



# GAM 2000 Process Mass Spectrometer

Multicomponent Online Gas Analyzer



#### **GAM 2000**

Quadrupole Mass Spectrometer for fast and precise multicomponent online gas analysis. Designed for use in industrial processes in chemistry and pharmacy, laboratory and engineering.

The *GAM 2000* is available as compact floor-mounted system, benchtop instrument or plug-in for industrial 19" rack.



# **GAM 2000**

## **Benefits**

- All applications fully customized to the customer's analytical needs
- Smooth integration of our system into our customers' hardware and software
- Robust and air-cooled housing for industry and research
- High reliability and availability under demanding conditions
- Gas inlet for atmospheric and other pressure ranges
- Detection of small amounts of reaction products
- Many interfacing options for various separation and analytical techniques (e.g. TGA, GC, EA)
- Low cost of ownership (e.g. low consumption of calibration gases)

## **Technical Data**

#### Mass Range:

1 - 200 amu

### **Scanning Speed:**

4 ms / amu

## **Dynamic Range of Measurement:**

100 ppb - 100 %

### Interfaces:

Capillary gas inlet, optional with operating temperature up to 200 °C

Optional multiport gas inlet for 4 or 6 gas lines (process or calibration gases)

Ethernet to PC, others on request PLC: PROFIBUS, PROFINET, OPC

#### **Electrical Requirements:**

Main voltage 115/230 V, 50/60 Hz, single-phase

Power consumption approx. 1 kW others on request

#### **Environment:**

Temperature + 15 to

35 ℃

Rel. humidity < 75 %

## Dimensions / Weight (approx.):

 $500 \times 550 \times 1025 \text{ mm} (\text{w} \times \text{d} \times \text{h}) / 110 \text{ kg}$ 

Specifications subject to change

## System

- Computer-controlled quadrupole mass spectrometer for fast and precise multicomponent online gas analysis
- Patented hyperbolic rod system with pre-filter and fully digitally controlled RF generator
- SEM detector with discrete dynodes and integrated Faraday
- WINDOWS® 7 (or higher) based IPI-QMS system and application software for automated calibrations and process gas measurements
- IPIDevelopers KIT for tailored application development with Microsoft.NET
- IPI TUNE UP for instrument tuning and mass spectra acquisition and visualization
- Measuring methods

Qualitative: Mass spectra scan with

raw data and bar graph

functionality

Quantitative: MID, MCD with matrix peak

subtraction on interfered

sample peaks

 Standard IO: 8 DO, 8 DI, 4 AI (temperature, pressure), expandable up to 64 DO, 64 DI, 32 AI

plus optional 32 AO



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