

SPECIFICATIONS

Gemini[®] VII 2390



APPLICABILITY

Surface Area	From 0.1 m ² , total. From 0.01 m ² /g, specific.
Pore Volume	4 x 10 ⁻⁶ cm ³ /g.

PRESSURE MEASUREMENT

Pressure Measurement Range	0 to 950 mm Hg.
P/P ₀ Resolution	<10 ⁻⁴
Relative Pressure Range	0 to 1.0 P/P ₀ (adsorption only.)
Pressure Resolution	<0.1 mmHg.
Accuracy and Linearity (transducer manufacturer's specification)	Better than ± 0.5% Full Scale.

ENVIRONMENT

Temperature	10 to 35 °C (50 to 96 °F) operating. 0 to 50 °C (32 to 122 °F) non-operating.
Humidity	20% to 80% relative, non-condensing.

GASES

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Adsorbate

Optimized for nitrogen in a liquid nitrogen sample bath. Gemini may be used with non-corrosive adsorbate gases having vapor pressures at both room and bath temperatures that are acceptably high relative to the resolution of the 1000-mmHg pressure transducer. Typically, oxygen, argon, carbon dioxide, butane, methane, and other light hydrocarbons will produce useful data above absolute pressures of a few mmHg.

Helium inlet also provided.

VACUUM SYSTEM

Vacuum source achieving 20×10^{-3} mmHg (or better) at the instrument inlet; having a device to reduce oil vapor backstreaming is recommended.

The system must have an anti-suckback valve to prevent oil from being admitted into the Gemini should there be a power failure.

SAMPLE TUBE/DEWAR

Standard Tube

Gemini VII 2390a and 2390p: 0.95 cm (3/8 in) outside diameter by 15.5 cm (6.1 in) with 6.5 cm³ of volume. Sample capacity is approximately 2.0 cm³.

Gemini VII 2390t: 0.95 cm (3/8 in) outside diameter by 20.5 cm (8.1 in) with 8.9 cm³ of volume. Sample capacity is approximately 2.0 cm³.

Dewar

~ 8 hours; Gemini VII 2390a and 2390p.

~ 24 hours; Gemini VII 2390t.

ELECTRICAL

Voltage

85 to 265 VAC.

Frequency

50/60 Hz.

Power

150 VA, operating, max. plus vacuum pump.

COMPUTER HARDWARE AND SOFTWARE

Minimum Requirements

Operating System: Windows Vista® Business or Ultimate,

Windows XP Professional

Memory: 512 megabytes of RAM

Hard Disk Space: 20 gigabytes

One CD ROM drive

Monitor: 1024 x 768 display capability.

Ethernet port* (capable of communicating with a 10 base-T card)

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PHYSICAL

Height	59cm (23in); Gemini VII 2390a and 2390p. 74cm (29in); Gemini VII 2390t.
Width	40cm (16in.)
Depth	51cm (20in.)
Weight	32kg (70lbs); Gemini VII 2390a and 2390p. 35kg (78lbs); Gemini VII 2390t.

Due to continuous improvements, specifications are subject to change without notice.