

DarkLite Laboratory Diode Laser LDL175/830

The DarkLite Laboratory Diode Laser is a stand-alone compact laser system emitting a wavelength of 830nm. It is invisible to the human eye. It is general used where the beam is invisible under all conditions.



It is designed for industrial applications and offers additional benefits of superior ruggedness and compact size (25mm diameter) which is compatible with standard 1" optical mounts. Internal connection of the laser diode to the module housing ensures good heatsinking and longer laser lifetimes.

The DarkLite Laboratory Diode Laser Series is designed for operation with standard (4.5 VDC) regulated mains power adaptors typically used with used with desktop calculators. The LDL175/830 laser uses an A/R coated glass lens for greatest optical throughput. The output beam is elliptical and offers the smallest output beam diameter and focussed spot size.

Features

- Compliant with European and U.S. Legislation
- Integral Power Switch
- Mechanical Manually Operated Shutter
- Integral Emission Indicator
- Rugged Construction
- Compatible with Standard 1" Optical Mounts
- User Adjustable Focussing Lens
- Low Voltage DC Operation
- Reverse Polarity Protection

Applications

- Laboratory Experimentation
- Educational Demonstration
- Alignment and Positioning
- Dimensional Scanning
- Metrology
- Event Detection
- Robot Control
- Edge Detection
- Analysis
- Security

DarkLite Laboratory Series Specifications	LDL175/___		
Optical	830/1	830/3	830/5
Output Power (mW +/- 10%)	0.9	3	4.5
Laser Classification	3a	3b	3b
Power Stability (%)	< 5		
Wavelength (nm)	825 +/- 15		
Wavelength vs Temp (nm/°C)	0.2		
Focus Range (mm)	20 to ∞		
Beam Size at Aperture (mm)	5 x 2		
Beam Size at Nearest Focus (µm)	< 50		
Beam Divergence (mrad)	< 0.5		
Astigmatism (µm)	< 10		
Beam Position (mrad)	< 30		
Pointing Stability (mrad)	< 0.1		
Electrical/Mechanical			
Electrical Connections	2.5mm socket, positive centre pin		
Supply Voltage (V)	4 to 6		
Operating Current (mA)	55	60	65
Length (mm)	58		
Diameter (mm)	25		
Mass (g)	55		
Supply Lead Length (mm)	200		
Environmental			
Operating Temperature (°C)	-10 to +50		
Storage Temperature (°C)	-40 to +80		
Operating Humidity (%rh)	90		
MTTF at 25 °C (x 1,000 hours)	> 50	> 50	> 50
<i>Typical values quoted unless otherwise stated. Imatronic reserves the right to modify specifications without notice.</i>			

Options

- Other Wavelengths
- Wavelength Selection
- Higher Output Powers
- Customer Specific Power Settings
- Customer Specific Packaging

Related Products

- Regulated Mains Power Adaptors - European or U.S. voltages

Other Products & Services

- Laser Target Designators
- Distance Measurement
- Velocity Measurement
- Applications Consultancy
- Product and Technical Development
- Lenses and Mirrors
- Bespoke Scanning Systems

For pricing or further information please contact your local distributor.

Otherwise contact Global Laser directly on:

Telephone +44 (0)1495 212213
 Fax: +44 (0)1495 214004
 Email: sales@globallasertech.com

Distributor