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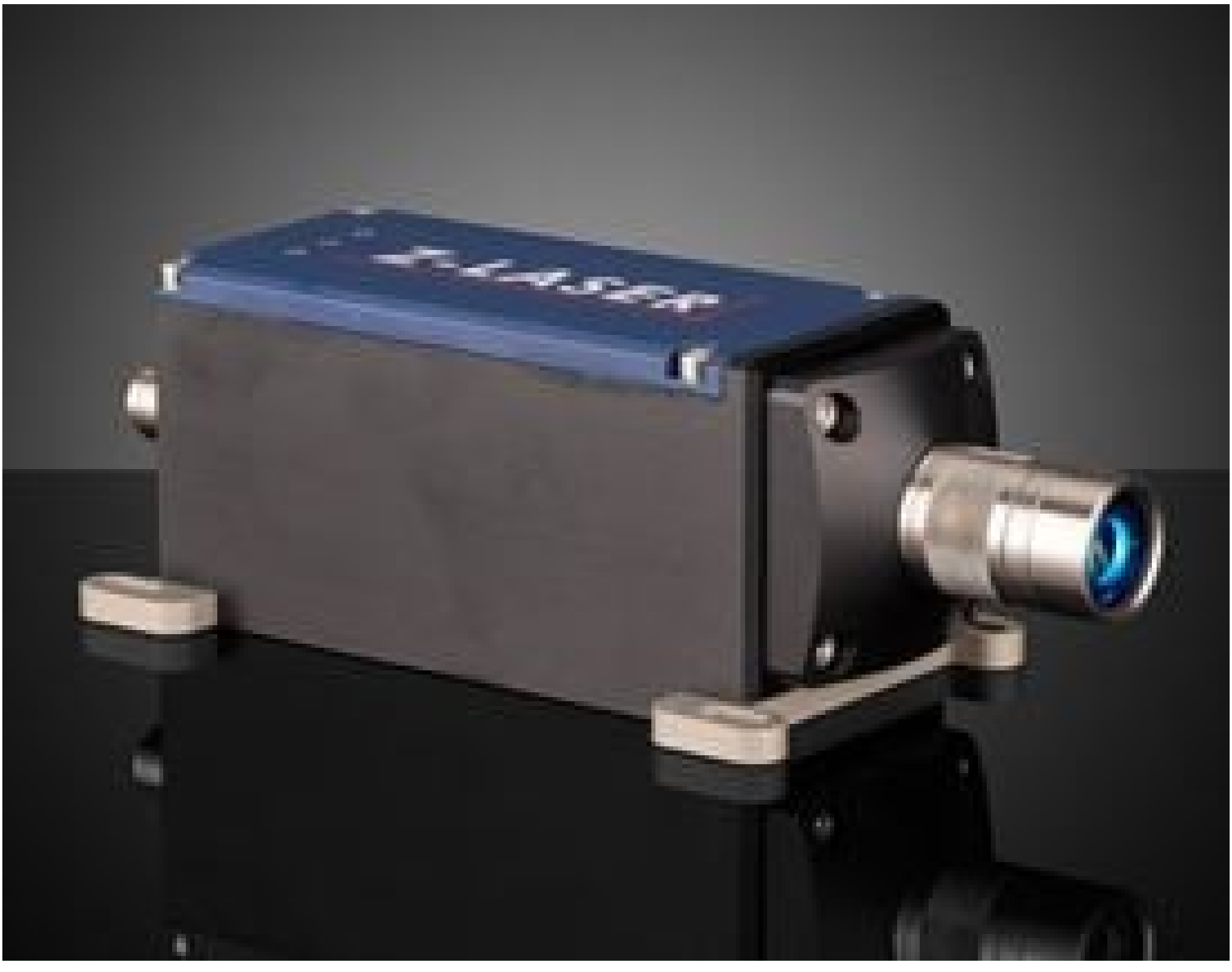
1000mW, 450nm Laser ZQ1, 45°



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Qty 1-9	**€5.211,00** each
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Note: This item requires accessories for use | Learn More

Product Downloads

General

Laser Class - IEC:
3B

Style:
Homogeneous Line

Type of Laser:
Diode

Laser Class - CDRH:
IIIb

Physical & Mechanical Properties

Dimensions (inches):
6.26 x 2.57 x 2.03 (L x W x H)

Weight (g):
690

Diameter of Laser Head (inches):
0.79

Optical Properties

Wavelength (nm):
450.00

Working Distance (mm):
below 3.3ft (1m)

Color:
Blue

Fan Angle (°):
45.00

Focus Range (mm):
100mm up to 10,000mm

Electrical

Output Power (mW):
1000

Modulation Frequency (kHz):
200

Hardware & Interface Connectivity

Output Type:
Free Space

Connector:
5 Pins, M12

Input Voltage (V):
12 - 24

Environmental & Durability Factors

Operating Temperature (°C):
-10 to +50

Storage Temperature (°C):
-40 to +85

Regulatory Compliance

Certificate of Conformance:
View

Product Details

- Homogenous Intensity Distribution Lines with High Output Powers up to 1700mW
- Shock and Vibration Resistant, IP67 Rated Design
- 450, 660, and 808nm Wavelengths with 30 or 45° Fan Angles

Z-Laser ZQ1 High Power Machine Vision Laser Diode Modules feature robotic aligned optics for even-intensity line generation with up to 1700mW of output power. IP67 and DIN EN 61373:2011-04 rated for shock and vibration, these laser diode modules are ideal for harsh environment applications. An integrated active temperature management system ensures these lasers operate within their optimal temperature range, resulting consistent performance independent of environmental temperature conditions. Z-Laser ZQ1 High Power Machine Vision Laser Diode Modules are ideal for demanding measurement applications in machine vision, road and rail inspection, biomedical, and 3D measurement. A focus ring provides tool-free, manual adjustment of the working distance to obtain the optimal line thickness for application requirements, while TTL modulation, analog modulation, and serial interface communication provide additional flexibility and functionality.

Red wavelengths (660nm) are most commonly used in machine vision applications, as the quantum efficiency of most camera sensors are optimized for this wavelength range. Blue wavelengths (450nm) are most commonly used with semi-transparent surfaces or with highly reflective surfaces such as polished metal and solder joints, or to create visual contrast on glowing materials such as molten steel. NIR wavelengths (808nm) are often used in outdoor environments, where strong ambient light can create contrast issues for camera sensors.

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