

MDL-Z Series Laser Module



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The laser is made features of precision fringes, uniform power distribution, clear edges, high stability.

The user can choose from IR, red, green, blue or violet wavelengths depending on the application and material to be inspected.

MDL-Z Series Laser Module with its stable performance, high reliability and industrial-suited design works professionally in various 2D/ 3D visual field applications, inspection systems and medical treatment, etc.

FEATURES

- Output power up to 180mW
- Wavelengths from 405 to 1550nm
- TTL modulation up to 100kHz
- Analog modulation up to 30kHz
- Focus adjustable

APPLICATIONS

- 3D visual field
- Dimensional inspection
- Angle measurement
- Medical treatment

SYSTEM SPECIFICATION*

Wavelength	nm	405	450	520	635-660	808	830-1550
Wavelength tolerance	nm (typical)	±5	±5	±5	±5	±10	±10
Output power	mW	1-180	1-80	1-50	1-180	1-100	1-10
Line width	<250mm	40-200um					
Line width	@1m	< 1.0mm					
Line angle		7°, 10°, 15°, 30°, 45°, 50°, 60°, 75°, 90°					
Working distance	mm	50-2000 (adjustable)					
Laser operation mode		CW					
Luminance uniformity		85%					
Straightness error		Less than 0.1%					
85% peak power proportion in corss-section		95%					
Temperature & power stability		Less than 0.5%					
Expected lifetime	hours	10,000					

ELECTRICAL SPECIFICATIONS

Operating voltage		DC 5-30V (with wrong connection protection)
Current (max)	mA	300
Modulation		TTL modulation Analog input adjusting power
Modulation frequency	kHz	TTL up to 100 Analog up to 30
Connection		4-pin M12 plug and cable with flying leads

ENVIRONMENTAL CONDITIONS

Operating temperature	°C	-10°C to 45°C
Storage temperature	°C	-20 °C to +80 °C
Humidity	%	< 90 %, non-condensing
Dissipated heat	W	< 1 W

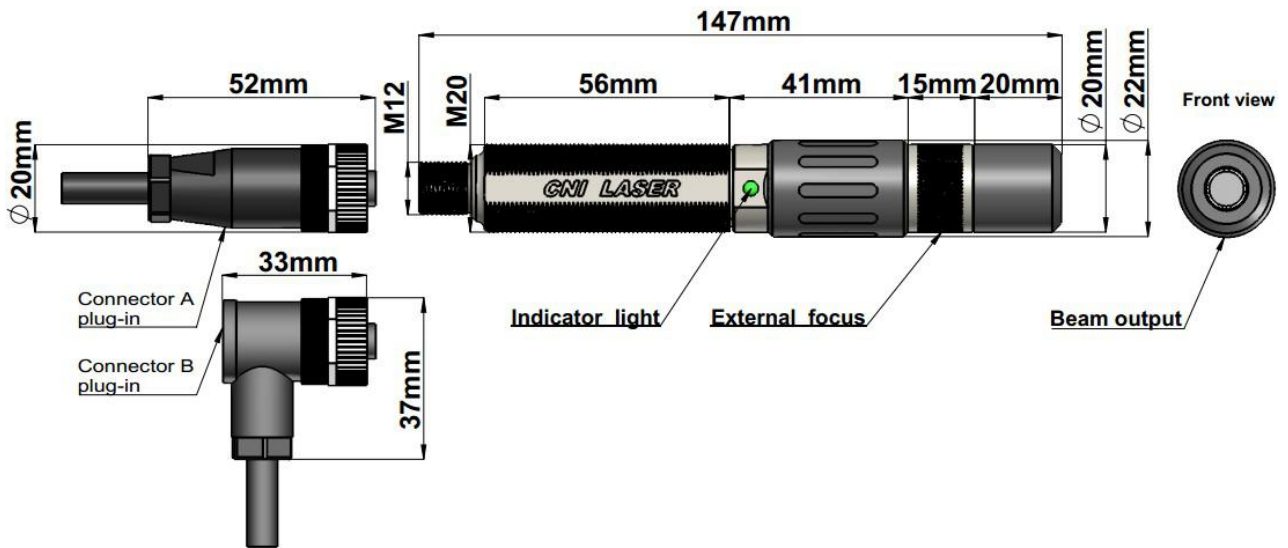
MECHANICAL SPECIFICATIONS

Protection class		IP67, dust and water proof
Connector A/B		M12 plug, 4 pins (Two types are optional)
Thread		M20
Length	mm	147 mm
Diameter head Ø	mm	22 mm
Material		Aluminum

KEYNOTES

*All testing data under the conditions of temperature 25°C.

DIMENSIONS OF LASER MODULE (mm):

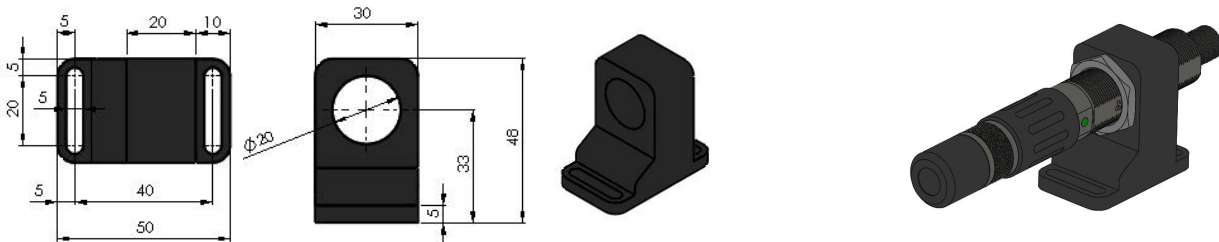


Accessories

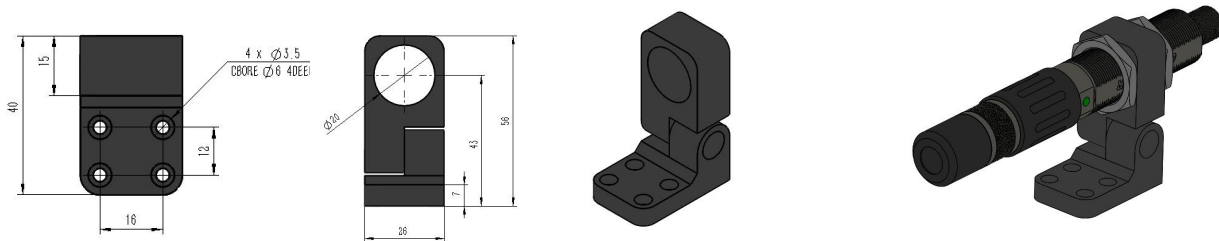
MODULE MOUNT SPECIFICATIONS

Module mount		I	II
Module mount size	mm	50 x 30 x 48mm	40 x 26 x 56mm
Applicable models size \varnothing	mm	20mm	20mm
Mounting hole	mm	20 x 5mm	$\varnothing 3.5$ mm
Mounting hole distance	mm	40mm	16 x 12mm

Dimensions of module mount I (mm):



Dimensions of module mount II (mm):



The module mounts are used for 20mm diameter diode modules. Screw a nut on the barrel of the laser first, then put the laser into the mount, and finally install a nut to fasten the laser. The mount base reserved the holes for users to fix the laser on a flat and heat-dissipating surface. Moreover, the module mount II can be tilted about 45°.

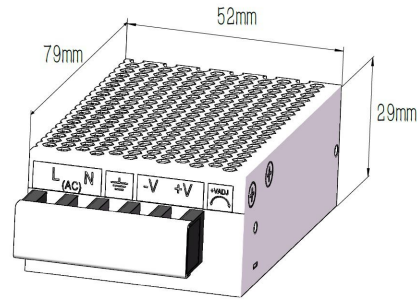
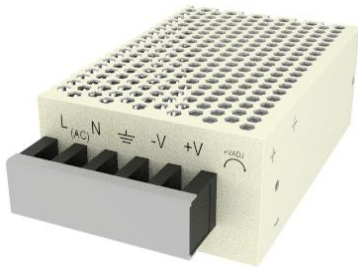
CONNECTOR OF CABLE (FOR POWER ADAPTER II)

Headset connector

Easy connect and disconnect

POWER ADAPTER I

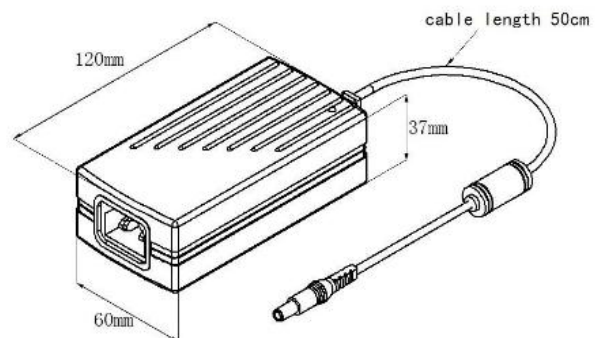
Input	100-240V AC 50-60Hz
Output	DC 12V 2.1A
Adapter size	mm 79 x 52 x 29mm
Dimensions of power adapter I (mm):	



The Power Supply with CE-marked provide a well-regulated 12VDC. This autoranging power module can be connected to any 100-240 VAC 50-60Hz supply.

POWER ADAPTER II

Input	85-264V AC 47/63Hz
Output	DC 5V 5A
Adapter size	120 x 60 x 37mm
Adapter cable length	0.5m
Cable connector	Easy connect/disconnect jack
Dimensions of power adapter II (mm):	



The Universal Diode Laser Module Power Supply with CE-marked provide a well-regulated 5VDC. This autoranging power module can be connected to any 85-264 VAC 47/63 Hz supply. There is an IEC 60320 input socket and a 0.5m output cable terminated with an easy connect/disconnect jack socket. The Headset connector which could also be found in accessories is compatible with the power supply jack.