system controls.

Features such as automatic calibration and a manual/automatic blow down are standard functions when used with external solenoid valves.



Quick change zirconium sensor element decreases maintenance cost significantly.

Using soft keys located on the controller front panel, setting of all parameters and programming is easily achieved by the operator. With the liquid crystal display, the Model 1000 can be fully configured for even the most demanding monitoring applications.



Features and Benefits

- In situ measurement directly in exhaust gas flow
- Modulated green LED source for long lifetime and immunity to ambient light
- Compact, small packaging with built in air purge capability
- Modbus communication
- Low cost, low maintenance with no moving parts
- Simple installation and operation
- Rugged vibration resistant design
- Direct replacement for Fireye

Product Specifications

Range	0 - 2 to 50% (1% steps)
Repeatability	± 0.5% FS
Linearity	± 2% FS
Response Time	Within 7 seconds for 90% (from calibration gas inlet)
Power Requirement	90 - 132 VAC or 90% - 264 VAC 50/60 Hz
Power Consumption	65 Watts (general use startup) 215 Watts (high temp)
Measured Gas Temperature	0°F - 1,110°F general use (higher temperatures available)
Measured Gas Pressure	-3 to 3kPa
Operating Temperature	+14°F ± 140° F
Analog Output	4 - 20mA (500 ohm max load) or 0-1VDC
Weight	3.5 lbs (detector) 11 lbs (flow guide tube length 3' assumed)
Contact Output Signal	6 points N.O. 1 A, 250VAC, 2 A (high and low limit alarms, fault alarm)
Indication	Oxygen Concentration, 4 digit readout Operation Settings, 16-digit, 2 line LCD

Ordering Information

Model 1000 In-Situ Zirconium Oxygen Monitor

Choose from the following configurations/options to customize your own Model 1000

Calibration Gas Inlet

C = 1/4"

Voltage

A = 110 VAC

B = 220 VAC

Output Signal

M = 4-20mA DC

N = 0-1 VDC

Communication

1 = RS-232C Modbus

2 = RS-485 Modbus

Reference Zero Air Inlet

Z = 1/8"

NPT A = None

4" ANSI Flange with

Blowback Feature

Probe Length (316

Stainless Steel)

A = ≤ 12"

B = ≤ 24"

C = ≤ 36"

D = ≤ 48"

E = ≤ 60"

F = ≤ 72"

G = ≤ 84"

H = ≤ 96"

J = ≤ 108"

K = ≤ 120"

N = Custom

Controller Construction

1 = IP66

A = None

Mounting Style

1 = Panel Surface Mount

2 = Pipe Mount Clamp

Optional Feature

7 = Combustion Efficiency

Display, Blowdown and

Auto Calibration

N = None

Your Order Code:

1000 _ _ _ _ _

Service Offering

To ensure trouble free performance and reliability of all Cemtek Instrument products, we offer a comprehensive portfolio of service offerings at fixed cost pricing including; installation, training, support, extended warranty and preventative maintenance.



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