Infrared Source Series 2x

- Supported, Coil Wound
- Available mounted vertically or horizontally
- Available on large or small base

The coiled filament operates at approximately 800°C when powered with 4 watts. The radiating element is a coil of resistance wire which has a high emissivity in the Infrared spectral region. The coil is supported on a cylindrical substrate of alumina. Due to the reduced mass of this unit it can be pulsed at 1 hertz with a resultant temperature variation that can be detected. The unit does not require operation in a sealed atmosphere.

The Header body is available in two sizes. The larger, IR 21, has 0.200 inch center to center leads. The small, IR 22, has 0.100 inch center to center leads. The support pins are hermetically sealed in glass. The source can be mounted vertically or horizontally.

Recommended Operating Parameters

<table>
<thead>
<tr>
<th></th>
<th>IR-21</th>
<th>IR-22</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>5.0 volts (AC or DC)</td>
<td>5.0 volts (AC or DC)</td>
</tr>
<tr>
<td>Temp</td>
<td>800°C</td>
<td>900°C</td>
</tr>
<tr>
<td>Current</td>
<td>0.8 Amperes</td>
<td>0.8 Amperes</td>
</tr>
<tr>
<td>Power</td>
<td>4.0 watts</td>
<td>4.0 watts</td>
</tr>
<tr>
<td>Life</td>
<td>30,000 Hours at 5 volts</td>
<td>30,000 Hours at 5 volts</td>
</tr>
<tr>
<td>Emissivity</td>
<td>0.80</td>
<td>0.80</td>
</tr>
<tr>
<td>Active Area</td>
<td>1.5 mm X 3.5 mm</td>
<td>1.5 mm X 3.5 mm</td>
</tr>
</tbody>
</table>
HawkEye IR-21 Engineering Data Charts

Temperature vs Voltage

Current vs Voltage

Power vs Voltage
HawkEye IR-22 Engineering Data Charts

**Temperature vs Voltage**

- 30,000+ Hour Life
- Upper Limit

**Current vs Voltage**

- 30,000+ Hour Life

**Power vs Voltage**

- 30,000+ Hour Life
IR-21 Emitter

Note: all dimensions in inches.
IR-21V Emitter

Note: all dimensions in inches.
HawkEye IR-2x Lifetime

HawkEye Technologies IR-2x Series
Lifetime tests conducted 9/2002-9/2009

- Blue triangle markers: units that have failed
- Green triangle markers: Units still in operation

Graph showing the relationship between Voltage (y-axis) and Hours of Operation (x-axis) for HawkEye Technologies IR-2x Series.