

Laser module violet, 20mW, 405nm, line

Reference: AM9092

EAN13: -

HS code: 90132000

Product attributes:

Product features:

Light color: Purple
Wavelength: 405 nm
Voltage: 3-5 V DC
Performance: 20 mW
Waterproof grade: IP20
Beam angle: 110°
Appearance: Line
Safety class (IEC 60825-1): 3B



Product description:

Powerful laser module with a wavelength of 405 nm, optical power of 100 mW and a wide beam angle of 110°. The APC power control variant ensures stable optical output even with variable supply voltage. Thanks to its compact dimensions and 3-5 V power supply option, it is suitable for industrial, laboratory and imaging systems.

Technical specifications

- Wavelength: 405 nm (blue/violet)
- Optical power: 20 mW
- Lens: PMMA
- Beam angle: 110°
- Control electronics: APC (Automatic Power Control)
- Operating voltage: 3-5V DC
- Operating current: up to 55mA
- Protection: IP20
- Module dimensions: 13 × 13 × 42 mm
- Cable length: 100 mm
- Operating temperature: -10 to +40 °C
- Storage temperature: -40 to +85 °C
- Certification: CE, RoHS
- Mean time to failure (MTTF): > 8,000 h
- Weight: 18g

Functions and features

- APC control ensures stable performance regardless of supply voltage changes.
- Wide 110° beam angle suitable for projection, lighting and optical sensors.
- PMMA lens for homogeneous beam dispersion and low weight.
- Stable operation, low heat loss and long service life.
- Easy integration thanks to 3-5 V power supply.

Construction

- The laser module must not be conductively connected to any metal part of other equipment – it must be electrically insulated.
- The reason is the design of a semiconductor laser diode, one pole of which is connected directly to a metal housing.
- Use antistatic equipment during assembly, as the laser diode can be damaged by even a small electrostatic discharge.
- Avoid contact with radiators, water pipes and other conductive objects - they can cause unwanted grounding.
- Never connect the module metal to another metal component of the device.

Cooling

- The laser module does not require additional cooling – its heat losses are low.
- When properly fastened, there is no overheating or shortening of the service life.
- It can be securely mounted in a bracket or housing without the need for active heat dissipation.

Ideal for

- Industrial sighting and indication systems
- Optical sensors and measuring technology
- Laboratory experiments and fluorescence
- Projection and imaging applications with large beam coverage

Package contents

- 1x laser module 405 nm, 20 mW

Why choose this product?

- Stable performance thanks to APC control.
- Wide 110° beam angle for applications requiring high optical dispersion.
- Compact design, easy integration and long service life.
- CE and RoHS certification, quality design and reliable operation.

