



LD-MRS800001S01

LD-MRS

3D LASER SCANNERS

SICK
Sensor Intelligence.



Ordering information

| Type | Part no. |
|-----------------|----------|
| LD-MRS800001S01 | 1069408 |

Other models and accessories → www.sick.com/LD-MRS



Detailed technical data

Features

| | |
|--|--|
| Version | Long Range |
| Field of application | Outdoor |
| Laser class | 1 |
| Aperture angle | 85°, operating angle with 8 measurement layers, 25° work area expansion with 4 measurement layers (total 110°) |
| Scanning frequency | 12.5 Hz ... 50 Hz, object tracking at 12.5 Hz |
| Angular resolution | 0.125° 0.25° 0.5° |
| Operating range | 0.5 m ... 300 m |
| Max. range with 10 % reflectivity | 50 m |
| Amount of evaluated echoes | 3 |

Performance

| | |
|--------------------------------|------------------------|
| Detectable object shape | Almost any |
| Systematic error | ± 300 mm ¹⁾ |
| Statistical error | 100 mm ¹⁾ |
| Integrated application | Object tracking |

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

Interfaces

| | | |
|------------------------|------------------------|--|
| Serial (RS-232) | Function | ✓ Auxiliary interface |
| | Data transmission rate | 57,600 Baud |
| Ethernet | Function | ✓ Raw data interface/parameterization |
| | Data transmission rate | 100 Mbit/s |
| | Protocol | TCP/IP |
| CAN bus | Function | ✓ Output: Objects, Input: Vehicle ego motion data |

Mechanics/electronics

| | |
|------------------------------|----------------------------|
| 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 (L x W x H) | 94 mm x 165 mm x 88 mm |

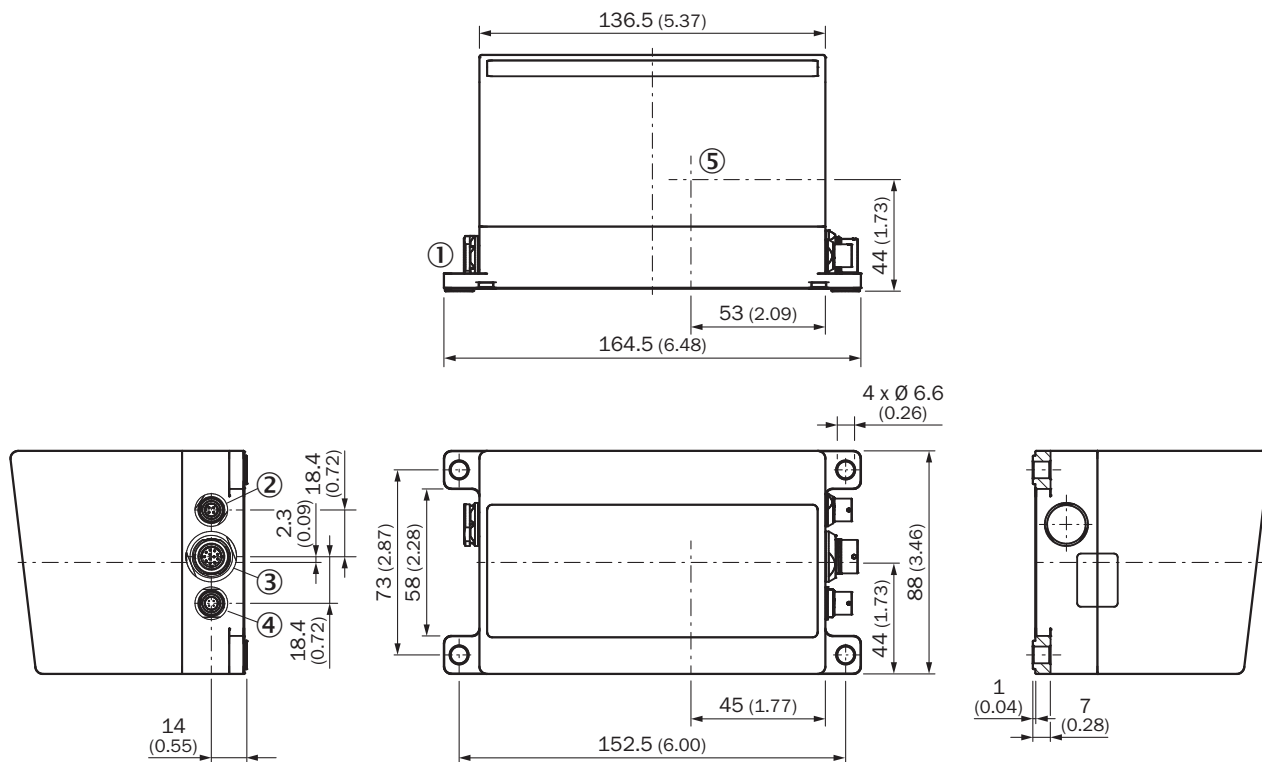
Ambient data

| | |
|--------------------------------------|-------------------|
| Ambient operating temperature | -40 °C ... +70 °C |
|--------------------------------------|-------------------|

General notes

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

Dimensional drawing (Dimensions in mm (inch))

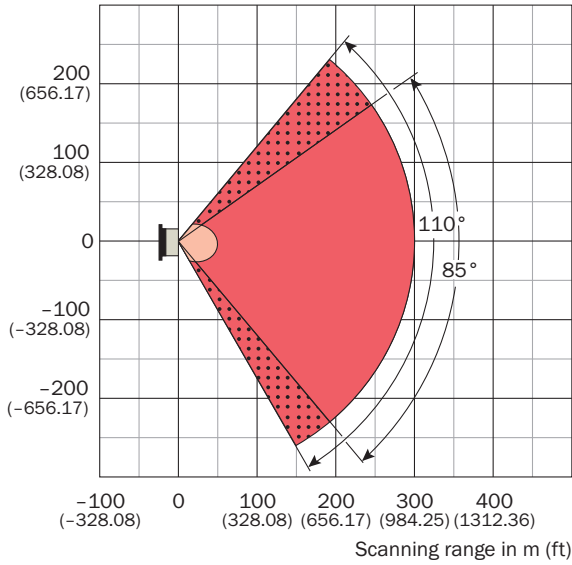


- ① Venting element
- ② "Ethernet" connection, 4-pin female connector
- ③ Connection data interface / synchronisation, 12-pin female connector
- ④ Connection "Power", 4-pin female connector

Operating range diagram

Operating range diagram 50 m

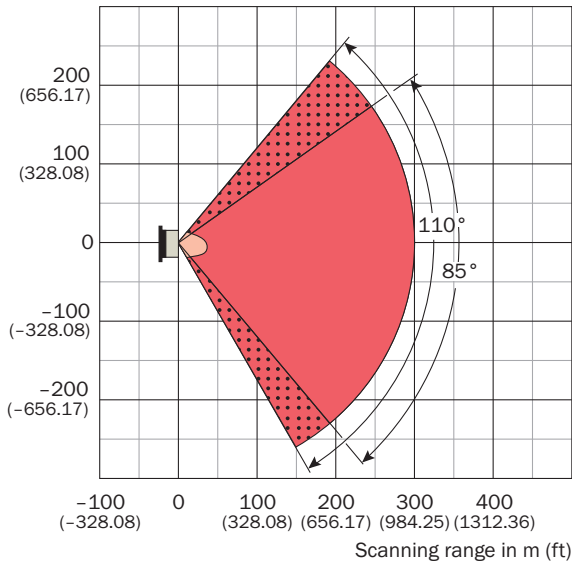
Scanning range in m (ft)



- Scanning range max. 300 m (984.25 ft)
- Scanning range for objects up to 10 % remission 50 m (164.04 ft)
- 2 measuring layers
- 4 measuring layers

Operating range diagram 30 m


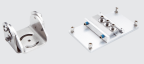




Scanning range in m (ft)



- Scanning range max. 300 m (984.25 ft)
- Scanning range for objects up to 10 % remission 30 m (98.43 ft)
- 2 measuring layers
- 4 measuring layers

Recommended accessories

Other models and accessories → www.sick.com/LD-MRS

| | Brief description | Type | Part no. |
|---|---|--|----------|
| Device protection (mechanical) | | | |
|  | Weather hood | Weather hood | 2058033 |
| Terminal and alignment brackets | | | |
|  | Bracket for LD-MRS, alignment adjustable in 2 axes | Alignment bracket | 1047429 |
| Plug connectors and cables | | | |
|  | Head A: male connector, round plug, 12-pin, straight Head B: female connector, D-Sub, 9-pin, straight Cable: CAN/CANopen, shielded, 2 m For LD-MRS | Connection cable (male connector-male connector) | 2054647 |
|  | Head A: female connector, round socket, 4-pin, straight Head B: cable Cable: shielded, 2 m | Connection cable (male connector-male connector) | 2049823 |
|  | Head A: male connector, round plug, straight Head B: male connector, RJ45, straight Cable: Ethernet, shielded, 2 m Connects the Ethernet interface of the LD-MRS to the Ethernet interface of the PC | Connection cable (male connector-male connector) | 2049826 |
| Test and monitoring tools | | | |
|  | Scan finder, receiver to localize infrared scans | Scan-Finder LS-80A | 6020756 |

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

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