

# Model 320/322 Data Sheet

---



## The Model 320/322

The Model 320 is a simplification of the Model 400. As in the 400, a built-in computer allows storing of sensor readings and calculations of average value and percent deviations. The two line display format allows for several readings at one time. The Model 320 has four modes of operation. It measures MW/CM<sup>2</sup>, peak MW/CM<sup>2</sup>, MJ/CM<sup>2</sup> (single pulse), accumulated MJ/CM<sup>2</sup>, time (single pulse), and accumulated seconds. Five Point MW (MW/CM<sup>2</sup>) and Five Point MJ (MJ/CM<sup>2</sup>) allow taking five readings in a fixed pattern and then displaying the average value and the +/-% uniformity as well as the +/-% deviation from the center value.

The Model 322 is the same as the Model 320 except it is a dual channel meter.

The rechargeable battery lasts for about 18 hours and the charger operates from 100-240 VAC, 50-60 Hz with UL, CE, and TUV approvals.

A variety of sensor packages can be used at wavelengths from 220nm to 540nm and beyond. Traceability to NIST is +/-3.0% with probe matching to +/-1.0%.

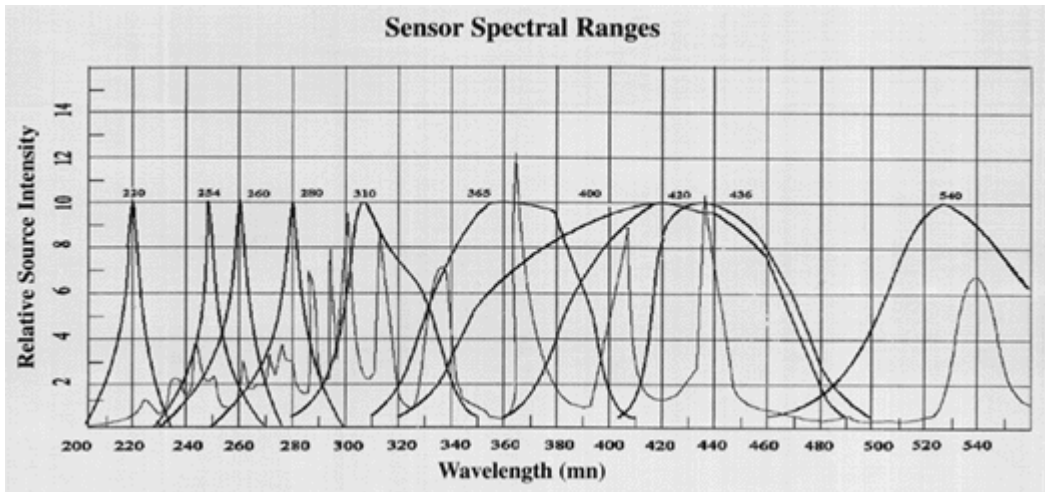
## Model 320/322 features

- Less than 1% Probe to Probe Repeatability.
  - Real Time Measurements.
  - Interchangeable Probes
  - Dual channel probe capability(Model 322)
  - Cosine response probes
  - Measures MW/CM<sup>2</sup>, peak MW/CM<sup>2</sup>, MJ/CM<sup>2</sup> (SP), accumulated MJ/CM<sup>2</sup> time (seconds), and accumulated time
  - Calculates average value, % uniformity and % deviation from center value
  - Battery operates for approximately 18 hours before recharge
  - Charger operates from 100-240 VAC, 50-60 Hz with UL, CE, and TUV approvals
-

## Model 320/322 Specifications

<b>Switch Functions:</b>		<ul style="list-style-type: none"> <li>• Red button - ON (hold for one second) Off when displayed and MORE (data review)</li> <li>• Two black buttons for Mode, Reset SEL (select), Back (data review)</li> <li>• Channel A, Channel B switch (322 only)</li> </ul>
<b>Display:</b>		<ul style="list-style-type: none"> <li>• 2 Lines by 16 characters</li> </ul>
<b>Range:</b>		<ul style="list-style-type: none"> <li>• MW/CM<sup>2</sup> - .01 to 9999.9 (peak same)</li> <li>• MJ/CM<sup>2</sup> - .001 to 99,999</li> <li>• Time - .001 to 9999.9 seconds</li> <li>• Accumulated MJ/CM<sup>2</sup> .001 to 999,999</li> <li>• Accumulated Time .001 to 99,999 Seconds</li> </ul>
<b>Reading Selection:</b>	<b>MW/CM<sup>2</sup></b>	<ul style="list-style-type: none"> <li>• MW/CM<sup>2</sup> and peak MW/CM<sup>2</sup> continuous display</li> </ul>
	<b>MJ/CM<sup>2</sup></b>	<ul style="list-style-type: none"> <li>• MJ/CM<sup>2</sup> (single pulse) and accumulated MJ/CM<sup>2</sup></li> <li>• Time (seconds) and accumulated time.</li> <li>• Single pulse - MJ/CM<sup>2</sup> and time update automatically with new signal</li> </ul>
	<b>5 Point MW</b>	<ul style="list-style-type: none"> <li>• Five readings of MW/CM<sup>2</sup> in a *fixed pattern using a one second shutter opening (minimum) to read MW/CM<sup>2</sup></li> <li>• Display of average MW/CM<sup>2</sup> and +/-% uniformity</li> <li>• Display of +/-% deviation of each reading from center value</li> <li>• Display of all five values (3 digits)</li> </ul>
	<b>5 Point MJ</b>	<ul style="list-style-type: none"> <li>• Five readings of MJ/CM<sup>2</sup> in a *fixed pattern ~ shutter control</li> <li>• Display of average MJ/CM<sup>2</sup> and +/-% uniformity</li> <li>• Display of +/-% deviation from center reading</li> </ul>
<b>Display Pattern:</b>		<div style="text-align: center;"> <p>2                      5</p> <p>                          1</p> <p>3                      4</p> </div>
<b>Power:</b>		<ul style="list-style-type: none"> <li>• Built in rechargeable battery - 18 hours operation (approx.)</li> <li>• Recharge time 6 hours (unit off) - indicated by LED (goes dim and then off when fully charged)</li> </ul>

	<ul style="list-style-type: none"> <li>• Low battery indication on display next to 'OFF'</li> <li>• Charger - 100-240 VAC, 50-60 Hz</li> <li>• Charger is UL, CE, TUV approved</li> </ul>
<b>Probe Wavelengths:</b>	<ul style="list-style-type: none"> <li>• 220nm, 248nm, 254nm, 260nm, 280nm, 310nm, 365nm, 400nm, 420nm, 436nm, 540nm, and more</li> </ul>
<b>Size:</b>	<ul style="list-style-type: none"> <li>• 5.5 in. W (14 cm) x 7.4 in. L (18.8 cm) x 1.5 in. H (3.8 cm)</li> </ul>
<b>Weight:</b>	<ul style="list-style-type: none"> <li>• 1.5 lbs. (681 grams)</li> </ul>



This graph accurately represents the spectral response of probes used today in the Microelectronic Industry. This graph includes the spectral response of the detector as well as the spectral response of the filter glass used in probes.

2934 Scott Blvd. Santa Clara, CA 95054 - Telephone: (408) 986-0377 - FAX: (408) 986-0416  
© 2004 G & R Labs. All rights reserved.