

## High Quality Analyzers for Diverse Industrial Gas Applications and Systems



### Specialty Gas

#### Capabilities:

- Trace H<sub>2</sub>O analysis in UHP ammonia for HB LED production
- Quality monitoring for process specialty gases, including HCl, Cl<sub>2</sub>, CO<sub>2</sub>, N<sub>2</sub>O, NF<sub>3</sub>, C<sub>x</sub>F<sub>y</sub>, Xe, and more
- Dynamic gas blending monitoring
- Corrosion-resistant versions available



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



Mass spectrometer for pure & blended specialty gases  
**MAX300-LG™**



CRDS for Corrosive, Rare, and Fluorinated Gases  
**HALO 3 / KA™**



CRDS for single-digit ppb level H<sub>2</sub>O in NH<sub>3</sub>  
**ALOHA+ H<sub>2</sub>O™**



### Pure and Mixed Package Gas

#### Capabilities:

- Truck Fill, Cylinder Certifications, Gas Blending and Medical Gases
- Measure multiple contaminant concentrations from 100% down to the low parts-per-billion (ppb) in pure gases & blends
- Trace analyzers for H<sub>2</sub>O, O<sub>2</sub>, CH<sub>4</sub>, CO<sub>2</sub>, CO, C<sub>2</sub>H<sub>2</sub>, and other impurities with detection capabilities from ppb to % level



CRDS for Pre-Purifier Measurement for H<sub>2</sub>O, CH<sub>4</sub>, CO, CO<sub>2</sub> and C<sub>2</sub>H<sub>2</sub>  
**Spark™**



Mass spectrometer for pure & blended specialty gases  
**MAX300-LG™**



CRDS Analyzer for simultaneous monitoring of H<sub>2</sub>O, CH<sub>4</sub>, CO and CO<sub>2</sub> in 6 different background gases  
**Prismatic™ 3+**



## Air Separation

### Capabilities:

- Process control, quality control, truck fill, safety, and compliance
- Continuous impurity analysis in instrument air and dryers, and portable spot checking
- Trace analyzers for H<sub>2</sub>O, O<sub>2</sub>, CH<sub>4</sub>, CO<sub>2</sub>, CO, C<sub>2</sub>H<sub>2</sub>, and other impurities with detection capabilities from ppb to % level



Integrated, Custom Sample Systems Available  
**Dew Point Extractive Sampling System**



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



CRDS Analyzer for Trace Gas Detection of H<sub>2</sub>O, CH<sub>4</sub>, CO, CO<sub>2</sub>, and C<sub>2</sub>H<sub>2</sub>  
**Prismatic™ 3+ and Spark™**



## Hydrogen / Syngas

### Capabilities:

- Real-time HyCO and SMR process control, hydrogen purity analysis, feed forward control, and flare gas analysis
- Increased accuracy and efficiency for all stages of the hydrogen supply chain: generation, storage, and delivery
- Fuel-cell hydrogen purity testing to meet the latest ISO 14687 standard
- Gas analyzers for H<sub>2</sub>O, CO, CO<sub>2</sub>, H<sub>2</sub>, N<sub>2</sub>, CH<sub>4</sub>, H<sub>2</sub>S, hydrocarbons, BTU, Wobbe, CARI and Density



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



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  
**9800™ Calorimeter**



Real-time CRDS Impurity Analyzers for H<sub>2</sub>O, CO, CH<sub>4</sub>, CO<sub>2</sub>, and more  
**CO-rekt™ and Prismatic™ 3**



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



## Electronic Gas

### Capabilities:

- Continuous trace impurity monitoring in electronic bulk gases
- All critical impurities covered using CRDS & APIMS technologies

**NEW**



Atmospheric Ionization Pressure Mass Spectrometers for Real-Time, ppt-Level, Multi-Impurity Analysis  
**VeraSpec™ APIMS**



CRDS for ppt-Level H<sub>2</sub>O, CH<sub>4</sub>, and NH<sub>3</sub>  
**HALO KA Max™**



CRDS for Pre-Purifier Measurement for H<sub>2</sub>O, CH<sub>4</sub>, CO, CO<sub>2</sub>, and C<sub>2</sub>H<sub>2</sub>  
**Spark™**



CRDS Trace Gas Analyzer for O<sub>2</sub>  
**HALO OK™**



ppt-Level CRDS for CO and CO<sub>2</sub>  
**HALO Max QCL™**



## Life Safety

### Capabilities:

- Air monitoring
- O<sub>2</sub> deficiency and toxic chemicals
- Worker safety
- Early detection of chemical releases



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



Powerful Quadrupole Mass Spectrometer for Toxic Gas Ambient Air Monitoring  
**MAX300-TGM™**

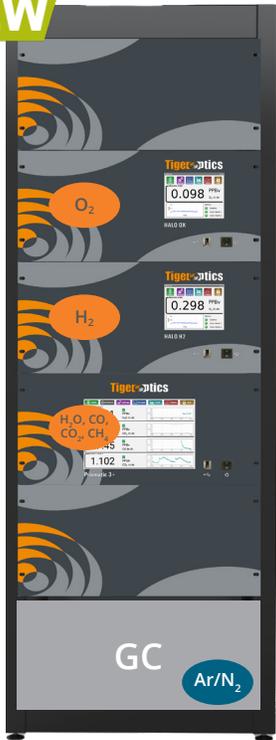


# Integrated Systems

### Capabilities:

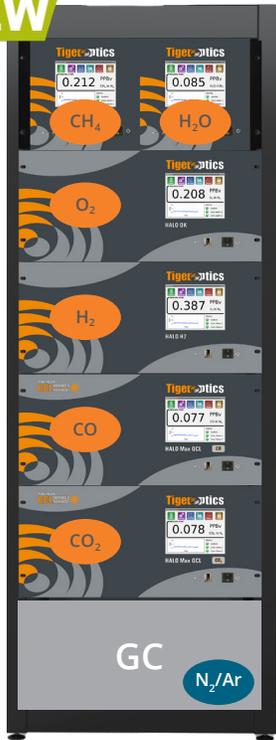
- Real-time monitoring of all critical impurities in a single integrated solution for N<sub>2</sub>, Ar, He, H<sub>2</sub>, O<sub>2</sub> and xCDA
- Gas cycling options - monitor all gases in a single system
- Bulk gas, Process gas

**NEW**



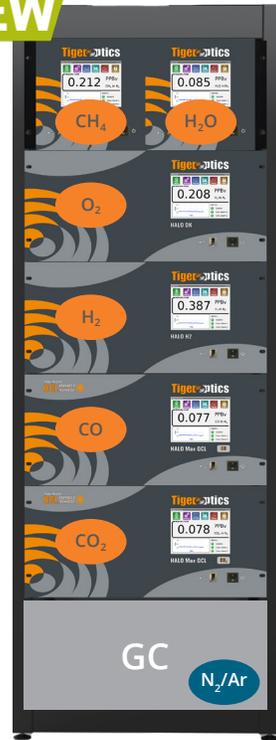
Truck Fill System

**NEW**



ASU System

**NEW**



ICQ/OQC System



## REVOLUTIONIZING MEASUREMENT

# EVERYWHERE™