The 9807B is a 51 mm (2”) diameter, end window photomultiplier with blue-green sensitive bialkali photocathode and 12 high gain, high stability, BeCu dynodes of linear focused design for good linearity and timing. It is a plug-in replacement for the RCA 8575 and has a 21 pin base.

Applications
- high energy physics studies

Features
- good SER
- high pulsed linearity

Window Characteristics

<table>
<thead>
<tr>
<th>Spectral Range (nm)</th>
<th>Refractive Index</th>
<th>K (ppm)</th>
<th>Th (ppb)</th>
<th>U (ppb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>290 - 630</td>
<td>1.49</td>
<td>300</td>
<td>250</td>
<td>100</td>
</tr>
</tbody>
</table>

*Note that the sidewall of the envelope contains graded seals of high K content

**Wavelength range over which quantum efficiency exceeds 1% of peak.

Typical Spectral Response Curves

![Graph of quantum efficiency vs. wavelength](image)

Typical Voltage Gain Characteristics

![Graph of gain vs. V(k-a)](image)
### 8 Voltage Divider Distribution

<table>
<thead>
<tr>
<th>k</th>
<th>d1</th>
<th>d2</th>
<th>d3</th>
<th>d9</th>
<th>d10</th>
<th>d11</th>
<th>d12</th>
<th>a</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>300V</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>Standard</td>
</tr>
<tr>
<td>B</td>
<td>300V</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>1.25R</td>
<td>1.5R</td>
<td>2R</td>
<td>3R</td>
</tr>
</tbody>
</table>

**note**: focus connected to d1.

Characteristics contained in this data sheet refer to divider A unless stated otherwise.

### 9 External Dimensions mm

![External Dimensions Diagram]

- 51.5 max height
- 126 ± 3 mm
- 12.7 max diameter
- 18 max length
- 46 max width

### 10 Base Configuration (Viewed from Below)

- B21

"ic" indicates an internal connection.

**note**: connect f to d1.

### 11 Ordering Information

The 9807B meets the specification given in this data sheet. You may order **variants** by adding a suffix to the type number. You may also order **options** by adding a suffix to the type number. You may order product with **specification options** by discussing your requirements with us. If your selection option is for one-off order, then the product will be referred to as 9807A. For a repeat order, **ET Enterprises** will give the product a two digit suffix after the letter B, for example B21. This identifies your specific requirement.

### 12 Voltage Dividers

The standard voltage dividers available for these pmts are tabulated below:

<table>
<thead>
<tr>
<th>k</th>
<th>d1</th>
<th>d2</th>
<th>d3</th>
<th>d9</th>
<th>d10</th>
<th>d11</th>
<th>d12</th>
<th>a</th>
</tr>
</thead>
<tbody>
<tr>
<td>C628A</td>
<td>3R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>C628B</td>
<td>3R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>1.25R</td>
<td>1.5R</td>
<td>2R</td>
<td>3R</td>
</tr>
<tr>
<td>C628C</td>
<td>300V</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>C628D</td>
<td>300V</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>1.25R</td>
<td>1.5R</td>
<td>2R</td>
<td>3R</td>
</tr>
</tbody>
</table>

**note**: focus connected to d1.

R = 330 kΩ

*mumetal* is a registered trademark of Magnetic Shield Corporation

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