Gemini® VII 2390

APPLICABILITY

<table>
<thead>
<tr>
<th>Surface Area</th>
<th>From 0.1 m², total. From 0.01 m²/g, specific.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pore Volume</td>
<td>$4 \times 10^{-6}$ cm³/g.</td>
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</tbody>
</table>

PRESSURE MEASUREMENT

<table>
<thead>
<tr>
<th>Pressure Measurement Range</th>
<th>0 to 950 mm Hg.</th>
</tr>
</thead>
<tbody>
<tr>
<td>P/P₀ Resolution</td>
<td>$&lt;10^{-4}$</td>
</tr>
<tr>
<td>Relative Pressure Range</td>
<td>0 to 1.0 P/P₀ (adsorption only.)</td>
</tr>
<tr>
<td>Pressure Resolution</td>
<td>$&lt;0.1$ mmHg.</td>
</tr>
<tr>
<td>Accuracy and Linearity</td>
<td>Better than $\pm 0.5%$ Full Scale.</td>
</tr>
</tbody>
</table>

ENVIRONMENT

<table>
<thead>
<tr>
<th>Temperature</th>
<th>10 to 35 °C (50 to 96 °F) operating. 0 to 50 °C (32 to 122 °F) non-operating.</th>
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</thead>
<tbody>
<tr>
<td>Humidity</td>
<td>20% to 80% relative, non-condensing.</td>
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</table>
**Gemini® VII 2390**

| 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 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) |
## SPECIFICATIONS

**Gemini® VII 2390**

### PHYSICAL

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| **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.*