

Solutions for Oil Refineries

High Quality Analyzers for Diverse Gas, Water, and Liquid Hydrocarbon Applications



Fuel Gas

Applications:

- 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



Fast, Multi-Cycle Total Sulfur Fuel Gas Analyzer **FGA-1000™**



Direct Heating Value Analyzer for BTU, CARI, Wobbe and Density 9610™ Calorimeter



In situ, Multigas O₂ and Combustibles Monitor for Fuel Gas Optimization **O2CX™ Sensor**



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

Optical / Mass Spectrometers & Heating Value Analyzers



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



Total Sulfur Gas Analyzers **FGA-1000™**



Injection Style Calorimeter for Zero-Hydrocarbon Emissions for BTU and Flare Control 9800[™] Injection Style Calorimeter



Real-Time Mass Spectrometers for Compliance and Flare Control MAX100-BTU[™] and MAX300-RTG[™] 2.0

Optical & Mass Spectrometry Analyzers



Sulfur Analysis

Applications:

- Sulfur analysis in butane, diesel, liquid fuels, LNG, hydrotreaters, blenders and scrubbers
- H₂S, Total Sulfur and Total Nitrogen and Trace Sulfur
 Net Heating Value/BTU (NHV), H₂ and full speciated
- Net heating value/BTO (NHV), H₂ and full specialed composition
 Mosto ASTM DE452, for compliance with regulational
- Meets ASTM D5453, for compliance with regulations like US EPA Tier III, European Euro 6 or the Indian Bharat VI





Fast, Multi-Cycle Total Sulfur Gas Analyzer **SGA-1000™**

Real-Time Total Sulfur in Liquids Analyzer **SLA-1000™**



Laboratory Total Sulfur and Total Nitrogen in Liquid and Gases XT-2000™



Industrial Mass Spectrometers for

Real-Time, Multi-Stream Fuel

Compliance and Control

MAX300-RTG™ 2.0



UV-VIS Process Analyzer for H₂S to SO₂ Ratio **M508***plus***™**





Crude Oil Processing

Applications:

- Real time process analyzers for naphtha conversion, catalytic conversion, upgrading units, isomerization, alkylation, and gasoline and diesel blending
- Monitor catalyst efficiency
- PIONA content of reformate, octane numbers, volatility (RVP, vapor-to-liquid ratio), aromatics content, olefins, oxygen, benzene, distillation parameters, Fuel ID, and Fuel Color + Turbidity



Dual Beam Photometer for Continuous PAT Monitoring Available in Several Enclosure Options **ClearView db**®



Benchtop NIR Spectrometer for QC lab and Pilot Plant Operations Lab NIR-O[™]



Real-Time, Multi-Stream Process NIR Spectrometer **NIR-O**™



FTIR/FT-NIR Process Analyzer for Refining Applications ANALECT[®] RefinIR™



Process FTIR Analyzer for Refinery Monitoring ANALECT[®] Hydrocarbon SmartSystem™



Electrochemical Sensors & Laser Spectroscopy Analyzers





Applications:

- Continuous moisture analysis in instrument air and dryers and portable spot checking
- Trace moisture in clean dry air, ppb to %





Aluminum Oxide Dew Point Meters for Portable/Fixed/Loop-Powered Applications XDT / XPDM / LPDT / LPDT2[™]



CRDS Analyzer for UHP Moisture in Air **Spark™**

Heating Value, Electrochemical & Spectroscopy Analyzers

Applications:

- Hydrogen and syngas process control, and hydrogen purity analysis
- Increased accuracy and efficiency for all stages of the hydrogen economy- generation, storage, and delivery
- Gas analyzers for H₂O, CO, CO₂, H₂, N₂, CH₄, H₂S, hydrocarbons, BTU, Wobbe, CARI, and Density



Steam Methane Reformer

Benchtop Mass Spectrometers for Real-Time, ppb-level, Multi-Impurity Analysis MAX300-LG™



Industrial Mass Spectrometers for Real-Time, Multi-Stream Process Control MAX300-RTG[™] 2.0



Injection Style Heating Value Analyzer for Zero-Hydrocarbon Emissions for BTU and Flare Control 9800[™] Calorimeter



Portable and Fixed Aluminum Oxide Dew Point Meters **XPDM™**



Real-time Cavity Ring Down Spectroscopy (CRDS) Impurity Analyzers for H₂O,CO, CH₄ and CO₂ **CO-rekt[™]** and **Prismatic 3[™]** Spectrometers, Water Quality, Electrochemical & Chilled Mirror Analyzers



Laboratory, Safety & Compliance

Applications:

- Air and fenceline monitoring compliant with regulations such as OSHA requirements, USEPA Method 320, and the RSR
- O₂ deficiency safety monitoring, sulfur and nitrogen in fuels and biofuels, moisture calibration of sensors and standards
- Trace gas analyzers for H_2O , O_2 , H_2 , CH_4 , NH_3 , CO, CO_2 , N_2 , Ar, He, and hydrocarbons



Percent and Trace Oxygen Analyzers, and Oxygen Deficiency Safety Monitors Series 3520[™] and OXY-SEN[™]



Chilled Mirror Dew Point Meters 373 Model™



Real-Time Air Mass Spectrometers for Environmental Health and Safety MAX300-AIR[™]



Total Sulfur-Total Nitrogen Gas Analyzers **XT-2000™**



Applications:

- Water influent and effluent discharge control
- Process control, high purity, oil in water, cooling water, condensate return, water-steam cycles and environmental compliance
- Total Organic Carbon (TOC) in water



Water & Wastewater

TOC Water Analyzer for Harsh Wastewater Applications QuickTOCultra™



TOC Water Analyzer for Clean Water Applications QuickTOCuvII™



TOC Water Analyzer for Municipal & Cooling Water Applications QuickTOCeco™



COD Water Analyzer for Laboratories QuickTOClab™



GAIN REAL-TIME INSIGHT INTO YOUR PROCESS

Process Insights manufactures and delivers premium sensors, monitors, detectors, analyzers, instrumentation, and software that are mission-critical to keep your operations, personnel, and the environment safe – every day across the globe. Get the most reliable, precision analytical technologies available on the market today. We will work to match your needs and budget, and provide the optimal, and most stable process analysis solution for your application.

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