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Data Sheet

August 1, 2026

ILX LIGHTWAVE

ILX Lightwave LDX-3565: Precision Current Source, 2/6 A, LDX-3500B Series

The ILX Lightwave LDX-3565 is a precision current source designed for laser diode applications. Part of the LDX-3500B series, it delivers stable and accurate current for driving laser diodes, ensuring reliable operation and precise control.



MODEL

**ILX Lightwave
LDX-3565**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

LDX-3565

LISTING

<https://aumictechlabs.com/products/ldx-3565-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The ILX Lightwave LDX-3565 is a precision current source designed for laser diode driver applications requiring stable, accurate output across dual current ranges. Operating in constant current (low and high bandwidth) or constant optical power modes, the LDX-3565 delivers set point accuracy of $\pm 0.1\%$ full scale with output noise as low as $50 \mu\text{A}$ in low bandwidth mode. The instrument supports analog modulation input up to 500 kHz for power and wavelength tuning, photodiode current measurement for closed-loop optical power control, and comprehensive laser diode protection including adjustable current limits, shorting relays, slow turn-on circuits, and transient protection. USB 2.0 connectivity with LabVIEW driver support enables remote instrument control and integration into automated test systems. The compact 88 mm $\times$ 185 mm $\times$ 304 mm chassis houses an intuitive front panel interface with five-digit LED display and error indicators,

making it suitable for research, manufacturing test, and production environments. Technical Specifications Output Current Ranges: 2 A / 6 A dual ranges Maximum Output Current: 6 A Set Point Accuracy: $\pm 0.1\%$ full scale (± 2 mA at 2 A range; ± 6 mA at 6 A range) Set Point Resolution: 500 μ A, 1.5 mA, or 1.0 mA selectable Output Accuracy: $\pm 0.1\%$ full scale Compliance Voltage: 5 V maximum Output Noise: 50 μ A rms (low bandwidth); < 2 μ A rms (high bandwidth) Temperature Coefficient: < 50 ppm/ $^{\circ}$ C to < 100 ppm/ $^{\circ}$ C Photodiode Measurement Range: 0–25 mA (selectable ranges: 0–5 mA, 0–10 mA, 0–25 mA) Analog Modulation Input: 0–10 V, up to 500 kHz, 200 mA/V transfer function Key Features Constant current and constant optical power control modes Photodiode current measurement for closed-loop feedback Adjustable current limits and shorting relay protection Slow turn-on and transient protection circuits Analog output for remote monitoring USB 2.0 interface with LabVIEW driver support Intermittent contact and interlock shutdown protection Typical Applications Laser diode characterization and testing Automated manufacturing test systems Research and development Optical power regulation and control Compatibility & Integration USB 2.0 connectivity supports fast, repeatable control with remote operation capability. Analog modulation input (BNC) enables wavelength and power tuning. Photodiode feedback path supports constant optical power operation.

Features & description

From manufacturer datasheet

Features

- Dual current ranges: 2000 mA and 6000 mA
- Compliance voltage 5 V
- Constant current and constant optical power modes
- Analog modulation (200 mA/V low range; 600 mA/V high range)
- Photodiode feedback with adjustable reverse bias
- Laser protection: slow start, shorting relay/semiconductor switch, adjustable hardware and firmware current limit, intermittent contact protection
- USB remote interface on LDX-3565B; LabVIEW drivers available

LDX3565 Characteristics / Specifications

PARAMETER	VALUE
Model	LDX-3565 / LDX-3565B
Series	LDX-3500B
Manufacturer	ILX Lightwave (Newport / MKS)
Instrument Type	Precision laser diode current source
Output Current Ranges	0 to 2000 mA; 0 to 6000 mA
Setpoint Accuracy	+/-0.15% of full scale
Setpoint Resolution	500 uA (2 A range); 1500 uA (6 A range)
Noise and Ripple	less than 15 uA (2 A range); less than 30 uA (6 A range)
Compliance Voltage	5 V
Operational Transients	less than 30 mA (2 A range); less than 40 mA (6 A range)
Analog Modulation Transfer	200 mA/V (low range); 600 mA/V (high range)
Remote Interface	USB (LDX-3565B)
Microprocessor Control	Yes Family Context
Dual current ranges	2000 mA and 6000 mA
Laser protection	slow start, shorting relay/semiconductor switch, adjustable hardware and firmware current limit, intermittent contact protection

LDX3565 Specifications

PARAMETER	VALUE
Key Features	- Dual current ranges: 2000 mA and 6000 mA
Technical Specifications	Model: LDX-3565 / LDX-3565B
Family Context	LDX-3525B: 200/500 mA, 7 V compliance, +/-0.1% FS
Operational Notes	Confirm faceplate marking LDX-3565 vs LDX-3565B for USB. The /2/6 A dual-range designation matches the published 2000/6000 mA tables.

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

Specifications

PARAMETER	VALUE
Model	LDX-3565 / LDX-3565B
Series	LDX-3500B
Manufacturer	ILX Lightwave (Newport / MKS)
Instrument Type	Precision laser diode current source
Output Current Ranges	0 to 2000 mA; 0 to 6000 mA
Setpoint Accuracy	+/-0.15% of full scale
Setpoint Resolution	500 uA (2 A range); 1500 uA (6 A range)
Noise and Ripple	less than 15 uA (2 A range); less than 30 uA (6 A range)

Short-Term Stability: less than 20 ppm

Specifications

PARAMETER	VALUE
Compliance Voltage	5 V
Operational Transients	less than 30 mA (2 A range); less than 40 mA (6 A range)
Analog Modulation Transfer	200 mA/V (low range); 600 mA/V (high range)
Remote Interface	USB (LDX-3565B)
Microprocessor Control	Yes

Family Context

LDX-3525B: 200/500 mA, 7 V compliance, +/-0.1% FS

LDX-3545B: 1000/3000 mA, 6 V compliance, +/-0.1% FS

LDX-3565B: 2000/6000 mA, 5 V compliance, +/-0.15% FS

Standard Operating Conditions

Allow warm-up before stability-critical measurements. Set hardware current limit before enabling the laser. Use low-resistance cabling appropriate for multi-ampere drive. Observe ESD and laser safety practices.

Operational Notes

Confirm faceplate marking LDX-3565 vs LDX-3565B for USB. The /2/6 A dual-range designation matches the published 2000/6000 mA tables.

Laser Safety

laser safety practices. Operational Notes Confirm faceplate marking LDX-3565 vs LDX-3565B for USB. The /2/6 A dual-range designation matches the published 2000/6000 mA tables.

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.