



## Laser scanners LMS1xx / LMS11x / Outdoor / Short Range

LMS111-10100



**Model Name** > [LMS111-10100](#)  
**Part No.** > [1041114](#)

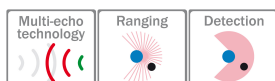


#### At a glance

- Economical measurement sensor
- Real-time output of measurement data via Ethernet interface
- Field evaluation using intelligent algorithms and programmable applications
- Number of switching outputs can be expanded via external CAN modules
- Parameter setting interface is accessible from the front while the device is mounted
- Rugged IP 67-rated housing
- Integrated heater

#### Your benefits

- Lightweight housing makes it easy to mount
- No wiring between sender and receiver
- Advanced filtering technology rigorously reduces false trips caused by outdoor environmental factors like fog, rain and snow
- Optional external CAN I/O module increases number of switching outputs for greater application flexibility
- Fast, easy commissioning due to SOPAS software



#### Features

|                                    |                          |
|------------------------------------|--------------------------|
| Field of application:              | Outdoor                  |
| Version:                           | Short Range              |
| Light source:                      | Infrared (905 nm)        |
| Laser class:                       | 1 (IEC 60825-1 (2007-3)) |
| Field of view:                     | 270 °                    |
| Scanning frequency:                | 25 Hz/50 Hz              |
| Angular resolution:                | 0.25 °<br>0.5 °          |
| Heating:                           | Yes                      |
| Operating range:                   | 0.5 m ... 20 m           |
| Max. range with 10 % reflectivity: | 18 m                     |
| Amount of evaluated echoes:        | 2                        |
| Fog correction:                    | Yes                      |

#### Performance

|                          |            |
|--------------------------|------------|
| Response time:           | ≥ 20 ms    |
| Detectable object shape: | Almost any |

|                                   |                  |
|-----------------------------------|------------------|
| Systematic error <sup>1)</sup> :  | ± 30 mm          |
| Statistical error <sup>2)</sup> : | ± 12 mm          |
| Integrated application:           | Field evaluation |
| Number of field sets:             | 10 fields        |
| Simultaneous processing cases:    | 10               |

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

## Interfaces

|                                           |                                                                                                      |
|-------------------------------------------|------------------------------------------------------------------------------------------------------|
| Serial (RS-232):                          | ✓                                                                                                    |
| Function (Serial (RS-232)):               | Host, AUX                                                                                            |
| Data transmission rate (Serial (RS-232)): | 9.6 kBaud ... 115.2 kBaud                                                                            |
| Ethernet:                                 | ✓                                                                                                    |
| Function (Ethernet):                      | Host                                                                                                 |
| Data transmission rate (Ethernet):        | 10/100 Mbit                                                                                          |
| Protocol (Ethernet):                      | TCP/IP, OPC                                                                                          |
| CAN bus:                                  | ✓                                                                                                    |
| Function (CAN bus):                       | Outputs extension                                                                                    |
| PROFIBUS DP:                              | -                                                                                                    |
| PROFINET:                                 | -                                                                                                    |
| DeviceNet:                                | -                                                                                                    |
| Switching inputs:                         | 2                                                                                                    |
| Switching outputs:                        | 3                                                                                                    |
| Optical indicators:                       | 1 7-segment display (plus 5 LEDs showing device status, contamination warning and initial condition) |

## Mechanics/electronics

|                        |                                   |
|------------------------|-----------------------------------|
| Electrical connection: | M12 circular plug-in connector    |
| Operating voltage:     | 10.8 V DC ... 30 V DC             |
| Power consumption:     | 60 W                              |
| Housing color:         | Gray (RAL 7032)                   |
| Enclosure rating:      | IP 67 (EN 60529, Section 14.2.7)  |
| Protection class:      | III (EN 50178 (1997;10))          |
| Weight:                | 1.1 kg, without connecting cables |
| Dimensions:            | 105 mm x 102 mm x 162 mm          |

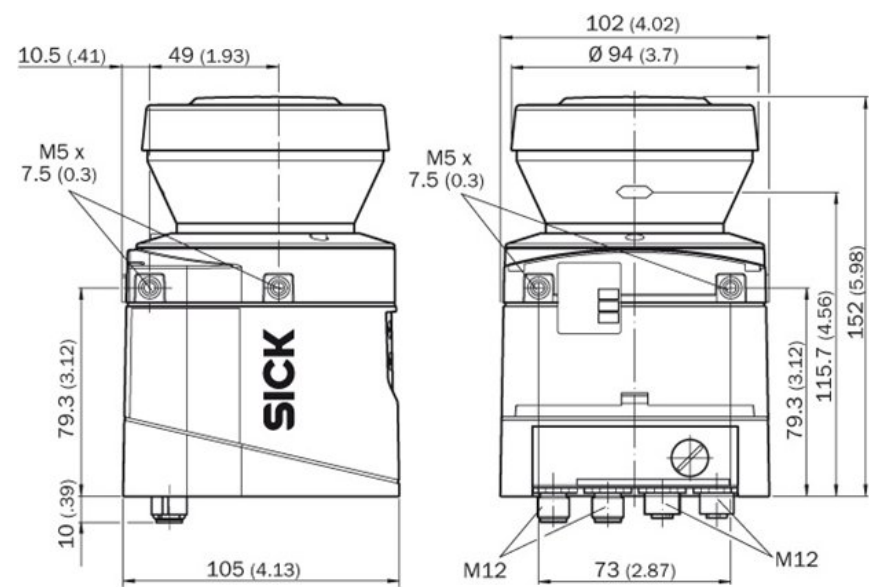
## Ambient data

|                                      |                                              |
|--------------------------------------|----------------------------------------------|
| Object remission:                    | 2 % ... > 1,000 % (reflectors)               |
| Electromagnetic compatibility (EMC): | (EN 61000-6-2:2005) (EN 61000-6-4 (2007-01)) |
| Vibration resistance:                | (EN 60068-2-6 (1995-04))                     |
| Shock resistance:                    | (EN 60068-2-27 (1993-03))                    |
| Ambient operating temperature:       | -30 °C ... 50 °C                             |
| Storage temperature:                 | -30 °C ... 70 °C                             |
| Ambient light safety:                | 40,000 lx                                    |

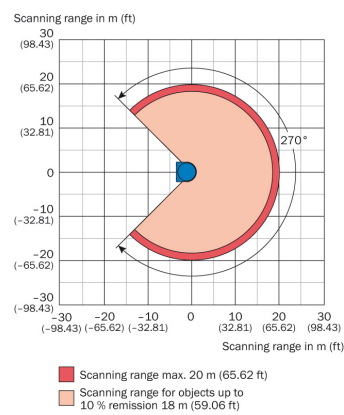
## General notes

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

Dimensional drawing



Operating range diagram



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