

Solutions for Food and Beverage Manufacturing

Real-Time Process and Laboratory Analyzers for Gas, Water and Liquid Applications

Mass Spectrometers & Laser Spectroscopy Analyzers



Fermentation, Brewing & Cell Cultures

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 / quality and reduce waste - single species or multi-component analysis (e.g. CO₂, O₂, N₂, Ar, H₂O, CO, H₂, He, hydrocarbons, alcohols, aldehydes, sulfurs)
- Active Pharmaceutical Ingredients (API) and biomolecule production



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



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™

Spectrometers & Electrochemical Analyzers



Pure Gas, Beverage Gas & Gas Blends

Applications:

- Beverage and fill gas quality, process control and compliance
- Trace analyzers for H₂O, O₂, CH₄, CO₂, CO, C₂H₂, and more, from ppb to % level detection capability



Real-time, Mass Spectrometer for Multi-Impurity Analysis

MAX300-RTG™ 2.0



Intelligent Aluminum Oxide
Dew Point Meter with
Integrated, Custom Sample
Systems Available
Series XDT™

Loop-Powered Aluminum
Oxide Dew Point Meter with
Hyper-Thin-Film Technology
LPDT2™ and HDT™



CRDS Multi-Species Trace Gas Analyzer for H₂O, CO, CO₂ and CH₄ from ppb to ppm Levels **Prismatic™ 3**

Optical Spectroscopy Analyzers & Probes



Milk & Dairy Products

Applications:

- Laboratory and process spectroscopic analyzers for multiparameter process development and product quality analysis
- Dairy sample probes with sanitary tri clamp flange



Optical Probes for Continuous Monitoring Applications and Benchtop Measurements SST™ Lab Probe



FT-NIR Process Analyzer ANALECT® DIAMOND MX™



Benchtop, Rugged At-Line FTIR/ FT-NIR Process Lab Analyzer ANALECT® DIAMOND 20™



Process NIR Spectrometer for In-line, Multi-Parameter Analysis NIR-O™



Full Spectrum NIR Laboratory Spectrometer for Multi-Parameter Process Development and Product Quality Analysis

LAB NIR-O™

Water Quality Analyzers



Water Quality & Wastewater

Applications:

- Online 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
- Water For Injection (WFI)
- Monitor return/boiler water quality to prevent system corrosion
- Palm oil processing TOC
- Saccharine and trace organics in water (ppm level)



TOC Water Analyzer for Harsh **Wastewater Applications** QuickTOCultra™



TOC Water Analyzer for Clean Water Applications QuickTOCuvII™



TOC Water Analyzer for Pure and **Process Water Applications** QuickTOCpurity™



COD Water Analyzer for Laboratories QuickCODlab™

Mass Spectrometers & Optical Spectroscopy Analyzers



Dryers & End Point Determination

Applications:

- Accurate endpoint determination to improve product yield and production efficiency, and minimize waste
- Configured to easily switch between multiple drying chambers, even if different solvents are present
- Optimized sampling for ambient pressures, vacuum drying, and lyophilization
- Trace moisture analysis and multi-species analysis of solvents, including IPA, MEK, DCM, ethyl acetate, styrene, acetonitrile, etc.



Real-Time, Multi-Stream, Industrial Mass Spectrometer for Solvent Drying and Endpoint Determination MAX300-BIO™



Benchtop Mass Spectrometer for Real-Time, Multi-Stream, Solvent Drying and Endpoint Determination MAX300-LG™



CRDS Trace-Level Low-Pressure Moisture Analyzer for Lyophilization HALO RP™ and HALO QRP™

Electrochemical & Chilled Mirror Analyzers



Facility, Safety & Compliance

Applications:

- Oxygen safety monitoring
- Quality of process gas supplies (CDA, N₂, CO₂, etc.)
- Online and/or remote moisture sensor calibration and control
- ppb to 100% moisture; 0 to 25% O₂





Oxygen Deficiency Monitors Series 1300™ Aluminum Oxide Dew Point Meters and Transmitters with Hyper-Thin-Film Technology for Portable/Fixed/Loop-Powered Applications

XPDM™ | HDT™ | LPDT2™



Chilled Mirror Hygrometers measuring moisture and humidity for reference and validation MODEL 373™

Spectrometers, Electrochemical & Chilled Mirror Analyzers



Controlled Atmosphere, Incubation & Glovebox

Applications:

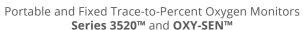
- Real-time, in situ glovebox and incubation monitoring
- Ideal for vessel and climatic chamber monitoring and validation
- ppb to 100% H₂O and O₂ (aerobic or anaerobic activity), relative humidity and dew point, temperature and compositional gas analysis
- Glovebox moisture, temperature and dew point sensor validation



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

XPDM™ | HDT™ | LPDT2™







Chilled Mirror Dew Point Hygrometer with Measuring Head for Temperature and RH Measurements MODEL 373™



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



Lab Mass Spectrometer for Real-Time, ppb-Level to 100% Catalysis, Reaction Monitoring, and Environmental Research MAX300-CAT™



Lab Mass Spectrometer for Real-Time, ppb-Level to 100% Compositional Analysis of Glovebox Gases MAX300-LG™

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:

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