

REAL-TIME ANALYSIS

MAX-CAT™

**A Versatile, Cost Effective
Solution for Fast, Real-Time
Quantitative Analysis**



Precise

Fast

Reliable Analysis

- Real-time, multi-species detection of any gas or vapor
- Compact footprint
- Excellent sensitivity
- Flexibility to meet your application requirements
- Easy-to-use quantitative analysis

Key applications

- Gas analysis
 - Evolved gas
 - Reaction dynamics
 - Pure gas
- Catalysis research
- Material Studies
 - Outgassing
- Fermentation & bioreactor monitoring
 - Aerobic and/or anaerobic
- Dissolved gases
 - Headspace analysis
- Environmental research

MAX-CAT: Cost Effective, Versatile Mass Spectrometer

Fast, high-sensitivity, quantitative gas analyzer for catalysis, reaction monitoring, lab and research, and more!

The MAX-CAT™ from Process Insights is a real-time gas analyzer to monitor multiple analytes in numerous applications ranging from small scale research to continuous operation.

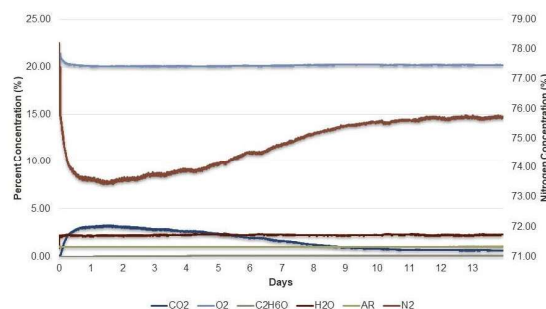
This flexible platform offers quantitative and qualitative analysis from ppb to percent levels without the need for front end separation. The intuitive, user-friendly HMI can be set to output concentration trends on all analytes in easy to read (or export) tabular and or graphical formats.

Our MAX-CAT system can easily add (or delete) analytes of interest which makes it a unique solution when parameters of interest may change or multiple groups share common gas analyzers. Our on board “Survey Scan” capability provides a full spectra showing trends and changes where dedicated systems cannot.

Fast and powerful, this quadrupole mass spectrometer performs high precision quantitative "real-time" analysis on every component in a gas or vapor mixture, and can be equipped for the fully-automated sampling of multiple gas channels.

The MAX-CAT is fast, compact, and easy to use. It can measure any gas or vapor sample concentration from ppb levels to 100%.

14 Day Fermentation Run

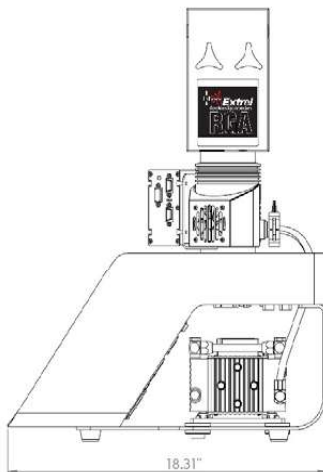
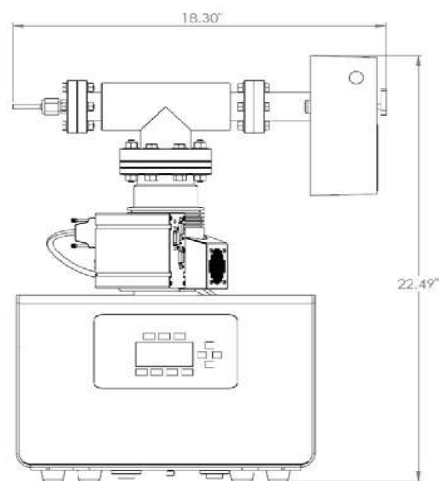


Analyzer Features

- Measures any gas or vapor sample
- Real-time analysis of the input and effluent streams reveals what is happening in the reaction
- Fast response: measures changes to sample concentration in <300 ms
- High sensitivity: detection limit 50 ppb
- Data acquisition: up to 1000 measurements/second
- 1-100, or 1-300 amu mass range
- Complete quantitative sample composition
- Sample selector options for up to 61+ sample streams

SPECIFICATIONS

System Highlights:	
Detectable compounds	Any gas or vapor sample
Detection range	Faraday/electron multiplier - Analysis range: 1×10^{-6} - 5×10^{-13} Torr (100% - 0.5 ppm)* - Low detection limit: 5×10^{-14} Torr (50 ppb)**
Analysis rate	Up to 1000 measurements per second
Gas consumption	10 μ L/min
Heated inlet option available	
Ionization energy control for reduced fragmentation	
Software	- VacuumPlus control software, standard - Questor5 upgrade, optional
Computer interface	RS-232C or USB
Filaments	Dual-filament design - Over-pressure protection provided by built-in Pirani and BA gauges
Mass range options	1-100, 1-300 amu
6 mm quadrupole mass filter	
Weight	55 lbs. (25 kg)
Power supply	110/230 VAC, 50/60 Hz
Dimensions (L x W x H)	465 x 465 x 571 mm
Standard inlet length	50 cm



* Documented on trace benzene in air.

** Based on the analysis of 1% argon.

GAIN REAL-TIME INSIGHT INTO YOUR PROCESS

Process Insights delivers premium analytical sensors, analyzers, instrumentation, software and solutions that are mission-critical to keep your operations, personnel, and the environment safe. Our commitment to customer satisfaction is evident through our diverse range of products, programs, and services, designed to accommodate various budgets and application needs.

CENTERS OF EXCELLENCE

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