

Extrel CMS

# MAX300-LG

Gas Analyzer





## The MAX300-LG benchtop gas analysis system represents a fusion of the best of Extrel's research and industrial mass spectrometers, providing you with the ultimate tool for gas analysis.

In today's analytical world you need to get more for less, and you need to get it faster. By combining our experience in mass spectrometers used for cutting edge research with our skill and understanding of the speed and flexibility required for process analysis, Extrel has developed one of the most useful and practical analysis tools available.



### Performance

The MAX300-LG is available as a benchtop unit, or mounted on a cart for portability. It is designed with snap off covers for ease of access, and its clean functional lines are perfect for the laboratory environment.

#### Each MAX300-LG Offers:

- **Performance** – Extrel's 3/4 inch diameter quadrupoles provide superior performance over traditional 1/4 inch diameter quadrupoles.
- **Sensitivity** – The MAX300-LG offers a dynamic range of 100% to 10 parts per billion with the standard Faraday and Electron multiplier dual detector.
- **Precision** – The MAX300-LG has a precision of +/- 0.0025 absolute, based on 1% Argon.

### Flexibility

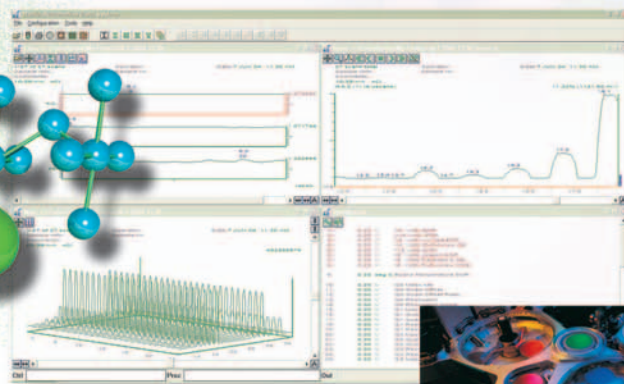
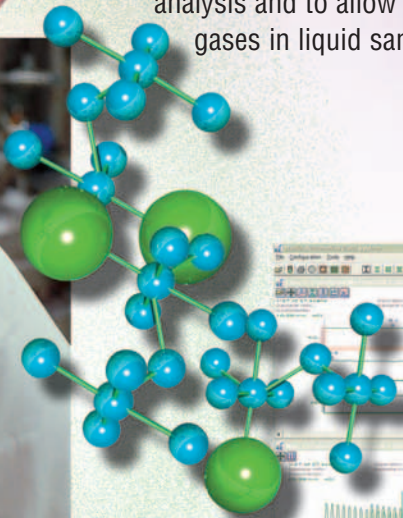
At Extrel we understand that your application is different from anyone else's and we have designed the MAX300-LG with this in mind.

#### Software

Extrel understands that your data acquisition needs are unique. That's why we offer two distinct user interface packages for the MAX300-LG: Merlin Automation Data System or the Questor™ 5 process control package. In fact, if you require it, the MAX300-LG can be configured with both user interface packages.

#### Sample Handling

Various sample selection options are available to accommodate multiple sample points, and gas samples from <10 torr of vacuum to positive pressures. Membrane inlets and sample probes are also available to increase sensitivity for air analysis and to allow sampling of dissolved gases in liquid samples.



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### Multifunctional

#### Research Mass Spectrometer

When equipped with the Merlin Automation Data System, the MAX300-LG becomes a compact powerhouse for research. It offers a powerful analytical software package that is ideal for understanding applications with a number of unknown components.

The software gives you full control of all the mass spectrometer's components and real-time as well as post-acquisition data handling capabilities. The research user has all the power to perform experiments and analyze the data in a presentation quality format.

#### Fast Laboratory Gas Analyzer

When it comes to standard laboratory analyses, it's all about cycle time, and that means speed. When it comes to multi-component, highly precise analysis of gases, a direct inlet mass spectrometer offers the fastest cycle time available. The MAX300-LG can offer cycle times of approximately 300 milliseconds per component in the analysis.

#### Do you need to perform a different set of analyses?

It's as simple as selecting a different method from the user interface. In contrast to other analytical techniques, there is no column or detector change needed.

#### Process Development

Equipped with the Questor™ 5 process software, the MAX300-LG has all of the capabilities of its on-line cousin the MAX300-IG. This makes the MAX300-LG the ideal bench and pilot scale process research and development analyzer. With an appropriate sample selection option, any number of sample points can be analyzed, and the data transmitted via protocols such as: analog, Modbus (RTU and TCP/IP), and OPC.

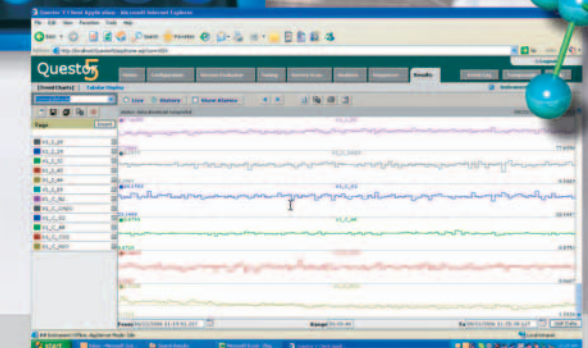
The web based user interface of the Questor™ 5 process software provides secure access to your system and data, easy set-up, and automated operation. The connection can be direct from a workstation or from a plant network via a standard Ethernet or equivalent link. The built-in **Security** features allow you to meet government requirements for electronic records such as those defined in 21 CFR 11.

### Support

Extrel has the most experienced and competent service and support personnel in the industry, and only employ factory trained and certified personnel. We are committed to providing the highest quality support services. We support thousands of process and research instruments worldwide.

For over 40 years, Extrel has been building lasting relationships with our customers who have come to rely on this partnership. In support of these relationships, Extrel offers a unique **Customer Partnership Program** which enables you to explore new applications without the financial commitment of buying an analyzer. Under this program you can evaluate Extrel's analyzers by running the application at your facility and benefit from initial onsite application development support performed by an Extrel Service Specialist.

Wherever your company may reside, Extrel's Service Team is not far away. If it is basic technical support, spare parts request or an on-site field visit, our services are offered worldwide with spare part depots located throughout the world.





# Applications

## Pharmaceutical

Fermentation Headspace  
Solvent Recovery  
Lyophilizer Monitoring  
Feedstock Purity  
Emissions Monitoring  
Waste Water Analysis  
Dryers  
Ambient Air Monitoring

## Semiconductor/Gas Production

UHP Gas Impurities  
HAPS Emissions  
Green House Gas Emissions  
Scrubber/Burnbox Efficiency  
Ambient Air Monitoring  
Argon in Oxygen  
Waste Water Analysis

## Water Analysis

Chlorine Monitoring  
Residual Sulfite Monitoring  
Aeration System Performance  
VOC Analysis

## Food, Beverage & Fragrance

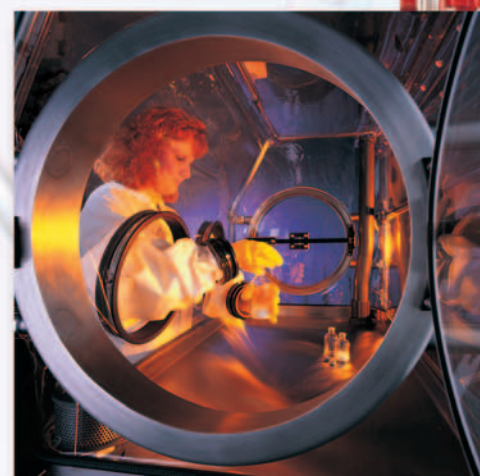
Gas Quality Monitoring  
Fermentation Headspace  
Beverage Container Contaminates  
Solvent Recovery  
Ambient Air Monitoring  
QA/QC

## Petrochemical

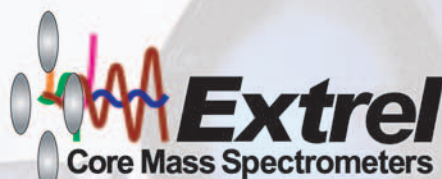
Acetic Acid  
Acrylonitrile  
Ambient Air Monitoring  
Ammonia  
Catalysis Research  
Coal Gasification  
Ethylene  
Ethylene Oxide  
Fuel Gas  
Hydrogen  
Hydrogen Cyanide  
Polyethylene  
Polypropylene  
Methanol  
Natural Gas  
Vinyl Chloride  
Environmental Monitoring  
PFCs  
Waste Water Analysis  
Propane Dehydrogenator  
Fence Line Monitoring  
Process Gas Leak Detector  
HRVOC Analysis

## Metals Production

Blast Furnace  
Coke Oven  
Carburization  
Vacuum Decarburization  
Controlled Atmosphere Analysis  
Fuel Gas  
Emissions Monitoring  
Gas Mixing Stations  
Basic Oxygen Process



## Represented By



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Extrel CMS maintains sales and service offices around the world.  
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