OXYGEN SENSOR FOR COMBUSTION TRIM CONTROL

- Maximize Combustion Efficiency
- Minimize NOₓ Formation
- Reduce Fuel Costs

Oxyfire™ is a CE certified oxygen sensor that meets the highest quality and safety standards of the combustion market.

- Single side connections
- Easier in-field upgrade
- Compatible with standard conduit fittings
- New design moves cable away from hot furnace wall

CERTIFIED
FEATURES | BENEFITS | VALUE
--- | --- | ---
High temperature Zirconia cell | Fast response time & accurate measurement in applications up to 1600ºC (2912ºF) | A reliable measurement permits control in difficult applications
In-situ | Eliminates sampling system | True - accurate - fast process wet measurement
No heater / No calibration | Sensor is intrinsically safe | Reduces installation, start-up and maintenance costs
Integral thermocouple | Provides process temperature | Additional temperature input for flame optimization
Real time measurement | Permits quick response to changing conditions | Tighter control of excess O₂ results in fuel cost savings and reduced NOx emissions

OPERATION
Oxyfire™ reliably measures the excess oxygen concentration that remains after combustion is complete. Oxygen diffuses across the cell wall of the platinum coated zirconia cell. The emf potential generates a millivolt signal which is logarithmically proportional to the excess oxygen concentration. An integral thermocouple provides the process/sensor temperature needed to calculate the oxygen concentration.

SPECIFICATIONS
Net O₂ Range: PPM to 21%
Accuracy: 1.5% of observed process variable or 0.5% O₂, whichever is greater
Control System Interface: UPC Protherm 20 or Oxymit Transmitter
Response Time: Less than one second for 98% of final value
Stability: Less than 1% deviation in signal output over the life of sensor
Temperature Limits:
- Process: 550-1600°C (1022-2912°F)
- Terminal Head: Ambient to 149°C (300°F)
Mounting: Vertical or Horizontal
Construction:
- Inner Tube: Zirconia
- Outer Protection Sheath: Alumina, Silicon Carbide, HR-160 high temperature alloy
- Sensor Head: Air tight, machined 6061-T6 aluminum
- Integral T/C: Type “B” standard, “R” and “S” optional
Sensor Insertion Lengths: 6”, 12”, 18”, 24”, 30”, 36”, 42”, 48” (non-standard)
(≈ 15 cm, 30 cm, 46 cm, 61 cm, 76 cm, 91 cm, 107 cm, 122 cm)

*The Oxyfire oxygen sensor is a “simple apparatus” and thereby intrinsically safe per EN50 14 (1977) Clause 1.3.*