

# LDM 4990

Temperature  
Controlled  
TO-Can Fixture

## Product Features

Accepts 9mm, 5.6mm and 5.4mm packaged laser diodes

Temperature control range from -20°C to 85°C with nitrogen purge capability

Quick device insertion and removal without special tools

Configurable pin-out header

Optional mount for ILX OMH power and wavelength measurement heads

Compatible with ILX Lightwave current sources and temperature controllers

The LDM-4990 TO-Can Laser Diode Mounting Fixture provides a compact, easy to use solution for locating and temperature controlling 9mm, 5.6mm and 5.4mm packaged laser diodes. These mounting fixtures feature an access door for easy device insertion and clamping, configurable pin headers for varying package pin-outs, and active temperature control with a temperature control range of -20°C to 85°C. High positional and thermal resistance repeatability ensure consistent device testing and repeatable measurements.

The LDM-4990 has been optimized for pre and post burn-in characterization in manufacturing test applications with easy of device insertion and removal, a wide temperature control range and easy integration with ILX power and wavelength measurement instruments. These mounts are compatible with most ILX Lightwave current sources and temperature controllers with standard laser and temperature controller connectors designed into the fixture.



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## Active Temperature Control

For fast, accurate characterization over temperature of your TO-Can devices, the LDM-4990 comes with an integrated TEC module with water cooling channels for a control range of -20°C to 85°C. The design minimizes the thermal path between the laser and the TE modules and locates the sensor close to the laser for optimal control. A nitrogen purge system is incorporated to keep the laser frost-free at sub-zero °C temperatures. Standard ILX Lightwave 9-pin connectors are provided for compatibility with ILX Lightwave temperature controllers.

## Quick Device Insertion and Removal

The LDM-4990 incorporates a door mechanism for quick and effortless device insertion and removal without the need for any special tools. The door contains a unique device for quickly selecting,

locating, and clamping different sized TO-Can packaged lasers.

## Integrated Power Measurement

Another unique feature of the LDM-4990 includes an optional mounting post compatible with ILX OMH power and wavelength heads. The measurement head attaches easily to the mounting fixture with one threaded fastener. Once the head is attached, simply rotate the head over the device under test and it will lock in place with spring loaded detent pins. Choose between a variety of measurement heads for short or long wavelength devices.

For an LIV test system, the LDM-4990 along with ILX laser diode current sources, temperature controllers, and power and wavelength meters, can be configured in minutes.

## Specifications

Laser Packages:	9mm, 5.6mm and 5.4mm
Laser Lead Length:	6.4mm to 19mm
Laser Pin-Out: <sup>1</sup>	Common cathode or common anode, three and four pin devices
Input Connectors	
Laser Diode Current:	ILX standard female 9-pin D-sub
Case Temperature Control:	ILX standard male 9-pin D-sub
Ground:	Female banana jack
Laser Diode	
Maximum LD Current:	4.0A
Case Temperature Control <sup>2</sup>	
Temp Control Range:	
Water Cooling: <sup>3,4</sup>	-20°C to 85°C
Natural Convection:	+10°C to 85°C
Maximum Thermal Load:	500 mW
Sensor Type:	AD590JH, calibrated
Accuracy:	±0.5°C
TE Module Ratings:	4A @ 8.5V

### GENERAL

Size (HxWxD):	4.75" x 4" x 5" 120.6mm x 101.6mm x 38mm
Weight:	2.4 lbs. (1.1 kg) 3.1 lbs. (1.4 kg) with EMS499
Regulatory Compliance:	RoHS

### EMS-499 POWER MEASUREMENT OPTION

ILX Head Compatibility:	OMH-6703, 6708, 6722B, 6727B, 6732B
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### NOTES

1. Selectable with configuration header
2. At 25°C ambient
3. Tested with 8L/min water flow, 10°C
3. Water temperatures below 10°C will cause condensation on the mounting fixture. ILX recommends maintaining water temperatures above 10°C.

### ORDERING INFORMATION

LDM-4990	Temperature Controlled TO-Can Laser Diode Mounting Fixture
EMS-499	Power/Wavehead Mounting Post
CC-305S	Current Source/Laser Diode Mount Interconnect Cable
CC-505S	TE Controller/Laser Diode Mount Interconnect Cable
LDX-3412	Low Cost Laser Diode Current Source
LDT-5412	Low Cost Laser Diode Temperature Controller
LDX-3220	Precision GPIB Controlled Laser Diode Current Source
LDT-5525	Precision Laser Diode Temperature Controller
LDC-3724B	Laser Diode Controller with Integrated Temperature Controller
OMM-6810B	Power and Wavelength Meter
OMH-6722B	Silicon Power/Wavelength Measurement Head
OMH-6727B	InGaAs Power/Wavelength Measurement Head
OMH-6732B	Short Wavelength Power/Wavelength Measurement Head

  
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