

# ProMaxion™ Process Mass Spectrometer

Online Gas Analysis for Weatherproof or Hazardous Area Locations

## 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

## Description

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 worldwide, 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.

## 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.

ATEX-version ProMaxion for use in hazardous location applications.

## Easy to Use and 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.



## 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.

# ProMaxion™ Process Mass Spectrometer

## Specifications

**Range:** 1-100 AMU; optional 1-200 AMU, 1-300 AMU

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

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

**Accuracy:** Absolute Standard Deviation better than 25 PPM on 1% component, e.g., argon in air (0.25% RSD).

**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 D1 and 2 versions available.

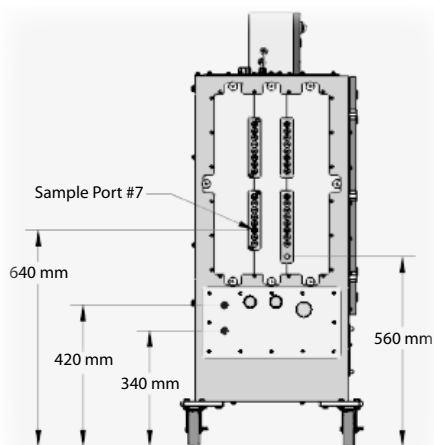
**CE Compliance:** EN61326 EMC Directive and EN61010-1 Low Voltage Directive.

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

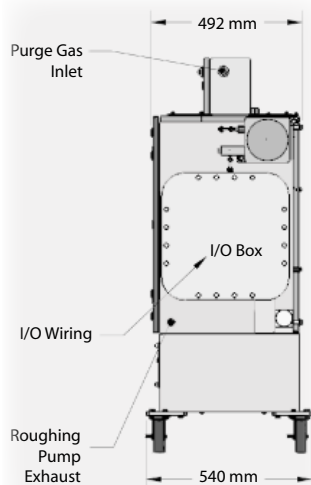
## CUSTOM SAMPLE HANDLING

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.

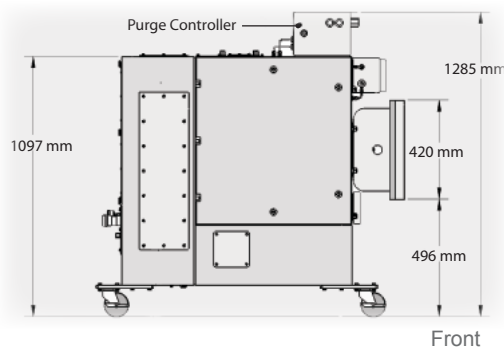
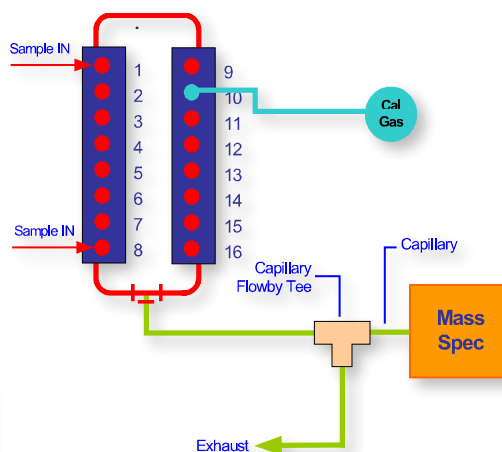
## Dimensions



Left Side



Right Side



Front

**AMETEK®**  
PROCESS INSTRUMENTS

150 Freeport Road, Pittsburgh, PA 15238  
Ph. +1-412-828-9040, Fax +1-412-826-0399  
www.ametekpi.com



© 2011, by AMETEK, Inc.  
All rights reserved. Printed in the U.S.A.  
F-0331 Rev. 1 (0411)

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

## SALES AND MANUFACTURING:

**USA - Delaware**  
455 Corporate Blvd., Newark DE 19702 • Tel: +1-302-456-4400, Fax: +1-302-456-4444

**USA - Oklahoma**  
2001 N. Indianwood Ave., Broken Arrow OK 74012 • Tel: +1-918-250-7200, Fax: +1-918-459-0165

**CANADA - Alberta**  
2876 Sunridge Way N.E., Calgary, AB T1Y 7H9 • Tel: +1-403-235-8400, Fax: +1-403-248-3550

## WORLDWIDE SALES AND SERVICE LOCATIONS:

**USA - Texas**  
Tel: +1-713-466-4900, Fax: +1-713-849-1924

**CHINA**  
Beijing / Tel: 86 10 8526 2111, Fax: 86 10 8526 2141  
Chengdu / Tel: 86 28 8675 8111, Fax: 86 28 8675 8141  
Guangzhou / Tel: 86 20 8363 4768, Fax: 86 20 8363 3701  
Shanghai / Tel: 86 21 5868 5111, Fax: 86 21 5866 0969

**FRANCE**  
Tel: 33 1 30 68 89 20, Fax: 33 1 30 68 89 29

**GERMANY**  
Tel: 49 21 59 91 36 0, Fax: 49 21 59 91 3639

**INDIA**  
Tel: 91 80 6782 3200, Fax: 91 80 6782 3232

**SINGAPORE**  
Tel: 65 6484 2388, Fax: 65 6481 6588

PROMAXION™