

Industrial Use Line Laser

VLM-650-27 Series



FEATURES:

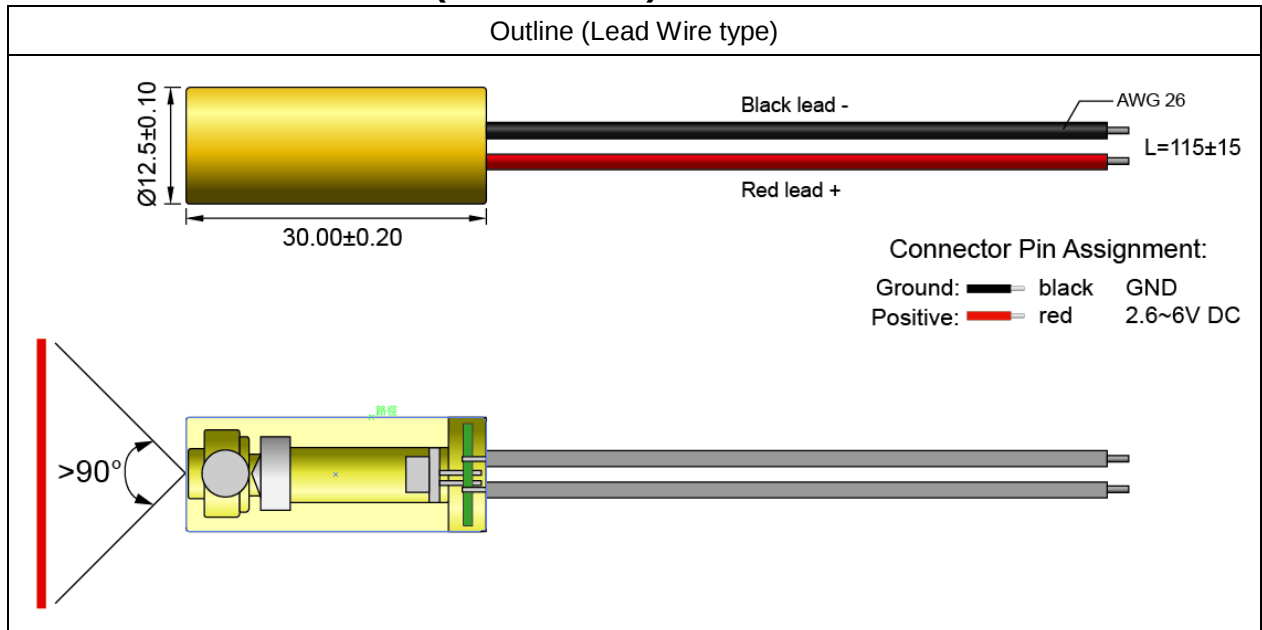
- Industrial Red Line Laser.
- The best line-accuracy and the widest emitting angle line Laser module for use with high-precision devices.
- This module has integrated quartz cylindrical lens, collimating lens, laser diode, and APC driver circuit.
- APC driver circuit enables the Laser output power safe and constant.
- Includes patented solid brass structure for the best shock resistance and better heat transfer consideration.
- Aspherical Plastic Lens and Quartz Cylindrical Lens provides Line Laser.
- Dimensions : Ø12.5 x 30 mm (Ø0.492" x 1.181")
- Wavelength : 650 nm
- Laser power output : Class I
- Laser line accuracy: 40" (+/- 1mm @5m).
- Emitting Angle : >90°
- 2.6~6 VDC operation.
- Connection type : Lead wire

APPLICATIONS:

- High accuracy Red Straight Line Laser, for Industrial high-precision leveling, alignment, adjusting, positioning, measuring and targeting device.
- Wood processing.
- Metal processing.
- Stone processing.
- Textile industry.
- Food industry.
- Automotive industry.
- Medical science.

VLM-650-27 Series

OUTLINE DIMENSIONS (UNITS: mm)



SPECIFICATIONS

SPECIFICATIONS		VLM-650-27	
		LPT	LPT-30
1	Dimensions	$\varnothing 12.5 \times 30$ mm ($\varnothing 0.492" \times 1.181"$)	
2	Operating voltage (Vop)	2.6~6 VDC	
3	Operating current (Iop)	Less than 35mA	Less than 100mA
4	Optical power*	Less than 2mW	12~15mW
5	Laser class	Class I	
6	Wavelength at peak emission (λ_p)	645~665nm	
7	Cylindrical lens	Quartz cylindrical lens	
8	Collimating lens	Aspherical plastic lens	
9	Beam shape	Line	
10	Laser Line width	3 ± 0.5 mm @5m, 6 ± 0.5 mm @10m	
11	Laser line accuracy	40" (± 1 mm @5M)	
12	Emitting angle	More than 90°	
13	Operating temp. range**	$+10^\circ\text{C} \sim +40^\circ\text{C}$	
14	Storage temp. range	$-20^\circ\text{C} \sim +65^\circ\text{C}$	
15	Housing material	Brass	
16	Potential housing***	VDD(+)	

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17	Electrostatic discharge (ESD)	30KV
18	Moisture sensitivity level (MSL)	Level 1 - acc to JEDEC J-STD-020E.
19	Wire type	1007-26 AWG
20	Cable length	115±15mm
21	Mean time to failure (MTTF) 25°C	10000hrs
22	Application	General industrial alignment
23	Suggestion work distance	Above 2 meters

* Optical power is total power output measured at the aperture of the laser.

** Operation temperature means within this temperature range, the laser spot/line will not be affected to change the spot size/line width. It can still work over this range, but the laser spot size or laser line width will be larger.

*** Laser module housing is an electrical positive surface, it is imperative that contact between the laser module and the machine be avoided. This is to prevent damage from the machine electrical leakage. Surge protected power supply to the laser module is strongly recommended.

ORDER CODE

Order Code	Wavelength	Optical power*	Laser Class	Connection Type
VLM-650-27 LPT	650 nm	Less than 2mW	Class I	Lead Wire
VLM-650-27 LPT-30	650 nm	12~15mW	Class I	Lead Wire

* Optical power is total power output measured at the aperture of the laser.

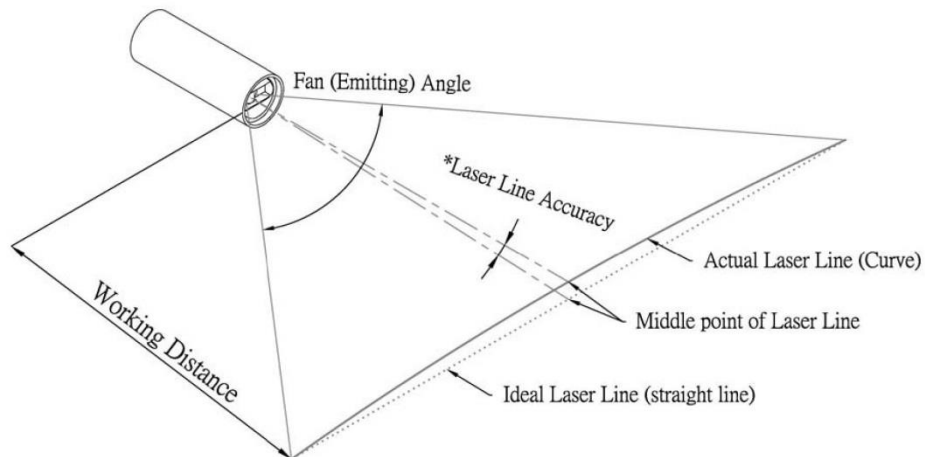
SAFETY LABEL

CLASS I LASER PRODUCT

VLM-650-27 Series

Annex A.

Laser Line Accuracy



*Laser Line Accuracy

The error angle between Ideal and Actual Laser Line at middle point.

For VLM-635/650-27 Series, Laser line accuracy $< 40''$ (Arc Second) $= \frac{40}{3600}^\circ$ (Degree)

For VLM-635/650-37 Series, Laser line accuracy $< 20''$ (Arc Second) $= \frac{20}{3600}^\circ$ (Degree)

For VLM-532-46 Series, Laser line accuracy $< 20''$ (Arc Second) $= \frac{20}{3600}^\circ$ (Degree)