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## CW450-01C

- Blue Laser Diode Module
- 450 nm, <1 mW
- Fix Focus Acryl Lens
- Automatic Power Control
- USB-C connector



### Description

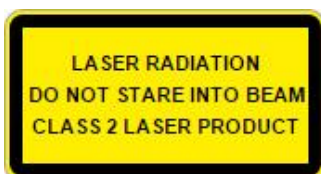
**CW450-01C** is a compact size fix collimated laser diode module with a typical emission wavelength of **450 nm**, and an optical output power of **<1 mW**. It features automatic power control (**APC**) driving electronics for stable operation, and comes with an industry standard **USB-C connector**. A matching **heat sink**, and suitable **laser module holder** is optionally available for quick setup and convenient operation (see next page for details).

### Maximum Ratings

Parameter	Values		Unit
	Min.	Max.	
Operating temperature	- 10	+ 60	°C
Storage temperature	- 20	+ 80	°C

### Electro-Optical Characteristics (T<sub>CASE</sub> = 25°C)

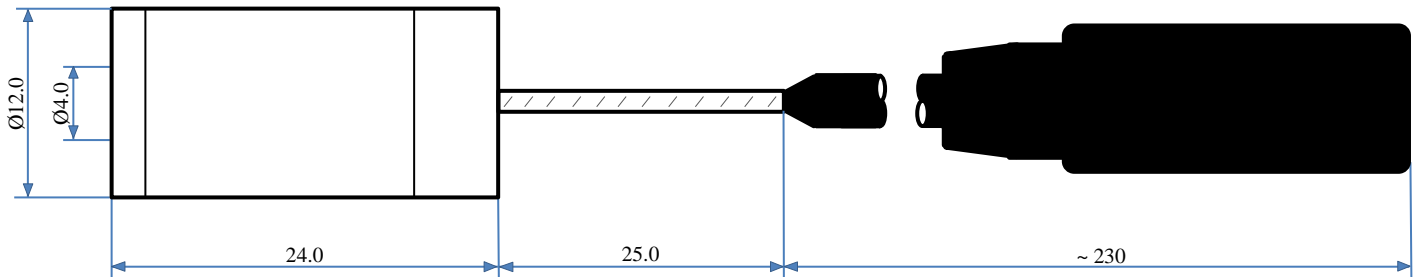
Parameter	Values			Unit
	Min.	Typ.	Max.	
Peak Wavelength	440	450	460	nm
<b>Radiated Power</b>			<b>1</b>	<b>mW</b>
Beam diameter at aperture		2		mm
Beam divergence		1.0		mrad
<b>Supply Voltage</b>		<b>5</b>		<b>VDC</b>
Material body	brass			
Material lens	acryl			
Dimensions	Ø 12 x 24.5 (49)			mm
Connector	IEC 62680-1-3 (USB-C)			
MTTF	3000			h





## Outline Dimensions

all dimensions in mm



## Precautions

### Static Electricity:

Precautions against electrostatic discharge (ESD) must be taken when handling or operating the module. Surge voltage or electrostatic discharge can result in complete failure of the laser diode.

### Heat Sinking:

In order to maintain lifetime and stability of the laser diode it is essential to provide efficient heat management. For long time stable operation an additional heat sink is recommended.

### Safety:

This laser module emits highly concentrated visible light, which can be **hazardous to the human eye and skin**. It is classified as **CLASS 2 laser product** according to **IEC 60825-1** and **21 CFR Part 1040.10 Safety Standards**. Actual laser light emitted and precautions necessary strongly depend on mode of operation.



## Accessories

### Heat Sink

#### SQ50x34

- Al, black anodized
- Clamping mechanism
- 50 x 50 x 34 mm
- 114 g



### Holder

#### RLM-1250

- Steel, black anodized
- Height, reach, tilt adjustable
- Fixture 360° turnable
- Max. diameter: 12.5 mm
- 69 x 67 mm
- 152 g

