# LMS291-S14

LMS2xx

**2D LIDAR SENSORS**

**SICK**
Sensor Intelligence.

## Ordering information

| Type | Part no. |
|---|---|
| LMS291-S14 | 1025329 |

Other models and accessories ➔ www.sick.com/LMS2xx

CE

## Detailed technical data

### Features

| | |
|---|---|
| **Application** | Outdoor |
| **Light source** | Infrared (905 nm) |
| **Laser class** | 1, eye-safe (EN/IEC 60825-1) <br> 21CFR 1040.10 |
| **Aperture angle** | |
| Horizontal | 90° |
| **Scanning frequency** | 75 Hz |
| **Angular resolution** | 0.5° |
| **Heating** | Optional via external heating plate |
| **Working range** | 0 m ... 80 m |
| **Scanning range** | |
| At 10% remission | 30 m |
| **Fog correction** | Yes |

### Mechanics/electronics

| | |
|---|---|
| **Connection type** | 2 x System plug with 9-pin D-SUB female connector (solder connection) |
| **Supply voltage** | ≥ 24 V DC, ± 15 % |
| **Power consumption** | 30 W |
| **Housing** | Aluminum die cast |
| **Housing color** | Gray (RAL 7032) |
| **Enclosure rating** | IP65 |
| **Protection class** | II (VDE 0106/IEC 1010-1) [1] |
| **Weight** | + 4.5 kg |
| **Dimensions (L x W x H)** | 156 mm x 155 mm x 210 mm |
| **MTBF** | 50,000 h |

[1] Insulated.

## Performance

| | |
|---|---|
| **Response time** | ≥ 13 ms |
| **Detectable object shape** | Almost any |
| **Systematic error** | ± 35 mm [1] |
| **Statistical error** | ± 10 mm [1] |

[1] Typical value; actual value depends on environmental conditions.

## Interfaces

| | |
|---|---|
| **Digital inputs** | 1 |
| **Digital outputs** | 0 |
| **Optical indicators** | 3 LEDs |

## Ambient data

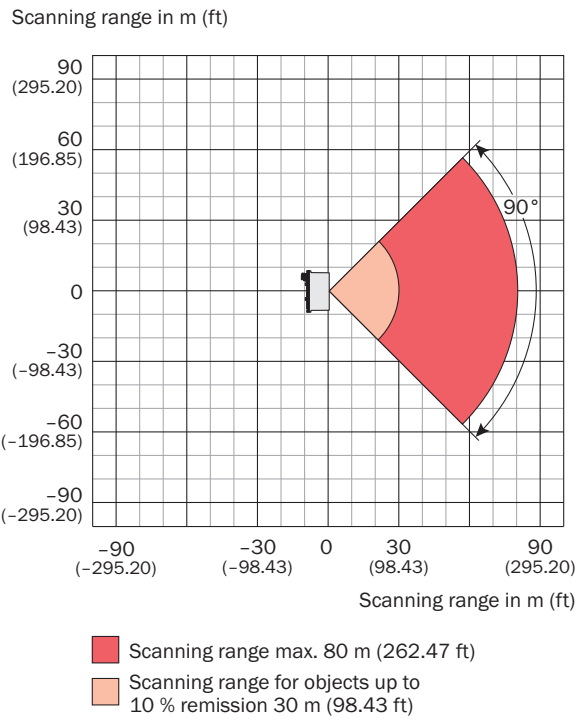| | |
|---|---|
| **Object remission** | 1.8 % … 10,000 % |
| **Electromagnetic compatibility (EMC)** | EN 61000-6-2 / EN 61000-6-3 / A11 (2004-07) |
| **Vibration resistance** | IEC 68 |
| **Shock resistance** | IEC 68 |
| **Ambient operating temperature** | 0 °C … +50 °C |
| **Storage temperature** | –30 °C … +70 °C, with heating plate –12 … +50 °C |

## General notes

| | |
|---|---|
| **Life cycle phase** | Discontinued |
| **Note on use** | The sensor does not constitute a safety component as defined by relevant legislation on machine safety. |

## Classifications

| | |
|---|---|
| **eCl@ss 5.0** | 27270990 |
| **eCl@ss 5.1.4** | 27270990 |
| **eCl@ss 6.0** | 27270913 |
| **eCl@ss 6.2** | 27270913 |
| **eCl@ss 7.0** | 27270913 |
| **eCl@ss 8.0** | 27270913 |
| **eCl@ss 8.1** | 27270913 |
| **eCl@ss 9.0** | 27270913 |
| **eCl@ss 10.0** | 27270913 |
| **eCl@ss 11.0** | 27270913 |
| **eCl@ss 12.0** | 27270913 |
| **ETIM 5.0** | EC002550 |
| **ETIM 6.0** | EC002550 |
| **ETIM 7.0** | EC002550 |
| **ETIM 8.0** | EC002550 |
| **UNSPSC 16.0901** | 41111615 |

## Working range diagram

Scanning range in m (ft)



Scanning range in m (ft)

- 🟥 Scanning range max. 80 m (262.47 ft)
- 🟧 Scanning range for objects up to 10 % remission 30 m (98.43 ft)

## Recommended accessories

Other models and accessories ➜ www.sick.com/LMS2xx

| | Brief description | Type | Part no. |
|---|---|---|---|
| **Fieldbus modules** | | | |
| | Connection housing synchronization | Synchronization connector housing | 2021520 |
| **Mounting brackets and plates** | | | |
| | 1 piece, mounting bracket for direct mounting, from the rear, on wall or machine, not adjustable, Aluminum | Mounting kit 1 | 2015623 |
| **Plug connectors and cables** | | | |
| | YF2Z19-030XXXM2Z19 | YF2Z19-030XXXM2Z19 | 2016401 |

## Recommended services

Additional services ➜ www.sick.com/LMS2xx

| | Type | Part no. |
|---|---|---|
| **Maintenance** | | |
| • **Product area:** 2D LiDAR sensors, 3D LiDAR sensors<br>• **Range of services:** 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<br>• **Duration:** Additional work will be invoiced separately<br>• **Travel expenses:** The prices do not include travel costs such as hotel, flight, travel time and expenses. | Maintenance of LiDAR sensors | 1682593 |
| **Commissioning** | | |
| • **Product area:** 2D LiDAR sensors, 3D LiDAR sensors<br>• **Range of services:** 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<br>• **Travel expenses:** The prices do not include travel costs such as hotel, flight, travel time and expenses.<br>• **Duration:** Additional work will be invoiced separately | Commissioning LiDAR sensors | 1680672 |

## 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**

SICK AG | Waldkirch | Germany | www.sick.com

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