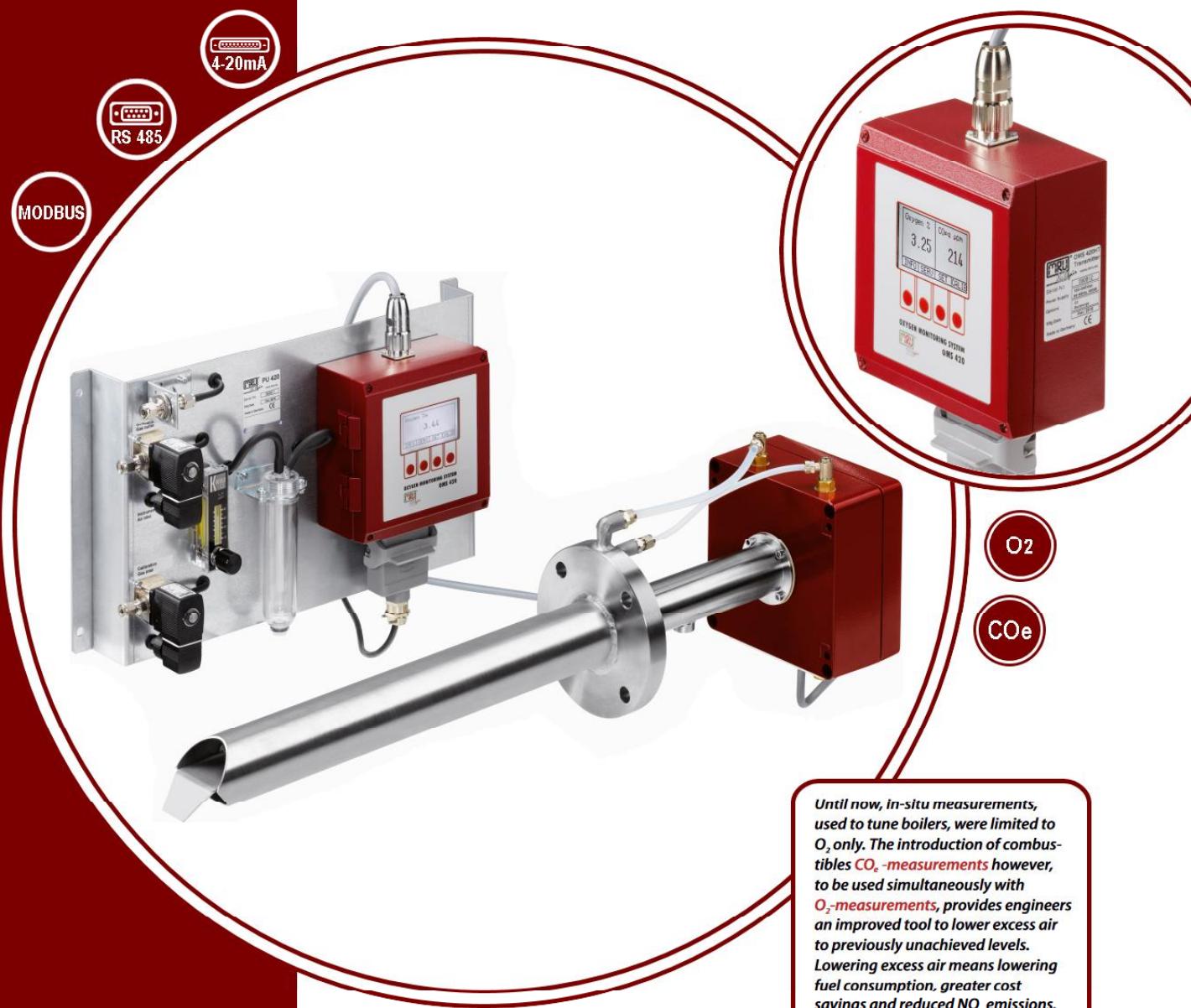


# OMS 420

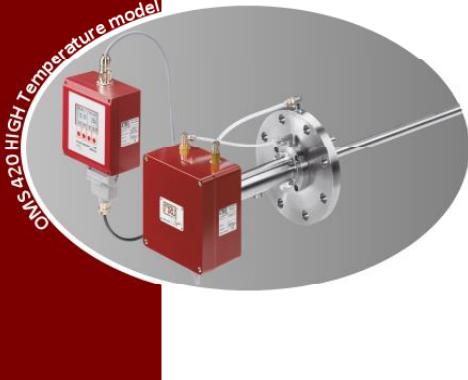
## IN-SITU COMBUSTION OPTIMIZATION MONITOR

In-Situ Flue Gas Oxygen & Combustibles Transmitter  
A Superior Design for Superior Results



- Combination of  $O_2$  and  $CO_e$  for improved combustion
- Real-time measurements
- Stable, long-life Zirconium sensor
- Unique, heated solid electrolyte combustibles sensor

# IN-SITU O<sub>2</sub> / CO<sub>e</sub> MONITOR



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

*The MRU OMS 420 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 MRU Combustibles sensor has great accuracy and sensitivity below 10% oxygen and does not require dilution air like other competitors utilizing Pelister sensors.*

*For easy access and service, the Flow Guidance Tube design allows the sensors to be located near the back of the transmitter. This makes for simple service without the need to remove the entire assembly from the stack and struggle with removing sensors located at the end of the probe.*

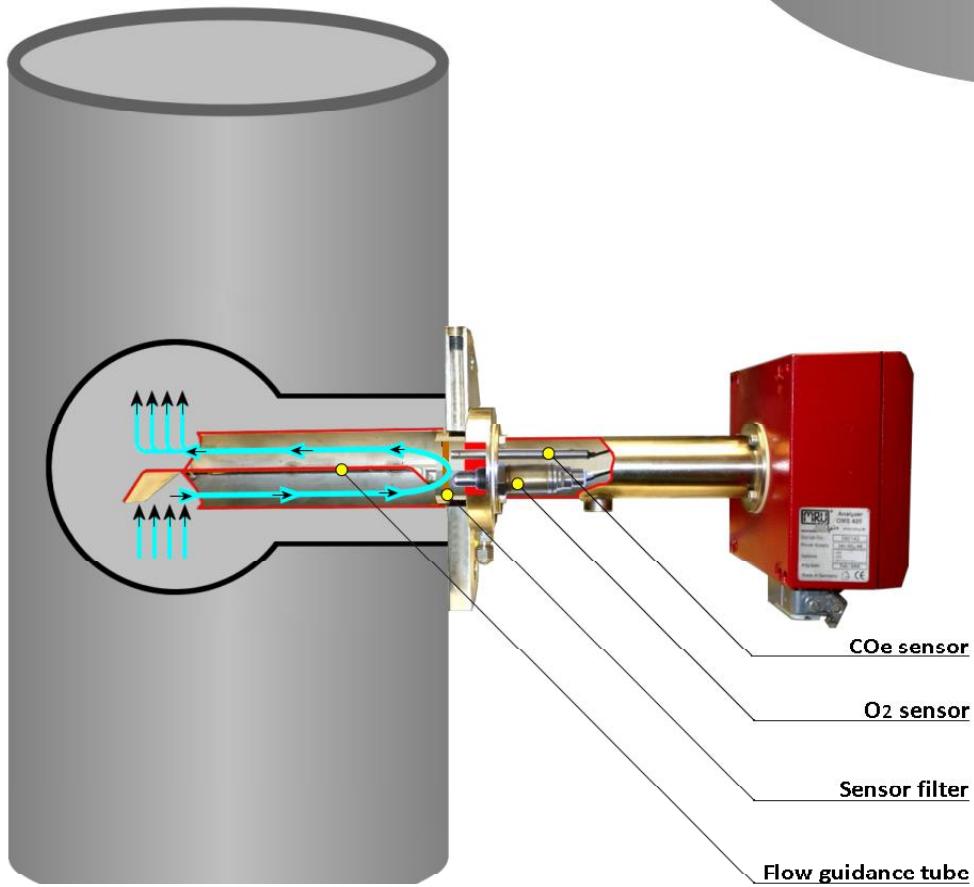
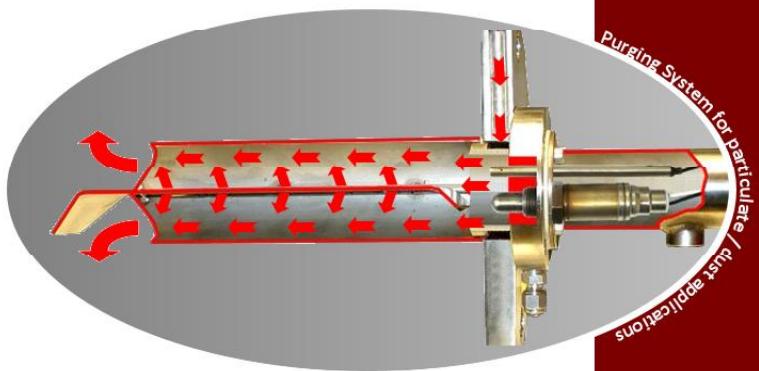
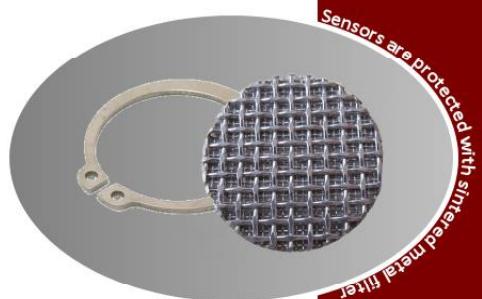
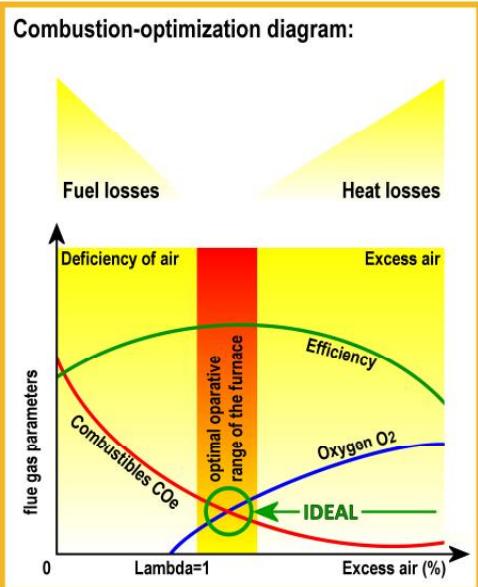
*The OMS 420 is versatile for different mounting requirements or difficult applications like high temperature, dust or even hazardous installations, and it can also be outfitted with auto calibration. MRU's OMS 420 gives you all of this and at the best value position on the market.*

**Better sensors combined with a superior design delivers better combustion performance, trouble-free operation, and simple serviceability.**

- **Zirconium dioxide 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
- **Flow Guidance Tube allows fast and easy access to sensors**
  - Suitable for high dust / particulate applications
  - High temperatures to 3000°F
  - Probe lengths to 6'
  - Optional Auto Calibration

# SAVE ENERGY & FUEL CONSUMPTION

Save millions \$ a year  
(in large power plants)



## 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> : $\pm 0.2\%$ or $\pm 5\%$ of reading, whichever is larger CO <sub>e</sub> : $\pm 50$ ppm or $\pm 10\%$ of reading, whichever is larger
<b>Flange</b>	ANSI flange: Ø 230mm / probe tube: Ø 60mm, 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 to max. +300 °F (condensation at the flange must be avoided)
<b>Response time T90</b>	<10 seconds
<b>Analog outputs</b>	2 x current loop 4 to 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 OMS 420), 90 to 100 W 100 to 240 Vac (for model OMS 420 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
<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. (without probe and flange)

## OPTIONS

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 with ceramic tube and ejector (model HT)

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

Data subject to change without notice

Support and sales by:

