

COMBUSTION OPTIMIZATION

**OXYGEN SENSOR FOR
COMBUSTION TRIM CONTROL**



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

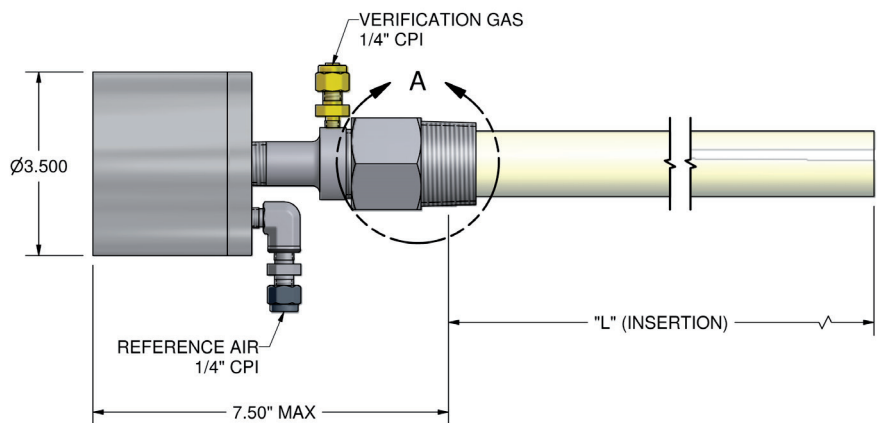
CERTIFIED
TÜV Oxyfire is a TÜV and CE certified oxygen sensor that meets the highest quality and safety standards of the combustion market.
CE

OXYGEN SENSOR FOR COMBUSTION TRIM CONTROL

FEATURES	BENEFITS	VALUE
High temperature Zirconia cell	Fast response time and 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 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 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.