



## Laser scanners LD-LRS / Indoor / Long Range

LD-LRS1000



**Model Name** > [LD-LRS1000](#)  
**Part No.** > [1028941](#)

#### At a glance

- Long range, even when detecting dark objects
- High angular resolution
- High ambient light immunity
- Small light spot diameter
- Up to 4 fields can be programmed

#### Your benefits

- Optimum installation position on diggers and cranes due to a long scanning range
- High level of reliability, even in poor environmental conditions
- Low installation costs due to large monitoring areas
- Small objects can be reliably detected at long ranges



#### Features

|                                    |                                                       |
|------------------------------------|-------------------------------------------------------|
| Field of application:              | Indoor                                                |
| Version:                           | Long Range                                            |
| Light source:                      | Infrared (905 nm)                                     |
| Laser class:                       | 1 (EN/IEC 60825-1), eye-safe                          |
| Field of view:                     | 360 °                                                 |
| Scanning frequency:                | 5 Hz ... 10 Hz                                        |
| Angular resolution:                | 0.062 °<br>0.125 °<br>0.25 °<br>0.5 °<br>1 °<br>1.5 ° |
| Operating range:                   | 0.5 m ... 250 m                                       |
| Max. range with 10 % reflectivity: | 80 m                                                  |

#### Performance

|                                   |                  |
|-----------------------------------|------------------|
| Response time:                    | ≥ 100 ms         |
| Detectable object shape:          | Almost any       |
| Systematic error <sup>1)</sup> :  | ± 38 mm          |
| Statistical error <sup>2)</sup> : | ± 30 mm          |
| Integrated application:           | Field evaluation |
| Number of field sets:             | 4 fields         |
| Simultaneous processing cases:    | 4                |

1) 2)  
Typical value; actual value depends on environmental conditions.

## Interfaces

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|                                                   |                             |
|---------------------------------------------------|-----------------------------|
| Serial (RS-232, RS-422):                          | ✓                           |
| Data transmission rate (Serial (RS-232, RS-422)): | 4,800 Baud ... 115,200 Baud |
| Ethernet:                                         | ✓                           |
| Data transmission rate (Ethernet):                | ≤ 10 Mbit/s                 |
| Protocol (Ethernet):                              | TCP/IP                      |
| CAN bus:                                          | ✓                           |
| Protocol (CAN bus):                               | Standard 2.0.A              |
| Data transmission rate (CAN bus):                 | 10 kbit/s ... 1 Mbit/s      |
| PROFIBUS DP:                                      | -                           |
| PROFINET:                                         | -                           |
| DeviceNet:                                        | -                           |
| Switching outputs:                                | 4 (digital)                 |
| Optical indicators:                               | 4 LED (Status display)      |

## Mechanics/electronics

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|                        |                                              |
|------------------------|----------------------------------------------|
| Electrical connection: | 1 6-pin terminal block, 15-pin D-Sub HD plug |
| Operating voltage:     | 24 V DC± 15 %                                |
| Power consumption:     | 36 W                                         |
| Housing:               | Die-cast aluminum                            |
| Housing color:         | Light blue (RAL 5012)                        |
| Enclosure rating:      | IP 65                                        |
| Protection class:      | III                                          |
| Weight:                | 4.1 kg                                       |
| Dimensions:            | 118.5 mm x 120.5 mm x 277 mm                 |

## Ambient data

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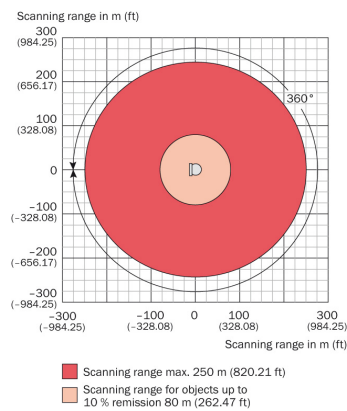
|                                |                      |
|--------------------------------|----------------------|
| Ambient operating temperature: | 0 °C ... 50 °C       |
| Storage temperature:           | -20 °C ... 80 °C     |
| Permissible relative humidity: | 85 %, non-condensing |

## General notes

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|              |                                       |
|--------------|---------------------------------------|
| Note on use: | Not suitable for personnel protection |
|--------------|---------------------------------------|

Operating range diagram



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