Light

For current pricing, please see our website.

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Fiber-Pigtailed Laser Diode Mount

Features Designed for Thorlabs' Ø5.6 and Ø9 mm Pigtailed Laser Diodes (See Pages 1252 - 1260) Supports A, B, C, D, E, and H Pin Configurations Integrated Thermistor and TEC Element Prolongs Laser Diode Life and Stabilizes Output Power and Wavelength Compact Housing Protects Pigtail Clamshell Design Eliminates Thermal Gradients Across Diode Bias-T Adapter for RF Modulation of Laser Current >1 GHz

Thorlabs' LM9LP is a TE-Cooled Laser Diode Mount designed for use with many of our 3- and 4-pin pigtailed diodes. The compact housing protects the pigtail from physical damage while also offering excellent thermal characteristics. Two \emptyset 1/4" through holes can be used for securing the mount to an optical table with 1/4"-20 or M6 cap screws.

When operating a pigtailed laser diode, temperature control is highly recommended to stabilize the laser's power and wavelength and can also prolong the life of the laser. Typical laser diode mounts rely on contact between the diode and the mount's cold plate for heat transfer. Pigtailed laser diodes are often recessed in the pigtail's housing, offering poor contact with the cold plate of standard laser diode mounts. The LM9LP, however, is specifically designed for operating pigtailed laser diodes. Its clamshell design reduces thermal gradients across the diode, while a cold block cradles the pigtail housing for increased thermal contact and heat transfer. Performance can be further improved by using thermal grease around the pigtail package within the clamshell.

DB9 connections interface with all of Thorlabs' Laser Diode Current Controllers and TEC Controllers (see pages 1435 - 1480). An SMA connector enables access to a bias-T circuit for RF modulation of the laser's drive current (200 kHz to >1 GHz). For modulation below 200 kHz, current should be modulated through the laser diode controller. A remote interlock jack is provided for the connection of safety devices such as shutters and warning signs.

Due to the variety of fiber pigtailed laser diode packages offered by other companies, this mount is only designed for use with Thorlabs products. If your diode requires pigtailing please contact Tech Support for details regarding our pigtail service.





PARAMETER	VALUE	
Laser Diode Package	Ø5.6 mm and Ø9 mm	
Supported Pin Configurations*	A, B, C, D, E, and H	
Maximum Laser Current	2 A	
Laser Diode Polarity	Selectable	
Monitor Diode Polarity	Selectable	
RF Power (Max)	200 mW, RMS	
RF Input Impedance	50 Ω	
TEC Current (Max)	5 A	
TEC Voltage (Max)	4 V	
TEC Heating / Cooling Capacity	20 W	
Temperature Range	10 - 70 °C	
Dimensions	3.74" x 3.50" x 1.41" (94.9 mm x 88.9 mm x 35.7 mm	

* The LM9LP is not compatible with Thorlabs' G and F pin configurations.

