

## ***PGL-L Series Diode Lasers***



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The laser module is optional internal or external power supply and made features of uniform power density, high straightness and good stability line beam.

The user can choose from red, green, or blue wavelengths depending on the application and material to be inspected.

PGL-L Series Diode Lasers with its industrial-suited design and stable performance works perfectly as an integrated module in collimation, laser medical treatment, scientific experiment, optical instrument, etc.

### ***FEATURES***

- Optional internal or external power supply
- Ultra compact
- Long lifetime
- Easy operating

### ***APPLICATIONS***

- Collimation
- Laser medical treatment
- Scientific experiment
- Optical instrument



### SYSTEM SPECIFICATIONS\*

Wavelength	nm	405	450	520	635-660
Wavelength tolerance	nm (typical)	±5	±5	±5	±10
Output power	mW	1-100	1-50	1-50	1-100
Line width	<250mm	40-200μm			
Line width	@1m	<1mm			
Line angles		7°、10°、15°、30°、45°、60°、75°、90°			
Laser operation mode		CW			
Expected lifetime	hours	10,000			

### ELECTRICAL SPECIFICATIONS

Operating voltage(internal PCB)	DC 6V	DC 6V	DC 8V	DC 3V
Operating voltage(external PCB)	DC 5-12V			
Connection	Cable with flying leads			

### TTL MODULATION(external PCB)

Maximum frequency	up to 30kHz		
Signaling levels	VIL_max<+0.9V	VIH_min>+2.2V	VIH_max<+7V

### ANALOG MODULATION(external PCB)

Active range(optional)	DC 0-3V	DC 0-5V
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### ENVIRONMENTAL CONDITIONS

Operating temperature	°C	-10°C to 45°C
Storage temperature	°C	-20°C to 80°C
Humidity	%	< 90 %, non-condensing
Dissipated heat	W	< 1 W

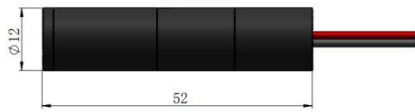
\*All testing data under the conditions of temperature 25°C.

### MECHANICAL SPECIFICATIONS

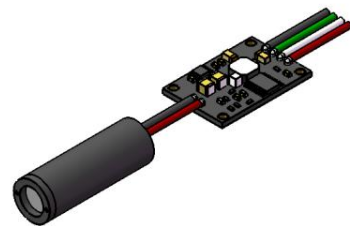
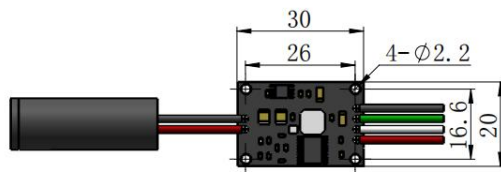
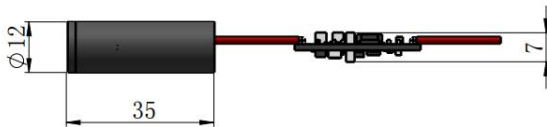
Weight(internal PCB)	g	15g
Weight(external PCB)	g	20g
Dimensions of laser head(internal PCB)	mm	Ø12×52 mm <sup>2</sup>
Dimensions of laser head(external PCB)	mm	Ø12×35 mm <sup>2</sup>
Material	Aluminum	

Dimensions of laser (mm):

#### Internal PCB



#### External PCB

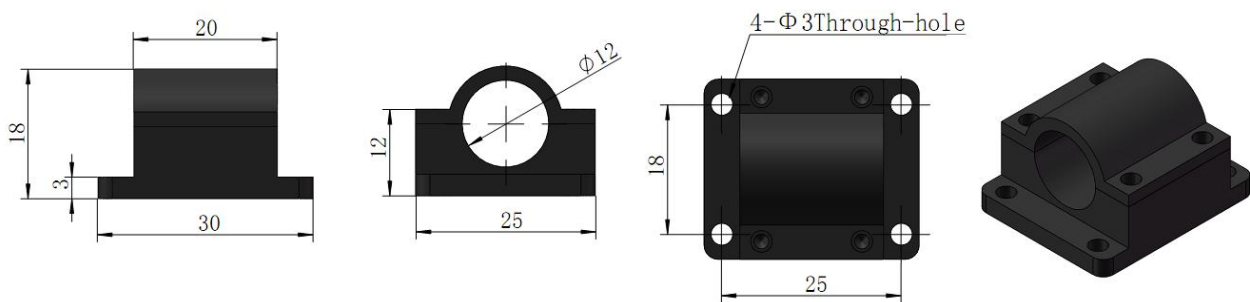


## Accessories

### MODULE MOUNT SPECIFICATIONS

Module mount size	mm	30 x 25 x 18mm
Applicable models size $\varnothing$	mm	12mm
Through-hole $\varnothing$	mm	3mm
Through-hole distance	mm	25 x 18mm

Dimensions of module mount (mm):



This simple mount acts as combined heat sink, electrical insulator mount for 12mm diameter diode modules. Loosen the four small set screws and remove the top half of the module mount to put the laser in. The laser is held firmly by tighten the screws. The module mount reserved 4 through-holes for user to fix the laser on a flat and thermally dissipating surface.

### CONNECTOR

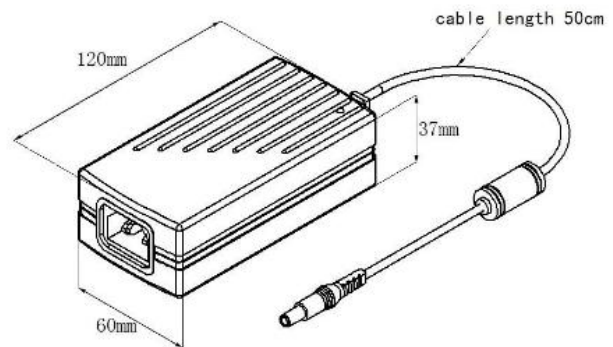
USB connector	Suit for access to computer control
Bayonet nut connector	Minimize distractions
Headset connector	Easy connect and disconnect

### BATTERY CASE

Power supply	6-7V CR123A Lithium batteries x 2    3V AA Alkaline batteries x 2
Battery case connector	Optional, suggest using headset connector

POWER ADAPTER\*\*

Input		85-264V AC 47/63Hz
Output		DC 5V 5A
Adapter size	mm	120 x 60 x 37mm
Adapter cable length	m	0.5m
Cable connector		Easy connect/disconnect jack
Dimensions of power adapter (mm):		



The Universal Diode Laser Module Power Supply with CE-marked provide a well-regulated 5 VDC. This auto ranging power module can be connected to any 85-264 VAC 47/63 Hz supply. There is an IEC 60320 input socket and a 0.5m output cable terminated with an easy connect/disconnect jack socket. The Headset connector which could also be found in accessories is compatible with the power supply jack.

\*\*CNI provides other types of power adapters to meet customer demand, please contact sales for details.