**ROITHNER 650**

- **Red Laser Pointer**
- **655 nm, <5 mW**
- **APC**
- **Laser Class 3R**

**Description**

ROITHNER 650 is a diode laser pointer emitting at typically 655 nm with rated output power of <5 mW. An integrated Automatic Power Control (APC) circuit ensures excellent output power stability. ROITHNER 650 features an indicator LED for safe operation, and is run by 2 x 1.5V AAA alkaline batteries. It comes in a polished chrome metal housing. → **Transport case and batteries included**

**Specifications**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Min.</th>
<th>Typ.</th>
<th>Max.</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wavelength</td>
<td>645</td>
<td>655</td>
<td>665</td>
<td>nm</td>
</tr>
<tr>
<td>Output Power</td>
<td>3</td>
<td>5</td>
<td></td>
<td>mW</td>
</tr>
<tr>
<td>Laser Class</td>
<td>3R</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Operating Temperature</td>
<td>10</td>
<td>50</td>
<td></td>
<td>°C</td>
</tr>
<tr>
<td>Operating Humidity (rel.)</td>
<td>40</td>
<td>70</td>
<td></td>
<td>%</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-20</td>
<td>60</td>
<td></td>
<td>°C</td>
</tr>
<tr>
<td>Body Material</td>
<td>brass, polished chrome finish</td>
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<tr>
<td>Lens Material</td>
<td>PMMA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight (incl. batteries)</td>
<td>70</td>
<td></td>
<td></td>
<td>g</td>
</tr>
<tr>
<td>Power Source</td>
<td>2 x 1.5 V AAA alkaline batteries</td>
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<td></td>
</tr>
</tbody>
</table>

**Outline and Components**

1. laser beam outlet
2. laser push button (ON/OFF)
3. battery compartment

*RoHS COMPLIANT*
Safety Instructions

• This laser is intended for pointing out details on objects/blackboards during lecturing
• Laser radiation, direct and indirect can be dangerous to the naked eye
  o Before operating the laser pointer make sure nobody is in or near the projection area
  o Do not look into the laser beam
  o Do not point the laser into the sky
  o Do not point the laser towards other humans or animals
  o Do not point the laser towards vehicles
  o Do not point the laser at mirrors or any reflective surfaces
• Do not expose the laser pointer to high temperature, moisture, or vibration
• Do not give the laser pointer to unauthorized persons
• Do keep the laser pointer out of the reach of children
• Do not open the device. Maintenance must only be carried out by qualified personal
• This product is a class 3R laser device (EN 60825-1:2007)

Insertion/Replacement/Disposal of Batteries

• Do only use brand new 1.5V AAA (micro) batteries of good quality
• Make sure batteries are inserted with correct polarity
• Batteries must not be short circuit or thrown into the fire
• Do not attempt to recharge the batteries
• Do not mix batteries of different charge state

As the end user, you are required by law, to return all flat batteries to your local waste collection place. Disposal of batteries in the household waste is prohibited

→ Protect your environment

Operation

Do never point the laser beam directly at persons/animals/vehicles

• The laser pointer is switched ON and OFF by means of a push button (2)
• If the push button (2) is pressed, the laser radiation emits through the laser outlet (1)
• If the push button (2) is released, the laser radiation is stopped

This laser pointer has been designed for intermittent use. If operated over 3 minutes continually, the temperature of the laser diode may exceed critical threshold, thereby negatively affecting the laser pointers performance and life time

Disposal

Disposal of an unserviceable product has to be made in accordance with the relevant statutory regulations effective in your country

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