

Ultra-Far Range Laser

VLM-450-17-Series



FEATURES:

- Ultra-Far Range Round Dot Laser for long range alignment, positioning, measuring and pointing.
- Diffraction Limited Lens to achieve a near-collimated Laser system, which can be sighted Ultra-Far distance range.
- Perfect Round Dot - Ø15mm at 100 meters.
- Anodized aluminum housing provides insulated housing.
- This module has integrated optic, laser diode, and APC driver circuit.
- APC Driver Circuit enables the Laser output power safe and constant.
- Glass-base hybrid lens provides Ultra-Far range Round Dot Laser.
- Dimensions : Ø13 x 62 mm (Ø0.511" x 2.44").
- Wavelength : 435~465 nm
- Laser power output : LPT - Class 2 - 0.7~0.9mW.
LPA - Class 3R - 2~3mW
LPB - Class 3B - 5~6mW
- Beam Divergence (Half Angle) : <0.1 mRad
- 3~6 VDC operation.
- Connection type: Lead wire.

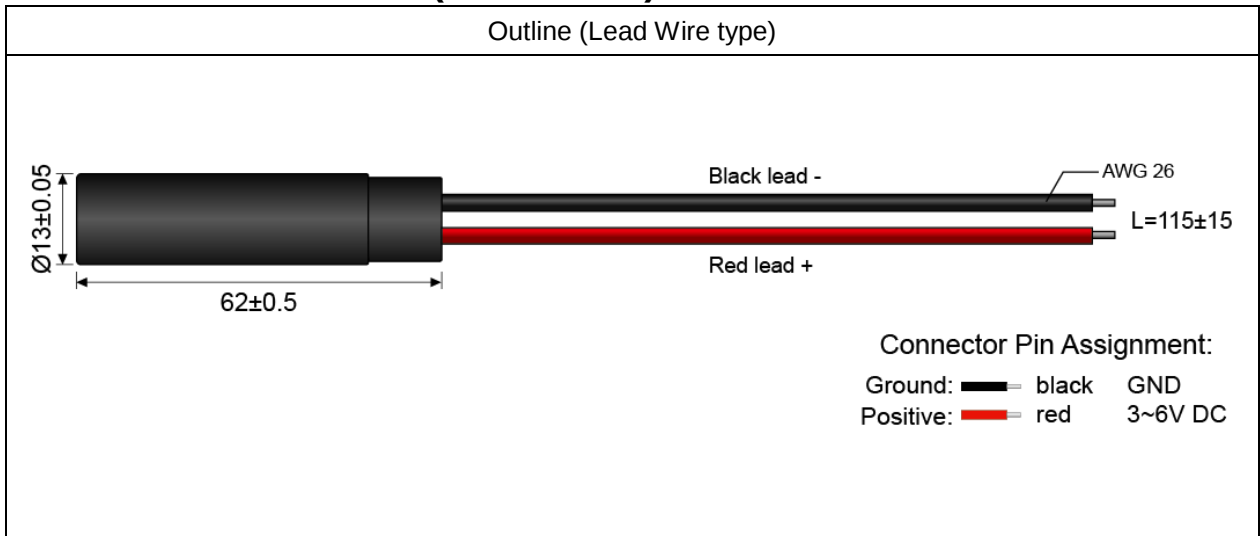
Blue Round Dot Laser - glass aspherical lens with long back focus length function to generate smallest spot at long distances. Ideal use for long distance alignment position, surveying instruments, targeting, professional laser sight and security monitor.

450 nm Lasr (Blue): A visible blue wavelength producing a sharp, high-contrast beam. Blue lasers are highly visible and effective for projection and fluorescence excitation.

Typical Applications: Laser projectors, stage lighting, fluorescence excitation, biomedical instrumentation, industrial alignment, and material processing.

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OUTLINE DIMENSIONS (UNITS: mm)



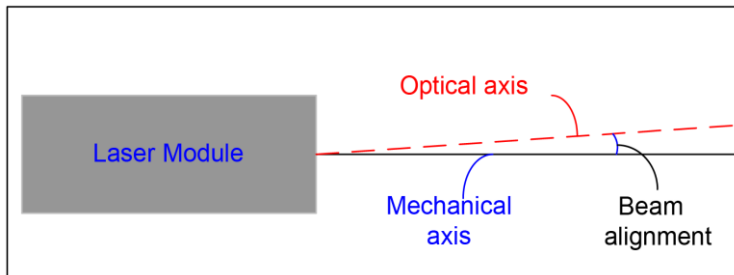
SPECIFICATIONS

SPECIFICATIONS		VLM-450-17		
		LPT	LPA	LPB
1	Dimensions	$\varnothing 13 \times 62$ mm ($\varnothing 0.511" \times 2.44"$)		
2	Weight	16 ± 1 g		
3	Operating voltage (Vop)	3~6 VDC		
4	Operating current (Iop)	Less than 100mA		Less than 150mA
5	Laser power output	0.7~0.9mW	2~3mW	5~6mW
6	Laser class	Class 2	Class 3R	Class 3B
7	Wavelength at peak emission (λ_p)	435~465nm		
8	Collimating lens	Aspherical glass lens		
9	Output aperture	8mm		
10	Beam shape	Circular		
11	Spot size at 40M / 100M	$\varnothing 5.3$ mm / $\varnothing 15$ mm		
12	Beam divergence(Half angle)	Less than 0.1 mRad		
13	Beam alignment*	Less than 3°		
14	Operating temp. range	-10°C ~+50°C		
15	Storage temp. range	-20°C ~+80°C		
16	Housing material	Aluminum		
17	Potential of housing	Insulated		
18	Electrostatic discharge (ESD)	30KV		
19	Moisture sensitivity level (MSL)	Level 1 - acc to JEDEC J-STD-020E.		

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20	Protection circuit	Reversed supply circuit protection, over-current protection, surge protection, short circuit protection
21	Vibration resistance	10 to 55Hz, 1.5mm amplitude for 2 hours each in X, Y and Z direction
22	Standard	IEC60825:2014
23	Wire type	1007-26AWG
24	Cable length	115±15mm
25	Mean time to failure (MTTF) 25°C	10000hrs
26	Application	Long range application
27	Suggestion work distance	10~500 meters / 40~2000 feet

* Beam alignment:



ORDER CODE

Order Code	Wavelength	Laser Power Output	Laser Class	Connection Type
VLM-450-17 LPT	450 nm	0.7~0.9mW	Class 2	Lead Wire
VLM-450-17 LPA	450 nm	2~3mW	Class 3R	Lead Wire
VLM-450-17 LPB	450 nm	5~6mW	Class 3B	Lead Wire

SAFETY LABEL

LPT:



LPA:



LPB:

