

# SPECIFICATIONS

## Gemini® VII 2390



### APPLICABILITY

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

### PRESSURE MEASUREMENT

Pressure Measurement Range	0 to 950 mm Hg.
P/P <sub>0</sub> Resolution	<10 <sup>-4</sup>
Relative Pressure Range	0 to 1.0 P/P <sub>0</sub> (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  $20 \times 10^{-3}$  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 cm<sup>3</sup> of volume. Sample capacity is approximately 2.0 cm<sup>3</sup>.

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

### 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 239Op. 74cm (29in); Gemini VII 2390t.
Width	40cm (16in.)
Depth	51cm (20in.)
Weight	32kg (70lbs); Gemini VII 2390a and 239Op. 35kg (78lbs); Gemini VII 2390t.

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