Compact Xenon Light Source 100W LAX-C100

Heatless illumination with desired wavelengths

Features

- IR heat blocking by mirror module*
- Built-in filter holder*
- Adjustable light intensity
- Flexible illumination by light guide
- No need of optical axis alignment
- RS232C remote control

*Options

Optical System

1. Xenon lamp
   - Emits wide spectrum from UV to IR

2. Mirror module (Option)
   - Enables to specify xenon spectrum (UVB, UVA, VIS or IR)

3. Filter holder (Option)
   - Enables to specify wavelength more finely by optical filters

Spectrum Comparison

- UVB 240-300nm
- UVA 300-400nm
- VIS 400-700nm
- IR 700-1000nm
The mirror module blocks the heat and stray light

The LAX-C100 is the reasonable xenon light source with xenon 100W lamp. The proprietary mirror module blocks the heat and stray light, and only desired wavelength range is obtainable. The LAX-C100 can also emit monochromatic light by the bandpass filter.

*Mirror module, filter holder and optical filters are optional.

**Usage Example**

**Monochromatic Light with Optical Filters**

- Bright monochromatic light
- Instead of multiple wavelength laser
- Output beam is brighter than monochromator

**UV Light Source**

- Bright UV light
- It is also possible to obtain the desirable UV wavelength range with the combination of optical filters

**Technical Data**

**Lamp Start-up Characteristics**

**Lamp Fluctuation**
Features

Optical System

**Xenon Lamp**
- The 100W xenon arc lamp is mounted into the cartridge and it can achieve the efficient transition of xenon lamp energy.
- The lamp cartridge is easily replaced and alignment is not necessary.

**Mirror Module (Option)**
- This sophisticated optical unit consists of four cold mirrors to block unwanted energy from xenon lamp and only desired throughput is obtainable. The LAX-C100 offers 4 types of mirror module.

**Filter Holder (Option)**
- There are 2 types of the filter holder.
  1. 25mm dia. x 2 pcs.
  2. 50mm dia. or 50 x 50mm x 1 pc.

**Light Intensity Control**
- Built-in plate enables a simple variable light control from 5 to 100 steps. It is useful for microscope or imaging application.

**Panel Controls**
- User-friendly menu and comprehensive display for easy operation.
  - 1. Turn On/Off the xenon lamp
  - 2. Shutter function Open/Cloes
  - 3. Light intensity adjustment

**RS232C Remote Control**
- The LAX-C100 can be controlled remotely by using RS232C.
**Options**

**Light Guide**
The output light from the LAX-C100 is delivered to a desired direction by the light guide. We also offer a multi-branch light guide for custom.

**Spectral Performance**

<table>
<thead>
<tr>
<th>Wavelength (nm)</th>
<th>Transmittance (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>200-1000</td>
<td></td>
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<tr>
<td>200-500</td>
<td></td>
</tr>
<tr>
<td>500-1000</td>
<td></td>
</tr>
<tr>
<td>1000-1800</td>
<td></td>
</tr>
</tbody>
</table>

**Collimator Lens**
Each collimator lens is designed to provide the uniform illumination by using with the light guide.

<table>
<thead>
<tr>
<th>Type</th>
<th>Item #</th>
<th>Spectral Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>x0.5 Type</td>
<td>XBPA400 - XBPA700</td>
<td>UVB</td>
</tr>
<tr>
<td>x1.0 Type</td>
<td>XHQA254 - XHQA290</td>
<td>UVA</td>
</tr>
<tr>
<td>x2.0 Type</td>
<td>XBPA710 - XBPA850</td>
<td>VIS</td>
</tr>
</tbody>
</table>

**Narrow Bandpass Filter**
We offer a wide variety of narrow bandpass filters for a monochromatic illumination.

<table>
<thead>
<tr>
<th>Wavelength (nm)</th>
<th>Item #</th>
<th>Mirror Module</th>
</tr>
</thead>
<tbody>
<tr>
<td>254</td>
<td>XHQA254 - XHQA290</td>
<td>UVB</td>
</tr>
<tr>
<td>350</td>
<td>XHQA300 - XHQA390</td>
<td>UVA</td>
</tr>
<tr>
<td>400</td>
<td>XBPA400 - XBPA700</td>
<td>VIS</td>
</tr>
<tr>
<td>750</td>
<td>XBPA710 - XBPA850</td>
<td>IR</td>
</tr>
</tbody>
</table>

**Scope of Delivery**
- LAX-C100 main unit
- Lamp cartridge
- AC cable (3m)
- RS232C cable (1.8m)
- Instruction manual

**General Specifications**
- Model: LAX-C100
- Output wavelength: 240 - 1000nm
  (It depends on the mirror module.)
- Circuit method: Switching power supply
- Input voltage: AC100V 50/60Hz (Input range: AC 90 - 132V)
  AC200V 50/60Hz (Input range: AC198 - 264V)
- Apparent power: Less than 350VA (100V/50Hz)
  Less than 440VA (240V/50Hz)
- Lamp type: Xenon lamp 100W
- Lamp voltage, current: 12.8 - 14V 7.2A (DC) *Representative value
- Lamp life: 500h (Average)
- Optical axis alignment: Cartridge type (Alignment-free)
- Cooling method: Forced air cooling
- Shutter: Pulsed motor drive
- Light intensity control: 100 - 5 (Steps) Continuously variable
- Controller: Built-in
- Remote control: RS232C
- Safety mechanism: Xenon lamp problem, Rear door is open,
  Lamp usage exceeds 500 hours, Cooling fan problem,
  Temperature anomaly
- Recommended environment: Temperature 10 - 35 deg C
  Humidity 20 - 80% *Avoid condensation
- Dimensions: 200(W) x 340(D) x 245(H)mm
- Weight: 8.2kg

**Obtainable Throughput Ranges**

<table>
<thead>
<tr>
<th>Mirror Module</th>
<th>Spectral Output</th>
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<tbody>
<tr>
<td>LAX-C100</td>
<td>UVB 240-300nm</td>
</tr>
<tr>
<td></td>
<td>UVA 300-400nm</td>
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<tr>
<td></td>
<td>VIS 400-700nm</td>
</tr>
<tr>
<td></td>
<td>IR 700-1000nm</td>
</tr>
</tbody>
</table>

**Dimensions**

- Quartz Light Guide
  - Length: 1m, 2m
  - Fibre bundle: 5mm dia.
  - Core: 20μm dia.
  - Numerical aperture: 0.22

- Hybrid Light Guide
  - Length: 1m, 2m
  - Fibre bundle: 5mm dia.
  - Core: 50μm dia.
  - Numerical aperture: 0.57

Contact us for information about filters not listed above.

*Product specifications are subject to change without notice.*