



## Mass Spectrometers, General Purpose IMSQ4-GP Specifications

<b>Analyzer</b>	3/4" High Transmission, High Resolution Quadrupole
<b>Mass Range</b>	1 to 250 atomic mass units
<b>Detectable Components</b>	Gases or vapors with molecular weights or ions within the mass range of the instrument
<b>Number of Components</b>	Up to 40 at one time in an Analysis mode
<b>Maximum Analysis Masses</b>	64 masses per stream
<b>Upper Detection Limit</b>	100%
<b>Lower Detection Limit</b>	10 parts per million with a Faraday detector or 10 parts per billion with a dual Faraday/Multiplier detector
<b>Dynamic Range</b>	Approaching $10^5$ with a Faraday detector. Approaching $10^8$ with a dual Faraday/Multiplier detector
<b>Precision</b>	+/-0.0025 absolute based on a 1% Argon concentration (no interferences)
<b>Stability</b>	+/- 0.005 absolute over 30 days based on a 1% Argon concentration (no interferences)
<b>Analysis Repetition Rate</b>	300 milliseconds per component is typical
<b>Sweep Mode</b>	Capable of sweeping user-selected mass range or entire mass range
<b>Filaments</b>	2, one active, one spare, with automatic switchover

**Data System** A Pentium personal computer with 16 Mbytes of RAM or better, a 1-Gigabyte drive, 1.44 Mbyte floppy disk drive, SVGA color monitor, SVGA adapter, 1 parallel and 2 serial ports, keyboard, Microsoft Windows for Workgroups and mouse

**Communications:**

**Serial** MODBUS, Buffered & Unbuffered ASCII Protocols

**Analog** 4-20 mA (isolated) 0-10 volts

**Windows DDE** Dynamic Data Exchanger (DDE) server

**Alarms** 4 levels of alarming per component per stream  
Instrument status alarms

**Derived Values** 32 calculated values per stream

**Area Classification** Non-hazardous

**Inlet Temperature** Ambient to 175° C or 100° to 300° C

**Operating Pressure** 10<sup>-6</sup> Torr chamber pressure

**Dimensions** 49-1/2" high x 23-1/2" wide x 26-1/2" deep  
(126 cm high x 60 cm wide x 67 cm deep)

**Weight** Approximately 400 lbs. (182 kg.)

**Power requirements**

**Factory Set at** 100/120 VAC, 50/60 Hz, 12 Amps, 1 Phase  
**Switchable to** 200/220 VAC, 50/60 Hz, 6.3 Amps, 1 Phase

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