Quarton inc.

Economical Line Laser

VLM-650-28 LPT

FEATURES:

- Economical Red Line Laser.
- Line-width optimize at short distance(1m) for consumer grade laser line generator applications.
- This module has integrated wavy lens, collimating lens, laser diode, and APC driver circuit.
- APC driver circuit enables the Laser power output safe and constant.
- Includes patented solid brass structure for the best shock resistance and better heat transfer consideration.
- Aspherical Plastic Lens and Plastic Wavy Lens provides Line Laser.
- Dimensions : Ø9 x 26 mm (Ø0.354" x 1.024")
- Wavelength : 645~665 nm
- Laser power output : LPT - Class 1M - less than 0.39mW.
- Laser line accuracy: 80" (± 2mm @5m).
- Emitting Angle : > 60°
- 2.6~6 VDC operation.
- Connection type : Lead wire

APPLICATIONS:

- Economical Red Line Laser Module, Line-width optimize at short distance(1m) for consumer grade 3d-Scanner, barcode reader, leveling, alignment, adjusting, positioning, measuring and targeting device.
- Wood processing.
- Metal processing.
- Stone processing.
- Textile industry.
- Food industry.
- Automotive industry.
- Medical science.

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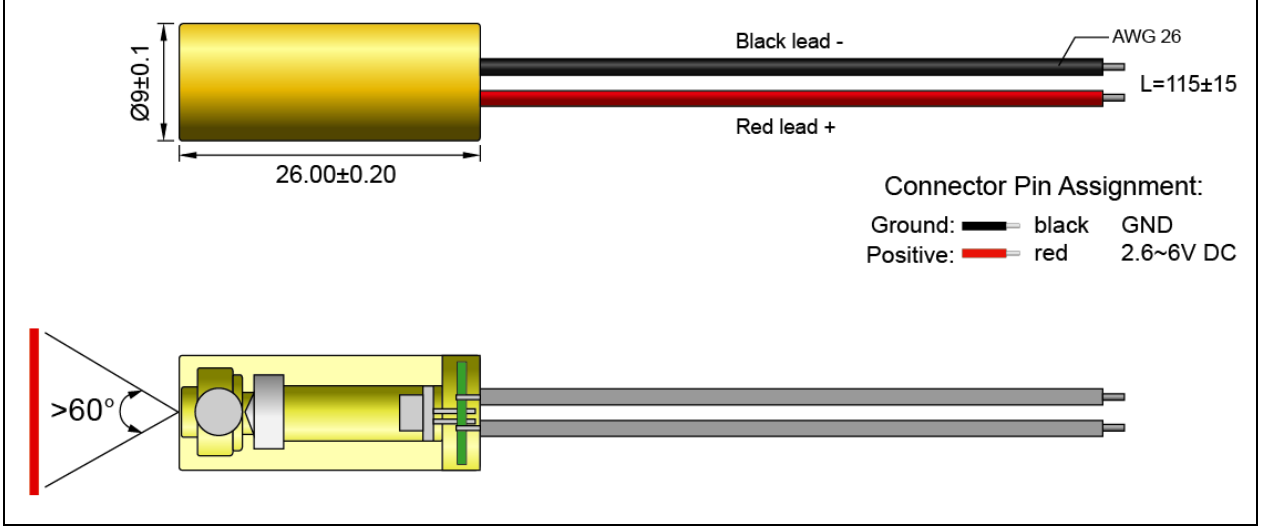
OUTLINE DIMENSIONS (UNITS: mm)

Outline (Lead Wire type)



SPECIFICATIONS

SPECIFICATIONS		VLM-650-28 LPT
1	Dimensions	Ø9 x 26 mm (Ø0.354" x 1.024")
2	Operating voltage (Vop)	2.6~6 VDC
3	Operating current (Iop)	Less than 35mA
4	Optical power*	Less than 2mW
5	Laser power output**	Less than 0.39mW
6	Laser class	Class 1M
7	Wavelength at peak emission (λp)	645~665nm
8	Collimating lens	Plastic lens
9	Line lens	Plastic lens
10	Beam shape	Line
11	Laser Line width	1.2mm@1m
12	Laser line accuracy	80” (± 2mm @5M)
13	Emitting angle	More than 60°
14	Operating temp. range***	+15°C ~+30°C
15	Storage temp. range	-20°C ~+65°C
16	Housing material	Brass
17	Potential housing****	VDD(+)

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18	Electrostatic discharge (ESD)	30KV
19	Moisture sensitivity level (MSL)	Level 1 - acc to JEDEC J-STD-020E.
20	Wire type	1007-26 AWG
21	Cable length	115±15mm
22	Mean time to failure (MTTF) 25°C	10000hrs
23	Application	Economic 3D scanner
24	Suggestion work distance	0.3~1.8 meters / 1~6 feet

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

** According to FDA 1040.10 & IEC 60825-1 regulations, laser power output is measured by 7mm aperture stop from a 10 cm distance 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 power output**	Laser Class	Connection Type
VLM-650-28 LPT	650 nm	Less than 2mW	Less than 0.39mW	Class 1M	Lead Wire

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

** According to FDA 1040.10 & IEC 60825-1 regulations, laser power output is measured by 7mm aperture stop from a 10 cm distance of the laser.

SAFETY LABEL