# Quarton inc.

### **IR Industrial Use Laser**

## VLM-850-01 Series



#### **FEATURES:**

- Industrial Infrared Dot Laser.
- Basic model, compact size with PCB inside ,ideal for invisible IR 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 spot.
- Dimensions : Ø10.5 x 19 mm (Ø 0.413" x 0.748").
- Wavelength : 850 nm
- Laser power output : LPA Class IIIb less than 3mW
  - LPT Class I less than 0.7mW.
- Beam Divergence (Half Angle) : 0.5 mRad
- 2.6~6 VDC operation.
- Connection type : Lead wire / Spring.

#### **APPLICATIONS:**

- Invisible IR Dot Laser for positioning, measuring, pointing and laser sighting device.
- Wood processing.
- Metal processing.
- Stone processing.
- Textile industry.
- Food industry.
- Automotive industry.
- Medical science.

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### VLM-850-01 Series

#### **OUTLINE DIMENSIONS (UNITS: mm)**



#### **SPECIFICATIONS**

SPECIFICATIONS		VLM-850-01			
	SPECIFICATIONS	LPT	LPA	SPT	SPA
1	Dimensions	Ø10.5 x 19 mm (Ø0.413" x 0.748")			
2	Operating voltage (Vop)	2.6~6 VDC			
3	Operating current (lop)	Less than 40mA			
4	Laser power output	Less than 0.7mW	Less than 3mW	Less than 0.7mW	Less than 3mW
5	Laser class	Class I	Class IIIb	Class I	Class IIIb
6	Wavelength at peak emission $(\lambda p)$	840~865nm			
7	Collimating lens	Aspherical plastic lens			
8	Output aperture	5mm			
9	Beam shape	Ellipse			
10	Spot size at 5M	5±1 mm			
11	Divergence (Half Angle)	0.5 mRad			
12	Operating temp. range*	+10°C ~+40°C			
13	Storage temp. range	-20°C ~+65°C			
14	Housing	Brass			
15	Potential of housing**	VDD(+)			

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16	Electrostatic discharge (ESD)	30KV		
17	Moisture sensitivity level (MSL)	Level 1 - acc to JEDEC J-STD-020E.		
18	Connection type	1007-26 AWG	Spring	
19	Cable length	115±15mm	8±1mm	
20	Mean time to failure (MTTF) 25°C	5000hrs		
21	Application	General purpose		
22	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-850-01 LPA	850 nm	Less than 3mW	Class IIIb	Lead Wire
VLM-850-01 LPT	850 nm	Less than 0.7mW	Class I	Lead Wire
VLM-850-01 SPA	850 nm	Less than 3mW	Class IIIb	Spring
VLM-850-01 SPT	850 nm	Less than 0.7mW	Class I	Spring

#### SAFETY LABEL



CLASS I LASER PRODUCT

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