

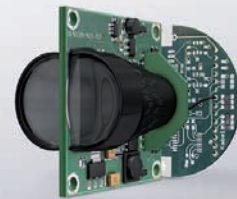


Laser Distance Sensor LDS30

Fast & compact rangefinder for system integration



LDS30



LDS30 Modul

Description and Features

The LDS30 laser distance sensor is dedicated for general ranging applications that require instantly triggered and fast data acquisition. The sensor provides measurement rates as fast as 30 kHz within a total measurement range of up to 250 m with an absolute measurement accuracy in the centimeter range. It operates fully eyesafe at a wavelength of 905 nm.

The LDS30 sensor is optimized for easy system integration. It is available with a ready-to-use IP67 proof housing or configured as a distance sensor module for specialized system integration. The housed version is shockproof and suitable for applications that impose high impact on the sensor, for example in industrial environments.

Benefits

- Compact, lightweight design
- High repetition rate
- Long measuring range
- Eyesafe operation
- Housed and modular OEM versions
- Industrial standard interfaces
- Digital and analog output
- Easy system integration

Applications

- Distance measurement & object detection
- Proximity sensing & warning
- 2D and 3D scanning applications
- Industrial automation

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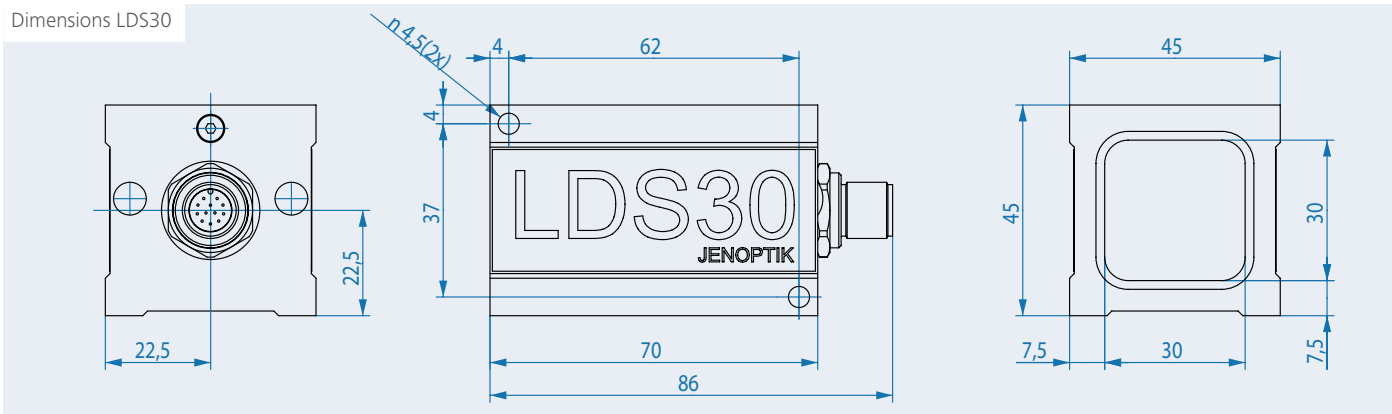
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Specifications

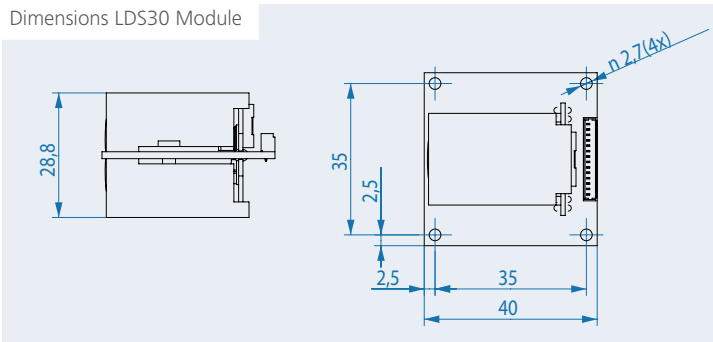
Model	LDS30	LDS30 Module
Total measuring range	0.2 m ... 250 m	
Typical measuring range for special targets (e.g. Scotchlite Cube 3000x) for target reflectivity 10% ¹	250 m 30 m	
Measuring accuracy (for single measurement, 1 σ)		
Absolute accuracy	± 5 cm	
Reproducibility	± 2 cm	
Measured value resolution	1 cm	
Maximum measuring rate		
binary data output	30 kHz	
decimal or binary data output	16 kHz	
Laser classification	Laser Class 1, EN 60825-1:2007	
Wavelength	905 nm	
Laser divergence	3 mrad \times 1 mrad	
Serial data interface	RS232, RS422	RS422, CMOS Level 3.3 V
Switching output	2x „high side“, up to 0.2 A	--
Analog output	4 mA ... 20 mA	--
Power supply	10 VDC ... 30 VDC	6.5 VDC ... 7.0 VDC
Power consumption (max.)	3 W	
Operating temperature	-20 °C ... +50 °C	-20 °C ... +50 °C
Humidity	10% ... 90%, not condensing	10% ... 90%, not condensing
Internal protection class	IP 67	--
Shock / vibration	DIN ISO 9022-3	--
EMC	EN 61326-1	--
Dimensions	86 mm \times 45 mm \times 45 mm (LxWxH, incl. connector)	approx. 40 mm \times 40 mm \times 40 mm (LxWxH)
Weight	approx. 125 g	approx. 50 g

¹ Measuring range for natural, diffuse reflecting surfaces, depending on target reflectivity, stray light and environmental conditions.

Dimensions LDS30



Dimensions LDS30 Module



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



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