

Tapered Amplifier Controller

Features

- Compatible with Thorlabs' Tapered Amplifiers
- Integrated Current and TEC Controllers
- 14-Pin Butterfly Package Mount
- Drive Current up to 2.5 A
- Dual TEC for Chip and Package Temperature Control
- USB Connectivity

NEW
product



LDC2500B

| CHARACTERISTIC | MIN | TYPICAL | MAX |
|-----------------------|--------|------------|--------|
| Drive Current | – | – | 2.5 A |
| Compliance Voltage | – | – | 2.5 V |
| Current Stability | – | ±2 mA | – |
| Temperature Stability | – | ±0.1 °C | – |
| TEC Current | – | – | ±2.5 A |
| Cooling Capacity | – | 10 W* | – |
| Power Consumption | – | 30 W | – |
| Operation Temperature | 5 °C** | – | 40 °C |
| Power Supply | – | 12 V / 5 A | – |

*Dependent on ambient temperature **Non-Condensing Environment

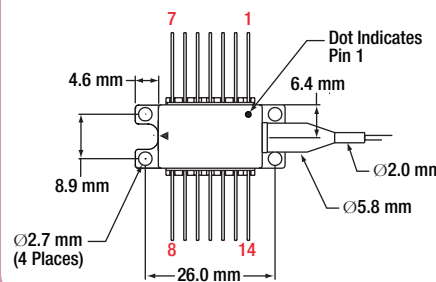
Thorlabs has designed a High-Power Amplifier Current and Temperature Controller that is ideal for use with our innovative, 14-pin butterfly tapered amplifiers featured on the facing page. The LDC2500B controller is also compatible with standard 14-pin butterfly packages (see dimensions in drawing below) where case temperature control is required.

To address the large amount of heat generated by tapered amplifiers, the LDC2500B controller incorporates a robust cooling system that includes heat sinks, a TEC element, and a low-noise fan. It is still recommended to mount this controller on a water-cooled breadboard such as the MBC12 (see page 4 for details) to minimize surface heating when sensitive experiments are being performed.

The LDC2500B tapered amplifier controller incorporates one current and two TEC controllers into an easy-to-use system. To change the set point of these integrated controllers, a computer needs to be connected to the mount through the USB interface. Once the parameters are set and stored in the LDC2500B, they are retained through power-up and power-down cycles. Since tapered amplifiers emit high-power light and are sensitive to back reflections, an optical isolator (see pages 927 - 946) should be used in conjunction with the controller and amplifier.

While this mount and driver unit has been designed for use with our tapered amplifier, it can also be used with a number of other high-power, 14-pin butterfly devices that are pin-compatible with the amplifier package (see pin function table above for details). Please contact Technical Support or visit the web for details regarding product developments and upcoming releases.

14-Pin Butterfly Package Compatibility



Pin Identification

- | | |
|----------------------|-----------------|
| 1. TEC + | 14. TEC - |
| 2. Thermistor (Chip) | 13. Case |
| 3. NC | 12. NC |
| 4. NC | 11. Dev Cathode |
| 5. Thermistor (Chip) | 10. Dev Anode |
| 6. Thermistor (Case) | 9. NC |
| 7. Thermistor (Case) | 8. NC |

| ITEM # | \$ | £ | € | RMB | DESCRIPTION |
|----------|-------------|------------|------------|-------------|---|
| LDC2500B | \$ 3,500.00 | £ 2,520.00 | € 3,045.00 | ¥ 27,895.00 | Tapered Amplifier Current and TEC Controller, 2.5 A |

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For more details, see pages 1548 - 1551