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Data Sheet

August 14, 2026

ILX LIGHTWAVE

ILX Lightwave CSM-39100: 4-CH Laser Diode Current Source Module

The ILX Lightwave CSM-39100 is a four-channel laser diode current source module designed for precision control of laser diode current. It enables independent operation and monitoring of up to four laser diodes. It is suitable for research, development, and production environments where precise laser diode control is essential.



MODEL

**ILX Lightwave
CSM-39100**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

CSM-39100

LISTING

<https://aumictechlabs.com/products/csm-39100-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The ILX Lightwave CSM-39100 is a 4-channel laser diode current source module engineered for precision control within the LDC-3900 Modular Laser Diode Controller mainframe. Each channel delivers up to 1000 mA of stable, low-noise current with photodiode feedback control and constant current modes. The module features fully isolated outputs, adjustable current limiting, and modulation input capability. Calibration data is stored locally on the module, with front-panel and GPIB-based calibration procedures supported. Its rear-loading design enables hot-swap interchangeability with other LDC-3900 modules, allowing configurations of up to four source/TEC/combo modules per system. Technical Specifications Output Current: Up to 1000 mA per channel Channels: 4 independent channels Control Modes: Photodiode feedback,

constant current (CC) Modulation Input: Available Current Limit: Adjustable Output Bandwidth: Adjustable Isolation: Fully electrically isolated from other mainframe modules Interface: GPIB/IEEE-488.2 for remote programming and readout Calibration: Closed-case with onboard data storage; local and remote procedures supported Key Features High-stability, low-noise current delivery for demanding laser diode applications Modular architecture supports mixed configurations: current sources, TEC controllers, and hybrid modules Independent channel isolation eliminates crosstalk in multi-channel setups Flexible save/recall of operating parameters via LDC-3900 front panel Laser enable functionality for safe device operation Typical Applications Research and development of laser systems, production laser diode characterization, and precision current sourcing in photonics test environments. Compatibility & Integration Designed exclusively for the LDC-3900 mainframe. Compatible with all LDC-3900 current source, TEC, and combination modules. Rear-loading module bay configuration. Note: Product discontinued by manufacturer; support typically available for three years from discontinuation date.

CSM39100 Characteristics / Specifications

PARAMETER	VALUE
Output Current Range	0 to 1000 mA
Setpoint Resolution	100 uA
Setpoint Accuracy	plus or minus 0.1% of FS
Compliance Voltage	6 V
Temperature Coefficient	less than 100 ppm/C
Short Term Stability 1 hour	less than 20 ppm
Long Term Stability 24 hours	less than 40 ppm
Noise Ripple High Bandwidth Mode	less than 10 uA rms
Noise Ripple Low Bandwidth Mode	less than 5 uA rms
Noise Ripple With LNF320 Filter	less than 2.5 uA rms
Operational Transients	less than 2 mA
Power Line Spike Induced Transients	less than 5 mA / less than 8 mA
Drive Current Limit Range	0 to 1000 mA
Drive Current Limit Resolution	4 mA
Drive Current Limit Accuracy	plus or minus 10 mA
Photodiode Reverse Bias	0 to 5 V adjustable
Photodiode Current Range	0 to 10 mA
Photodiode Output Stability	0.02%
Photodiode Setpoint Accuracy	plus or minus 0.05% of FS
Modulation Input	0 to 10 V 10 kOhm
Modulation Transfer Function	100 mA/V
Modulation High Bandwidth	DC to 200 kHz
Modulation Low Bandwidth	DC to 5 kHz
Modulation Low Bandwidth CW With Filter	DC to 30 Hz
Display Output Current Range	0 to 1000.0 mA

PARAMETER	VALUE
Display Output Current Resolution	0.1 mA
Display Output Current Accuracy	plus or minus 0.1% of FS
Photodiode Current Display Range	0 to 10000 uA
Forward Voltage Display Range	0.000 to 7.000 V
Optical Power Display Range	0.00 to 1000.0 mW
Bandwidth	Mode: less than 10 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	
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Output Current Range	0 to 1000 mA
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Temperature Coefficient	less than 100 ppm/C
Short Term Stability 1 hour	less than 20 ppm
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Noise Ripple High Bandwidth Mode	less than 10 uA rms
Noise Ripple Low Bandwidth Mode	less than 5 uA rms
Noise Ripple With LNF320 Filter	less than 2.5 uA rms
Operational Transients	less than 2 mA
Power Line Spike Induced Transients	less than 5 mA / less than 8 mA
Drive Current Limit Range	0 to 1000 mA
Drive Current Limit Resolution	4 mA
Drive Current Limit Accuracy	plus or minus 10 mA
Photodiode Reverse Bias	0 to 5 V adjustable
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Display Output Current Range	0 to 1000.0 mA
Display Output Current Resolution	0.1 mA

PARAMETER	VALUE
Display Output Current Accuracy	plus or minus 0.1% of FS
Photodiode Current Display Range	0 to 10000 uA
Forward Voltage Display Range	0.000 to 7.000 V
Optical Power Display Range	0.00 to 1000.0 mW

Notes
Specs from ILX Lightwave LDC-3900 datasheet Current Source Modules table for model 39100 / CSM-39100.

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

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<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.