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Data Sheet
August 13, 2026

ILX LIGHTWAVE

ILX Lightwave LDC-3926: 16-Channel Laser Diode Controller, High Power, LDC-3916 Series

The ILX Lightwave LDC-3926 is a high-power, 16-channel laser diode controller belonging to the LDC-3916 series. It provides precise control and monitoring of laser diodes, essential for demanding applications requiring multiple laser sources.

MODEL ILX Lightwave LDC-3926	CALIBRATION Available on request
CONDITION Used	STATUS In stock
RFQ / SKU LDC-3926	LISTING https://aumictechlabs.com/products/ldc-3926-2/

NIST-traceable cal · SAM registered · 30-day returns · NAICS 423690 · 811210 · 541380

This unit

The ILX Lightwave LDC-3926 is a 16-channel modular laser diode controller housed in a 3U-high rack-mountable mainframe. It delivers precise, independent control of multiple laser sources and thermoelectric coolers for high-power pump laser applications, optical amplifier development, and production testing. The instrument accepts all LDC-3916 series control modules, enabling configurations from single-output current sources to dual-channel temperature controllers. With GPIB/IEEE-488, RS-232, and USB interfaces plus integrated LabVIEW drivers, the LDC-3926 integrates directly into automated test and control systems. Technical Specifications Mainframe 16-module capacity 3U-high, rack-mountable form factor Vacuum fluorescent display (64 × 128 pixels), four-channel view with scrolling Operating temperature: 0°C to +40°C Laser Current Control High current modules: up to 6 A per channel, 42 W power output, 4-wire forward voltage

measurement Dual-channel modules: up to 1 A per channel, two isolated outputs per module Standard modules: up to 1.5 A per channel with integrated 9 W temperature controller Constant current and constant power operating modes Direct modulation to 1 MHz (50 Ω terminated input) Maximum output current transient: <1000 V power-line spike (per ILX Lightwave Technical Standard #LDC-00196) Enhanced diode protection with adjustable forward voltage Temperature Control TEC control module: 48 W power output, constant temperature or constant resistance mode Dual-channel modules: two independent 9 W outputs per module, up to 32 laser diodes per mainframe Gain settings: 1 to 127 Thermoelectric voltage measurement on all TEC modules Bipolar current driver compatible with thermistor-type sensors Power Requirements 100 V AC ±10%, 15 A 120 V AC ±10%, 12 A 200–240 V AC ±10%, 6 A Interfaces GPIB/IEEE-488 compliant remote control RS-232 serial interface USB (standard) LabVIEW drivers available Key Features Modular architecture accepts all LDC-3916 series control modules Independent channel isolation and control Multi-viewing display with four-channel simultaneous status display Wide current range: 500 mA to 6 A per channel High power density: up to 42 W per laser control module Typical Applications Pump laser control in high-power optical amplifiers Multi-channel laser diode testing and characterization Production test systems for fiber-optic components Thermoelectric cooler regulation for laser packages Compatibility & Integration The LDC-3926 mainframe is fully compatible with all LDC-3916 series control modules. Mixed configurations of high-current, dual-channel, and standard laser modules with TEC controllers support flexible system design. Standard GPIB, RS-232, and USB connectivity enable integration into laboratory automation and production environments.

Features & description

From manufacturer datasheet

Features

• Sixteen independent isolated channels in one 3U-class chassis • Accepts LDC-3908, LDC-3916, and LDC-3926 modules • Vacuum-fluorescent graphic display with per-channel summary and status screens • CDRH laser safety: keyswitch, interlock, and output delay • Front-panel and remote calibration of installed laser and TEC modules • Do not run GPIB and RS-232 at the same time

LDC3926 Characteristics / Specifications

PARAMETER	VALUE
Model	LDC-3926
Manufacturer	ILX Lightwave (Newport / MKS)
Instrument Type	High-power 16-channel laser diode controller mainframe
Alias	LDC3926; 3926
Slot count	16 module bays
Max laser current per bay	6 A
High current laser module class	42 W, 6 A with 4-wire Vf, independent modulation, adjustable forward voltage
High current TEC module class	48 W, 6 A with TE voltage measurement
Compatible modules	all LDC-3908, LDC-3916, and LDC-3926 modules
GPIB connector	24-pin IEEE-488.2
GPIB address factory	1
GPIB address range	0 to 30 primary (extended addressing not implemented)
RS232 connector	9-pin D-sub (portAhost; portBnot enabled)
RS232 format	8 bit, no parity; baud rate adjustable
Chassis ground	4 mm banana jack
Display type	vacuum fluorescent, 64 × 128 pixels
Display size	83 mm x 41 mm
Display brightness steps	four levels, 12.5% per step from min to max
Laser safety	keyswitch, interlock, output delay (CDRH US21 CFR 1040.10)
Power 100 VAC	100 VAC +10%, 15 A, 50 to 60 Hz (all channels driving 6 A)
Power 120 VAC	120 VAC +10%, 12 A, 50 to 60 Hz
Power 200 to 240 VAC	200-240 VAC +10%, 6 A, 50 to 60 Hz
Mains fuse 100 VAC regions	20 A
Mains fuse 120 and 200 to 240 VAC regions	15 A

PARAMETER	VALUE
Size HxWxD	133 mm x 432 mm x 609 mm (5.25 in x 17 in x 24 in)
Weight mainframe only	20 kg (44 lb) typical
Weight with modules	27 kg (59 lb) typical
Operating temperature	0 C to 40 C
Storage temperature	-40 C to +70 C
Humidity	20 to 85% non-condensing (based on VFD specification)
Calibration interval	12 months or when verification fails
Calibration ambient	typically 23 C (±3.0 C)
GPIB devices on bus	up to 15
GPIB cable length	20 m total max, or 2 m per device

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	40 C to +70 C
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GPIB devices on bus	up to 15
GPIB cable length	20 m total max, or 2 m per device Notes Specs from ILX Lightwave LDC-3926 user manual (70035601) and LDC-3926 high-power 16-channel brochure. Per-channel current, noise, TEC watts, and modulation bandwidth are module specifications; use the installed module manual (and the LDC-3926 brochure when a 6 A module is fitted). Confirm mains fuse and line-voltage configuration before applying power.

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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Laser Safety

laser safety: keyswitch, interlock, and output delay - Front-panel and remote calibration of installed laser and TEC modules - Do not run GPIB and RS-232 at the same time Technical Specifications Model: LDC-3926 Manufacturer: ILX Lightwave (Newport / MKS) Instrument Type: High-power 16-channel laser diode controller mainframe Alias: LDC3926; 3926 Slot count: 16 module bays Max laser current per bay: 6 A High

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

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