Solutions for the Semiconductor Industry

High-Performance UHP Gas Analyzers and Online Water Analyzers

Mass Spectrometers & Optical Spectroscopy Analyzers

Applications:
- Bulk gas monitoring for trace H₂, H₂O, O₂, CH₄, CO, CO₂, Kr, NH₃, and Xe

Electronic Gas

- CRDS For ppt-Level H₂O, CH₄, and NH₃
- HALO KA Max™

- CRDS Trace Gas Analyzer for O₂
  HALO OK™

- ppt-Level CRDS for CO and CO₂
  HALO Max QCL™

Laser Spectroscopy & Electrochemical Analyzers

Applications:
- UHP ammonia for HB LED production
- Quality monitoring for process specialty gases including HCl, Cl₂, CO₂, N₂O, NF₃, CₓFᵧ, Xe and more
- Corrosion-resistant versions available

Specialty Gas

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

- ppt-Level CRDS Trace Moisture Analyzer
  HALO KA H₂O™

- CRDS for Corrosive, Rare, and Fluorinated Gases
  HALO 3™

- CRDS for ppt-Level
  H₂O in pure NH₃
  ALOHA+ H₂O™
Applications:

- Tool monitoring for trace H₂O and HF
- Low pressure, low temperature EPI, ALD, MOCVD process monitoring
- Real-time moisture measurement in load lock, transfer, and process chambers

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

Mass Spectrometer for Real-Time, ppb-Level Analysis
MAX300-LG™

CRDS Trace-Level, Low-Pressure Moisture Analyzer
HALO QRP™

CRDS Reduced-Pressure, Trace-Level Analyzer
HALO RD™

Applications:

- Continuous AMC monitoring for ambient HCl, HF, and NH₃
- Coming Soon - HBr

Laser Spectroscopy Analyzers

CRDS Analyzers for Monitoring ppt-Level HCl, NH₃, and HF in Clean Room Air
T-I Max HCl™ and T-I Max NH₃™ and T-I Max HF™

Airborne Molecular Contaminants

Mobile Solution for Monitoring AMC
GO-Cart™
Applications:
- On-line water quality analysis for Total Organic Carbon (TOC), Chemical Oxygen Demand (COD), and Biochemical Oxygen Demand (BOD)
- Online determination of TOC (TRUE TOC), TC, TIC, NPOC, DOC, POC/VOC

Water Analysis

TOC Water Analyzer for Harsh Wastewater Applications
QuickTOCultra™

Water Analyzers for Pure and Process Water Applications
QuickTOCpurity™

Water Analyzers for Ultra-Pure Water Applications
QuickTOCtrace™

COD Water Analyzer for Laboratories
QuickTOClab™

Applications:
- Ambient air monitoring, O₂, dew point, and toxic chemicals
- Scrubber efficiency
- Precise dew point measurement for calibration labs

Lab, Safety & Compliance

Trace to Percent Oxygen Monitors for Portable and Fixed Applications
Series 1300™ and OXY-SEN™

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

CRDS Trace Gas Analyzer for ppb-Level Detection of H₂O, CH₄, CO, CO₂, and C₂H₅OH
Spark™

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

Ambient Air Mass Spectrometer for Environmental Applications
MAX300-AIR™

Chilled Mirror Dew Point Meter and Humidity Generators
Model 473™
Turn-Key integrated solutions for bulk and specialty gas, and AMC monitoring

- Fixed analytical cabinets, and mobile carts

Total Solutions for the Semiconductor Industry

- Laser Spectroscopy Analyzers
- Systems Integration

ASU
Bulk Gas Tanks
Water Supply

Spark/HALO 3/HALO H2
Pre-purifier measurement (ppb to ppm)

HALO KA/KA Max
Bulk gas monitoring (ppt to ppt)

HALO OK
Bulk gas monitoring ppt-level oxygen

HALO Max QCL
Bulk gas monitoring ppt-level hydrogen

HALO Max QCL
QCL-based ppt-level bulk gas monitoring

VeraSpec APIMS
High-performance mass spectrometer for ppt-level detection

Gas Purification System

QuickTOC purity
TOC monitoring in ultrapure water

Fab Environment

T-I Max
AMC monitoring for cleanroom, FOUP/pod & reticle storage

GO-Cart
AMC monitoring (with T-I Max) MOBILE

Water Purification System

Waste Water Treatment

HALO QRP
Low-pressure process tools (Epi, ALD, MOCVD)

QuickTOC trace
TOC monitoring in wafer production

QuickTOC purity
TOC monitoring in waste water

Specialty Gases

Pre-Purifier

Post-Purifier

H₂O, CH₄, H₂, NH₃
H₂, O₂
H₂, CO, CO₂
H₂O, CH₄, NH₃, O₂, CO, CO₂, H₂, N₂, Ar, C₂H₆
H₂O, CH₄, NH₃, O₂, CO, CO₂, H₂, N₂, Ar, C₂H₆
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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Process Insights
The Americas
4140 World Houston Parkway
Suite 180
Houston, TX 77032
USA
+1 713 947 9591

Process Insights
EMEA
ATRICOM
Lyoner Strasse 15
60528 Frankfurt
Germany
+49 69 20436910

Process Insights
APAC
Wujiang Economic and Technology Development Zone
No. 258 Yi He Road
215200 Suzhou
Jiangsu Province, China
+86 400 086 0106

For a complete range of products, applications, systems, and service options, please contact us at:
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