



Diode Laser Concepts, Inc.

Product Specifications, Line

511322-0009 Rev 1

Doc Revision: 1
Status: Released
Date: 7/10/2018
Sheet 1 of 3

Rev.	Author	Revision History	Date
1	Shane Nelson	Specification Sheet Origination	July 10, 2018

Req.	Department	Approvals	Date
<input checked="" type="checkbox"/>	Engineering	Shane Nelson	July 10, 2018
<input checked="" type="checkbox"/>	General Management	Mike Robinson	July 10, 2018



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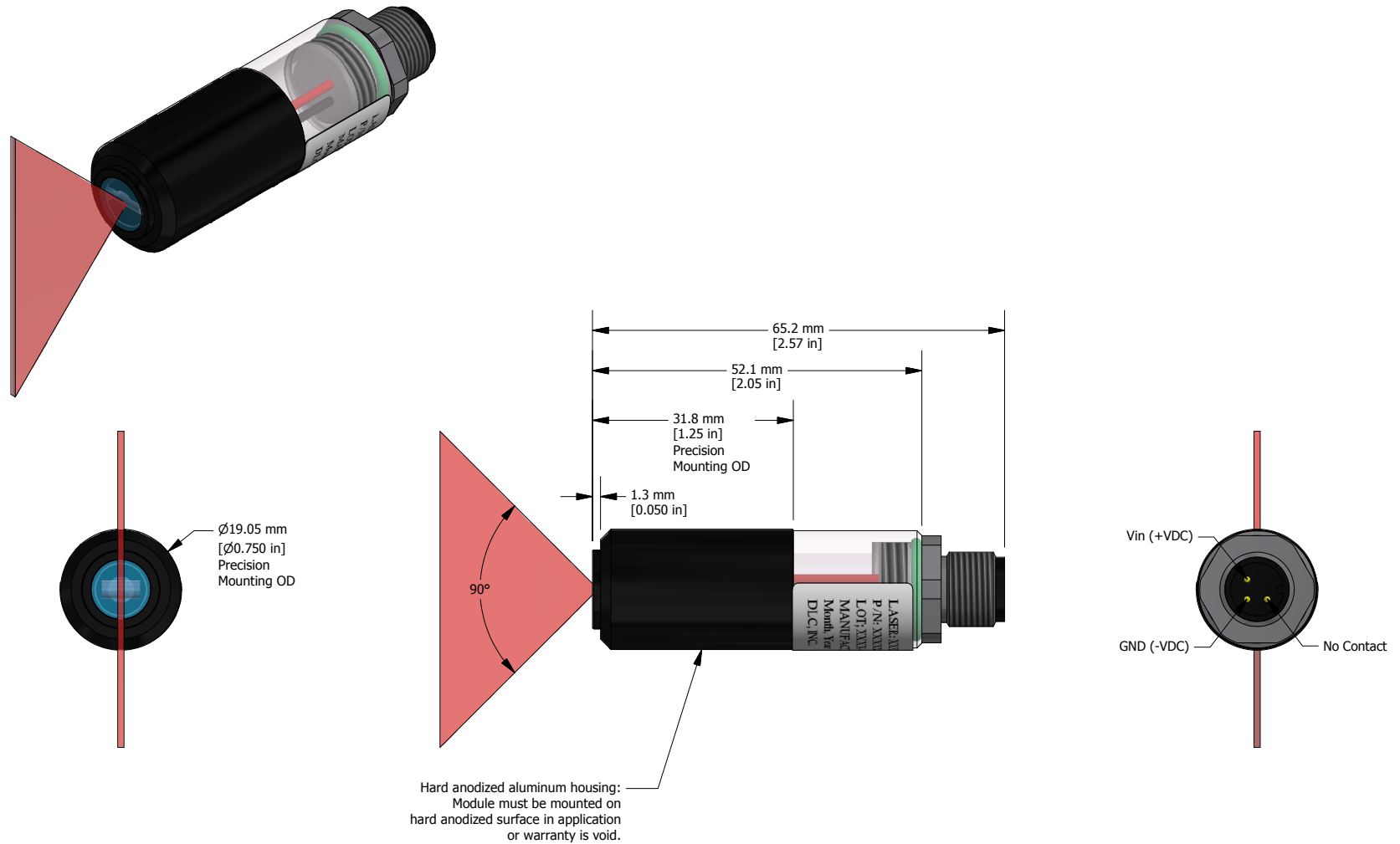
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PRODUCT DESCRIPTION:	
Laser Module; 0.75"; Industrial; 90 Deg. Line; 635nm; LT 1mW; Class 2; Continuous Wave; No Leads; M12 Connector; 24VDC; RoHS	
OPTICAL SPECIFICATIONS (At 25°C)	
Wavelength:	635nm, $\pm 5\text{nm}^1$
Wavelength Stability:	$0.25\text{nm} / ^\circ\text{C}^2$
Power Output:	$5.5\text{mW}, \pm 1.0\text{mW}^3$
Power Output Stability:	$< 1\% \text{ Fluctuations over 15 minutes}^4$
Power Output vs. Temperature:	$< 1.0\% / ^\circ\text{C}^2$
Beam Propagation:	Collimated Line
Fan Angle:	90°^2
Line Thickness:	$1.5\text{mm}^{2,5}$ at 1m from front of module
	$4\text{mm}^{2,5}$ at 4m from front of module
	$7\text{mm}^{2,5}$ at 8m from front of module
Pointing Accuracy:	$\leq 2\text{mrads}^6$
Window:	Sapphire
Emission Indicator:	Red
ELECTRICAL SPECIFICATIONS (At 25°C)	
Operating Voltage:	24VDC, $\pm 2\text{VDC}$
Typical Load Current:	10mA^2
Max. Load Current:	Inrush Max: 200mA Operating Max: 75mA
Operation Mode:	Continuous Wave Turn on Time: $< 0.1\text{sec}$
Interconnect:	M12 Lumberg Connector
Electronic Protection:	Reverse Polarity Protection Surge Protection Max Static Discharge Immunity: 4kV [contact]

ENVIRONMENTAL SPECIFICATIONS	
Operating Temperature:	-10 to 50 °C
Storage Temperature:	-40°C to 85 °C
Required Thermal Heat Dissipation:	0.5W
Dust and Water Protection:	IP54 ⁷
RELIABILITY / REGULATORY SPECIFICATIONS (At 25°C)	
Laser Lifetime (CW Mode):	$> 16,000\text{hrs}^1$
Laser Safety Classification:	Class II Laser Product
Certifications:	CE, CDRH, RoHS Compliant
Warranty:	2 Year
TESTING / DATA SHEETS	
Data Sheet Requirements:	None

Notes

- ¹ Per laser diode manufacturer specification.
- ² Nominal specification.
- ³ Total output power at face.
- ⁴ After laser warmup period.
- ⁵ Measured visually at center of line using standard rule.
- ⁶ Measured radially from mechanical, cylindrical axis normal to line length.
- ⁷ Designed to meet.



<p>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS.</p> <p>X.X ± 0.2 mm (0.008")</p> <p>X.XX ± 0.10 mm (0.004")</p> <p>X.XXX ± 0.050 mm (0.002")</p> <p>Angular: ± 0.5 Degree</p>	APPROVALS		DATE	 DIODE LASER CONCEPTS, INC.
	Drawn By: Shane N.			
	Approved By: Mike R.		6/19/2018	Part Number: 511322-0009 Rev. 1
	Customer Approval ---		Description: Laser Module; 0.75"; Industrial; 90 Deg. Line; 635nm; LT 1mW; Class 2; Continuous Wave; No Leads; M12 Connector; 24VDC; RoHS	