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Data Sheet

August 14, 2026

ILX LIGHTWAVE

ILX Lightwave LDX-3210 Laser Diode Driver, Precision

The ILX Lightwave LDX-3210 is a precision laser diode driver designed for demanding laser control applications. It offers low noise and high stability, ensuring accurate and reliable performance. Ideal for laboratory and industrial settings requiring precise laser control.



MODEL

**ILX Lightwave
LDX-3210**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

LDX-3210

LISTING

<https://aumictechlabs.com/products/ldx-3210-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The ILX Lightwave LDX-3210 is a precision laser diode current source engineered for high-stability, low-noise control in demanding laboratory and industrial environments. Part of the LDX-3200 series, this instrument combines dual-range current capability with integrated laser diode protection circuits, delivering $\pm 0.05\%$ set point accuracy and <10 ppm FS 1-hour stability. It supports constant current and constant power operating modes, along with analog modulation up to 1 MHz, making it suitable for both DC and dynamic applications. Technical Specifications Current Control Laser current ranges: 50 mA / 100 mA (dual range) Set point accuracy: $\pm 0.05\%$ FS Set point resolution: 1 μ A (50 mA range), 2 μ A (100 mA range) Output current noise/ripple: 1.5 μ A rms (low bandwidth), 4 μ A (high bandwidth) 1-hour stability: <10 ppm FS 24-hour stability: <20 ppm FS Transfer function: 50 mA/V Voltage & Monitoring Laser compliance voltage: 10 V Forward

voltage accuracy: $\pm 2.5\%$ Forward voltage resolution: 50 mV Four-wire forward voltage measurement: Standard Photodiode current accuracy: $\pm 0.04\%$ FS (0 to 5000 μA range) Monitor current accuracy: $\pm 2 \mu\text{A}$ (5 to 5000 μA range) Photodiode reverse bias: 0 to 5 V Modulation & Performance External modulation: DC to 1 MHz (high bandwidth), DC to 15 kHz (low bandwidth) Temperature coefficient: $<50 \text{ ppm FS}/^\circ\text{C}$ Display: 5-digit green LED Key Features Clamping current limits with protection during modulation Adjustable current and voltage limits Intermittent contact protection and redundant output shorting circuits Slow start routine prevents over-current and turn-on transients Front-panel output-shortening switch for safe on/off control AC power-up protection via redundant shorting circuits Typical Applications Laser diode characterization, spectroscopy, optical communications testing, and photonics research requiring precision current sourcing with comprehensive device protection. Compatibility & Integration GPIB/IEEE-488 computer interface (standard) LabVIEW instrument drivers available Power requirements: 220 VAC (120 VAC versions available)

LDX3210 Characteristics / Specifications

PARAMETER	VALUE
Laser Current Maximum	0.1 A
Output Ranges	50 mA and 100 mA dual ranges
Laser Compliance Voltage	10 V
Laser Current Resolution 50 mA Range	1 uA
Laser Current Resolution 100 mA Range	2 uA
Laser Current Accuracy	plus or minus 0.05% FS
Noise Ripple Low Bandwidth	1.5 uA rms
Noise Ripple High Bandwidth	4 uA rms
Temperature Coefficient	less than 50 ppm FS/C
Current Output 1 h Stability	less than 10 ppm FS
Current Output 24 h Stability	less than 20 ppm FS
External Modulation High Bandwidth	DC to 1 MHz
External Modulation Low Bandwidth	DC to 15 kHz
Modulation Transfer Function	50 mA/V
Forward Voltage Accuracy	plus or minus 2.5%
Forward Voltage Resolution	50 mV
Photodiode Current Range	0 to 5000 uA
Photodiode Current Accuracy	plus or minus 0.04% of FS
Monitor Current Range	5 to 5000 uA
Monitor Current Accuracy	plus or minus 2 uA
Photodiode Reverse Bias	0 to 5 V
Display Type	5-digit green LED
Computer Interface	GPIB
Power Requirements	120 VAC model (other line options exist by SKU)
Laser Drive Class	less than 1 A class driver

PARAMETER	VALUE
Bandwidth	1.5 uA rms

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 describe dual ranges of 50 mA and 100 mA with 10 V compliance, high stability and low noise output, constant current and constant power modes, four-wire forward voltage measurement, external modulation, and GPIB remote control.

Applications

The LDX-3210 is used for precision laser diode and LED drive in R&D and production, constant optical power control via monitor photodiode feedback, modulated current experiments, and automated laser characterization through GPIB with LabVIEW drivers.

Key Features

Dual current ranges 50 mA / 100 mA

Constant current low and high bandwidth modes plus constant power mode

Integrated laser diode protection including slow start and current limit clamping

Fine and coarse setpoint control with 5-digit green LED display

Four-wire forward voltage measurement

External analog modulation

GPIB/IEEE-488 remote interface

Closed-case calibration capability

Technical Specifications

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Laser Current Maximum	0.1 A
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External Modulation High Bandwidth	DC to 1 MHz
External Modulation Low Bandwidth	DC to 15 kHz
Modulation Transfer Function	50 mA/V
Forward Voltage Accuracy	plus or minus 2.5%
Forward Voltage Resolution	50 mV
Photodiode Current Range	0 to 5000 uA

PARAMETER	VALUE
Photodiode Current Accuracy	plus or minus 0.04% of FS
Monitor Current Range	5 to 5000 uA
Monitor Current Accuracy	plus or minus 2 uA
Photodiode Reverse Bias	0 to 5 V
Display Type	5-digit green LED
Computer Interface	GPIB
Power Requirements	120 VAC model (other line options exist by SKU)
Laser Drive Class	less than 1 A class driver

Notes
Values are from the official Newport/ILX LDX-3210 product specification listing. Line-voltage SKU suffixes (for example 120V) select mains configuration. Faceplate and calibration certificate remain authoritative foraspecific unit.

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.