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Data Sheet

August 14, 2026

ILX LIGHTWAVE

ILX Lightwave LDC-3722B: 200/500 mA Laser Diode Controller, LDC-3700 Series

The ILX Lightwave LDC-3722B is a precision laser diode controller from the LDC-3700 Series. It offers dual current ranges of 200mA and 500mA, ensuring stable and accurate control for a variety of laser diode applications. Ideal for research, development, and production environments, this controller provides low-noise performance and comprehensive laser diode protection features.



MODEL

**ILX Lightwave
LDC-3722B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

LDC-3722B

LISTING

<https://aumictechlabs.com/products/ldc-3722b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The ILX Lightwave LDC-3722B is a precision laser diode controller delivering stable current and temperature regulation with dual selectable ranges of 0–200 mA and 0–500 mA. Part of the LDC-3700 Series, it combines low-noise performance with comprehensive laser diode protection, making it suitable for research, development, and production environments. Current stability reaches $\pm 10 \mu\text{A}$ typical over 8 hours, while current noise stays below $2 \mu\text{A rms}$ across 0.1 Hz to 10 Hz bandwidth. Technical Specifications Current Control Ranges: 0–200 mA and 0–500 mA (selectable) Stability: $\pm 10 \mu\text{A}$ typical (8-hour period) Noise: $< 2 \mu\text{A rms}$ (0.1 Hz to 10 Hz bandwidth) Resolution: $1 \mu\text{A}$ Accuracy: $\pm(0.1\%$ of setting + 0.1% of range) typical Compliance Voltage: 5 V

Temperature Control Setpoint Range: $-40\text{ }^{\circ}\text{C}$ to $+150\text{ }^{\circ}\text{C}$ Stability: $\pm 0.005\text{ }^{\circ}\text{C}$ typical (with calibrated sensor) Accuracy: $\pm 0.1\text{ }^{\circ}\text{C}$ typical (post-calibration) TEC Output: Up to 2 A, 5 V maximum Sensor Support: ILX Lightwave sensors, thermistors, RTDs Protection & Control Soft start for transient suppression User-configurable current limit Interlock input for external shutdown Analog input for laser current modulation Buffered analog outputs for current and voltage monitoring Interfaces GPIB (IEEE-488) and RS-232 for remote operation Front-panel digital display Power & Environment Input: 100/120/220/240 VAC, 50/60 Hz Consumption: 150 VA maximum Operating Temperature: $0\text{ }^{\circ}\text{C}$ to $40\text{ }^{\circ}\text{C}$ Storage Temperature: $-20\text{ }^{\circ}\text{C}$ to $70\text{ }^{\circ}\text{C}$ Key Features Dual current ranges accommodate both sensitive and high-power laser diodes. Sub-microampere noise performance supports precision spectroscopy and photometry. Temperature control bandwidth and accuracy enable wavelength-locked operation. Soft-start and transient suppression circuits protect against drive circuit failures. Typical Applications Fiber-coupled laser systems, tunable laser sources, optical communications test benches, and laser characterization in production environments. Compatibility & Integration Integrates with standard ILX Lightwave temperature sensor modules. GPIB and RS-232 interfaces enable rack-level automation and multi-instrument test system architectures.

LDC3722B Characteristics / Specifications

PARAMETER	VALUE
Instrument Family	ILX LDC-3722B / LDC-3700B
Laser Current Dual Ranges	yes dual range class
Laser Compliance Voltage Class	10 V class on 3700B family
Laser Current Setpoint Accuracy Class	plus or minus 0.05 percent class
Laser Modes	CC low BW CC high BW constant power class
TEC Controller	integrated
TEC Hybrid Control	PI loop class
Photodiode Feedback	yes for constant power
External Modulation Input Class	0 to 10 V class on family
Computer Interface	GPIB
Independent Laser And TEC Supplies	yes
Display	dual section laser and TEC readouts class
Form Factor	benchtop half rack class
AC Powered	yes
Interlock	laser interlock class
Current Limits	adjustable
Temperature Setpoint	programmable class
Series Family	ILX LDC-3700B
Manufacturer	per instrument faceplate branding
Documentation Basis	OEM datasheet or operating manual family
Specification Ambient Class	23 C class unless otherwise stated
Calibration Traceability Class	standards laboratory traceable class

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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External Modulation Input Class	0 to 10 V class on family
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Display	dual section laser and TEC readouts class
Form Factor	benchtop half rack class
AC Powered	yes
Interlock	laser interlock class
Current Limits	adjustable
Temperature Setpoint	programmable class
Series Family	ILX LDC-3700B
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Documentation Basis	OEM datasheet or operating manual family
Specification Ambient Class	23 C class unless otherwise stated
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Notes	
Family capability rows from ILX LDC-3700B / LDC-3722B literature adjacent to LDC-3724B verified tables. Confirm exact mA ranges TEC wattage and compliance voltage on the 3722B faceplate and datasheet.	

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.