



# LMC133-11101 VdS

LMC1xx

2D LIDAR SENSORS

**SICK**  
Sensor Intelligence.



### Ordering information

Type	Part no.
LMC133-11101 VdS	1051489

Other models and accessories → [www.sick.com/LMC1xx](http://www.sick.com/LMC1xx)



### Detailed technical data

#### Features

<b>Application</b>	Security
<b>Light source</b>	Infrared (905 nm)
<b>Laser class</b>	1 (IEC 60825-1:2014, EN 60825-1:2014)
<b>Aperture angle</b>	Horizontal 270°
<b>Scanning frequency</b>	50 Hz
<b>Angular resolution</b>	0.25° 0.5°
<b>Heating</b>	Yes
<b>Working range</b>	0.5 m ... 20 m
<b>Scanning range</b>	At 10% remission factor 18 m
<b>Amount of evaluated echoes</b>	2

#### Mechanics/electronics

<b>Connection type</b>	1 x system plug with screw terminal block
<b>Supply voltage</b>	9 V DC ... 30 V DC
<b>Power consumption</b>	20 W, typ. 8 W, heating typ. 35 W
<b>Housing color</b>	Signal white (RAL 9003)
<b>Enclosure rating</b>	IP67 (EN 60529, Section 14.2.5)
<b>Protection class</b>	III (EN 50178 (1997;10))
<b>Weight</b>	1.1 kg, without connecting cables
<b>Dimensions (L x W x H)</b>	105 mm x 102 mm x 152 mm
<b>MTBF</b>	> 100 years

#### Safety-related parameters

<b>MTTF<sub>D</sub></b>	> 100 years
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## Performance

<b>Response time</b>	≥ 20 ms
<b>Detectable object shape</b>	Almost any
<b>Systematic error</b>	± 30 mm <sup>1)</sup>
<b>Statistical error</b>	12 mm <sup>1)</sup>
<b>Integrated application</b>	Field evaluation with flexible fields Security conform parameterization
<b>Number of field sets</b>	10 fields
<b>Simultaneous evaluation cases</b>	10

<sup>1)</sup> Typical value; actual value depends on environmental conditions.

## Interfaces

<b>Ethernet</b>	✓, TCP/IP, RS-232
Function	Data interface (read result output) Data interface (read result output), Service interface Extension of outputs
Data transmission rate	10/100 MBit/s 9.6 kBaud ... 115.2 kBaud
<b>Digital inputs</b>	4 digital
<b>Digital outputs</b>	3 (2 relay, 1 digital)
<b>Optical indicators</b>	1 7-segment display (plus 5 LEDs showing device status, contamination warning and initial condition, both can be activated)

## Ambient data

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

## General notes

<b>Items supplied</b>	LMS13x VdS (Outdoor)
<b>Note on use</b>	The sensor does not constitute a safety component as defined by relevant legislation on machine safety.

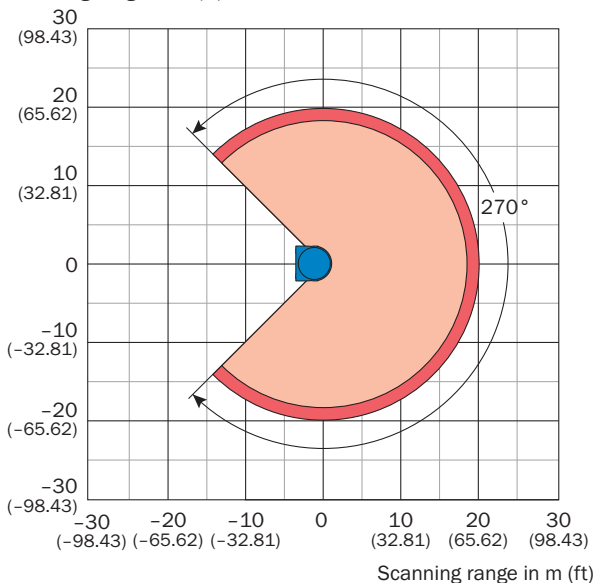
## Classifications

<b>ECLASS 5.0</b>	27270990
<b>ECLASS 5.1.4</b>	27270990
<b>ECLASS 6.0</b>	27270913
<b>ECLASS 6.2</b>	27270913
<b>ECLASS 7.0</b>	27270913
<b>ECLASS 8.0</b>	27270913
<b>ECLASS 8.1</b>	27270913
<b>ECLASS 9.0</b>	27270913
<b>ECLASS 10.0</b>	27270913

<b>ECLASS 11.0</b>	27270913
<b>ECLASS 12.0</b>	27270913
<b>ETIM 5.0</b>	EC002550
<b>ETIM 6.0</b>	EC002550
<b>ETIM 7.0</b>	EC002550
<b>ETIM 8.0</b>	EC002550
<b>UNSPSC 16.0901</b>	41111615

### Working range diagram

Scanning range in m (ft)



- Scanning range max. 20 m (65.62 ft)
- Scanning range for objects up to 10 % remission 18 m (59.06 ft)

### Recommended services

Additional services → [www.sick.com/LMC1xx](http://www.sick.com/LMC1xx)

	Type	Part no.
<b>Maintenance</b>		
<ul style="list-style-type: none"> <li>• <b>Product area:</b> 2D LiDAR sensors, 3D LiDAR sensors</li> <li>• <b>Range of services:</b> Inspection, analysis and restoring of defined functions, Inspection and adaptation of basic settings, parameters of field application, filters for raw data output, and product-specific configuration</li> <li>• <b>Duration:</b> Additional work will be invoiced separately</li> <li>• <b>Travel expenses:</b> The prices do not include travel costs such as hotel, flight, travel time and expenses.</li> </ul>	Maintenance of LiDAR sensors	1682593

	Type	Part no.
Commissioning		
<ul style="list-style-type: none"> <li>• <b>Product area:</b> 2D LiDAR sensors, 3D LiDAR sensors</li> <li>• <b>Range of services:</b> Inspection of connection, fine adjustment, configuration of monitored areas, configuration and optimization of parameters as well as tests, Setup of previously defined functions of basic settings, parameters of field application, filters for raw data output and product-specific configuration</li> <li>• <b>Travel expenses:</b> The prices do not include travel costs such as hotel, flight, travel time and expenses.</li> <li>• <b>Duration:</b> Additional work will be invoiced separately</li> </ul>	Commissioning LiDAR sensors	1680672
Extended warranty		
<ul style="list-style-type: none"> <li>• <b>Product area:</b> Identification solutions, machine vision, Detection and ranging solutions, safety camera sensors, Safety laser scanners, Safety radar sensors</li> <li>• <b>Range of services:</b> The services correspond to the scope of the statutory manufacturer warranty (SICK general terms of delivery).</li> <li>• <b>Duration:</b> Five-year warranty from delivery date.</li> </ul>	Extended warranty for a total of five years from delivery date	1680671

## 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.”

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)