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Data Sheet

August 14, 2026

ILX LIGHTWAVE

ILX Lightwave CSM-39425: 4-CH Laser Diode Current Source Module

The ILX Lightwave CSM-39425 is a 4-channel laser diode current source module designed for precision control of laser diodes. It provides stable and accurate current output, ensuring optimal performance and longevity of the laser diodes. Ideal for demanding applications requiring precise laser control.



MODEL

**ILX Lightwave
CSM-39425**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

CSM-39425

LISTING

<https://aumictechlabs.com/products/csm-39425-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The ILX Lightwave CSM-39425 is a 4-channel laser diode current source module engineered for precision control of multiple laser diodes in simultaneous operation. It delivers accurate, stable current output essential for optimizing laser diode performance and extending operational lifespan across demanding applications. The module installs into compatible host controller chassis such as the LDC-3900 Modular Laser Diode Controller, enabling integrated multi-channel laser drive systems. Technical Specifications Electrical Performance 4-channel current source architecture Isolated LASER outputs with user-selectable grounding of either output terminal Modulation input support with dedicated port for signal injection Precision current control and high output stability Power supply operation through host controller; mains supply voltage

fluctuation tolerance: $\pm 10\%$ of nominal Environmental Operating Conditions Operating temperature range: 0 °C to 40 °C Storage and transportation temperature: -40 °C to 70 °C Maximum relative humidity: <80% RH, non-condensing Maximum altitude: 3000 m (9843 ft.) Indoor use only; Ordinary Protection classification; Class I Equipment Key Features Four independent channels for multi-diode applications Output isolation enabling flexible grounding schemes Modulation input capability for signal control Modular form factor with standard installation into compatible chassis Module installation via guide track alignment and locking screws Typical Applications Precision laser diode characterization, multi-wavelength systems, research instrumentation, and production test environments requiring simultaneous control of multiple laser sources. Compatibility & Integration The CSM-39425 works with installation within the LDC-3900 Modular Laser Diode Controller and other compatible host chassis. System power and control derive from the host controller platform.

CSM39425 Characteristics / Specifications

PARAMETER	VALUE
Drive Current Range	0 to 500 mA
Setpoint Resolution	10 uA
Setpoint Accuracy	plus or minus 0.05 percent of FS
Compliance Voltage	6 V
Temperature Coefficient	100 ppm/C
Short Term Stability 1 hour	25 ppm
Long Term Stability 24 hours	50 ppm
Drive Current Limit Accuracy	plus or minus 5 mA
Photodiode Output Stability	plus or minus 2 uA
Photodiode Setpoint Accuracy	plus or minus 2 uA
External Analog Modulation	not available on LCM-39425
Display Output Current Range	0 to 500.00 mA
Display Output Current Resolution	0.01 mA
Display Output Current Accuracy	plus or minus 0.5 mA
Photodiode Current Range	0 to 2000 uA
Photodiode Current Resolution	1 uA
PD Responsivity Range	0.00 to 1000.00 uA/mW
Optical Power Range	0.00 to 200.00 mW
Optical Power Resolution	10 uW
Temperature Control Range	minus 99.9 C to 99.9 C
Thermistor Setpoint Resolution Minus 20 To 20 C	0.1 C
Thermistor Setpoint Accuracy Minus 20 To 20 C	plus or minus 0.2 C
Temperature Short Term Stability 1 hour	less than plus or minus 0.05 C
Temperature Long Term Stability 24 hours	less than plus or minus 0.1 C

PARAMETER	VALUE
TEC Compliance Voltage	greater than 6 V DC
TEC Short Circuit Current	2 A
TEC Maximum Output Power	12 W
TEC Current Noise	less than 1 mA rms
TEC Current Limit Range	0 to 2 A
Laser Connector	9-pin D-sub
TEC Connector	15-pin D-sub
Firmware Requirement	LDC-3900 version 2.5 or greater
Maximum output power	12 W

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

Specs from ILX Lightwave LCM-39425 user manual. Slug follows CSM-39425 queue name; OEM designation is LCM-39425.

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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30-day returns
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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.