

## ***PGL-L1 Series Laser Module***



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The laser is made features of ultra compact, long lifetime and easy operating.

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

PGL-L1 Series Laser Module 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***

- Optical output power up to 150mW
- Wavelengths from 405 – 1550nm
- Long lifetime
- Easy operating

### ***APPLICATIONS***

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

### SYSTEM SPECIFICATIONS\*

|                      |              |  |      |      |         |       |          |
|----------------------|--------------|--|------|------|---------|-------|----------|
| Wavelength           | nm           | 405  | 450  | 520  | 635-660 | 808   | 830-1550 |
| Wavelength tolerance | nm (typical) | ±5   | ±5   | ±5   | ±10     | ±10   | ±10      |
| Output power         | mW           | 1-150  | 1-50 | 1-50 | 1-130   | 1-100 | 1-10     |
| Line width           | <250mm       | 40-200um                                     |      |      |         |       |          |
| Line width           | @1m          | < 1.0mm                                      |      |      |         |       |          |
| Fan angles           |              | 7° 、 10° 、 15° 、 30° 、 45° 、 60° 、 75° 、 90° |      |      |         |       |          |
| Laser operation mode |              | CW   |      |      |         |       |          |
| Expected lifetime    | hours        | 10,000                                       |      |      |         |       |          |

### ELECTRICAL SPECIFICATIONS

|                   |                         |       |       |       |       |       |
|-------------------|-------------------------|-------|-------|-------|-------|-------|
| Operating voltage | DC 6V                   | DC 6V | DC 7V | DC 3V | DC 3V | DC 3V |
| Connection        | Cable with flying leads |       |       |       |       |       |

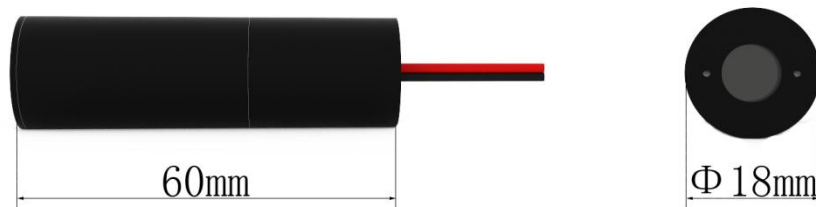
### ENVIRONMENTAL CONDITIONS

|                       |    |                        |
|-----------------------|----|------------------------|
| 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                  |

### MECHANICAL SPECIFICATIONS

|                 |    |          |
|-----------------|----|----------|
| Weight          | g  | 40g      |
| Length          | mm | 60 mm    |
| Diameter head Ø | mm | 18 mm    |
| Material        |    | Aluminum |

### DIMENSIONS OF LASER MODULE (mm):

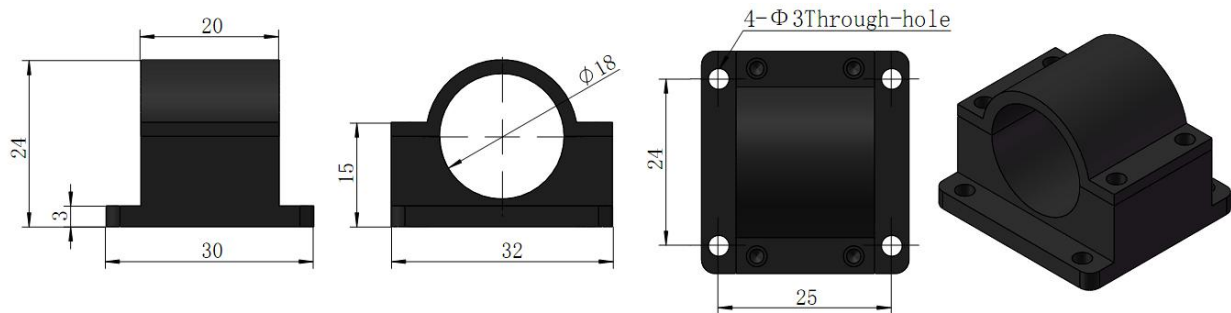


\*All testing data under the conditions of temperature 25°C.

### Accessories

#### MODULE MOUNT SPECIFICATIONS

|                                      |    |                |
|--------------------------------------|----|----------------|
| Module mount size                    | mm | 30 x 32 x 24mm |
| Applicable models size $\varnothing$ | mm | 18mm           |
| Through-hole $\varnothing$           | mm | 3mm            |
| Through-hole distance                | mm | 25 x 24mm      |
| Dimensions of module mount (mm):     |    |                |



This simple mount acts as combined heat sink mount for 18mm 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 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         |

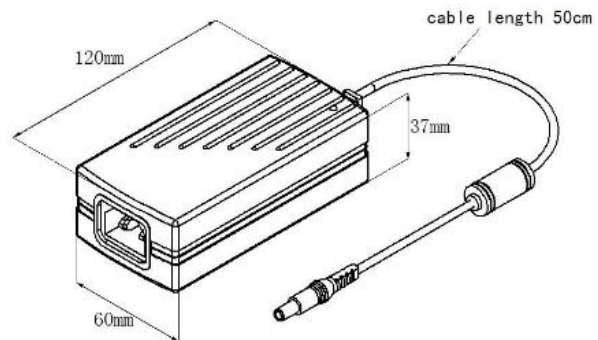
#### BATTERY CASE

|                        |  |
|------------------------|--|
| 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.

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