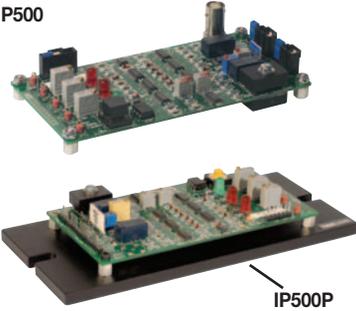


## Laser Diode Technologies

### 500mA Laser Diode Driver

IP500



IP500P  
Sold Separately

The IP500 is a universal 500mA board-level driver capable of supporting all pin configurations in either constant current or constant power mode. Designed for use within higher-level assemblies, this versatile device can easily and safely control all laser diode/photodiode pin configurations in 5.6mm and 9mm lasers.

The driver accepts photodiode feedback currents of up to 2.0mA. Pin configurations and operating modes are easily set using on-board jumpers. Three indicators display whether the laser is enabled, operating at current limit, or in an alarm shutdown condition. There is also no need to power down the entire unit, because a separate enable switch turns the laser on and off. Connections are provided for remote interlocks and remote monitoring, and wire harnesses for all required connections are provided with the unit.

#### IP500 Features

- Supports all LD/PD Pin Configurations
- Constant Current & Constant Power Operation
- User-Configurable Current & Power Limits
- Laser Diode Inputs Shorted During Idle Operation to Protect the Device
- Auto Alarm Shutdown When Laser Connection is Open or Reversed
- Includes Input & Output Wires
- Test Points for Laser Diode Current, Monitor Photodiode Current, Current Limit & Power Limit Set-Point.
- OEM Plug-In Version Available; Call for Details

#### IP500 Specifications

- Input Power:  $\pm 5\text{VDC}$  @ 500mA

##### Constant Current Mode

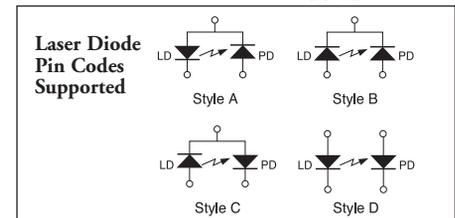
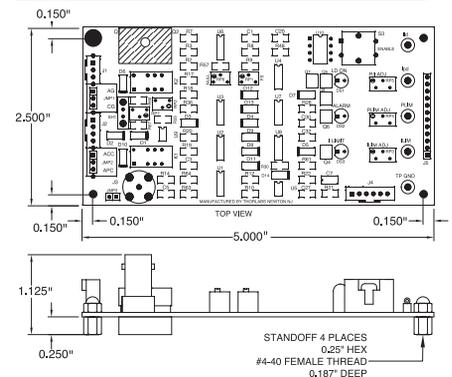
- Control Range: 0 to  $\pm 500\text{mA}$
- Setting Accuracy:  $\pm 0.5\text{mA}$
- Compliance Voltage:  $>3.0\text{VDC}$
- Ripple & Noise (10Hz to 10MHz):  $<10\mu\text{A RMS}$
- Short-Time Fluctuations ( $<15\text{s}$ ,  $<10\text{Hz}$ ):  $<50\mu\text{A}$
- Temperature Coefficient:  $<100\text{ppm}/^\circ\text{C}$
- Drift (30min,  $<10\text{Hz}$ ):  $<100\mu\text{A}$
- Limit Adjust Range: 0- $>500\text{mA}$
- Limit Accuracy:  $\pm 2.5\text{mA}$

##### Constant Power Mode

- Control Range Photodiode Current:  $5\mu\text{A}$  to  $2\text{mA}$
- Setting Accuracy:  $\pm 2\mu\text{A}$
- Drift (30min,  $<10\text{Hz}$ ):  $<1\mu\text{A}$
- Limit Adjust Range: 0- $>2.5\text{mA}$
- Limit Accuracy:  $\pm 2\mu\text{A}$

##### Analog Modulation/ Control Voltage

- Input Resistance:  $10\text{k}\Omega$
- Bandwidth: DC to  $50\text{kHz}$
- Transfer Function (ACC Mode):  $50\text{mA/V}$
- Input Range: 0- $10\text{V}$



ITEM #	\$	£	€	RMB	DESCRIPTION
IP500	\$ 299.00	£ 188.40	€ 278.10	¥ 2,855.50	500mA Universal Laser Diode Driver
IP500P	\$ 22.00	£ 13.90	€ 20.50	¥ 210.10	Laser Driver Mounting Plate for IP250 & IP500

### 250mA Blue-Violet Laser Diode Driver

IP250-BV

Mounted on an IP500P  
(Power Supply Not Included)



The IP250-BV is a medium power, board-level laser diode controller optimized for the higher operating voltages of the blue and the blue-violet laser diodes. The driver is in the form of a PCB assembly with provisions for mounting into other higher-level assemblies. It can accommodate only common cathode (cathode-grounded) laser diode pin-out configurations and allows control of the laser by means of either constant current or constant power modes. The driver contains circuitry for complying with the various laser safety requirements as well as protection circuitry for the laser diode.

- 250mA Blue Laser Diode Driver
- Optimized for Lasers with  $V_{op}$  Greater than 5V
- Input Power  $\pm 12\text{VDC}$  @ 275mA
- Control Range: 0 to  $\pm 250\text{mA}$  (CC),  $5\mu\text{A}$  to  $2\text{mA}$  (CP)
- 0- $10\text{V}$  Analog Modulation Bandwidth: DC to  $50\text{kHz}$

The driver has a maximum injection current of 250mA, and the operating modes are easily set using on-board jumpers. It automatically shuts itself down when laser connections are open or reversed, and laser diode inputs are shorted during idle operation to protect the device.

The end-user must provide DC power and the proper connections between the unit and the laser diode and is responsible for the proper limit settings needed for their particular laser diode and application.

ITEM #	\$	£	€	RMB	DESCRIPTION
IP250-BV	\$ 299.00	£ 188.40	€ 278.10	¥ 2,855.50	250mA Blue Laser Diode Driver
IP500P	\$ 22.00	£ 13.90	€ 20.50	¥ 210.10	Laser Driver Mounting Plate for IP250 & IP500

