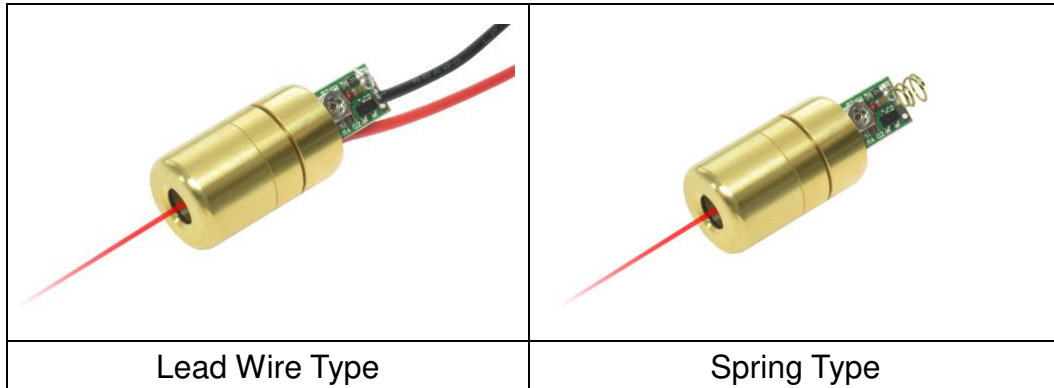


## Adjustable Laser

### VLM-650-02 Series



#### FEATURES:

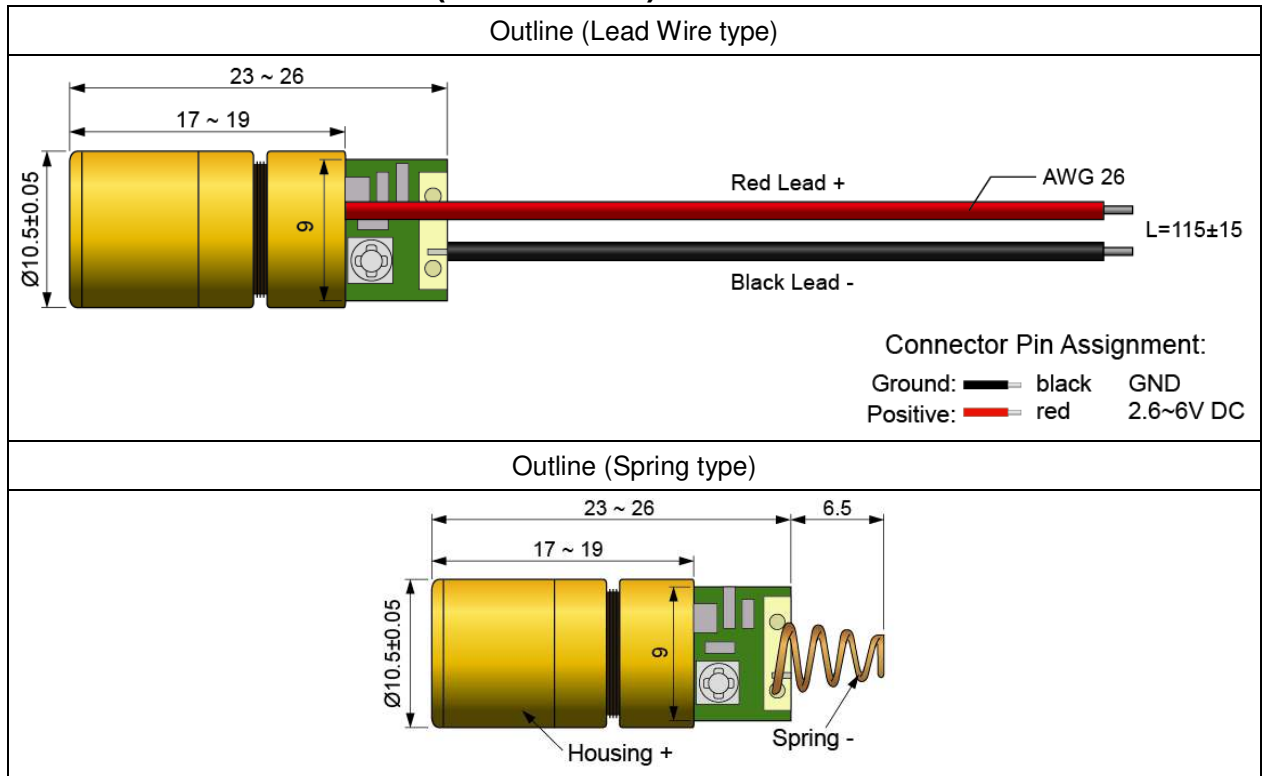
- Industrial Red Dot Laser.
- Adjustable focus (**Focus range 100mm ~ Infinity**) Laser module with APC Driver Circuit inside, ideal for industrial Laser application.
- This module has integrated optic, laser diode, and APC driver circuit.
- APC Driver Circuit enables the Laser output power safe and constant.
- Includes patented solid brass structure for the best shock resistance and better heat transfer consideration.
- Aspherical plastic lens provides Dot Laser.
- Dimensions : Ø10.5 x 26 mm (Ø 0.413" x 1.023").
- Wavelength : 650 nm
- Laser power output : LPT - Class II – less than 1mW  
LPA - Class IIIa – less than 3mW.
- Beam Divergence (Half Angle) : 0.5 mRad
- 2.6~6 VDC operation.
- Connection type : Lead wire / Spring.

#### APPLICATIONS:

- Industrial Red Dot Laser –Adjustable focus function. Ideal for Industrial positioning, measuring, pointing which would need an focusable beam at specific distances.
- Wood processing.
- Metal processing.
- Stone processing.
- Textile industry.
- Food industry.
- Automotive industry.
- Medical science.

## VLM-650-02 Series

### OUTLINE DIMENSIONS (UNITS: mm)



### SPECIFICATIONS

| SPECIFICATIONS |                                  | VLM-650-02                       |                |                |                |
|----------------|----------------------------------|----------------------------------|----------------|----------------|----------------|
|                |                                  | LPT                              | LPA            | SPT            | SPA            |
| 1              | Dimensions                       | Ø10.5 x 26 mm (Ø0.413" x 1.023") |                |                |                |
| 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 3mW  | Less than 1mW  | Less than 3mW  |
| 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                  | 4mm                              |                |                |                |
| 9              | Beam shape                       | Ellipse                          |                |                |                |
| 10             | Focus range                      | 100mm ~ Infinity                 |                |                |                |
| 11             | Spot size at 5M                  | 5±1 mm                           |                |                |                |
| 12             | Divergence (Half Angle)          | 0.5 mRad                         |                |                |                |
| 13             | Beam alignment                   | Less than 3°                     |                |                |                |
| 14             | Operating temp. range*           | +10°C ~+40°C                     |                |                |                |

## VLM-650-02 Series

|    |                                  |                                    |         |
|----|----------------------------------|------------------------------------|---------|
| 15 | Storage temp. range              | -20°C ~+65°C                       |         |
| 16 | Housing material                 | Brass                              |         |
| 17 | Potential housing**              | VDD(+)                             |         |
| 18 | Electrostatic discharge (ESD)    | 30KV                               |         |
| 19 | Moisture sensitivity level (MSL) | Level 1 - acc to JEDEC J-STD-020E. |         |
| 20 | Connection type                  | 1007-26 AWG                        | Spring  |
| 21 | Cable length                     | 115±15mm                           | 6.5±1mm |
| 22 | Mean time to failure (MTTF) 25°C | 10000hrs                           |         |
| 23 | Application                      | Focus adjustable                   |         |
| 24 | Suggestion work distance         | 1~30 meters / 3~100 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-650-02 LPA | 650 nm     | Less than 3mW      | Class IIIa  | Lead Wire       |
| VLM-650-02 LPT | 650 nm     | Less than 1mW      | Class II    | Lead Wire       |
| VLM-650-02 SPA | 650 nm     | Less than 3mW      | Class IIIa  | Spring          |
| VLM-650-02 SPT | 650 nm     | Less than 1mW      | Class II    | Spring          |

### SAFETY LABEL

