Image intensifier tube EP33-SF with spherical photocathode

EP33-SF – single chamber device in glass version, has a two-electrode electrostatic focusing system, multialkaline photocathode S25 in the area of wavelengths 350-900 nm, yellow-green color screen of luminescence, spherical photocathode. It has reduced level of distortion and improved resolution in the area of view.

EP33-SF is a component element in the night vision devices for the brightness magnification of image at the natural night light and with the using of IR illumination.

Technical specification

<table>
<thead>
<tr>
<th>Parameter, unit</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Photocathode integral sensitivity, mKA/Im, no less</td>
<td>200</td>
</tr>
<tr>
<td>Photocathode sensitivity with filter, mKA/Im, no less</td>
<td>70</td>
</tr>
<tr>
<td>Resolution at center, lm/mm, no less</td>
<td>36</td>
</tr>
<tr>
<td>Operating resolution, lm/mm, no less</td>
<td>28</td>
</tr>
<tr>
<td>Image intensifier magnification, rel. u</td>
<td>0,47</td>
</tr>
<tr>
<td>Distortion on diam. 15 mm, no more %</td>
<td>8</td>
</tr>
<tr>
<td>Useful photocathode diameter, mm</td>
<td>19.2</td>
</tr>
<tr>
<td>Eccentricity, mm, no more</td>
<td>0.5</td>
</tr>
<tr>
<td>Operating voltage , kV</td>
<td>18</td>
</tr>
<tr>
<td>MTF, h, no less</td>
<td>1000</td>
</tr>
<tr>
<td>Mechanical shock with peak shock acceleration, m/c²(g)</td>
<td></td>
</tr>
<tr>
<td>- single action</td>
<td>1500 (150)</td>
</tr>
<tr>
<td>- recoverable</td>
<td>150 (15)</td>
</tr>
<tr>
<td>Operating temperature, °C</td>
<td>-40÷+40</td>
</tr>
</tbody>
</table>

Purity of the visual area:

<table>
<thead>
<tr>
<th>Zone</th>
<th>Form and size of zones on photocathode, mm</th>
<th>The greatest diameter of points, mm</th>
<th>The total area of allowable defects on the screen, mm²</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non accounted</td>
<td>Accounted</td>
<td>Size</td>
</tr>
<tr>
<td>1</td>
<td>Circle Ø 12.0</td>
<td>0.047</td>
<td>0.235</td>
</tr>
<tr>
<td>2</td>
<td>Ring Ø 12.0-19.2</td>
<td>0.073</td>
<td>0.294</td>
</tr>
</tbody>
</table>