What's your wavelength?

We've got that!

WRM Series

Water Resistant Lasers (for harsh environment)

DESCRIPTION

The WRM series laser module delivers water resistant operation for harsh environments. This type of water resistant design is rarely seen in lasers.

Harsh environments examples include stone cutting and food processing, just two name a few. In stone cutting, lasers must survive spray from the cooling fluid that controls the blade temperature. In food processing, lasers are routinely sprayed with cleaning and disinfectant fluids. The WRM works with almost any type of fluid.

As an IP67 rated device it is designed to prevent the 'ingress' of both particles and liquids. The WRM is designed to be dust tight meaning no dust is permitted to enter the laser. This will result in better beam quality since dust will not settle inside the optics. Additionally, Water and other liquids are prevented from entering the laser. This water resistant feature includes protection against dripping water, splashing water, spraying water, water jets and 'powerful' water jets. Immersion of up to 1 meter is also allowed within the IP67 classification. The WRM is undergoing testing for IP66 and IP68 testing.

The laser's optical window is designed to be cleaned. Harsh environments are almost never clean environments. For the harshest of environments, a more robust window is available as an upgrade.

The WRM module comes in multiple configurations. It can deliver from 0.1 mW to 150mW of output power with a wavelength range between 450nm and 980nm. For OEM customers, a custom configuration may be available.

Users can choose either 5VDC or 24VDC input voltages.

For users requiring a laser line, ten different fan angles are available. The fan angles cover between 2.8 degrees and 90 degrees.

APPLICATIONS

- Food Processing
- Stone Cutting
- Sawmills

FEATURES & BENEFITS

- Designed for harsh environments
- line generator options
- Choice of fan angles
- ESD Protection
- Over-Voltage Protections

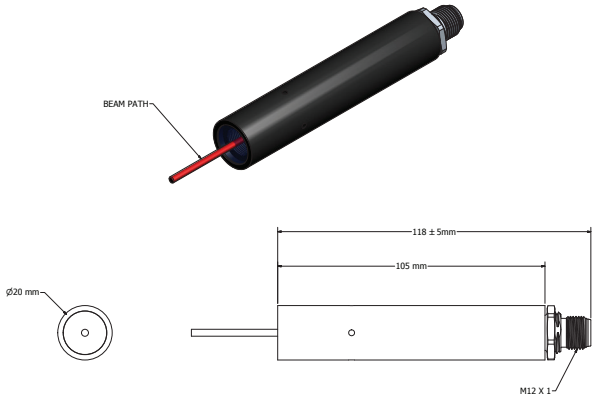
Power Technology incorporated

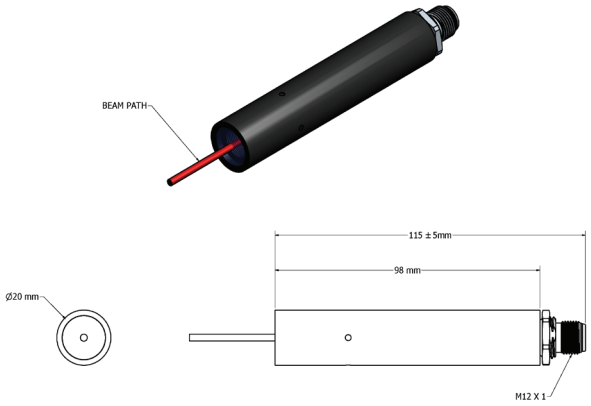
SPECIFICATIONS

Model	WRM450	WRM520	WRM635
Wavelength (nm)	450	520	635
Output Power (mW)	5, 60	5, 45	1, 5, 30
Standard Optical Output	Spot	Spot	Spot
Optional Line Generator Fan Angles (*full angle)	2.8, 5.5, 7.6, 15, 18, 23, 28, 36, 60, 90	2.8, 5.5, 7.6, 15, 18, 23, 28, 36, 60, 90	2.8, 5.5, 7.6, 15, 18, 23, 28, 36, 60, 90
Output Condition	CW	CW	CW
Operating Temperature (°C)	10-40	10-40	10-40
Input Voltage (VBDC)	8 or 24*	8 or 24*	5
Maximum Current (mA)	200	200	200
Diameter (in/mm)	0.78" (20mm)	0.78" (20mm)	0.78" (20mm)
Length (in/mm)	Spot Laser 3.86" (98mm) Line Laser 4.52" (115mm)	Spot Laser 3.86" (98mm) Line Laser 4.52" (115mm)	Spot Laser 3.86" (98mm) Line Laser 4.52" (115mm)

* 635nm lasers require 5VDC. 450nm & 520nm laser required 8VDC. The 24VDC input voltage can operate any wavelength WRM laser

MECHANICAL DRAWINGS





SAFETY INFORMATION

Laser Radiation
Avoid eye or skin exposure to direct or scattered radiation
Class 3B Laser Product

COMPLIANT & REGISTERED

MADE IN THE USA
RoHS
REACH COMPLIANCE
CF
ITAR Registered International Traffic in Arms Regulations
IPC J-STD-001 | 7711/7721 | A-610
ANSI/ESD 20.20

501.407.0712 | powertechnology.com | sales@powertechnology.com