

Solutions for **Alternative Energy**

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

Heating Value, Spectroscopy & Electrochemical Analyzers



Renewable Natural Gas (RNG)

Applications:

- Real-time analyzers for RNG processing, custody transfer, and environmental compliance
- Rapid response for optimized combustion efficiency and accurate H₂ blending to reduce 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



In Situ O, and COe for Combustion Monitoring for Burner Optimization O2CX™ Monitor



Aluminum Oxide Dew Point Meters and Transmitters with Hyper-Thin-Film Technology for Portable/Fixed/ **Loop-Powered Applications** XPDM™ | HDT™ | LPDT2™



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

Applications:



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

Water influent and effluent discharge control

condensate return, water-steam cycles, and

• Process control, high purity, oil in water, cooling water,



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

Water Quality Analyzers



Water & Wastewater



TOC Water Analyzer for Harsh Wastewater Applications QuickTOCultra™



TOC Water Analyzer for Clean Water Applications QuickTOCuvII™

environmental compliance • Total Organic Carbon (TOC) in water



TOC Water Analyzer for Municipal and Cooling Water Applications QuickTOCeco™



COD Water Analyzer for Laboratories QuickCODlab™

Electrochemical Sensors & Laser Spectroscopy Analyzers



Instrument Air & Dryers

Applications:

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









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

XDT™ / XPDM™ / LPDT2™



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

Heating Value, Electrochemical & Spectroscopy Analyzers



Hydrogen & Fuel Cells

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
- Hydrogen purity to meet ISO14687/SAE J2719 standards
- Gas analyzers for H₂O, CO, CO₂, H₂, N₂, CH₂, H₂S, hydrocarbons, BTU, Wobbe, CARI, and Density



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



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



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



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







Mass Spectrometers & Laser Spectroscopy Analyzers



Fuel Ethanol & Fermenter Control



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



NIR-VIS Process Analyzer ClearView® db



Real-Time, Multi-Stream Mass Spectrometer Gas Analyzer for Accurate OUR, CER and RQ MGA 1200CS™

Applications:

- Fermenter bioreactor off-gas composition analysis
- Fast and accurate analysis for control parameters such as: Oxygen Uptake Rate (OUR)
 Carbon dioxide Evolution Rate (CER)
 Respiratory Quotient (RQ) and fermentation end point
- Continuous monitoring to improve yield and quality, and reduce waste
- Single species or multi-component analysis (e.g. CO₂, O₂, N₂, Ar, H₂O, CO, H₂, He, hydrocarbons, alcohols, aldehydes, sulfurs, etc.)
- Real-time determination of ethanol in gasoline



Benchtop Mass Spectrometer for Real-Time, Multi-Stream, Bioreactor Control MAX300-LG™



CRDS Trace Gas Analyzer for ppb-Level Detection of H₂O, CH₄, CO, CO₂ and C₂H₂ Spark™

Heating Value, Spectroscopy & Electrochemical Analyzers



Off-Gas Recapture & Enrichment

Applications:

- Real-time gas analyzers for industrial off-gas, enrichment, combustion control, and environmental compliance
- Rapid response for optimized combustion efficiency and accurate H₂ blending to reduce 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



Handheld Multigas Emissions Analyzer **707**™



In-Situ, Stack Gas Oxygen Analyzer **Zircomat™**



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



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



In Situ O₂ and COe for Combustion Monitoring and Burner Optimization O2CX™ Monitor



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

Spectrometers & Electrochemical Analyzers



Nuclear Power

Applications:

- Oxygen analysis during waste gas tritium recovery
- ppt ppb ppm levels of CO, CO₂, CH₄, NH₃, H₂O, O₂, CH₂O, CH₂O, He, Ar, and N₂ in H₂
- Helium, deuterium, H2, and isotopic analysis for nuclear research



Portable and Fixed Trace to Percent Oxygen Monitors Series 3520™ and OXY-SEN™



Real-time Cavity Ring Down Spectroscopy (CRDS) Impurity Analyzers for H_2O , CO, CH_4 , and CO_2 **Prismatic 3+**M



High Resolution Mass Spectrometer for Isotopic Analysis **VeraSpec HRQ**™

Electrochemical Analyzers & Mass Spectrometers



Gasification

Applications:

- Real-time control of biomass gasification and pyrolysis processes
- Gas analyzers for H₂O, O₂, CO, CO₂, H₂, N₂, CH₄, H₂S, hydrocarbons, BTU, Wobbe, CARI, and Density
- Molecular beam mass spectrometers for natural product analysis, bio oils, and pyrolysis research



Aluminum Oxide Dew Point Meters and Transmitters with Hyper-Thin-Film Technology for Portable/Fixed/
Loop-Powered Applications

XPDM™ | HDT™ | LPDT2™



Industrial Mass Spectrometers for Real-Time, Multi-Stream Gas Analysis and Process Control MAX300-RTG™ 2.0





Series 3520™ and OXY-SEN™



Molecular Beam Mass Spectrometer for Pyrolysis and Environmental Research **VeraSpec™ MBx**

Spectrometers, Photometers, Water Quality, Electrochemical & Chilled Mirror Analyzers



Laboratory, Safety & Compliance

Applications:

- · Air and fenceline monitoring
- O₂ deficiency safety monitoring, sulfur and nitrogen in fuels and biofuels, moisture calibration of sensors and standards
- Trace gas analyzers for $\rm H_2O$, $\rm O_2$, $\rm H_2$, $\rm CH_4$, $\rm NH_3$, $\rm CO$, $\rm CO_2$, $\rm N_2$, Ar, He and hydrocarbons
- Sulfur testing in renewable fuels



Percent and Trace Oxygen Analyzers, and Oxygen Deficiency Safety Monitors Series 2000™ and ZRO2000™



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



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



Real-Time Air Mass Spectrometer for Environmental Health and Safety MAX300-AIR™



COD Water Analyzer for Laboratories **QuickCODlab™**



FTIR Environmental Vapor Monitoring Analyzer ANALECT EVM™



TOC Water Analyzers for Pure and Process Water Applications for Laboratories **QuickTOCpurity™**



CRDS Trace Gas Analyzers HALO™, Spark™, Co-rekt™, ALOHA+ H₂O™, Prismatic™



Chilled Mirror Dew Point Meters MODEL 373™

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/

REVOLUTIONIZING MEASUREMENT

EVERYWHERE

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