LASER DIODE MANAGEMENT SYSTEM

Industry’s first customizable standalone platform for laser diodes and associated TECs

- Laser diode control
- TEC control
- Communication
**Actarus – Turnkey Laser Diode Management System Solution**

- **Industry’s first customizable standalone platform for laser diodes and associated TECs**
  Actarus is the industry’s first customizable standalone platform, providing an integrated management system for laser diodes and associated TECs. By allowing independent choices of current ranges, it can easily be adapted towards the application needs and even be upgraded for a different project.

- **Model R-Actarus – For Laser diodes up to 10W Multimode or 1W single mode**

- **Key Features**
  - Laser diode control
    - Slow Start Protection
    - Constant Current or Constant Power Mode
    - Active Current monitoring and Limit
    - Photodiode current monitoring
    - Mechanical relay protection
  - TEC control
    - Linear Stability: 0.0012°C
    - Selectable sensor bias current
    - Adjustable current limit
    - PI control

- **Communication**
  - USB 2.0 full-speed compatible
  - Graph and log data in real-time
  - Save and recall instrument setups
  - Interlock security
  - Color LCD Display: real time LD current & PD current monitor (BTF)

- **General information**
  - Safety key switch
  - Safety door needs contact
  - 230V/110V – 50/60 Hz
  - Weight: ca. 3 kg
  - Dimensions 290 x 308 x 130 mm (LxWxH)

- **Accessories**
  - Laser Safety and Protective eyewear
    The most appropriate laser safety product for the customer’s individual application will be determined by calculation of the necessary protection ratings based on the laser data and according to the current laser safety legislation.
  - Fiber Optic Cleaning Tools
    Even the smallest contamination on the connector’s endface reduces the overall quality of the connection. The products available include cleaning tools for the end-faces and ferrules of fiber optic connectors, as well as for the end-faces of plugged connectors through an adapter.
  - Cable bundles
    The range of fiber products available comprises fibers and fiber assemblies as well as a variety of fiber-based components. Single fibers and fiber assemblies are available in many different configurations: multimode, singlemode and polarisation maintaining, with or without connectors, standard or tailor-made.
  - Notebook
    We can provide a notebook attuned to the system which guarantees excellent performance and reliability.
Specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Standard</th>
<th>Option</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laser current output</td>
<td>5</td>
<td>10</td>
<td>A</td>
</tr>
<tr>
<td>Control current range</td>
<td>5</td>
<td>10</td>
<td>A</td>
</tr>
<tr>
<td>Compliance voltage</td>
<td>&lt;3</td>
<td></td>
<td>V</td>
</tr>
<tr>
<td>temperature coefficient</td>
<td>&lt;200</td>
<td></td>
<td>ppm/°C</td>
</tr>
<tr>
<td>Short term stability, 1hour</td>
<td>&lt;100</td>
<td>&lt;200</td>
<td>ppm</td>
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</table>

Photodiode feedback

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Standard</th>
<th>Option</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Range</td>
<td>50-5000</td>
<td></td>
<td>µA</td>
</tr>
<tr>
<td>Low range (type A&amp;B only)</td>
<td>15-500</td>
<td></td>
<td>µA</td>
</tr>
<tr>
<td>constant power output stability</td>
<td>&lt;0,02</td>
<td>&lt;0,05</td>
<td>%</td>
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</table>

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Standard</th>
<th>Option</th>
<th>Unit</th>
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<tbody>
<tr>
<td>TEC output</td>
<td>5</td>
<td>2,5</td>
<td>A</td>
</tr>
<tr>
<td>Output current range</td>
<td>5</td>
<td>2,5</td>
<td>A</td>
</tr>
<tr>
<td>compliance voltage</td>
<td>22</td>
<td></td>
<td>V</td>
</tr>
<tr>
<td>Proportional</td>
<td>5-40</td>
<td></td>
<td>A/V</td>
</tr>
<tr>
<td>Integrator</td>
<td>1,5</td>
<td>1,4</td>
<td>A/Vs</td>
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Sensor

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Thermistors, RTDs and linear sensors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compliance voltage</td>
<td>5,5</td>
</tr>
<tr>
<td>Bias current range</td>
<td>0,01,0,1,1 or10</td>
</tr>
</tbody>
</table>

Mounting

Butterfly (-B) TEC Mount base plate

Your Turn Key System

Need more power or further customization? By trusting us with their needs, our customers can focus on their research activity, taking the whole benefit of a turn key system: time saving, flexibility, and a precise adaptation to the application!
WHAT CAN WE DO FOR YOU?

Please contact us for further information

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