

Blue Laser Diode Module

488 nm, 15 mW

- Compact collimated laser diode module
- Combines power stability and low noise
- Power controllable up to 15 mW
- Driver electronics and cooling integrated in the module

For applications where stability and low noise are key parameters, Oxxius Blue is the perfect, inexpensive alternative to Argon lasers or other solid-state technologies. The laser module offers a collimated optical beam in a compact radial package. Advanced electronics ensure precise temperature and power control, maximizing diode lifetime.

The output power can be adjusted manually or modulated through analog and TTL controls. Its power stability and low-noise characteristics make it ideal for a wide range of applications, namely in fluorescence and sensing. In addition, its compactness allows for easy integration in a variety of environments.

The Oxxius Violet is available in a "Plug & Play" version, compliant with CE and CDRH safety standards, and including a universal power supply. An "OEM" version system integrators requires a 5V power supply. Holding brackets to help attach the module to a base plate are delivered with each laser.



Optical Parameters	Min.	Nominal	Max.	Unit	Conditions
Wavelength	483	488	493	nm	multi-frequency emission
CW Power		15		mW	
Power Stability			± 1	%	over 8 hours and ± 3 K
Optical Noise			0.5	%	rms, 10 Hz - 2 MHz
Beam Diameter (elliptical) ¹		1.5 x 3		mm	at 50 mm from aperture
Beam Divergence (elliptical) ¹			1	mrad	1/e ² , full angle, in far field

¹ Due to the uncorrected ellipticity of the laser diode, the beam will evolve or can be focused onto a near circular spot.

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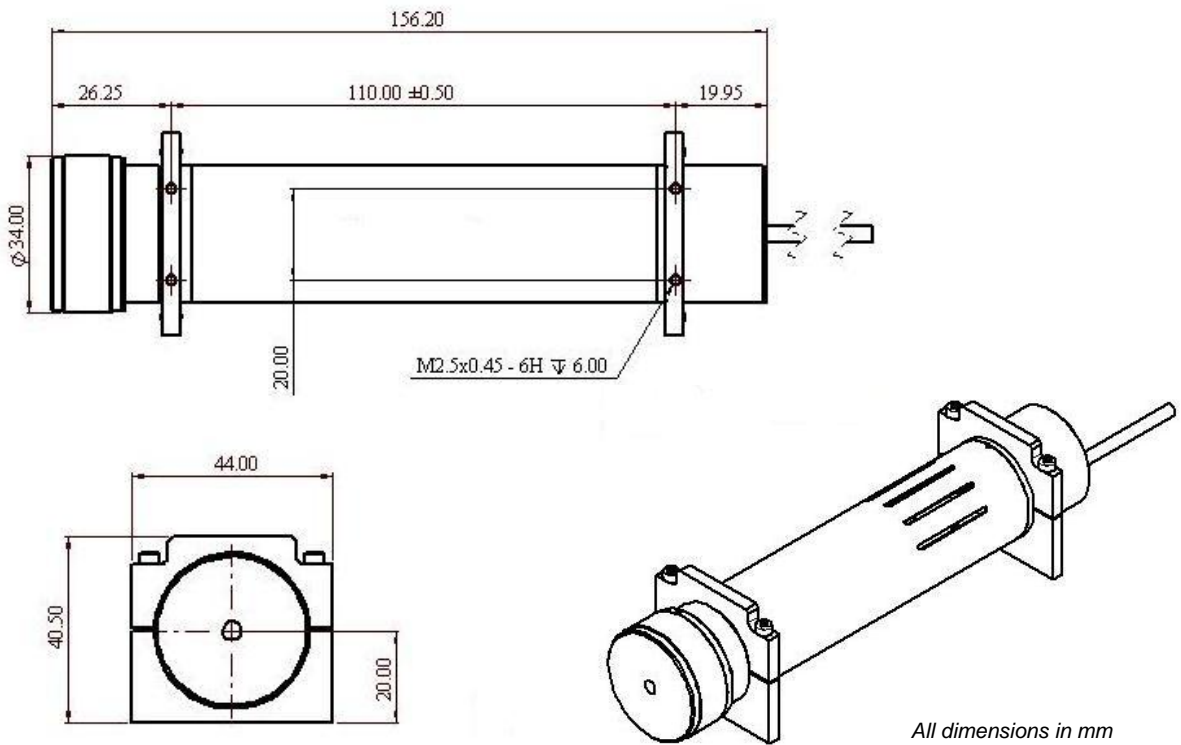
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System Parameters	Min.	Nominal	Max.	Unit	Conditions
Laser Head					
Ambient Temperature	10		40	°C	operation range
Power Consumption		2.5	10	W	OEM version
Start-up Time		1		min	(turn-on delay)
External Control Interface					
TTL Modulation		5 / 2		µs	rise / fall time
Analog Modulation		100		kHz	-3 dB cutoff frequency
Power Supply Requirements					
Input Voltage	4.8		6	V	ripple < 1%
Input Current			2	A	
Dimensions, OEM Version		150 x 30		mm ³	L x Ø
Plug & Play Version		156 x 34		mm ³	L x Ø
Weight		250		g	

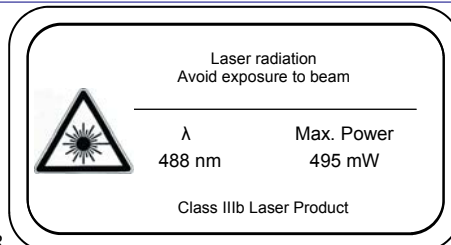
Maximum Environmental Ratings

Storage Temperature	-20		60	°C	non operational
Relative Humidity	10		90	%	non condensing
Resistance to Shock			25	G	11 ms duration
Resistance to Vibration			2.5	G	sinusoidal, 10 to 500 Hz

Mechanical Drawing of Laser Module (PP Version with Manual Shutter)



OXX lasers are registered with FDA. Accession numbers: 07200339 (Plug & Play version), 07R0452-000 (OEM version).
 Oxxius has a policy of sequential product improvement. Specifications may change without notice.



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