Solutions for Environmental Monitoring, Safety and Compliance

Real-time Process and Laboratory Analyzers for Air and Water Applications

Heating Value, Spectroscopy & Electrochemical Analyzers

Fuel Gas, Natural Gas & Biofuels

- Real-time gas analyzers for environmental compliance and combustion control
- Rapid response for optimized combustion efficiency and accurate H₂ blending to reduced carbon emissions
- Multiple solutions for compliance with regulations such as 40 CFR Part 60, and HRVOC rules
- H₂S, Total Sulfur, Net Heating Value (NHV), O₂, and COe, Wobbe, Specific Gravity, CARI, and full speciated composition

Applications:

- Multi-gas, oxygen, and COe analyzers for continuous emissions monitoring (CEM) in industrial plants, power generation, refineries, engines, turbines, pulp and paper, cement, etc.
- Stack gas analysis for CEM (LDLs in ppb or ppt of NH₃, HCl, HF, H₂S, COe, NO, CH₄, and more)
- Trace HCl measurements to comply with US EPA rules
- Continuous monitoring of ammonia slip for lower cost of abating NOx
- Automated, multi-point analysis of waste gas and scrubber effluent for efficiency reporting

Industrial Mass Spectrometers for Real-Time, Multi-Stream Fuel Compliance and Control

MAX300-RTG™ 2.0

In Situ O₂ and COe for Combustion Monitoring for Burner Optimization

O₂CX™ Monitor

Direct Heating Value Analyzer for BTU, CARI, Wobbe and Density

9610™ Calorimeter

Fast, Multi-Cycle Total Sulfur Fuel Gas Analyzer

FGA-1000™

Continuous Emissions Monitoring (CEM)

Spectrometers & Electrochemical Analyzers

Handheld Multigas Emissions Analyzer

707™

In Situ O₂ and COe for Combustion Monitoring for Burner Optimization

O₂CX™ Monitor

In-Situ, Stack Gas Oxygen Analyzer

Zircomat™

Real-Time Mass Spectrometer for ppb-Level, Multi-Impurity Analysis

MAX300-LG™

CRDS CEMs analyzer for HCl, HF, NH₃, and more

T-I MAX™
Applications:

- Real-time gas analyzers for flare compliance and control
- H₂S, Total Sulfur, Net Heating Value/BTU (NHV), H₂, and full speciated composition
- Complete analysis for compliance with regulations such as EMACT, MONMACT, RSR, Subpart Ja, Ontario Reg. 530/18, Korean Facility Management Standards to Reduce Fugitive Emissions, and HRVOC rules

Flare Gas Analysis

- Total Sulfur Gas Analyzers FGA-1000™
- Injection Style Heating Value Analyzer for Zero-Hydrocarbon Emissions for BTU and Flare control 9800™ Calorimeter
- Real-Time Mass Spectrometers for Compliance and Flare Control MAX100-BTU™ and MAX300-RTG™ 2.0

Spectrometers & Electrochemical Analyzers

- Percent and Trace Oxygen Analyzers, and Oxygen Deficiency Safety Monitors Series 2000™ and ZRO2000™
- CRDS for Real-Time, Trace Methane, CO₂, and Formaldehyde T-I MAX™ AIR
- Benchtop Mass Spectrometers for Real-Time, ppb-level, Multi-Impurity Analysis MAX300-LG™

Fenceline & Ambient Air Analysis

- FTIR Environmental Vapor Monitoring Analyzer ANALECT EVM™
- Real-Time Air Mass Spectrometer for Environmental Health and Safety MAX300-AIR™
Sterilization & Virus Deactivation

Applications:
- Measure sterilant gas concentration in real-time under ambient or vacuum conditions
- $\text{H}_2\text{O}_2$, H$_2$O, Ethylene Oxide, NOx under ambient or vacuum conditions for cycle development of sterilization chamber, filling isolators and Resistometers
- Optical RH and relative saturations measurements
- Independent reference for potential load production release

NIR Photometers & Probes for $\text{H}_2\text{O}_2$ and H$_2$O

Dual Beam Photometer for Real-Time Hydrogen Peroxide Vapor (HPV) Sterilant Gas Monitoring
ClearView db® Hydrogen Peroxide Vapor HPV™

Vapor Probe for H$_2$O$_2$ Analyzer System, Suitable for Vacuum and Positive Pressure (up to 2 atm)
G-SST™ Vapor Probe

Optical Spectrometers & Water Quality Analyzers

Applications:
- On-line water quality analysis for Total Organic Carbon (TOC), Chemical Oxygen Demand (COD), Biological Oxygen Demand (BOD)
- Water influent and effluent discharge control for environmental compliance
- Municipal water quality, drinking and surface water toxicity
- Airport deicing fluid capture and remediation
- Industrial stormwater and agricultural runoff

Pure Water, Wastewater & Runoff

TOC Water Analyzer for Harsh Wastewater Applications
QuickTOCultra™

TOC Water Analyzer for Clean Water Applications
QuickTOCuvll™

TOC Water Analyzer for Municipal & Cooling Water Applications
QuickTOCeco™

Fast, Continuous, Online Toximeter for Drinking Water and Surface Water
ToxAlarm™

UV-VIS Process Analyzer for Triazines and Precursors in Agricultural Runoff
M508plus™

COD Water Analyzer for Laboratories
QuickTOClab™
Sulfur Analysis

- Sulfur analysis in butane, diesel, liquid fuels, Liquefied Natural Gas (LNG), hydro-treaters, blenders and scrubbers
- Renewable Natural Gas (RNG) and biofuels manufacturing
- H$_2$S, Total Sulfur and Total Nitrogen, and Trace Sulfur
- Meets ASTM D5453, for compliance with regulations like US EPA Tier III, European Euro 6 and the Indian Bharat VI

Industrial Mass Spectrometers for Real-Time, Multi-Stream Fuel Compliance and Control
MAX300-RTG™ 2.0

Heating Value, Spectroscopy & Electrochemical Analyzers

- Monitor emissions of greenhouse gases from various sources such as landfills, gas and oil exploration sites, refineries, chemical plants, and agricultural facilities
- Combustion analyzers for steel, power, petroleum, petrochemicals, ceramics, paper & pulp, food, textiles, garbage incinerators, and boilers
- Optimized combustion control to reduce CO$_2$, SOx, and NOx emissions, and prevent global warming and air pollution
- Real-time analyzers for CH4 and CO, CO2, O2, NOx, SO2, and H2S in air

- Injection Style Heating Value Analyzer for Zero-Hydrocarbon Emissions for BTU and Flare Control
9800™ Calorimeter
- Handheld MultiGas Emissions Analyzer
707™
- In-Situ, Stack Gas Oxygen Analyzer
Zircomat™
- CRDS Analyzer for the Detection & Continuous Monitoring of Methane and Greenhouse Gases (GHG)
T-I MAX™ AIR CH$_4$
- In Situ O$_2$ and COe for Combustion Monitoring for Burner Optimization
O2CX™ Monitor
**MAX300-CAT**

Real-time, ppb-level multi-impurity analysis

**Applications:**
- Full composition and trace gas analyzers for atmospheric chemistry and environmental research
- River water, environmental contamination, and wastewater monitoring
- Climatic chamber and glovebox moisture, temperature, and dew point sensor validation
- PPB to 100% H₂O and O₂ (aerobic or anaerobic activity), relative humidity and dew point, temperature, and compositional gas analysis
- Trace gas analyzers for H₂O, O₂, H₂, CH₄, NH₃, CO, CO₂, N₂, Ar, He, VOCs, HAPs, hydrocarbons, etc.

**NEW**

Chilled Mirror Dew Point Hygrometer with Measuring Head for Temperature and RH Measurements

973 Model™

Portable and Fixed Trace to Percent Oxygen Monitors

Series 3520™ and OXY-SEN™

Aluminum Oxide Dew Point Meters for Portable/Fixed/Loop-Powered Applications

HDT / LPDT / LPDT2™

Benchtop Mass Spectrometer for Real-Time ppb-Level to 100% Catalysis, Reaction Monitoring, and Environmental Research

MAX300-CAT™

Molecular Beam Mass Spectrometer for Pyrolysis and Environmental Research

VeraSpec™ MBx

For a complete range of products, applications, systems, and service options, please contact us at: info@process-insights.com

For a complete list of sales & manufacturing sites, please visit: https://www.process-insights.com/about-us/locations/