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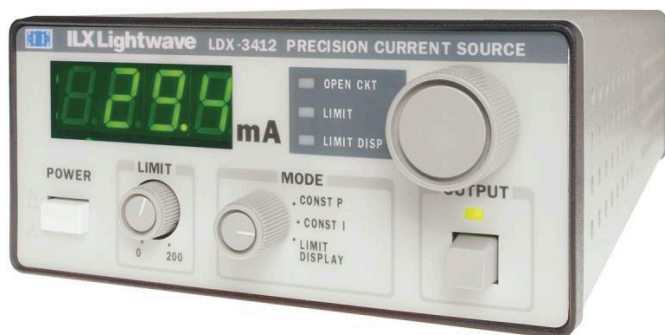
Data Sheet

August 14, 2026

ILX LIGHTWAVE

ILX Lightwave LDX-3412 " Laser Diode Driver, 200mA

ILX Lightwave Optical Light Sources. Accuracy: ± 0.2 mA, Resolution: 100 μ A (laser current), Current: up to 200 mA at 6 V maximum.



MODEL

**ILX Lightwave
LDX-3412**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

LDX-3412

LISTING

<https://aumictechlabs.com/products/ldx-3412-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The ILX Lightwave LDX-3412 is a precision laser diode driver delivering stable, low-noise current control up to 200 mA for laser diodes and LEDs. This bench instrument combines constant current and constant power modes with comprehensive laser protection circuitry, offering ± 0.2 mA accuracy and output current drift below 50 ppm over 30 minutes. Built-in photodiode feedback enables closed-loop light-level regulation, while adjustable current limiting, slow-start circuitry, and semiconductor output switching protect sensitive optical devices during connection and operation. Technical Specifications Output Current Range: 0–200 mA Accuracy: ± 0.2 mA Resolution: 100 μ A (laser current); 10 μ A (setpoint) Drift (30 min, constant current): <50 ppm typical Broadband noise (low bandwidth): <0.01% rms; 2 μ A typical 1 hour stability: <50 ppm Operating Modes Constant Current: up to 200 mA at 6 V maximum Constant Power: photodiode-feedback regulation for stable optical output Current Limit Display mode Photodiode Feedback

Input range: 20–2000 μ A Bias supply: 0–5 V User-adjustable feedback control Temperature Performance Coefficient: <100 ppm FS/°C Operating range: 0–50 °C Storage range: –40–70 °C Power Supply Input: 100–240 VAC, 50/60 Hz Max consumption: 30 W Warm-up: 1 hour to rated accuracy; 2 hours for stability Key Features Semiconductor output switch shunts terminals when powered off - safe laser connection/disconnection without transient spikes Adjustable current limit independent of setpoint Slow-start circuit prevents abrupt turn-on transients AC line transient filters and double-shielded transformer suppress line noise 3.5-digit green LED display with intuitive front-panel controls User-adjustable system interlock via internal jumpers 9-pin D-sub laser output connector; standard banana jack for chassis ground Typical Applications Precision current control for laboratory and manufacturing environments where stable, low-noise performance and component protection are essential. Suited for low-power butterfly and TO-can packaged laser diodes requiring either fixed-current or optical-feedback regulation. Compatibility & Integration Works with a wide variety of precision laser diode mounts and optical packages. Compact benchtop form factor (140 mm W $\times$ 267 mm D $\times$ 66 mm H; 1.8 kg) integrates into test racks and laboratory setups without computer interface or external control hardware.

LDX3412 Characteristics / Specifications

PARAMETER	VALUE
Drive Current Output Range	0 to 200 mA
Compliance Voltage	6.0 V
Temperature Coefficient	less than 100 ppm/C
Laser Current Resolution	100 uA
Laser Current Accuracy	plus or minus 0.2 mA
Noise Ripple Low Bandwidth	2 uA rms
Current Output 1 h Stability	less than 50 ppm
Drive Current Limit Range	1 to 200 mA
Display Type	3 1/2 digit green LED
Display Output Current Range	0 to 199.9 mA
Photodiode Current Range	20 to 2000 uA
Photodiode Reverse Bias	0 to 5 V
Output Enable Delay	2 s (per 21CFR 1040.10)
Power Requirements 100 V Model	90-110 VAC, 50-60 Hz
Power Requirements 120 V Model	110-130 VAC, 50-60 Hz
Power Requirements 220 V Model	220-230 VAC, 50-60 Hz
Power Requirements 240 V Model	230-250 VAC, 50-60 Hz
Size	66 mm x 140 mm x 267 mm (2.6 in x 5.5 in x 10.5 in)
Weight	1.8 kg (4.0 lbs)
Operating Temperature	0 C to 50 C
Storage Temperature	-40 C to 70 C
Humidity	less than 85% relative, non-condensing
Current Source Output Connector	9-pin D-sub
Photodiode Input	9-pin D-sub laser connector
Chassis Ground	4 mm banana jack

PARAMETER	VALUE
Interlock	9-pin D-sub laser connector
Laser Safety Features	interlock and output delay meeting CDRH US21 CFR 1040.10
Bandwidth	2 uA rms

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	40 C to 70 C
Operating temperature	0 C to 50 C
Operating Temperature	0 C to 50 C
Humidity	less than 85% relative, non-condensing
Current Source Output Connector	9-pin D-sub
Photodiode Input	9-pin D-sub laser connector
Chassis Ground	4 mm banana jack
Interlock	9-pin D-sub laser connector
Laser Safety Features	interlock and output delay meeting CDRH US21 CFR 1040.10 Notes Specifications are from the ILX Lightwave LDX-3412 user manual and Newport product listing. Mains range depends on ordered voltage model. Faceplate and calibration certificate remain authoritative foraspecific unit.

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 rate the output from 0 to 200 mA with 6.0 V compliance, constant current and constant power modes, low noise, adjustable hardware current limit, and CDRH-compliant interlock and output delay protection.

Applications

The LDX-3412 is intended for general-purpose laser diode and LED drive, photodiode-feedback constant power control, educational and R&D benches, and protected DC current sourcing where a compact low-cost precision source is required.

Key Features

- 0 to 200 mA precision output with 6 V compliance
- Constant current and constant power operating modes
- Adjustable redundant hardware current limit
- Normally low impedance output shorting protection
- 2 second output enable delay per 21CFR 1040.10
- Interlock and error monitoring for current limit and open circuit
- 3 1/2 digit green LED display
- 9-pin D-sub laser/photodiode connector

Technical Specifications

Technical Specifications

PARAMETER	VALUE
Drive Current Output Range	0 to 200 mA
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Laser Current Resolution	100 uA
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Storage Temperature	-40 C to 70 C
Humidity	less than 85% relative, non-condensing
Current Source Output Connector	9-pin D-sub
Photodiode Input	9-pin D-sub laser connector
Chassis Ground	4 mm banana jack
Interlock	9-pin D-sub laser connector
Laser Safety Features	interlock and output delay meeting CDRH US21 CFR 1040.10

Notes

Specifications are from the ILX Lightwave LDX-3412 user manual and Newport product listing. Mains range depends on ordered voltage model. Faceplate and calibration certificate remain authoritative for a specific unit.

Laser Safety

Laser Safety Features: interlock and output delay meeting CDRH US21 CFR 1040.10 Notes Specifications are from the ILX Lightwave LDX-3412 user manual and Newport product listing. Mains range depends on ordered voltage model. Faceplate and calibration certificate remain authoritative for a specific 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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<https://aumictechlabs.com>

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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.