



405nm BLUE VIOLET

Fully-Customizable Diode Laser Modules

Diode Laser Concepts, Inc. has added 405nm blue-violet diode laser modules to its standard product offerings. These 405nm modules are available in all of DLC's standard housings with beam profiles of elliptical spots, round beams, lines, or uniform lines. These modules are fully customizable for integration into OEMs' existing systems. Higher level mechanical, optical, and electronic assemblies are also available for customers looking to improve their current performance or design.

Output powers are available up to 120mW in single mode and 600mw in multi mode. For customers needing wavelengths other than 405nm, DLC also offers 445nm, 473nm, and 488nm. For more information on the 405nm diode laser modules or any of DLC's products, please contact us at (541) 773-5321 or sales@diodelaserconcepts.com.

Output Power: <1mW to 600mW

Beam Characteristics

- Elliptical Spot, Line Generator, Uniform Line, Round Spot
- Exceptional Output Power Stability

Electronic Profile

- CW or TTL
- 8VDC Input Voltage
- Reverse Polarity, Over Voltage, Surge Protection

Mechanical Profile

- Compact Housing with Integrated Electronics
- Several Housing Sizes Available
- Sealed, Electrically Isolated, Anodized Aluminum

Customization Available Upon Request

- TEC Cooling
- Higher Level Electrical, Mechanical, and Optical Assemblies
- Fiber Pigtailed Assemblies

1 Year Warranty

Available Fan Angles for Gaussian and Uniform Lines

- 90°, 70°, 60°, 45°, 30°, 20°, 10°, 5°, Other/Custom



For more information or to place an order contact DLC
1.541.773.5321 | sales@diodelaserconcepts.com



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Electrical Housing Specifications

Housing Material	Aluminum, Hard Anodized (Type III, Class 2 Anodization, Electrically Isolated)
Exit Aperture Protection	Sapphire Window (Optional)
Customization	Dimensions, Materials, Exit Aperture Protection

Electrical Specifications

Operating Voltage	8VDC \pm 1%
Load Current	35mA - 150mA
Load Current vs. Temperature	0.7mA/ $^{\circ}$ C Nominal
Continuous Wave (Standard Driver)	CW 10<ms Turn or Time
TTL Modulation (Optional Driver)	CW to 1kHz, Full Depth Modulation
Electronic Protection	Reverse Polarity, Over Voltage, Surge Protection
Interconnect	175mm Nominal, 24AWG, UL 1569
Customization	Interconnect

Environmental Specifications

Operating Temperature	-10 $^{\circ}$ C to 70 $^{\circ}$ C
Storage Temperature	-40 $^{\circ}$ C to 85 $^{\circ}$ C
Dust/Water Resistant	Yes (Sealed Housing)
Customization	Dust/Water Resistance

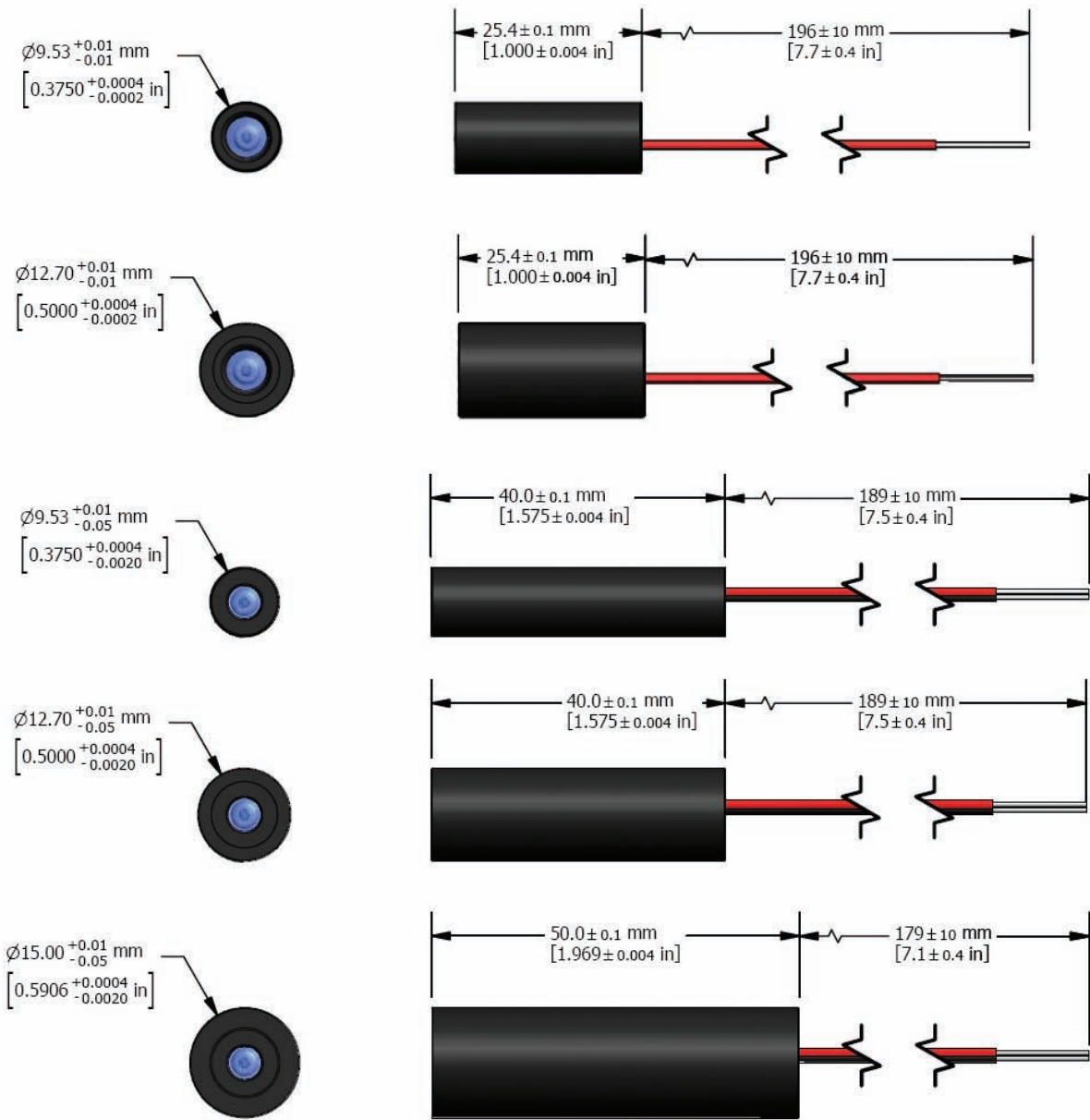
Optical Specifications

Wavelength Range	405 - 488nm
Wavelength Stability	0.25nm/ $^{\circ}$ C Nominal
Optical Power Range	1-120mW Single Mode, 600mW Multi Mode
Power Output Stability at 25 $^{\circ}$ C	<1%
Power Output vs. Temperature	<0.5%/ $^{\circ}$ C Nominal
Exit Beam Size	5.0mm X 1.2mm, 6.1mm X 1.2mm, 1.5mm AR<1.2
Beam Divergence	<0.7mrad Nominal, Varies with Optical Configuration
Standard Line Fan Angles	5 $^{\circ}$, 10 $^{\circ}$, 20 $^{\circ}$, 30 $^{\circ}$, 45 $^{\circ}$, 60 $^{\circ}$, 70 $^{\circ}$, 90 $^{\circ}$, Custom
Line Thickness	1mm @ 1m Nominal
Line Thickness Divergence	<0.5mrad Nominal, Varies with Optical Configuration
Line Intensity Profile	Gaussian or Uniform
Lens Material	Glass
Customization	Wavelength, Power Output, Spot Size, Fan Angle, Line Thickness, Line Intensity Profile

Pointing Specification

Accuracy	<2mrad
Stability vs. Temperature	<10 μ rad/ $^{\circ}$ C
Customization	Accuracy

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