

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, etc.)
- Active Pharmaceutical Ingredients (API) and biomolecule production



Real-Time, Multi-Stream Mass Spectrometer Gas Analyzer for Accurate OUR, CER and RQ
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-Stream, Multi-Impurity Analysis
MAX300-RTG™ 2.0



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



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:

- Real-time, inline process control and quality analysis for milk, cream, butter, cheese, lactose, yogurt, and dairy products
- Precise control of fat, protein and sugar concentrations in standardized milk and liquid end products
- Powdered milk dryer control
- Moisture and solid content ratios in cheese, yogurt and butter
- Dairy sample probes with sanitary tri clamp flange

NEW



FT-NIR Process Analyzer for Milk and Dairy Fat Content, Proteins, Sugars, etc.
ANALECT® DIAMOND MX™

NEW



Benchtop, Rugged At-Line FTIR/FT-NIR Process Lab Analyzer for Milk and Dairy Fat Content, Proteins, Sugars, etc.
ANALECT® DIAMOND 20™



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



Full Spectrum NIR Laboratory Spectrometer for Multi-Parameter Milk and Dairy Process Development and Product Quality Analysis
Lab NIR-O™



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

Water Quality Analyzers



Water Quality & Wastewater

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
- 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
QuickTOCuvll™



TOC Water Analyzer for Pure and Process Water Applications
QuickTOCpurity™



COD Water Analyzer for Laboratories
QuickTOClab™

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; 0-25% O₂



Oxygen Deficiency Monitors
Series 1300™



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



Moisture and Humidity,
Reference, and
Validation Instrument
373 Model™



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



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



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



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



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



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



Laboratory 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: **<https://www.process-insights.com/about-us/locations/>**



REVOLUTIONIZING MEASUREMENT

EVERYWHERE