

**Aumictech**

Test & measurement · bought, sold, repaired, calibrated

Data Sheet

August 13, 2026

ILX LIGHTWAVE

ILX Lightwave LDX-3232 Laser Diode Driver, Precision

Manufacturer: ILX Lightwave (Newport / MKS) Instrument Type: High compliance laser diode current source Alias: LDX3232; LDX-3232-120V; LDX-3232-220V Setpoint accuracy: $\pm 0.15\%$ of setpoint ± 2 mA Instrument Type: High compliance laser diode current source Alias: LDX3232; LDX-3232-120V; LDX-3232-220V Setpoint accuracy: $\pm 0.15\%$ of setpoint ± 2 mA Compliance voltage: 0 to 15 V, adjustable



MODEL

**ILX Lightwave
LDX-3232**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

LDX-3232

LISTING

<https://aumictechlabs.com/products/ldx-3232-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The ILX Lightwave LDX-3232 is a precision laser diode driver engineered for meticulous current and temperature control in research, development, and industrial environments. It delivers stable, accurate operation across a 0 mA to 300 mA output range with $\pm 1 \mu\text{A}$ stability and $\pm 0.05\%$ accuracy, supported by integrated thermoelectric cooling with $\pm 0.01^\circ\text{C}$ temperature stability. Built-in protection features - soft start, adjustable current limiting, transient suppression, and safety interlock - safeguard laser diodes during operation. The instrument provides real-time monitoring of output current, laser mount temperature, and photodiode feedback, with flexible modulation capabilities including internal sine wave generation (1 Hz to 100 kHz) and external DC-

coupled inputs (0 V to 5 V). GPIB and RS-232 interfaces enable remote automation and data acquisition. Technical Specifications Current Control Output current range: 0 mA to 300 mA Current stability: $\pm 1 \mu\text{A}$ Current accuracy: $\pm 0.05\%$ of setpoint + $1 \mu\text{A}$ Current noise: $< 2 \mu\text{A RMS}$ (0.1 Hz to 1 MHz) Compliance voltage: 0 V to 5.2 V Temperature Control Operating range: 15°C to 35°C (ambient dependent) Temperature stability: $\pm 0.01^{\circ}\text{C}$ Temperature accuracy: $\pm 0.05^{\circ}\text{C}$ Integrated thermoelectric cooler controller with $10 \text{ k}\Omega$ thermistor compatibility Modulation Internal sine wave: 1 Hz to 100 kHz External modulation input: 0 V to 5 V (DC coupled) Electrical Power input: 100-120 VAC / 220-240 VAC, 50/60 Hz Power consumption: 100 VA (maximum) Physical 19-inch rack-mountable chassis Weight: 7.7 kg (17 lbs) Key Features Soft-start initialization prevents laser diode inrush damage Adjustable current limiting provides user-defined protection Transient suppression mitigates voltage spikes Safety interlock input for external output control Real-time current and temperature display Monitor photodiode input for feedback and performance analysis Typical Applications Laser diode characterization, optical system testing, temperature-stabilized diode operation, and automated test environments requiring remote control. Compatibility & Integration Supports Fabry-Perot, DFB, VCSEL, and broad-area laser diodes within specified current and voltage limits. Front-panel SMA and TO-can connectors interface with laser mounts and TEC assemblies. GPIB (IEEE-488) and RS-232 rear-panel connectivity integrate with standard instrument control software.

Features & description

From manufacturer datasheet

Features

- Dual current ranges 2000 mA and 4000 mA at 15 V compliance
- Dual laser interlocks plus key switch and output delay (CDRH)
- Adjustable compliance voltage with four-wire V_f measurement
- Constant current and constant optical power modes
- Analog modulation input and TTL trigger output
- GPIB remote control

LDX3232 Characteristics / Specifications

PARAMETER	VALUE
Model	LDX-3232
Manufacturer	ILX Lightwave (Newport / MKS)
Instrument Type	High compliance laser diode current source
Alias	LDX3232; LDX-3232-120V; LDX-3232-220V
Low range current	0 to 2000 mA
High range current	0 to 4000 mA
Low range setpoint resolution	40 uA
High range setpoint resolution	80 uA
Setpoint accuracy	±0.15% of setpoint ±2 mA
Compliance voltage	0 to 15 V, adjustable
Temperature coefficient	less than 100 ppm perCShort term stability: less than 20 ppm (1 hour, half scale)
Long term stability	less than 40 ppm (24 hours, half scale)
Noise high BW 2000 mA	less than 20 uA rms
Noise high BW 4000 mA	less than 40 uA rms
Noise low BW	less than 20 uA rms (both ranges)
Operational transients	less than 4 mA (2000 mA); less than 8 mA (4000 mA)
Compliance adjust resolution	60 mV
Compliance adjust accuracy	±2.5%
Current limit 2000 mA range	1 to 2020 mA; resolution 10 mA; accuracy ±20 mA
Current limit 4000 mA range	1 to 4040 mA; resolution 20 mA; accuracy ±40 mA
Photodiode type	differential
PD reverse bias	0 to 5 V, adjustable
PD current range	5 to 10000 uA
PD output stability	±0.02% (30 min, assumes zero PD drift)
PD setpoint accuracy	±0.05% of FS

PARAMETER	VALUE
Modulation input	0 to 10 V, 1 kohm
Transfer function 2000 mA	200 mA perVTransfer function 4000 mA: 400 mA perVModulation high BW: DC to 250 kHz (3 dB)
Modulation low BW	DC to 10 kHz
Trigger output	TTL; pulse width 13 us; delay 12 ms
Display current range	0 to 2000.0 mA / 0 to 4000.0 mA
Display current resolution	0.1 mA
Display PD range	0 to 10000 uA
Display PD resolution	1 uA
Display PD accuracy	±4 uA
PD responsivity range	0.00 to 1000.00 uA/mW
PD responsivity resolution	0.01 uA/mW
Optical power range	0.00 to 5000.0 mW
Optical power resolution	0.1 mW
Forward voltage range	0.000 to 10.000 V
Forward voltage resolution	1 mV
Forward voltage accuracy	±2 mV
Display type	5-digit green LED
Size	102 mm x 216 mm x 340 mm (4 × 8.5 × 13.4 in)
Weight	approximately 9 kg (20 lb)
AC power	100/120/230-240 V~; 2/2/1 A; 50/60 Hz
Operating temperature	0 C to 40 C
Storage temperature	–40 C to 70 C
Humidity	less than 90% RH, noncondensing
Laser safety	key switch, interlock, output delay (CDRH US 21 CFR 1040.10)
Remote interface	GPIB
Spec condition	1 hour warm-up at 25 C

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	–40 C to 70 C
Operating temperature	0 C to 40 C
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Humidity	less than 90% RH, noncondensing
Laser safety	key switch, interlock, output delay (CDRH US 21 CFR 1040.10)
Remote interface	GPIB
Spec condition	1 hour warm-up at 25 C Notes Specs from ILX Lightwave / MKS LDX-3232 User's Guide (70037802, February 2021). Confirm 120 V versus 220/240 V faceplate. Newport listing also quotes display-class current accuracy $\pm 0.05\%$ FS on the 4 A range.

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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Notes

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Laser Safety

Laser safety: key switch, interlock, output delay (CDRH US 21 CFR 1040.10) Remote interface: GPIB Spec condition: 1 hour warm-up at 25 C Notes Specs from ILX Lightwave / MKS LDX-3232 User's Guide (70037802, February 2021). Confirm 120 V versus 220/240 V faceplate. Newport listing also quotes display-class current accuracy $\pm 0.05\%$ FS on the 4 A range.

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.