



LUMOS Laser Distance Meters | LDM51 Series

Measuring on hot surfaces and in bright environments



Description and Features

The LUMOS laser distance meters are specialized for distance measurement on hot surfaces, e.g. red hot, glowing steel, and for outdoor use in bright lighting conditions with high constant or stray light levels.

Suitable measurement targets can be almost all natural surfaces, liquids, or reflectors.

Within a range of 500 meter LUMOS laser sensors provide a maximum measurement accuracy of 1 mm and a measurement frequency of up to 100 Hz.

For convenient data display and parameterization LUMOS sensors are equipped with an OLED display and touch-keys. Due to their standard interfaces, LUMOS sensors are optimized for easy system integration into industrial automation engineering solutions.

Benefits

- Distance measurement on hot surfaces
- Outdoor measurement in bright lighting conditions
- Broad measuring range & millimeter accuracy
- Visible measuring beam (red)
- Industrial standard interfaces
- Digital & analog data output, trigger functionality
- Device control via OLED display and touch-keys

Applications

- Non-contact distance measurement & - tracking
- Steel working industry & rolling mills
- Positioning: transportation, handling & conveying systems
- Measurement of filling levels, object thickness & length
- Industrial automation and process control

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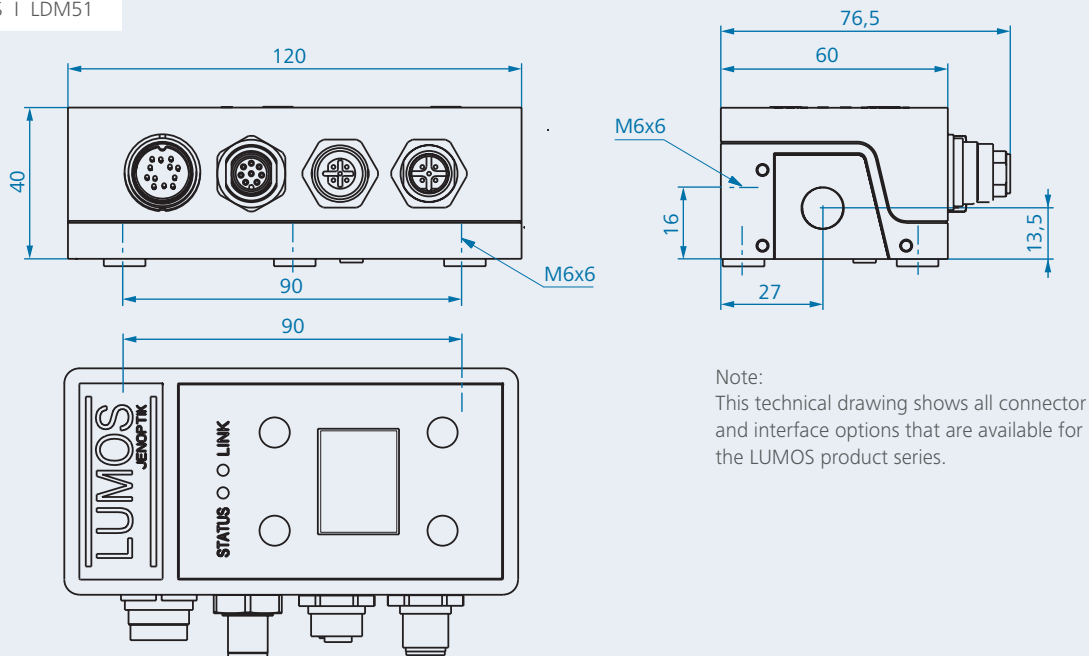
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Specifications

Type	LDM51
Measuring range ¹	0.15 m ... 500 m
Typical maximum measuring range ¹ on target boards	500 m
on natural surfaces ²	100 m
Measuring accuracy (1 σ)	± 1 mm
Measured value resolution	0.1 mm
Maximum measuring frequency	100 Hz
Laser classification	Laser Class 2, EN 60825-1:2007
Wavelength	635 nm (red)
Laser divergence	0.2 mrad (50% laser energy)
Interface options (depending on specific device configuration)	RS-232, RS-422, RS-485, SSI (200 / 250 / 300 kHz), Profibus DP-V0 Slave, 9.6 kBaud ... 12 MBaud, IEC 61158, IEC 61784
Switching output	3x "high side", up to 0.2 A
Analog output	4 mA ... 20 mA
Trigger	1x trigger in/out, 3 VDC ... 30 VDC
Connectors ³	standard: 1x 12-pole M16 optional: 3x 5-pole M12
Display and controls	2 status LEDs OLED dot-matrix display 4 touch keys
Power supply	10 VDC ... 30 VDC
Power consumption (max.)	< 10 W < 42 W (in heating mode, 24 V)
Operating temperature ³	-40 °C ... +60 °C
Humidity	15% ... 90%, not condensing
Protection class	IP 67
EMC	EN 61326-1
Dimensions	120 mm x 76.5 mm x 40 mm (LxWxH, including connectors)
Weight	approx. 700 g (depending on device configuration)

¹ Measuring range depending on measuring frequency, target reflectivity, stray light and environmental conditions. ² For natural, diffuse reflecting surfaces. ³ Depending on device type / configuration.

Dimensions LUMOS | LDM51



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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