

# LDM 4405

Low Cost  
TO-Can  
Laser Diode  
Mount

## Product Features

Supports 5.6mm and 9mm TO-Cans  
with long lead lengths

10°C to 85°C temperature control  
range

Compatible with both ANSI and  
metric optical table post mounts

Unobstructed access to the front of  
the TO-Can laser diode

Nitrogen purge

The LDM-4405 Laser Diode Mounting Fixture provides a compact, easy to use solution for mounting and temperature controlling TO-Can packaged laser diodes. The fixture accommodates 5.6mm and 9mm TO-Can laser diodes with 3 or 4 pins. A wide temperature control range is accomplished by an integrated thermoelectric module which provides for an active control range of +10°C to 85°C with heat loads up to 500mW. A nitrogen purge system is incorporated to keep the laser free from condensation when operated in a humid environment.

The LDM-4405 is compatible with ILX Lightwave current sources, temperature controllers, and laser diode controllers through interconnect cabling allowing for quick setup. The fixture is compatible with both ANSI and metric optical table post mounts. The compact profile of the LDM-4405 provides for convenient mounting on an optics table and the unobstructed access to the laser window allows space for aligning collimating optics.



An Easy to Use, Low Cost,  
TO-Can Mounting Fixture for Laser Diodes

 **ILX Lightwave**  
Laser Diode Instrumentation & Test Systems

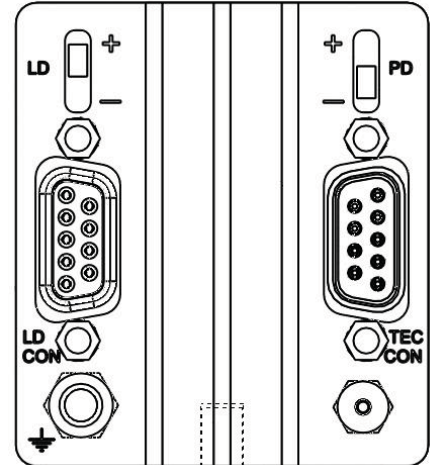
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## Affordable, Convenient Control of TO-Can Laser Diodes

When the LDM-4405 is paired with ILX's LDX-3412 Current Source and the LDT-5412 Temperature Controller, it provides an affordable test setup for precision current and temperature control of TO-Can laser diodes. The LDM-4405 cover plate provides convenient clamping of TO-Can laser diodes to the cold plate by integrated o-ring and captive screws.

Standard interconnect cables allow for quickly setting up the LDM-4405 with any ILX Lightwave current source or temperature controller. All connections including electrical and nitrogen purge are conveniently located on the back of the LDM-4405. Two switches allow the user to quickly configure the LDM-4405 for most TO-Can pin outs.



Rear Panel View

## Specifications

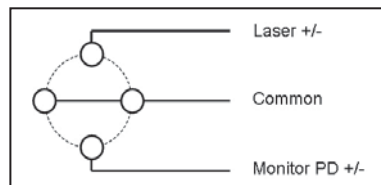
|                         |  |
|-------------------------|--|
| Laser Packages:         | 5.6mm and 9mm TO-Can, Type 1             |
| Lead Length:            | 5-20mm                                   |
| Maximum Laser Current:  | 500 mA                                   |
| Input Connectors        |  |
| Current Source:         | 9-pin D-sub, female                      |
| Temperature Controller: | 9-pin D-sub, male                        |
| Nitrogen Purge:         | Brass barbed fitting for 1/16" ID tubing |
| Ground:                 | Banana jack, female                      |
| Temperature Control     |  |
| Range:                  | 10°C to 85°C                             |
| Sensor Type:            | Calibrated 10kΩ thermistor               |
| TE Module Ratings       |  |
| Imax:                   | 3.9A                                     |
| Vmax:                   | 3.7V                                     |

## GENERAL

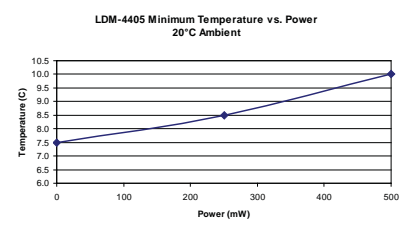
|                        |  |
|------------------------|--|
| Size (H x W x D):      | 2.3" x 2.0" x 1.6"<br>57.2mm x 50.8mm x 40.6mm |
| Weight:                | 0.30 lb (136g)                                 |
| Regulatory Compliance: | RoHS   |

## NOTES

1. Minimum achievable temperature depends on laser thermal power. For more information, refer to ILX Technical Note "Minimum Temperature Range of the LDM-4405".



Socket Connection Type I



Minimum Temperature vs. Power

## ORDERING INFORMATION

|          |  |
|----------|--|
| LDM-4405 | Low Cost TO-Can Laser Diode Mounting Fixture* (MK-650 base not included) |
| MK-650   | Head Mounting Post   |
| CC-305S  | Current Source / Laser Diode Mount Interconnect Cable                    |
| CC-505S  | TE Controller / Laser Diode Mount Interconnect Cable                     |
| LDX-3412 | Low Cost Precision Current Source  |
| LDT-5412 | Thermoelectric Temperature Controller                                    |

In keeping with our commitment to continuing improvement, ILX Lightwave reserves the right to change specifications without notice or liability for such changes.

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