

OMS420 Ex

O₂ & CO_e in-situ monitoring system for use in hazardous area zone 2



IN-SITU real time analysis for Oxygen (O₂) and combustibles (CO_e)*



since 1984®

AIR fair

EMISSION MONITORING SYSTEMS

O₂

CO_e

The OMS 420 Ex - probe is used for continuous measurement of oxygen and combustible gas concentrations in flue gases up to 1,832 °F of various industrial furnaces/ovens/boilers, with hazard of explosive atmosphere at petroleum refineries, petrochemical plants and natural gas plants.

Measurement principle

Oxygen (O₂) = ZrO₂ zirconium dioxide

CO_e (combustibles) = heated solid electrolyte


* total of flue gas combustibles

(CO + H₂ + C_xH_y)

displayed as equivalent CO

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.

MAIN FEATURES

- >> hazardous area designation of use: Zone 2 or Class 1, Div. 2, Gr C/D
- >> special IP65 pressurized cabinet and z-purge controller, complying to  II 3G Ex pz II T3 Gc
- >> unique hot solid electrolyte sensor for combustible CO_e - measurement without need for sample dilution with air as required for catalytic bead sensors (Pellistors)
- >> easy and fast, on site replaceable detector head with sensors (O₂ and CO_e)
- >> unique blow-back system for dusty flue gases
integrated auto-calibration for accurate measurements (option)
- >> integrated control unit with backlit display, operating key pad, dual galvanic isolated 4...20 mA output and digital output RS 485 (Modbus RTU)
- >> stainless steel SS316Ti flange 4" ANSI-150 lbs. with flow guidance probe tubes, from 300 mm up to 2 m length
- >> low energy consumption, no poisoning effects on sensors, stable in hot, wet and water saturated flue gases, dust tight and water proof enclosure, with optional ATEX heater for very low ambient air temperatures or ATEX Vortec cooler for high ambient temperatures