

METALS & MINING

Ready to face the challenge

AMETEK Process Instruments' expertise delivers a solution that ensures safety, quality and efficiency in the high-heat environment of metals and mining.

Using our accurate technologies – including TDLAS lasers, mass spectrometers and UV analyzers – we provide the measurements you require, from furnace control to emissions reduction.

ProMaxion

MEASURES: H₂, O₂, CO, CO₂, N₂, Ar, CH₄, and other components
m/z 1-200

RANGE
1 ppmv-100%

PROCESS
Steel Production

ACCURACY
±0.5% of measured value for argon in air

APPLICATION
Basic Oxygen, Electric Arc Furnace, Blast Furnace, VD



TECHNOLOGY: UV, Mass Spectrometer

ProLine

MEASURES: H₂, O₂, CO, CO₂, N₂, Ar, CH₄, and other components
m/z 1-200

RANGE
1 ppmv-100%

PROCESS
Steel Production

ACCURACY
±0.5% of measured value for argon in air

APPLICATION
Basic Oxygen, Electric Arc Furnace, Blast Furnace, VD



TECHNOLOGY: Mass Spectrometer

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%

PROCESS
Foundry/Metals Production
Furnaces, Kilns

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

APPLICATION
Combustion Control and Oxygen Monitoring in Blast Furnace Stoves, Reheat Furnaces and Lime Kilns; Excess Fuel Monitoring of Graphite Electrodes in Electric Arc Furnaces (with Excess Fuel Option)



TECHNOLOGY: ZrO₂, Catalytic Sensor

9900RM

MEASURES: SO₂, F₂, Uranium

RANGE
ppmv/ppmw to 100%, application dependent

PROCESS
Emissions Compliance

ACCURACY
Better than ±1.0% of standard full scale range

APPLICATION
Emissions



TECHNOLOGY: UV

IPS-4

MEASURES: SO₂, F₂, Uranium

RANGE

ppmv/ppmw to 100%, application dependent

ACCURACY

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

PROCESS

Emission Compliance

APPLICATION

Emissions



TECHNOLOGY: UV/NDIR

5100HD

MEASURES: CO, CO₂, O₂, H₂O, CH₄, H₂S

RANGE

ppmv to % level, application dependent

ACCURACY

±2% of reading (typical)

PROCESS

Operations

APPLICATION

Safety, Emissions, Operational Efficiency Monitoring



TECHNOLOGY: TDLAS

WDG Insitu

MEASURES: O₂

RANGE

0-1% to 0-100%

ACCURACY

±1% of measured value or ±0.05%, whichever is greater

PROCESS

Coke Ovens, Power Generation

APPLICATION

Process Oxygen Monitoring in Coke Ovens and Power and Steam Boilers



TECHNOLOGY: ZrO₂

WDG-V

MEASURES: O₂, Combustibles, CH₄

RANGE

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

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

PROCESS

Foundry/Metals Production Furnaces, Power Generation

APPLICATION

Combustion Control and Oxygen Monitoring in Reheat Furnaces and Power and Steam Boilers



TECHNOLOGY: ZrO₂, Catalytic Sensor