

OXYGEN SENSOR FOR COMBUSTION TRIM CONTROL

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



Updated Design

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

CERTIFIED

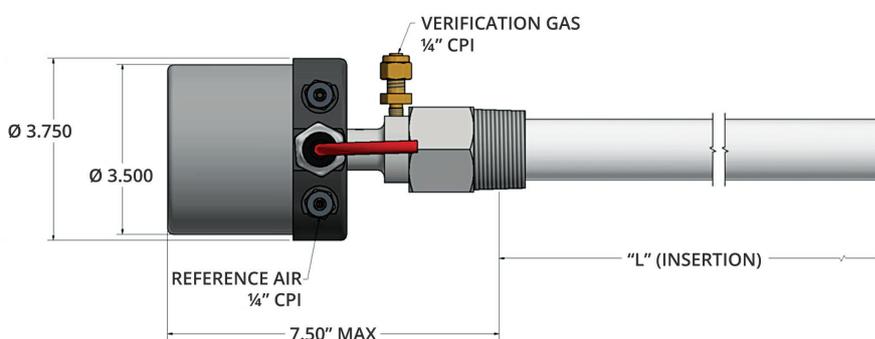


Oxyfire™ is a CE certified oxygen sensor that meets the highest quality and safety standards of the combustion market.

| FEATURES | BENEFITS | VALUE |
|--------------------------------|---|---|
| High temperature Zirconia cell | Fast response time & accurate measurement in applications up to 1600°C (2912°F) | 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 O ₂ results in fuel cost savings and reduced NO _x 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 O ₂ Range: | PPM to 21% |
| Accuracy: | 1.5% of observed process variable or 0.5% O ₂ , 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.

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