

**PRODUCT BROCHURE**

# O2CX

**IN-SITU COMBUSTION OPTIMIZATION MONITOR  
Flue Gas Oxygen & Combustibles Transmitter**



Until now, in-situ measurements, used to tune boilers, were limited to O<sub>2</sub> only. Now, there is a compact in-situ probe for combustion optimization to measure both CO<sub>e</sub> and O<sub>2</sub> simultaneously providing engineers an improved tool to lower excess air to previously unachieved levels, saving fuel costs.

- Real-time measurements
- Stable, long-life Zirconium sensor
- Low maintenance with easy access to sensors for fast and simple service
- Unique, heated solid electrolyte combustibles sensor
- Combustion optimization

## In-Situ O<sub>2</sub>/CO<sub>e</sub> Combustion Monitor

In-situ, real-time readings for optimal fuel efficiency of boilers, furnaces, and kilns, with fast and simple service ability, and all at a tremendous value.

The COSA Xentaur O2CX is the ideal choice to optimize fuel efficiency on most combustion sources. It has a number of significant advantages over other oxygen transmitters.

The addition of our unique combustibles sensor allows the process to safely operate with a lower Excess Air ratio, which translates in to higher fuel efficiencies.

The O2CX Zirconium Oxide O<sub>2</sub> sensor has great accuracy and sensitivity below 10% oxygen and does not require dilution air like other competitors utilizing a Pellister sensor.

### Zirconium Oxide O<sub>2</sub> Sensor

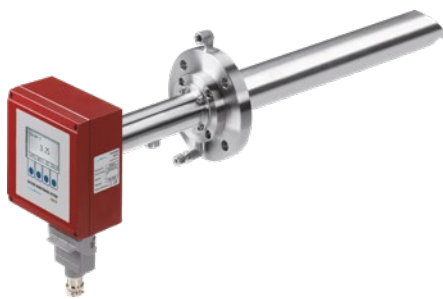
- Long life
- Fast response
- High stability
- Low energy consumption

### Heated Solid Electrolyte CO<sub>e</sub> Sensor

- High accuracy/sensitivity
- Stable even to 1% oxygen
- No dilution air required
- Fast response
- Long life

### Other Features

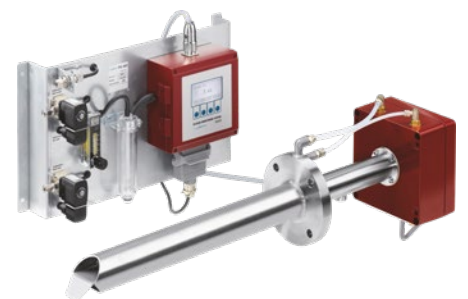
- Easy access to sensors
- Suitable for high dust/particulate applications
- High temperatures to 3100°F
- Probe lengths to 6'
- Optional auto calibration



O2CX Compact Model



O2CX Remote Control Model



O2CX Remote Control Model with AUTO-CAL



PU 420 AUTO-CAL Module for long term stability

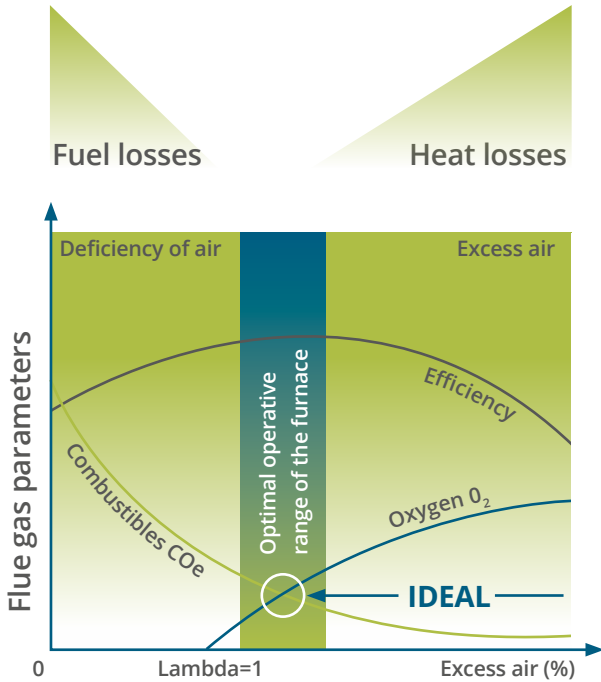


O2CX High Temperature Model

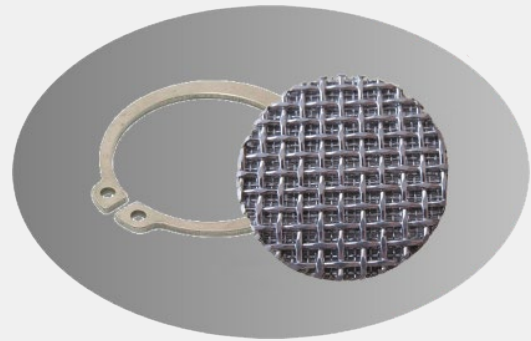
# Save Energy & Fuel Consumption

Large Power Plants...Save millions \$ a year

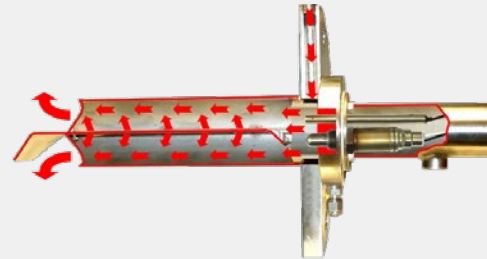
## Combustion-optimization diagram:



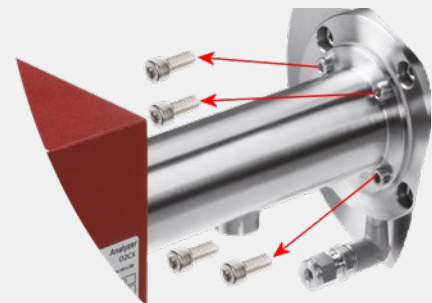
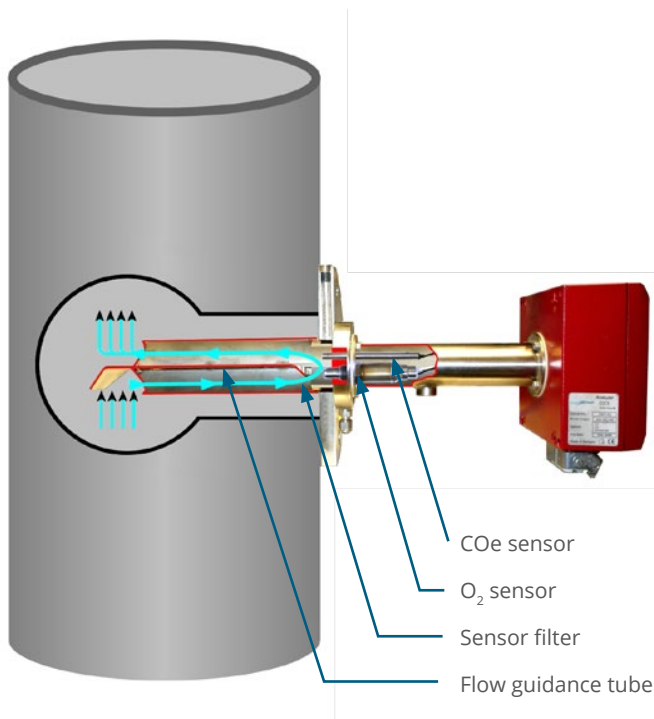
Minimal tools are needed to change sensors



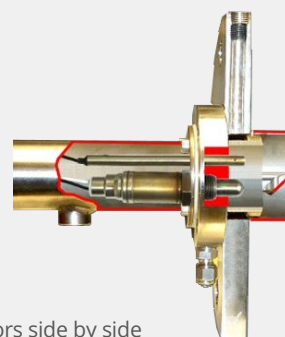
Sensors are protected with sintered metal filter



Purging system for particulate/dust applications



Only 4 screws to access the sensors



O<sub>2</sub> and COe sensors side by side

## Technical Specifications

<b>Measuring range:</b>	0.1 to 25.0% Vol.-% O <sub>2</sub> 0 to 1,000 ppm CO <sub>e</sub> (option combustibles measurement)
<b>Accuracy:</b>	O <sub>2</sub> : ±0.2% or ± 5% of reading, whichever is larger CO <sub>e</sub> : ±50 ppm or ±10% of reading, whichever is larger
<b>Flange:</b>	ANSI flange: Ø 230 mm / probe tube: Ø 60 mm, up to max. 13' (4.0 m) length or flange DN80 PN16
<b>Flange:</b>	DN65 PN6 flange: Ø 216 mm / probe tube: Ø 60 mm up to max. 13' (4.0 m) length or flange DN80 PN16
<b>Flange temperature:</b>	Min. +160 °F (71 °C) to max. +300 °F (149 °C) (condensation at the flange must be avoided)
<b>Response time T90:</b>	<10 seconds
<b>Analog outputs:</b>	2 x current loop 4-20 mA, with galvanic isolation linearized for both 0 to 25% O <sub>2</sub> and 0 to 1,000 ppm CO <sub>e</sub> (user definable settings in 0.5% steps are possible)
<b>Digital output:</b>	Galvanic isolated RS 485 ( with Modbus protocol)
<b>Power supply:</b>	18 to 24 Vdc (for model O2CX), 90 to 100 W, 100 to 240 Vac (for model O2CX RT and HT) max. 100 W
<b>Electronic of transmitter:</b>	With local microprocessor, display and 4 push-buttons
<b>Calibration inlet:</b>	With test gas fitting for 6/4 mm tube cal. gas supplied manually or automatically by pneumatic unit PU 420
<b>INLET – Purging System for high particulate/dust application:</b>	Min. 87 PSI – 116 PSI (6 – 8 bar) compressed air with quick connector for 8 mm tube
<b>Ambient temperature of electronics:</b>	-70°F to 130°F (-57°C to 55°C)
<b>Enclosure:</b>	Die cast aluminum, 6.3" x 6.3" x 2.4" and probe tube, Ø 2"
<b>Protection class:</b>	IP 65
<b>Weight:</b>	7.7 lbs (3.5 kg) (without probe and flange)

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## Options

<b>Options Include:</b>	Remote or compact transmitter, optional blow down feature, customized probe option, O <sub>2</sub> and optional CO <sub>e</sub>
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### CO<sub>e</sub> Measurement

#### **PROBE TUBE AND SENSOR CHAMBER BLOW BACK SYSTEM. Compressed air is required!!**

Blow back timing and duration are user definable. Recommended for applications with high particulates, such as coal-fired power plants.

Automatic calibration for span and offset, using pneumatic unit PU 420.

Application with high temperatures up to approx. 3,100°F (1,705°C) with ceramic tube and ejector (model HT).

Remote control and display unit (max. cable length = approx. 33' (10 m) – model RT) for applications with ambient temperature >120°F (49°C)

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Our commitment is to deliver smart and affordable innovation that optimizes process, improves safety, and transforms our world.

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