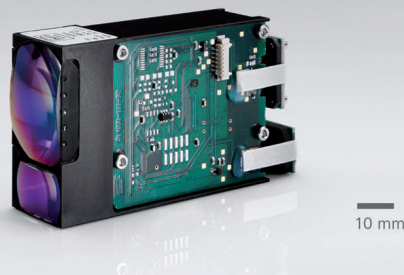




## 1.55 $\mu\text{m}$ Diode-Laser Rangefinder DLEM 1k

Compact rangefinder module for system integration



### Leading Technology by Tradition

Jenoptik's expertise in development and production of laser rangefinders for various applications builds on more than 30 years of experience - for the benefit of our Customers.

### Powerful, accurate and reliable

The DLEM 1k measures distances typically up to more than 1500 meters fast and with an absolute accuracy of better than one meter within the full specified temperature range. It delivers reliable and accurate measurement results also under difficult atmospheric conditions. Operating at a wavelength of 1.55  $\mu\text{m}$ , the rangefinder works eyesafe and is not to detect with night vision devices based on image intensifier tubes.

### Compact, energy saving and easy to integrate

The lightweight, compact optical and mechanical design allows for easy integration into various handheld, mobile or stationary measuring or fire control systems.

Especially, its low power consumption recommends the rangefinder as light infantry equipment.

The rangefinder is configured as a rangefinder module and can be controlled via a RS232 interface. It is suited for usage under harsh environmental conditions.

### Benefits

- Compact, lightweight design
- 1.55  $\mu\text{m}$  operating wavelength
- Low energy consumption
- Eyesafe operation

# 1.55 $\mu\text{m}$ Diode-Laser Rangefinder DLEM 1k

## Compact rangefinder module for system integration

### Specifications

#### Measurement parameters

Typical measuring range	> 1.5 km <sup>1,2</sup>
Total measuring range	10 m ... 5000 m
Measuring accuracy ( $1\sigma$ )	< 1 m
Typical measuring rate	1 Hz <sup>1,2</sup>
Target discrimination	25 m ... 50 m (depending on measurement conditions)
Multiple target detection	Yes

#### Transmitter

Laser type	Diode laser
Wavelength	1.55 $\mu\text{m}$
Measure divergence	1.0 mrad $\times$ 1.2 mrad
Laser classification	Eyesafe class 1 (EN 60825-1:2007)

<sup>1)</sup> Measuring range 1500 m measured at standard target 1.0 m  $\times$  1.0 m, 10 % albedo, Visibility  $V_n = 10$  km, 0.5 s measuring time

<sup>2)</sup> Measuring range 3000 m, measured at standard target 2.3 m  $\times$  2.3 m, 30 % albedo, Visibility  $V_n = 10$  km, 1 s measuring time

#### Communication interfaces

Data interface	RS232, CMOS level 3.3 V
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#### Electrical parameters

Power supply (external)	4 ... 10 VDC nominal voltage
Power consumption	operation < 3 W stand-by < 30 mW shut-down < 50 $\mu\text{W}$
Peak current	< 1 A for max. 1 ms duration

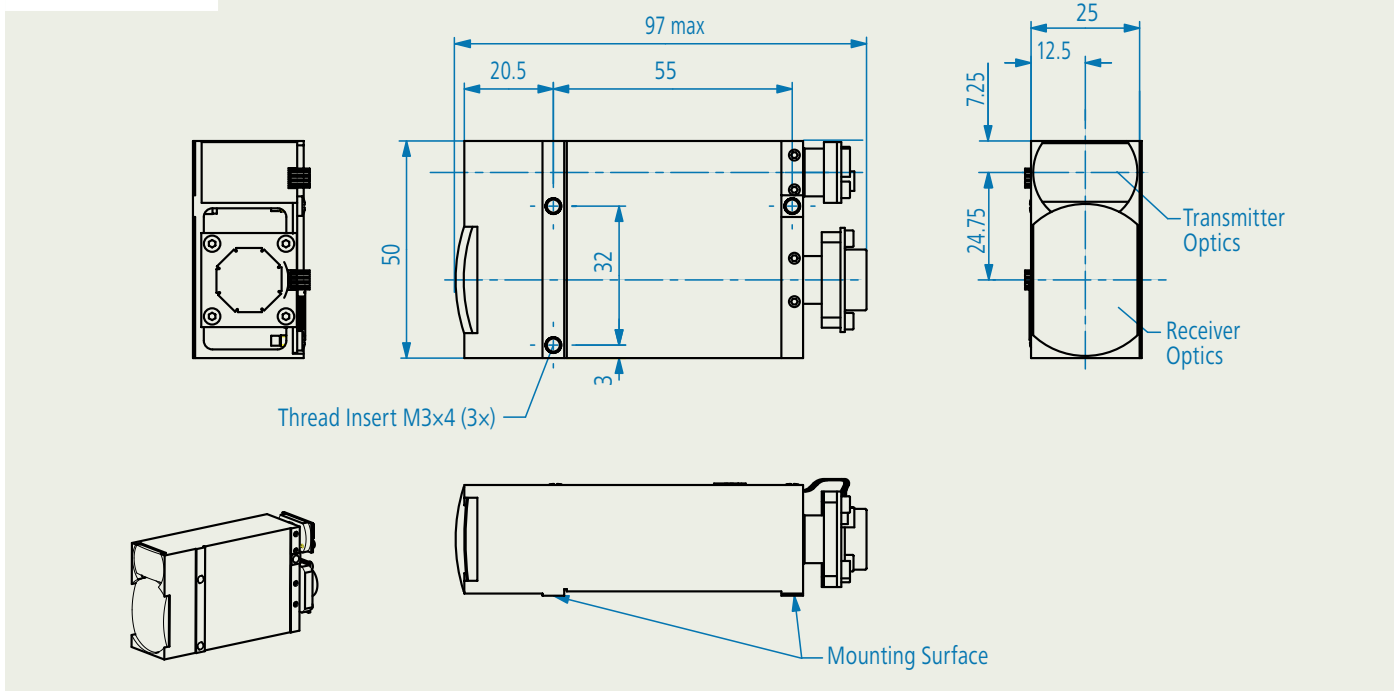
#### Mechanical Dimensions

Weight	95 g
Dimensions (L $\times$ W $\times$ H)	97 mm $\times$ 25 mm $\times$ 50 mm

#### Ambient conditions

Operation temperature	- 40 $^{\circ}\text{C}$ ... + 80 $^{\circ}\text{C}$
Storage temperature	- 46 $^{\circ}\text{C}$ ... + 85 $^{\circ}\text{C}$
Shock resistance	1500 g, 1 ms

#### Dimensions DLEM 1k



It is our policy to constantly improve the design and specifications. Accordingly, the details represented herein cannot be regarded as final and binding.



JENOPTIK | Defense & Civil Systems  
 JENOPTIK Defense, Inc.  
 16490 Innovation Drive  
 Jupiter, FL 33478 | USA  
[www.jenoptik.com/us-defense](http://www.jenoptik.com/us-defense)



Distributor  
 International Defense & Security Solutions, Inc.  
 525K East Market St. | #156  
 Leesburg, VA 20176 | USA  
 Phone 1.800.644.5098 x101 | Fax 702.232.1439  
[info@idssi.com](mailto:info@idssi.com) | [www.idssi.com](http://www.idssi.com)