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Data Sheet
August 2, 2026

ILX LIGHTWAVE

ILX Lightwave LDX-3525: Precision Current Source, 200/500 mA, LDX-3500B Series

ILX Lightwave LDX3525 – Precision Current Source The LDX3525 providesaprecision laser-diode current source from the ILX Lightwave LDX-3500 series, designed for stable CW and modulated drive of laser diodes and similar low-noise current loads. It offers dual current ranges, constant-current and constant-power (photodiode feedback) modes, and integrated laser-diode protection. Laser diode characterization and burn-in; optical transmitter development; fiber optic component testing requiring stable drive current; analog-modulated laser sources; laboratory and production setups needing low-noise, protected LD drive. The LDX3525 providesaprecision laser-diode current source from the ILX Lightwave LDX-3500 series, designed for stable CW and modulated drive of laser diodes and similar low-noise current loads. It offers dual current ranges, constant-current and constant-power (photodiode feedback) modes, and integrated laser-diode protection. Laser diode characterization and burn-in; optical transmitter development; fiber optic component testing requiring stable drive current; analog-modulated laser sources; laboratory and production setups needing low-noise, protected LD drive.

MODEL ILX Lightwave LDX-3525	CALIBRATION Available on request
CONDITION Used	STATUS In stock
RFQ / SKU LDX-3525	LISTING https://aumictechlabs.com/products/ldx-3525-2/

NIST-traceable cal · SAM registered · 30-day returns

NAICS 423690 · 811210 · 541380

This unit

The ILX Lightwave LDX-3525 is a microprocessor-controlled precision current source designed for laser diode control across the LDX-3500B series. It delivers stable, accurate current output in two selectable ranges - 200 mA and 500 mA - with exceptional setpoint resolution and accuracy. The instrument operates in three modes: Constant Current (CC) CW for low-bandwidth applications, high-bandwidth CC for modulation up to 500 kHz, and Constant Optical Power (APC) for closed-loop control.Integrated photodiode current measurement (0–5000 µA range, 1 µA resolution) enables direct optical feedback. Multiple laser diode protection circuits - including independent hardware current limits, slow-start turn-on, output shorting relay with semiconductor switch, and adjustable voltage limits - ensure safe, reliable operation in research, development, and production environments.Technical Specifications Output Current 200 mA or 500 mA selectable ranges Setpoint resolution: 50–100 µA (200 mA) / 125–150 µA (500 mA) Setpoint accuracy: ±0.1% of full scale (±0.2 mA / ±0.5 mA) Output current accuracy at 25°C: ±0.2 mA (200 mA) / ±0.5 mA (500 mA) Temperature coefficient: <50 ppm/°C Short-term stability (1 hour): <20 ppm at half-scale Long-term stability (24 hours): <50 ppm at half-scale Noise and ripple: <2 µA rms (CW) / <4 µA rms (modulation, 100 kHz bandwidth) Compliance & Power Maximum compliance voltage: 7 V Input power: 95–125 VAC or 210–250 VAC, 50–60 Hz Photodiode Measurement Current range: 0–5000 µA (0–5.000 mA) Resolution: 1 µA Modulation & Control Analog modulation input: Up to 500 kHz (differential input) Analog output for remote monitoring Calibration: Closed-case via front panel or USB 2.0; data stored in non-volatile memoryKey Features Microprocessor control with three operating modes (CC-CW, CC-HBW, APC) Independent hardware current limits with adjustable thresholds Slow-start turn-on and output shorting relay (normally closed) plus semiconductor switch Power line surge and EFT transient protection Intermittent contact protectionTypical Applications Laser diode testing and characterization High-speed modulation experiments Optical power stabilization Production-line laser driver validationCompatibility & Integration USB 2.0 interface for control and calibration management; differential modulation input enables flexible ground configurations for multi-channel test setups.

Features & description

From manufacturer datasheet

Features

• Dual current ranges: 200 mA and 500 mA • Compliance voltage approximately 7 V • Constant-current (CC) and constant-power (CP) modes with PD feedback • Analog modulation input • Analog monitor output • Laser-diode protection: current limits and slow start • 4-digit front-panel display • 9-pin D-sub output connector

LDX3525 Characteristics / Specifications

PARAMETER	VALUE
ILX Lightwave LDX35	Precision Current Source Overview The LDX3525 providesaprecision laser-diode current source from the ILX Lightwave LDX-3500 series, designed for stable CW and modulated drive of laser diodes and similar low-noise current loads. It offers dual current ranges, constant-current and constant-power (photodiode feedback) modes, and integrated laser-diode protection.
Model	LDX-3525 (LDX3525)
Manufacturer	ILX Lightwave
Instrument Type	Precision Laser Diode Current Source
Series	LDX-3500
Current Ranges	200 mA and 500 mA
Compliance Voltage	approximately 7 V
Setpoint Accuracy	±0.1% class
Noise/Ripple (CW)	less than 2 µA rms class
Operating Modes	Constant current (CC); constant power (CP) with photodiode feedback
Modulation	Analog modulation input
Monitor	Analog monitor output
Protection	Current limits, slow start
Display	4-digit
Output Connector	9-pin D-sub Standard Operating Conditions Select appropriate current range for the diode under test. Configure protection limits before enabling output. Use CP mode only withaproperly connected monitor photodiode per manual.
Dual current ranges	200 mA and 500 mA
Laser-diode protection	current limits and slow start

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-3525 (LDX3525)
Manufacturer	ILX Lightwave
Instrument Type	Precision Laser Diode Current Source
Series	LDX-3500
Current Ranges	200 mA and 500 mA
Compliance Voltage	approximately 7 V
Setpoint Accuracy	±0.1% class

Short-Term Stability: less than 20 ppm

Specifications

PARAMETER	VALUE
Noise/Ripple (CW)	less than 2 µA rms class
Operating Modes	Constant current (CC); constant power (CP) with photodiode feedback
Modulation	Analog modulation input
Monitor	Analog monitor output
Protection	Current limits, slow start
Display	4-digit
Output Connector	9-pin D-sub

Standard Operating Conditions
Select appropriate current range for the diode under test. Configure protection limits before enabling output. Use CP mode only withaproperly connected monitor photodiode per manual.

Operational Notes
The LDX3525 is the standard ILX model; LDX-3525B isalater USB-interface successor–do not assume B-series features unless the faceplate confirms 3525B. Alias LDX3525 / LDX-3525.

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

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