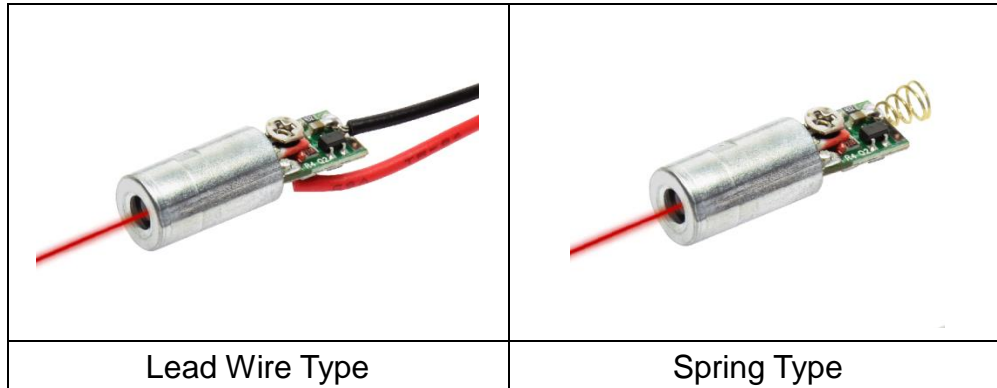


## Economical Laser

### VLM-650-04 Series



#### FEATURES:

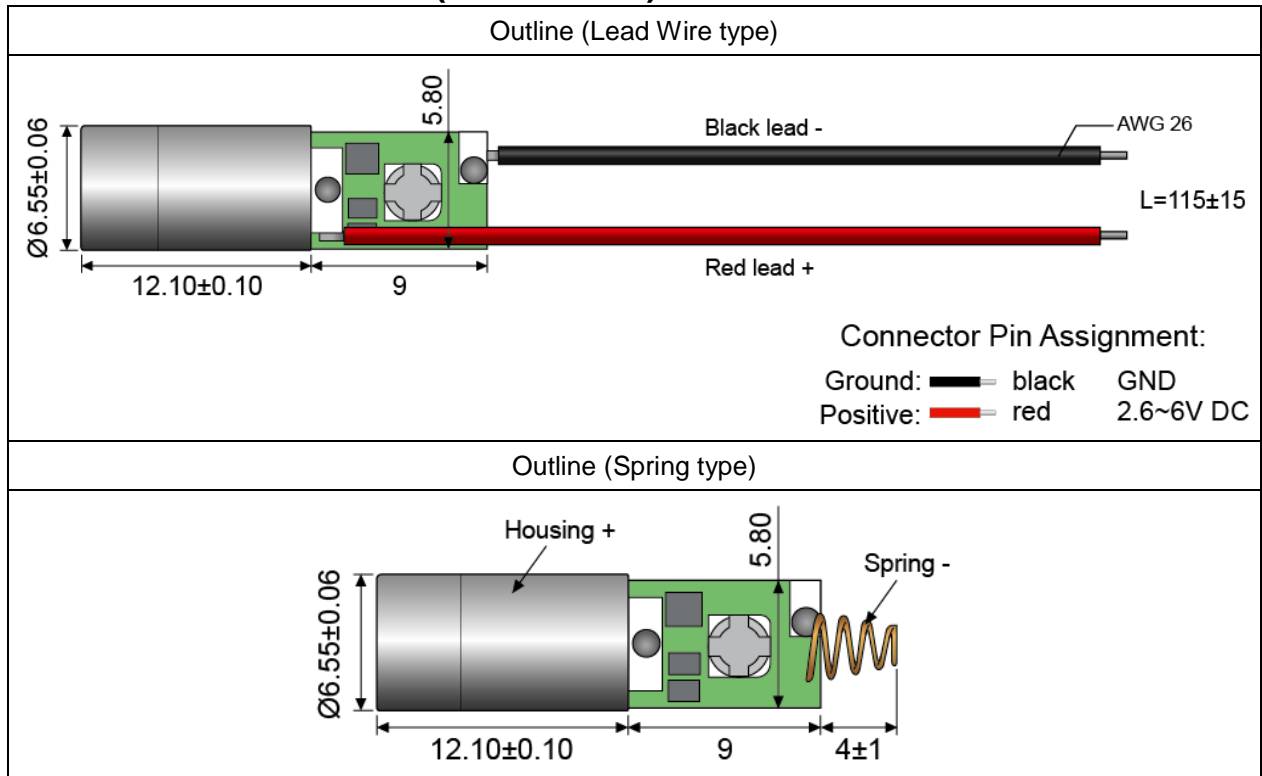
- Economical Red Dot Laser.
- Ideal Laser module if cost is a very important consideration.
- This module has integrated optic, laser diode, and APC driver circuit.
- APC Driver Circuit enables the Laser output power safe and constant.
- Aspherical plastic lens provides Dot Laser.
- Dimensions : Ø6.55 x 21.1 mm (Ø 0.258" x 0.831").
- Wavelength : 650 nm
- Output power : LPT - Class II – less than 1mW  
LPA - Class IIIa – less than 2.5mW.
- Beam Divergence (Half Angle) : 0.6 mRad
- 2.6~6 VDC operation.
- Connection type : Lead wire / Spring.

#### APPLICATIONS:

- Economical Red Dot Laser - Low cost solution for consumer grade positioning, measuring, pointing and laser sighting device.
- Wood processing.
- Metal processing.
- Stone processing.
- Textile industry.
- Food industry.
- Automotive industry.
- Medical science.

## VLM-650-04 Series

### OUTLINE DIMENSIONS (UNITS: mm)



### SPECIFICATIONS

SPECIFICATIONS		VLM-650-04			
		LPT	LPA	SPT	SPA
1	Dimensions	Ø6.55 x 21.1 mm (Ø0.258" x 0.831")			
2	Operating voltage (Vop)	2.6~6 VDC			
3	Operating current (Iop)	Less than 35mA	Less than 50mA	Less than 35mA	Less than 50mA
4	Laser power output	Less than 1mW	Less than 2.5mW	Less than 1mW	Less than 2.5mW
5	Laser class	Class II	Class IIIa	Class II	Class IIIa
6	Wavelength at peak emission (λp)	645~665nm			
7	Collimating lens	Aspherical plastic lens			
8	Output aperture	3mm			
9	Beam shape	Ellipse			
10	Spot size at 5M	6±1 mm			
11	Divergence (Half Angle)	0.6 mRad			
12	Beam alignment	Less than 3°			
13	Operating temp. range*	+15°C ~+30°C (Room Temperature)			
14	Storage temp. range	-20°C ~+65°C			

## VLM-650-04 Series

15	Housing	Zinc alloy	
16	Potential of housing**	VDD(+)	
17	Electrostatic discharge (ESD)	20KV	
18	Moisture sensitivity level (MSL)	Level 1 - acc to JEDEC J-STD-020E.	
19	Connection type	1007-26 AWG	Spring
20	Cable length	115±15mm	4±1mm
21	Mean time to failure (MTTF) 25°C	5000hrs	
22	Application	Economic type	
23	Suggestion work distance	1~10 meters / 3~40 feet	

\* Operation temperature: it 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	Laser Power Output	Laser Class	Connection Type
VLM-650-04 LPA	650 nm	Less than 2.5mW	Class IIIa	Lead Wire
VLM-650-04 LPT	650 nm	Less than 1mW	Class II	Lead Wire
VLM-650-04 SPA	650 nm	Less than 2.5mW	Class IIIa	Spring
VLM-650-04 SPT	650 nm	Less than 1mW	Class II	Spring

### SAFETY LABEL

