



LASER DIODE CONTROL
part of the Laser Lab Source Group



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LDI Series Precision Laser Diode Drivers

LDI series laser diode drivers are constant current sources which are designed to bias high power semiconductor lasers. Because high power lasers require relatively high levels of DC current and voltage, and generate high levels of waste heat, they have a unique set of electrical and thermal requirements which need to be addressed to protect them from being damaged. The LDI drivers are designed to meet these requirements. Additionally, these drivers are designed with features to assist the user to safely operate the laser diode under test.



TECHNICAL QUESTIONS AND INSTALLATION SUPPORT

800.887.5065

contact@LaserLabSource.com

LDI Series Precision Laser Diode Drivers

LDI series drivers are designed to safely, precisely bias semiconductor laser diodes. They are precision-engineered to meet the most demanding laboratory R&D and system integration applications. They are also designed to safeguard the laser diode under test, and offer comprehensive protection features to prevent damage to your laser diode. Models are available to meet almost all current and voltage ranges.



MULTI-LAYER SAFEGUARDS FOR YOUR LASER DIODE



Polarity check circuit ensures your laser is connected correctly prior to turning laser on.



Soft-start current ramp prevents overstress to the laser diode's semiconductor junction.



ESD, power surge, and over-voltage protection circuits safeguard the laser diode's emitter facet.



Over-current and over-voltage limits keep your laser in its safe, specified operating ranges.



Temperature limit protects your laser from damage caused by over-heating.

The LDI series drivers offer multiple user interface options. Depending on the model selected, the user has complete control of all laser diode parameters through an intuitive front panel menu. The front panel has an LCD display with a keypad. For remote control, all units come standard with an RS-232 interface and USB adapter. The LabView GUI (included) makes set-up and control of the system fast and simple. An open-source terminal software program is also available for download. The user can also control the unit using analog controls signal inputs available on the rear panel.

In addition to CW (continuous wave) mode of operation, the LDI series laser diode drivers offer flexible modulation capabilities and a built-in QCW function generator. The rear panel of the controller has a BNC input for analog or TTL digital modulation inputs. QCW mode pulses can be internally or externally generated.

Set and monitor all key parameters of your laser diode from easy to use main display menu:

Labels pointing to the Main Menu display:

- Laser diode ON/OFF
- Laser diode bias current set-point
- Measured laser temperature from thermistor in laser package or on heat sink
- Measured voltage across laser diode
- Safety interlock active
- CW mode or Quasi-CW mode

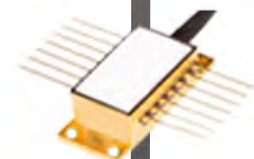
Main Menu

525.00mA	
LD Laser On	MODE: CW
LDI 225.00	LDI 0.00mA
FW 1.80 V	FA 13.32°C
Error 0	QZ 0.0000

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SPECIFICATIONS

Please refer to the website product page for the most up to date specifications table and product information. **LDI-187 specifications.**



Two Year Full Warranty

The LDC series laser diode controllers are warranted against defects in materials and workmanship for a period of two years from the date of shipment. The warranty is honored and transacted by Laser Lab Source. The warranty does not include customer induced damage to the product.

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for laser scientists and engineers.

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