

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

Mass Spectrometers & Laser Spectroscopy Analyzers



Fermentation & Bioreactor Control

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)



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 Single-Species, Trace Gas Analyzer for ppb-Level of H₂O, CH₄, CO, CO₂, Detection
Spark™

Water Quality Analyzers



Pure Water & Wastewater

Applications:

- Irrigation, cleaning and sanitation, product hydration, water recycle monitoring
- Water influent and effluent discharge control
- Process control, high purity, oil in water, cooling water, condensate return, water-steam cycles, boiler feed water, and environmental compliance
- Monitor Total Organic Carbon (TOC) in water



TOC Water Analyzer for Harsh Wastewater Applications
QuickTOCultra™



TOC Water Analyzer for Clean Water Applications
QuickTOCuvII™



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:

- Moisture control in maturation and ripening, packaging, storage, and transportation of food and stimulants
- 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 and Transmitters with Hyper-Thin-Film Technology for Portable/Fixed/Loop-Powered Applications
XDT™ | XPDM™ | HDT™ | LPDT2™



CRDS Analyzer for UHP Moisture in Air
Spark™

Heating Value, Electrochemical & Spectroscopy Analyzers



Ammonia Fertilizer Process Control

Applications:

- Real-time ammonia process control for optimized steam control and tighter H:N ratio at the converter for increased efficiency and higher yields
- Gas analyzers for H_2O , CO , CO_2 , H_2 , N_2 , CH_4 , H_2S , hydrocarbons, BTU, Wobbe, CARI and Density
- Safe, automated, inline analysis of nitrous acid and urea in liquid at ammonia fertilizer plants



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
9610™ Calorimeter



Real-time Cavity Ring Down Spectroscopy (CRDS) Impurity Analyzers for H_2O , CO , CH_4 and CO_2
CO-rekt™ and Prismatic™



Dual Beam Photometer for Continuous PAT Monitoring
ClearView® db

Photometers & Probes for H₂O₂ and H₂O



Sterilization & Virus Deactivation

Applications:

- Real-time sterilant gas monitoring
- Near-infrared (NIR) filter photometer for H₂O₂ and H₂O vapor mixtures
- H₂O₂ and H₂O under ambient or vacuum conditions
- Optical RH and relative saturation measurements
- NO_x and EtO sterilant gas monitoring



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



Vapor Probe for H₂O₂ Analyzer System, Suitable for Vacuum and Positive Pressure (up to 2 atm)
G-SST™ Vapor Probe

Spectroscopy, Electrochemical & Water Quality Analyzers



Environmental, Health & Safety (EHS)

Applications:

- Oxygen levels in grain elevators, silos, storage and food processing plants
- Triazines and precursors in agricultural runoff
- Continuous Emissions Monitoring (CEM) from agricultural operations
- Greenhouse gas (GHG) emissions from landfills, processing plants and agricultural facilities
- Air and fenceline monitoring
- Wastewater discharge compliance
- Trace gas analyzers for H₂O, O₂, H₂, CH₄, NH₃, CO, CO₂, N₂, Ar, He and hydrocarbons



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



Dual Beam Photometer for Real-Time Triazine Content in Runoff
ClearView® db



UV-VIS Process Analyzer for Chlorine and Phosgene Gas
M508 UV-VIS™



CRDS Analyzer for the Detection and Continuous Monitoring of Methane and Greenhouse Gases (GHG)
T-I Max AIR™ CH₄ and CO₂



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



FTIR Environmental Vapor Monitoring Analyzer
ANALECT EVM™



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



COD Water Analyzer for Laboratories
QuickCODlab™



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
HDT™ | **XDT™** | **XPDM™** | **LPDT2™**



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



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



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



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

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