



## LDLC405 Series 405nm Long Coherence Diode Laser System up to 50mW

### Overview

The LDLC405 series diode laser is ideal for applications that require a wavelength of 405nm and output power levels up to 50mW. The laser features narrow spectral linewidth, stable wavelength, ultra-compact design, long operating lifetime, easy operation and FDA-compliant system with driver. The laser is widely used in holography, interference, fluorescence, photoetching, flow cytometry, DNA sequencing, Raman spectroscopy, laser radar, precision measurement, and many other applications.



### Specifications

|   |  |   |
|---|--|---|
| <b>Model Number</b>                               | <b>LDLC405-XYP</b>   |   |
| Wavelength (nm)                                   | 405±1  |   |
| Output power (mW)                                 | >30 ( <b>X=30</b> ), >50 ( <b>X=50</b> )                   |   |
| Transverse mode                                   | Near TEM <sub>00</sub>                                     |   |
| Operating mode                                    | CW   |   |
| Power stability (rms, over 4 hours)               | <5% ( <b>P=A</b> ), <3% ( <b>P=E</b> ), <1% ( <b>P=D</b> ) |   |
| Coherent length (m)                               | >1   |   |
| Beam diameter at aperture (1/e <sup>2</sup> , mm) | ~1.3   |   |
| Beam divergence, full angle (mrad)                | <1.5   |   |
| Polarization ratio                                | >50:1, Horizontal ±5 degree                                |   |
| Warm-up time (minutes)                            | <5   |   |
| Beam height from base plate (mm)                  | 30   |   |
| Operating temperature (°C)                        | 20-30  |   |
| Dimensions of laser head (mm)                     | 122.5(L)×65(W) ×50(H) mm <sup>3</sup>                      |   |
| Weight of laser head (kg)                         | 1.0 kg   |   |
| Power supply                                      |  |   |
| Elite Power Supply ( <b>Y=E</b> )                 | Input voltage  | 85-264VAC                               |
|   | Dimensions   | 171(L) ×130(W) ×62.2(H) mm <sup>3</sup> |
|   | Weight   | 1.2 kg                                  |
|   | Notes  | Fixed output power                      |
| Laboratory Power Supply ( <b>Y=L</b> )            | Input voltage  | 85-264VAC                               |
|   | Dimensions   | 188.6(L) ×155(W) ×92(H) mm <sup>3</sup> |
|   | Weight   | 1.5 kg                                  |
|   | Notes  | Adjustable output power                 |
| Expected lifetime (hours)                         | 10,000   |   |
| Warranty period                                   | 10 months  |   |
| FDA Compliance                                    | FDA CDRH Title 21 CFR 1040.10/11 Class IIIb                |   |

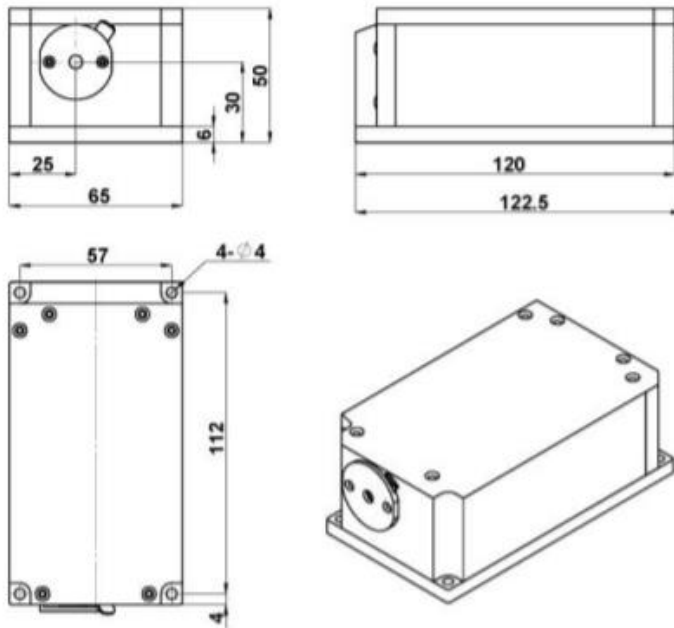
Remarks:

- Specifications of the CW laser is based on the laser performance at full power output after the specified warmup period. The stability of output power may change when output power is adjusted at a different power level.



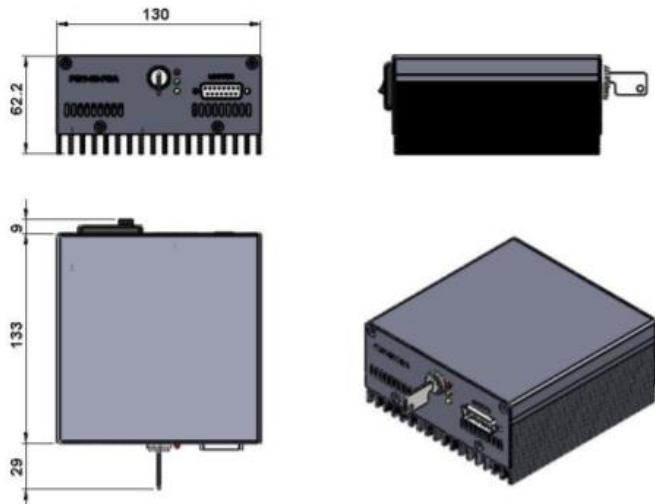
**Outline Dimensions (unit: mm)**

**Laser Head**

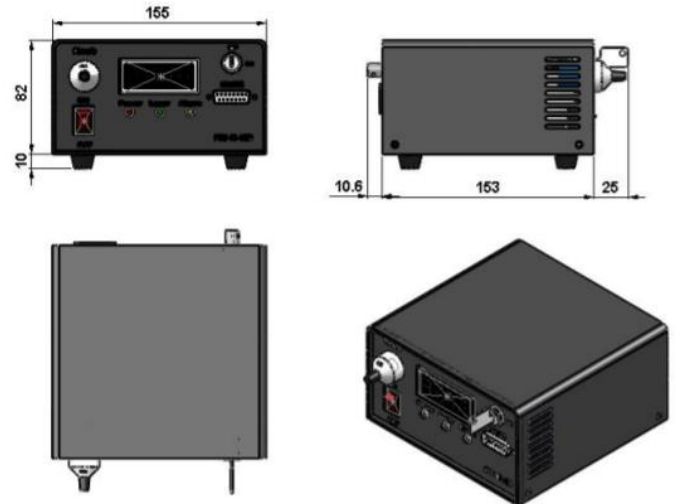


**Power Supply Options**

**Elite Power Supply (Y=E)**



**Laboratory Power Supply (Y=L)**



Note: The above specifications are subject to change without notice.