

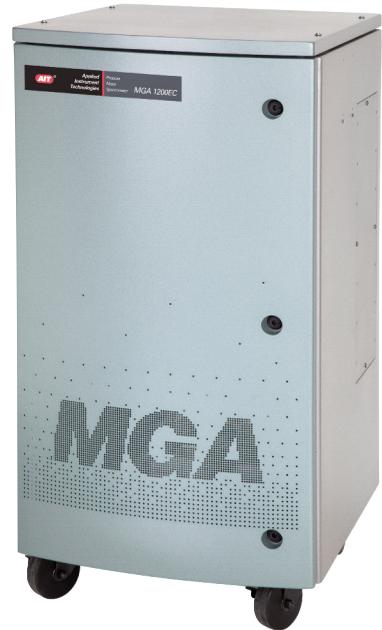
Process Mass Spectrometer

The **MGA™ 1200EC™** process mass spectrometer is a fixed magnetic sector analyzer that provides rapid, accurate and stable real-time analysis of up to 16 gas components in multiple gas streams. It's the fastest process mass spec on the market

- It is hardware configurable to provide both continuous and instantaneous readings of gas concentrations; less than 1 second response time for all components.
- Windows® based Prime™ software allows operator access and control of a variety of operating parameters.



- Provides mid-ppm to 100% level analysis of components.
- Long-life turbomolecular pumping system allows rapid vacuum pump-down in less than 2 minutes.
- Unmatched stability provides best-in-industry drift specification and longest intervals for calibration.
- Ability to interface to process streams with capability of driving both rotary and solenoid manifolds.
- Optional validation assistance program for 21 CFR Part 11 compliance.
- Available for general purpose and hazardous area operation.



M G A A P P L I C A T I O N S

Ammonia/Urea

H₂/N₂ Converter Efficiency
Reactor Efficiency
Separation

Biotech/Pharmaceuticals

Microbial Fermentation
Mammalian Cell Culture
Reactor Feed Gas

Ethylene Oxide

Reactor Inlet
Reactor Outlet
Pilot Plant

Fuel Cell Analysis

Leak Detection

Hydrogen Leaks
Hazardous Gases

Petroleum Refining

Hydrogen Plants
Hydrogen Reforming
Coal Gasification
Ethanol Plants
Flame Stack Monitoring

Steel Processing

Blast Furnace Top Gas
BOF Top Gas
Coke Oven Gas

Turbine Feed Gas Analysis

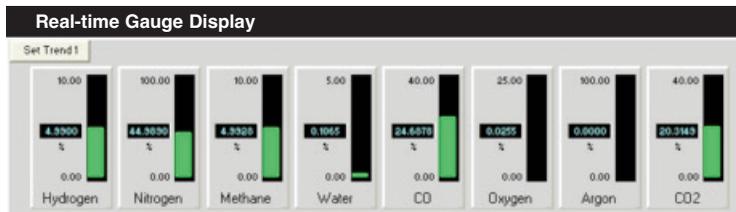
MGA Advantage

- Continuous and instantaneous analysis
- Analyze up to 128 streams, including both process and calibration gases, in user-defined order
- Standard communications
 - RS-232 Serial
 - Modbus® RTU & TCP/IP
- Optional communications
 - Analog (0-10 Vdc, 4-20 mA)
 - OPC®
 - Profibus
- Scalable sampling systems and calibration manifolds available

Prime™ Software Power Drives the Process



Prime software is used by the MGA™ 1200EC analyzer for process monitoring of multi-component gas streams. A Windows® based graphical interface provides the user with capabilities such as real-time analysis, automatic calibration, trending, sample system control and DCS communications. The Prime software is delivered with a data station.



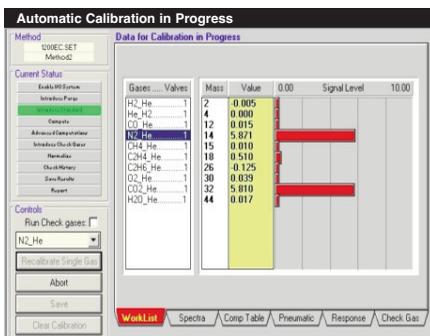
Real-time displays

Formats include gauge, tabular or multi-stream trending. Up to 96 user-defined elements can be displayed in real-time on six pages.

- MGA electrometer outputs
- MGA compositional analysis
- User-defined calculations and alarms
- User-supplied analog and digital inputs



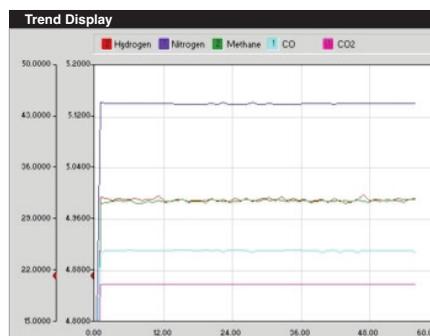
Custom Sample Conditioning System



Calibration

Calibration is fully automatic with a Prime-controlled sampling system for calibration standards. Calibration can be initiated manually or initiated automatically based on:

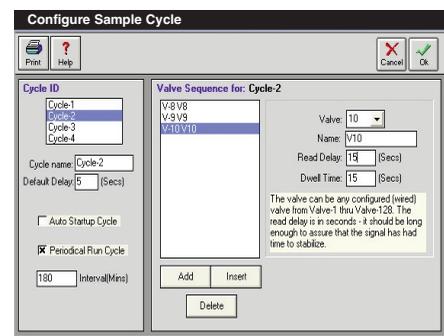
- Elapsed time
- Run time
- Ethernet/Modbus RTU Signal



Trending

Up to 36 user-defined elements can be trended in real-time. Features include:

- Adjustable time X-axis
- User specified colors
- Two adjustable Y-axes



Sample System Control

Prime software can control rotary valve or solenoid valve based systems with user-definable sequences:

- Auto-starting sequence
- Auto-starting periodic cycle
- Up to 128 valves

AIT can design and build a variety of turnkey accessories to optimize your system.