

PULP & PAPER, GLASS, CEMENT & LIME

Expertise in action

AMETEK Process Instruments' extensive knowledge of combustion control and emissions monitoring plays a key role in industries such as pulp and paper, glass, and cement and lime.

Our trusted zirconium oxide (ZrO_2) analyzers provide important oxygen measurements, while we offer critical measurements for sulfur dioxide and NO_x waste products.

CMFA-P2000

MEASURES: Excess O₂ or Excess Fuel

RANGE

100% to 0.1% excess O₂ and 0.1% to 50% excess fuel

ACCURACY

Excess O₂: ±2% of measured value or ±0.1%, whichever is greater
 Excess Fuel: ±5% of measured value or ±0.25%, whichever is greater
 Specifications based on 0-15% range, natural gas

PROCESS

Fiberglass Strand and Glass Container Melt Tanks/Forehearth, Ribbon Burners on Flame Treating Lines, Brazing Machines (pre-heat, flux, and braze)

APPLICATION

Portable Oxygen and Air/Fuel Mixture Monitoring to Control Product Quality in Glass & Fiber Manufacturing



TECHNOLOGY: ZrO₂

5100HD

MEASURES: CO, CH₄, O₂

RANGE

ppmv to % level, application dependent

ACCURACY

±2% of reading

PROCESS

Combustion

APPLICATION

Safety and Operational Efficiency Monitoring



TECHNOLOGY: TDLAS

PreMix 2000

MEASURES: Excess O₂ or Excess Fuel

RANGE

All or selected portions of the range from 100% to 0.1% excess O₂ and 0.1% to 50% excess fuel

ACCURACY

Excess O₂: ±2% of measured value or ±0.1%, whichever is greater
 Excess Fuel: ±5% of measured value or 0.25%, whichever is greater

PROCESS

Fiberglass Spinner Blowers/Day Pots, Technical Glass Forming Furnaces

APPLICATION

Control of Product Quality via Oxygen and Air/Fuel Mixture Monitoring in Glass and Fiber Manufacturing



TECHNOLOGY: ZrO₂

WDG-HPII

MEASURES: O₂, Combustibles

RANGE

O₂: From 0-1% to 0-100%
 Combustibles: From 0-2,000 ppmv to 0-10,000 ppmv or from 0-1% to 0-5%

ACCURACY

O₂: ±0.75% of measured value or ±0.05%, whichever is greater
 Combustibles: ±2% of full scale output range

PROCESS

Kilns, Power Generation, Process Furnaces

APPLICATION

Combustion Control and Oxygen Monitoring in Rotary Kilns, Power and Steam Boilers, Black Liquor Recovery Boilers, Multiple Hearth Furnaces, Glass Melting Tank Exhaust



TECHNOLOGY: ZrO₂, Catalytic Sensor

IPS-4

MEASURES: SO₂, NO_x, ClO₂, CO

RANGE
ppmv to 100%

PROCESS
Emission Compliance

ACCURACY
UV: ±1% of full scale range
IR: ±2% of full scale range
Dual Bench: ±2% of full scale typical

APPLICATION
Pulp Bleaching,
Emissions Compliance



TECHNOLOGY: UV/NDIR

9900RM

MEASURES: SO₂, NO_x, ClO₂

RANGE
ppmv/ppmw to 100%,
application dependent

PROCESS
Emission Compliance

ACCURACY
Better than ±1.0% of standard
full scale range

APPLICATION
Emissions



TECHNOLOGY: UV

9900WM

MEASURES: SO₂, TRS, ClO₂

RANGE
ppmv/ppmw to 100%,
application dependent

PROCESS
Emission Compliance

ACCURACY
Better than ±1.0% of standard
full scale range

APPLICATION
Emissions



TECHNOLOGY: UV

WDG-V Blowback

MEASURES: O₂, Combustibles,
CH₄

RANGE
O₂: From 0-1% to 0-100%
Combustibles: 0-1000 ppmv
with overrange 0-2,000 ppmv
to 0-10,000 ppmv, 0-2 to 0-5%
Hydrocarbon: 0-5%

PROCESS
Fired Heaters, Process Generation,
Process Furnaces, Kilns

ACCURACY
O₂: ±0.75% of measured
value or ±0.05%, whichever
is greater
Combustibles: ±2% of full
scale output range
Hydrocarbon: ±5% of full
scale output range

APPLICATION
Combustion Control



TECHNOLOGY: ZrO₂, Catalytic Sensor