

ANALYZER SOLUTIONS FOR YOUR PROCESS!

# **ProMaxion**<sup>TM</sup> **Process Mass Spectrometer**

Online Gas Analysis for Weatherproof or Hazardous Area Locations

AMETEK's ProMaxion process mass spectrometer offers real-time gas analysis in a reliable easy-to-use package for a wide range of industrial applications. With more than 20 years' experience in mass spectrometer design and manufacture, and over six thousand quadrupole analyzers operating reliably world-wide, AMETEK alone has the credentials to bring you the ProMaxion—cost-effective, high-performance analysis for your process.

#### **MULTICOMPONENT ANALYSIS**

Real-time process monitoring of multiple components is straightforward with ProMaxion's powerful, easy-to-use Process 2000 software. Complex overlapping spectra are handled automatically, with data output directly in concentration units. Different calibration and analysis methods can be assigned to each sample port.



ATEX-version ProMaxion for hazardous location applications.

### REPLACES PROCESS GAS CHROMATOGRAPHS

Mass spectrometry is a very rapid analytical method allowing analysis of multiple sample streams in seconds and can directly replace gas chromatographs and other discrete analytical devices. This field-proven system, combined with AMETEK's more than 30 years' experience in the process analyzer business, means you can depend on ProMaxion for your critical process analysis and control applications.

## **EASY TO USE, EASY TO MAINTAIN**

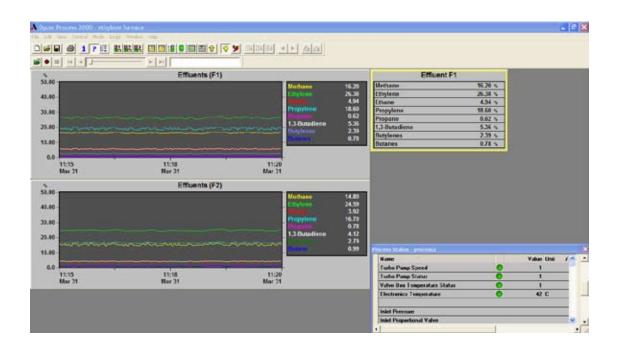
The software provides easy set-up and operation and includes advanced alarm and automation capabilities. Autocalibration maintains the performance and accuracy of the system for quantitative analysis. The on-board computer enables auto-start to prevent loss of data or interruption of your process during power failure. Self-diagnostics and modular design ensure ease of maintenance by your own personnel on site, with remote support available for additional factory diagnosis and troubleshooting. There is no need for the expensive service contract typical of most process mass spectrometers.

## Sample IN 2 Cal 3 Gas 11 4 12 5 13 6 14 7 15 Sample IN Capillary 8 16 Capillary Flowby Tee **Mass Spec Exhaust**

ProMaxion generic sampling system - 16 valve unit. Custom systems can be designed to suit the application.

### **CUSTOM SAMPLE HANDLING**

The ProMaxion can be custom-designed to monitor just about any type of gas stream, depending on sample pressures, hazardous area requirements, particulate levels and number of sample points. Automated sample switching allows unattended analysis of process and calibration gases. The multiport gas sample inlet system consists of multiple valves and a capillary restriction in an enclosure heated to prevent condensation. A membrane inlet system is incorporated for ambient air applications.

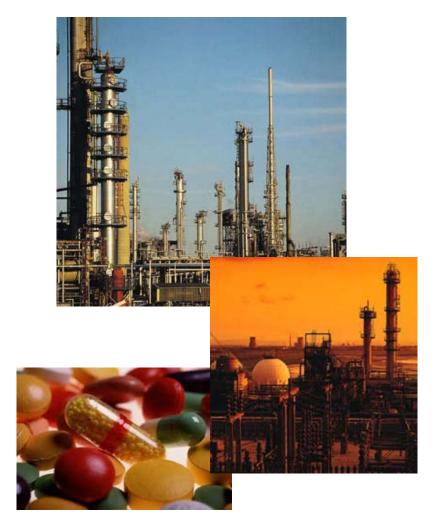


### PROCESS 2000 SOFTWARE

Process 2000 software is a powerful data acquisition tool and control package designed for automated operation of process mass spectrometers. It allows full user interaction and customization.

#### **APPLICATIONS**

- Ammonia
- Ethylene
- Ethylene Oxide
- Polyethylene
- Steel Manufacturing, e.g. BOF, VOD
- Vinyl Chloride
- Syn Gas Production
- Environmental BTX, VOCs
- Methanol
- Fermentation
- Solvent Drying
- Scrubbers
- Reaction End Point
- Fuel Cell Research



### **SPECIFICATIONS**

Range: 1-100 AMU; optional 1-200 AMU

Inlet: Expandable sample selection manifold with electric or pneumatic valves. Membrane inlet system for ambient air samples.

Inlet Pressure (gas): 30 PSIG (207 kPa) to 3 Torr absolute

Accuracy: RSD better than 25 PPM on 1% component (e.g., argon in air).

Communication: Ethernet standard (Optional: RS-485, RS-232, fiber optics, wireless radio, Modbus, OPC). Optional analog/digital outputs available.

Detection Range: From 10 PPM to 100% with gas samples, Faraday cup. Optional electron multiplier for lower LODs.

Power: 115/230 VAC, 50/60 Hz, 1000 W

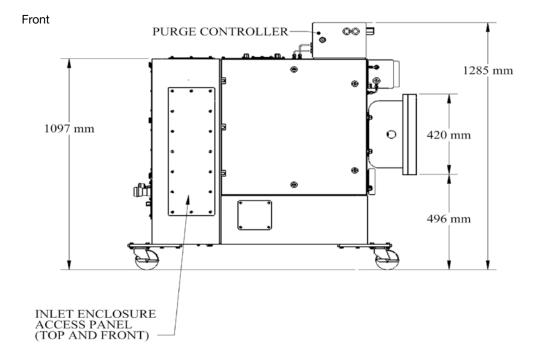
Ambient Temperature: +12°C to 40°C (water-cooled).

PC: On-board PC standard. Windows®-based Process 2000 software can also be run on remote PC.

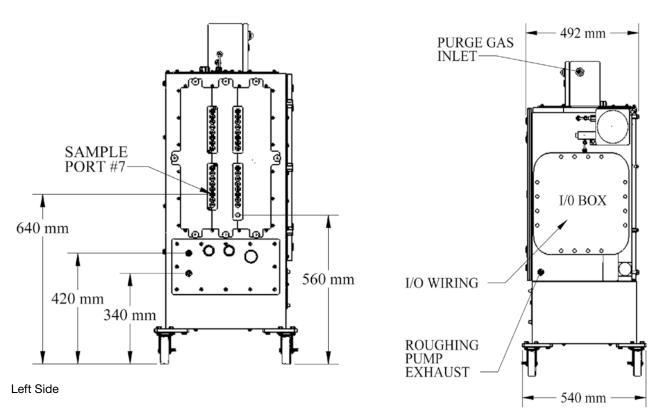
Enclosure: Weather resistant, stainless steel; ATEX and NEC purged, and designed for CI DI and II versions available.

CE Compliance: EN61326 EMC Directive and EN61010-1 Low Voltage Directive.

ATEX Model Ratings: k II 2 G, EEx pd[ib] IIB+H2 T3, -15°C  $\leq$  Ta  $\leq$  50°C.



Right Side



One of a family of innovative process analyzer solutions from AMETEK Process Instruments. Specifications subject to change without notice.

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MANUFACTURING LOCATIONS



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> USA - Oklahoma 2001 N. Indianwood Ave. Broken Arrow, OK 74012 Ph. 918-250-7200 Fax 918-459-0165



PROCESS INSTRUMENTS
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ProMax (03/06)



SUPPORT LOCATIONS

USA - Texas Ph. 281-463-2820 Fax 281-463-2701

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CHINA - Shanghai Ph. 86 21 6426 8111 Fax 86 21 6426 7054 FRANCE Ph. 33 1 30 68 89 00 Fax 33 1 30 68 89 99

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