



Laser scanners  
LD-MRS / LD-MRS 4 Layer / Outdoor / Long  
Range

LD-MRS400001



**Model Name** > [LD-MRS400001](#)  
**Part No.** > [1045046](#)

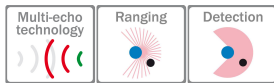


**At a glance**

- Simultaneous measurements on up to 8 scanning planes
- Weatherproof thanks to the multi-echo technology and IP 69K enclosure rating.
- Lightweight, compact design: Approx. 1 kg
- Wide temperature range: -40° C to +70° C
- Low power consumption: 8 watts
- Supply voltage: 9 V DC to 27 V DC
- Different angular resolutions in the scanning range are available
- Integrated object tracking

**Your benefits**

- Simultaneous measurement on up to 8 planes compensates for vehicle pitch
- Easy sensor integration due to compact design
- Low operating costs due to low power consumption
- Fast data output, even when processing a high amount of information
- IP 69K-rated housing ensures accurate measurements in difficult environmental conditions
- Better detection by focusing on a defined scanning segment
- Data preprocessing allows tracking of up to 128 objects



**Features**

Field of application:	Outdoor
Version:	Long Range
Laser class:	1
Field of view:	85 °, operating angle with 4 measurement layers, 25° work area expansion with 2 measurement layers (total 110°)
Scanning frequency:	12.5 Hz ... 50 Hz
Angular resolution:	0.125 ° 0.25 ° 0.5 °
Operating range:	0.5 m ... 250 m
Max. range with 10 % reflectivity:	50 m
Amount of evaluated echoes:	3

**Performance**

Detectable object shape:	Almost any
Systematic error <sup>1)</sup> :	± 300 mm

Statistical error <sup>2)</sup> :	100 mm
Integrated application:	Field evaluation
Number of field sets:	16 fields
Simultaneous processing cases:	16

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

### Interfaces

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Serial (RS-232):	✓
Function (Serial (RS-232)):	Auxiliary interface
Data transmission rate (Serial (RS-232)):	57,600 Baud
Ethernet:	✓
Function (Ethernet):	Raw data interface/parameterization
Data transmission rate (Ethernet):	100 Mbit/s
Protocol (Ethernet):	TCP/IP
CAN bus:	✓
Function (CAN bus):	Auxiliary interface
PROFIBUS DP:	-
PROFINET:	-
DeviceNet:	-

### Mechanics/electronics

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Electrical connection:	Circular plug-in connector
Operating voltage:	9 V ... 27 V
Power consumption:	8 W
Housing:	Al
Housing color:	Gray (RAL 7032), Black (RAL 9005)
Enclosure rating:	IP 69K
Protection class:	III
Weight:	1 kg
Dimensions:	94 mm x 165 mm x 88 mm

### Ambient data

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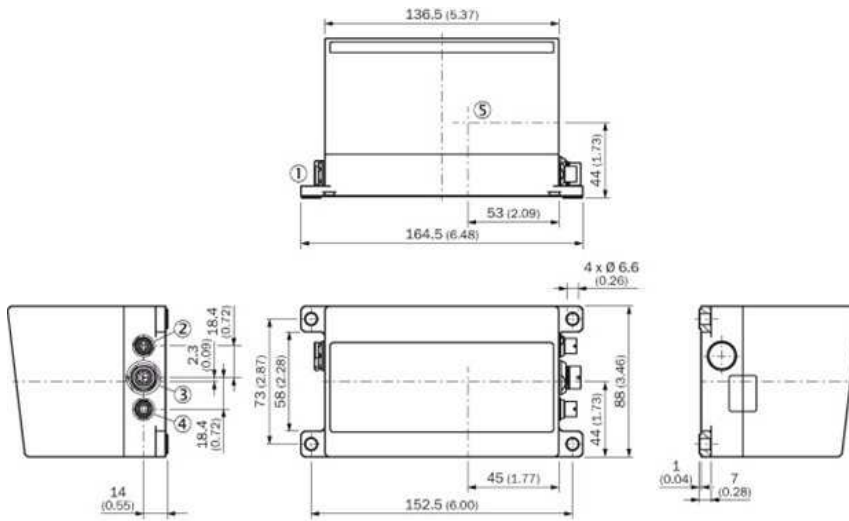
Ambient operating temperature:	-40 °C ... +70 °C
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### General notes

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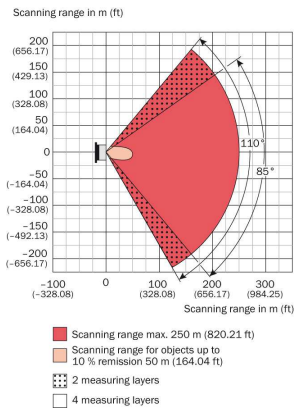
Note on use:	Not suitable for personnel protection
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## Dimensional drawing



- [1] venting element
- [2] "Ethernet" connection, 4-pin female connector
- [3] connection data interface / synchronisation, 12-pin female connector
- [4] connection "Power", 4-pin female connector

## Operating range diagram



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