



Mass Spectrometers, Process IMSQ4-1 and IMSQ4-2 Specifications

Analyzer	3/4" High Transmission, High Resolution Quadrupole
Mass Range	1 to 250 atomic mass units
Detectable Components	Gases or vapors with molecular weights or ions within the mass range of the instrument
Number of Components	Up to 40 at one time in an Analysis mode
Maximum Analysis Masses	64 masses per stream
Upper Detection Limit	100%
Lower Detection Limit	10 parts per million with a Faraday detector or 10 parts per billion with a dual Faraday/Multiplier detector
Dynamic Range	Approaching 10^5 with a Faraday detector. Approaching 10^8 with a dual Faraday/Multiplier detector
Precision	± 0.0025 absolute based on a 1% Argon concentration (no interferences)
Stability	± 0.005 absolute over 30 days based on a 1% Argon concentration (no interferences)
Analysis Repetition Rate	300 milliseconds per component is typical
Sweep Mode	Capable of sweeping user-selected mass range or entire mass range
Filaments	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 Class1, Division 2, Groups B, C & D. Class 1, Division 1, Groups B, C, & D. Cenelec Group II B + Hydrogen

Inlet Temperature Ambient to 175° C or 100° to 300° C. No heating of valve for Cenelec.

Operating Pressure 10⁻⁶ Torr chamber pressure

Dimensions **IMSQ4-1** - 54" high x 46" wide x 24-1/2" deep
(138 cm high x 117 cm wide x 62 cm deep)
Cenelec **IMSQ4-2 - CID1** - 72" high x 58" wide x 26" deep
(183 cm high x 148 cm wide x 66 cm deep)

Weight **IMSQ4-1** - Approximately 600 lbs. (270 kg.)
IMSQ4-2 - Cenelec 800 lbs. (350 kg.)

Power requirements **IMSQ4-1 and IMSQ4-2**

Mass Spectrometer & Air Conditioner 200-230 VAC, 50/60 Hz, 19A

Accessories **(remote data system and printer)**
100-230 VAC, 50/60 Hz, 5A

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