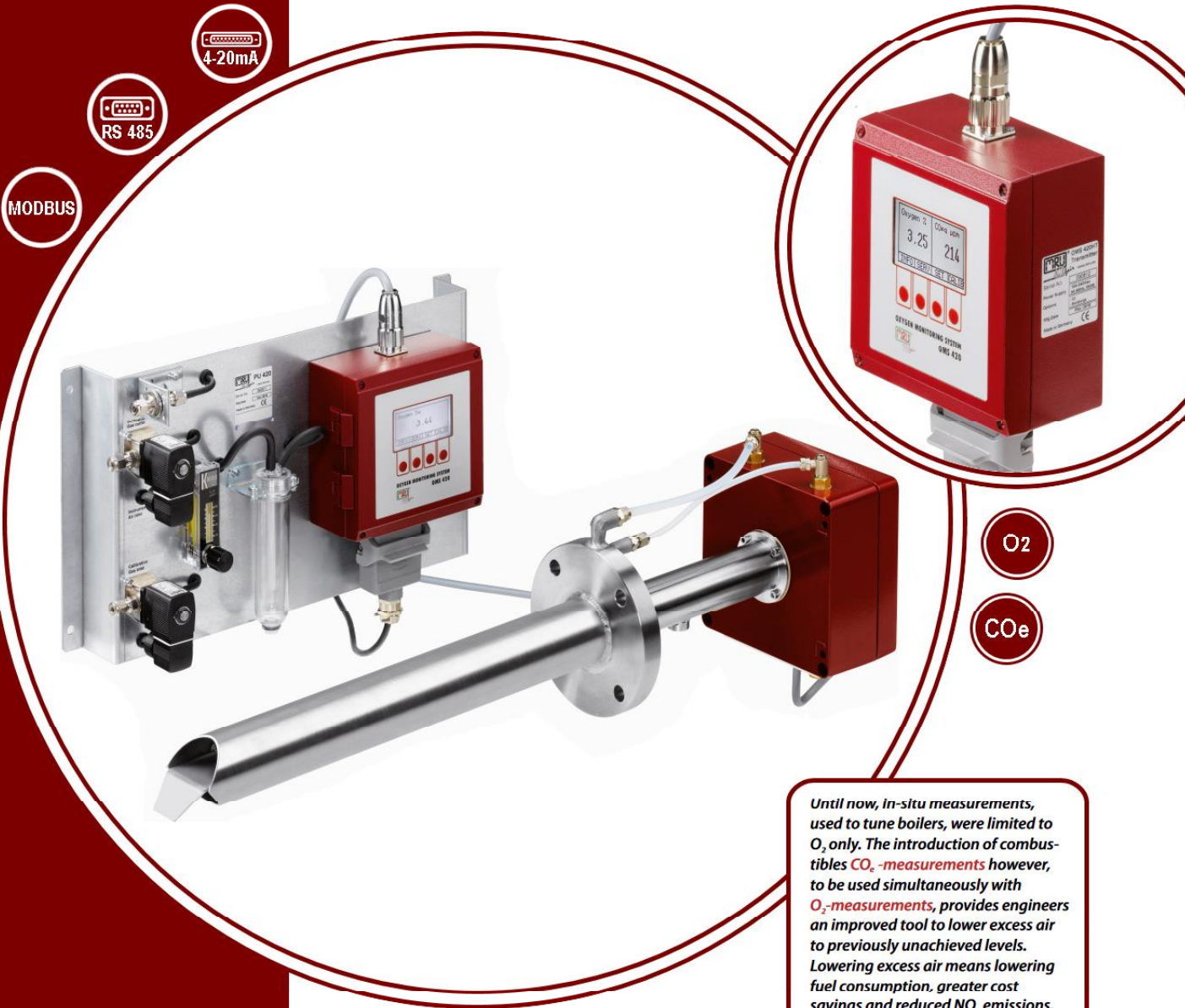


OMS 420

IN-SITU COMBUSTION OPTIMIZATION MONITOR

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



Until now, in-situ measurements, used to tune boilers, were limited to O₂ only. The introduction of combustibles CO_e -measurements however, to be used simultaneously with O₂ -measurements, provides engineers an improved tool to lower excess air to previously unachieved levels. Lowering excess air means lowering fuel consumption, greater cost savings and reduced NO_x emissions.



Over 30 years of innovative gas analysis!

- Combination of O₂ and CO_e for improved combustion
- Real-time measurements
- Stable, long-life Zirconium sensor
- Unique, heated solid electrolyte combustibles sensor
- Easy access to sensors for fast and simple service

IN-SITU O₂ / CO_e 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.

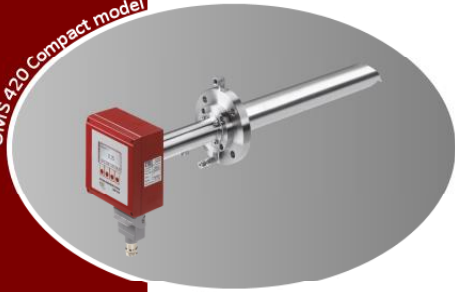
Better sensors combined with a superior design delivers better combustion performance, trouble-free operation, and simple serviceability.

- Zirconium dioxide O₂ sensor
 - Long life
 - Fast response
 - High stability
 - Low energy consumption

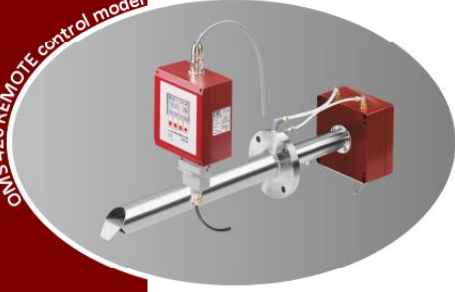
- Heated Solid Electrolyte CO_e sensor
 - High accuracy / sensitivity
 - Stable even to 1% oxygen
 - No dilution air required
 - Fast response
 - Long life

- 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

OMS 420 Compact model



OMS 420 REMOTE control model



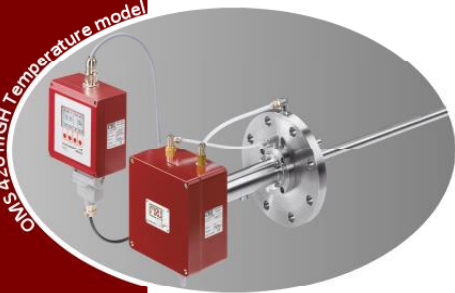
OMS 420 REMOTE control model with AUTO-CAL



PU420 - AUTO-CAL module for long term stability

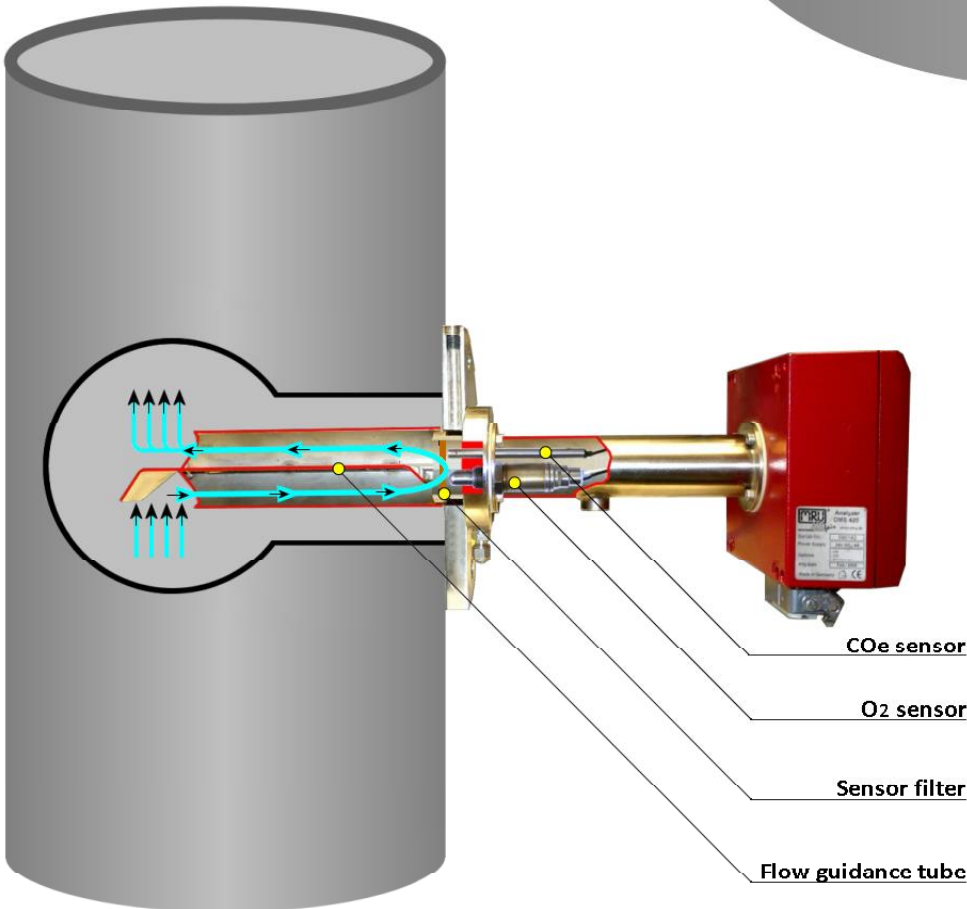
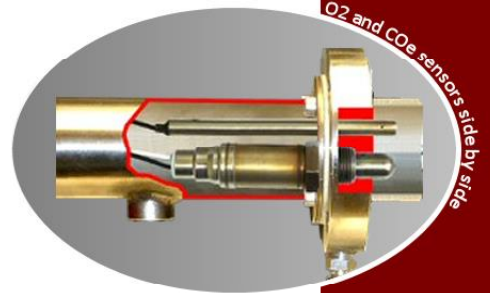
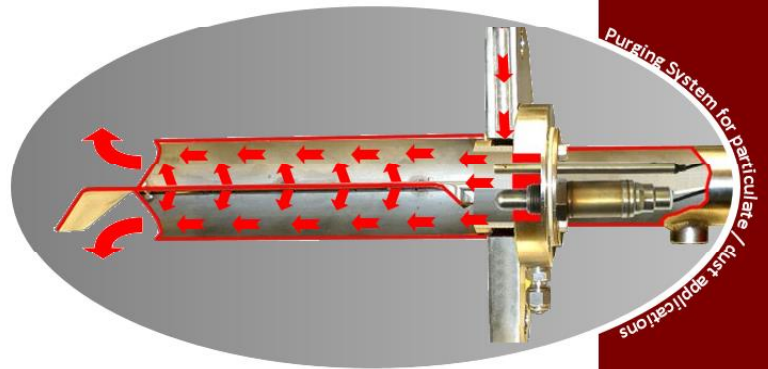
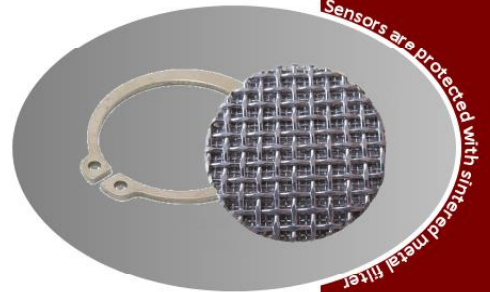
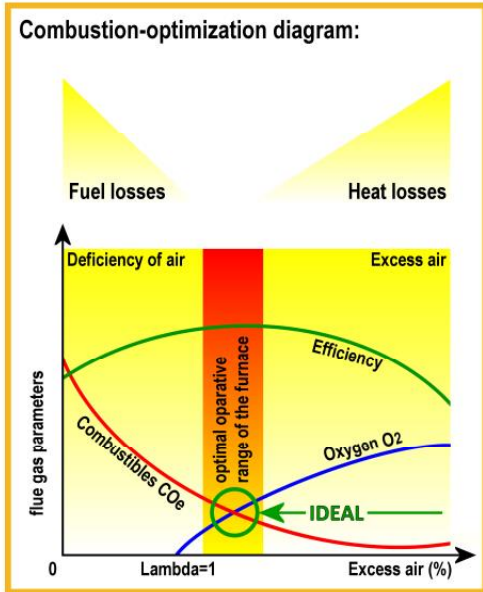


OMS 420 HIGH Temperature model



SAVE ENERGY & FUEL CONSUMPTION

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



TECHNICAL SPECIFICATIONS

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

OPTIONS

CO_e 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