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Data Sheet

August 14, 2026

ILX LIGHTWAVE

ILX Lightwave CSM-39020: 4-CH Laser Diode Current Source Module

ILX Lightwave Power Supply Modules. Current: ** 200 mA per channel, Voltage: ** 7 V maximum, Accuracy: ** $\pm 400 \mu\text{A}$.



MODEL	CALIBRATION
ILX Lightwave CSM-39020	Available on request
CONDITION	STATUS
Used	In stock
RFQ / SKU	LISTING
CSM-39020	https://aumictechlabs.com/products/csm-39020-2/

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The ILX Lightwave CSM-39020 is a 4-channel laser diode current source module engineered for integration into the LDC-3900 Modular Laser Diode Controller. It delivers precision current control with low noise and high stability, essential for demanding laser applications requiring accurate output regulation. The module features fully isolated channels, internal calibration storage, and support for photodiode feedback control and modulation input. Its modular design enables hot-swap installation and interchangeability with other LDC-3900 modules while retaining calibration data across system reconfigurations. Technical Specifications Maximum Output Current: 200 mA per channel Compliance Voltage: 7 V maximum Set Point Accuracy: $\pm 400 \mu\text{A}$ Set Point Resolution: $4 \mu\text{A}$ Temperature Coefficient: $< 50 \text{ ppm}/^\circ\text{C}$ Short-Term Stability (1 hour): $< 10 \text{ ppm}$ Long-Term Stability (24 hours): $< 50 \text{ ppm}$ Current Limit: Adjustable up to 200 mA Electrical Isolation: Fully isolated (electrically floating) from other modules Key Features Four independent, low-noise

current channels Photodiode feedback control mode for closed-loop regulation Modulation input for dynamic control schemes Module-level calibration storage - calibration data persists through mainframe reconfigurations 9-pin D-connector laser diode interface Rear-loading modular form factor with tool-free locking mechanism Supports closed-case calibration Typical Applications Laser diode biasing and modulation in research and instrumentation Optical communication system testing Precision spectroscopy and metrology Wavelength-tunable laser control Compatibility & Integration Designed exclusively for the ILX Lightwave LDC-3900 Modular Laser Diode Controller. Slides into any of four available bays. Compatible with GPIB/IEEE-488.2 remote programming and readout through the mainframe. Directly interchangeable with other LDC-3900 modules including TEC and combination modules. All module configuration is transparent to the host system - the LDC-3900 mainframe automatically detects installed modules and reverts to default parameters upon hardware changes, while module calibration data remains independent and persistent.

CSM39020 Characteristics / Specifications

PARAMETER	VALUE
Output Current Range	0 to 200 mA
Setpoint Resolution	10 uA
Setpoint Accuracy	plus or minus 0.1% of FS
Compliance Voltage	7 V
Temperature Coefficient	less than 60 ppm/C
Short Term Stability 1 hour	less than 20 ppm
Long Term Stability 24 hours	less than 50 ppm
Noise Ripple High Bandwidth Mode	less than 3 uA rms
Noise Ripple Low Bandwidth Mode	less than 2.5 uA rms
Noise Ripple With LNF320 Filter	less than 1 uA rms
Operational Transients	less than 1 mA
Power Line Spike Induced Transients	less than 5 mA / less than 8 mA
Drive Current Limit Range	0 to 200 mA
Drive Current Limit Resolution	0.5 mA
Drive Current Limit Accuracy	plus or minus 2 mA
Photodiode Reverse Bias	0 to 5 V adjustable
Photodiode Current Range	0 to 5 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	20 mA/V
Modulation High Bandwidth	DC to 500 kHz
Modulation Low Bandwidth	DC to 5 kHz
Modulation Low Bandwidth CW With Filter	DC to 30 Hz
Display Output Current Range	0 to 200.00 mA

PARAMETER	VALUE
Display Output Current Resolution	0.01 mA
Display Output Current Accuracy	plus or minus 0.05% of FS
Photodiode Current Display Range	0 to 5000 uA
Photodiode Current Resolution	1 uA
Forward Voltage Display Range	0.000 to 7.000 V
Bandwidth	Mode: less than 3 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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PARAMETER	VALUE
Output Current Range	0 to 200 mA
Setpoint Resolution	10 uA
Setpoint Accuracy	plus or minus 0.1% of FS
Compliance Voltage	7 V
Temperature Coefficient	less than 60 ppm/C
Short Term Stability 1 hour	less than 20 ppm
Long Term Stability 24 hours	less than 50 ppm
Noise Ripple High Bandwidth Mode	less than 3 uA rms
Noise Ripple Low Bandwidth Mode	less than 2.5 uA rms
Noise Ripple With LNF320 Filter	less than 1 uA rms
Operational Transients	less than 1 mA
Power Line Spike Induced Transients	less than 5 mA / less than 8 mA
Drive Current Limit Range	0 to 200 mA
Drive Current Limit Resolution	0.5 mA
Drive Current Limit Accuracy	plus or minus 2 mA
Photodiode Reverse Bias	0 to 5 V adjustable
Photodiode Current Range	0 to 5 mA
Photodiode Output Stability	0.02%
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Modulation High Bandwidth	DC to 500 kHz
Modulation Low Bandwidth	DC to 5 kHz
Modulation Low Bandwidth CW With Filter	DC to 30 Hz
Display Output Current Range	0 to 200.00 mA
Display Output Current Resolution	0.01 mA

PARAMETER	VALUE
Display Output Current Accuracy	plus or minus 0.05% of FS
Photodiode Current Display Range	0 to 5000 uA
Photodiode Current Resolution	1 uA
Forward Voltage Display Range	0.000 to 7.000 V

Notes
Specs from ILX Lightwave LDC-3900 Modular Laser Diode Controller datasheet Current Source Modules table for model 39020 / CSM-39020.

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.