



## LMS1000

Fast 2D LiDAR sensor saves time during object detection

**SICK**  
Sensor Intelligence.

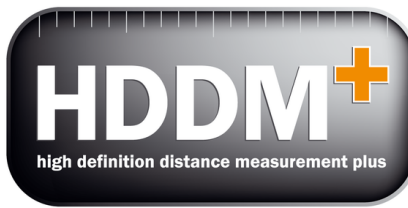
## Advantages



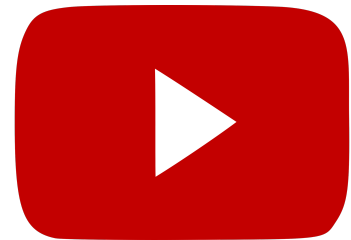
The LMS1000 2D LiDAR sensor is the ideal solution for indoor and outdoor applications, even under adverse ambient conditions. This outstanding performance can be improved even more with additional digital filters for preparation and optimization of distance values measured by the LMS1000. With the filter, the user can perfectly and efficiently adjust the LMS1000 to the specific requirements of the respective application. SICK offers various filters for this purpose.



The LMS1000 is not bothered by environmental influences such as rain, fog, dust and ambient light.



The innovative HDDM+ technology enables measurement at long distances and is characterized by low noise in the measured value data as well as multi-echo capability.



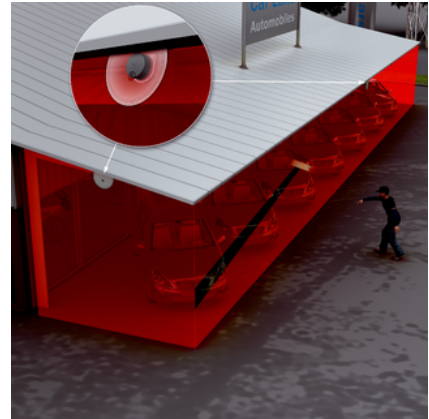
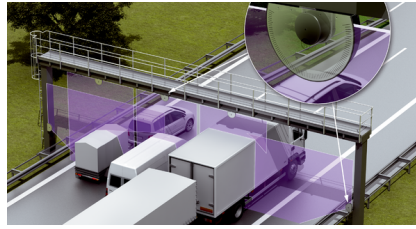
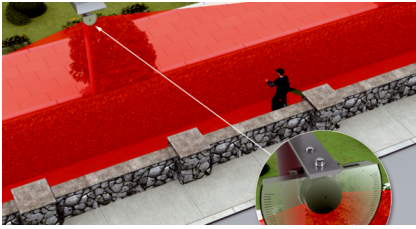
Discover the advantages of the HDDM+ technology and multi-echo evaluation in the video.



**High availability even under unfavorable ambient conditions and very good reliability when detecting objects**



Reliably detecting objects at very high speeds is a challenge. This task becomes an even bigger challenge when adverse ambient conditions greatly impair visibility. The LMS1000 is a specialist in exactly these types of situations. With its revolutionary scan rate of 150 Hz it responds with lightning speed, and covers a variety of application areas with its combination of field evaluation and measurement data output.



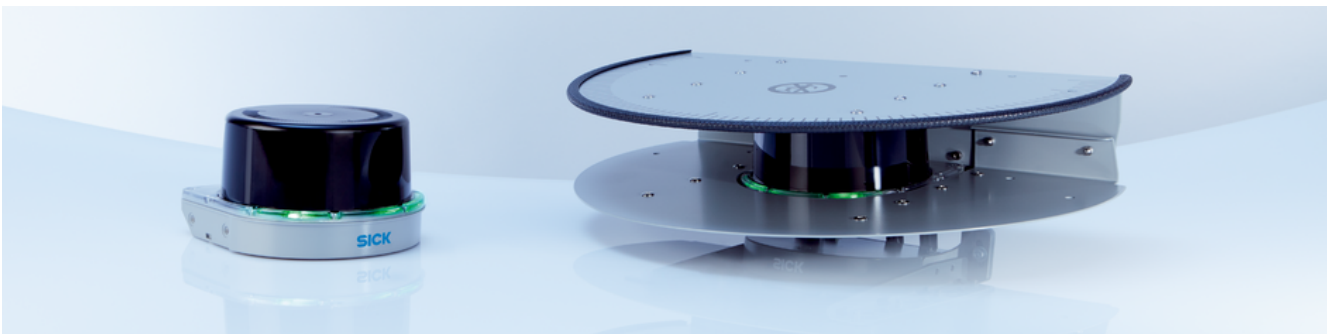
The LMS1000 delivers reliable measurement results when protecting indoor and outdoor areas and is well-suited for object protection and access control.

Due to its excellent outdoor capabilities, the LMS1000 is perfect for reliable traffic monitoring at toll stations or road control posts.

If fast pass-through monitoring is required, e.g., where strict safety precautions are necessary, the LMS1000 is the ideal solution thanks to its high scan rate.



**The very high scan rate makes it possible to collect large data volumes and detect fast objects**



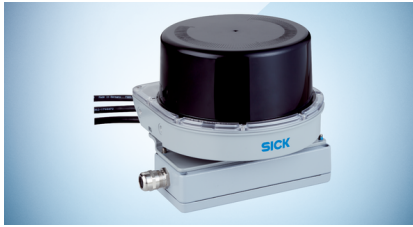
## Strong performance, versatile in use

The large selection of accessory components enables variable adjustment of the LMS1000 to the respective application requirements. This increases flexibility when it comes to application possibilities in your industry, while at the same time reducing storage costs and expenditures for different variants as well as integration. The easy and convenient sensor diagnostics via web server as well as the user-friendly operation round out the exceptional profile of the LMS1000.



### always well protected

From simple brackets to mountings for fine adjustment and weather hoods for protection against weather conditions - the right solution for any application.



### always well connected

Large selection of cables and power supply units up to connection modules.



### no worries about space

Rotatable connections also enable flexible mounting, both indoors and outdoors.



**High flexibility during installation, convenient parameterization and simple diagnostics via web server**

## SICK LifeTime Services

**SICK's services increase machine and plant productivity, enhance the safety of people all over the world, provide a solid foundation for a sustainable business operation, and protect investment goods. In addition to its usual consulting services, SICK provides direct on-site support during the conceptual design and commissioning phases as well as during operation.**

**The range of services not only covers aspects like maintenance and inspection, but also includes performance checks as well as upgrades and retrofits. Modular or customized service contracts extend the service life of plants and therefore increase their availability. If faults occur or limit values are exceeded, these are detected at all times by the corresponding sensors and systems.**



### Consulting and design

Application-specific advice on the product, its integration and the application itself.



### commissioning and maintenance

Application-optimized and sustainable — thanks to professional commissioning and maintenance by a trained SICK service technician.



### service contracts

Extended warranty, SICK Remote Service, 24-hour helpdesk, maintenance, availability guarantees and other modular components can be individually combined on request.



## Technical data overview

<b>Application</b>	Outdoor
<b>Measurement principle</b>	HDDM <sup>+</sup>
<b>Integrated application</b>	Field evaluation with flexible fields
<b>Aperture angle</b>	Horizontal 275 °
<b>Angular resolution</b>	0.75 ° 0.1875 °, interlaced 0.375 °, interlaced
<b>Working range</b>	0.2 m ... 64 m
<b>Scanning range</b>	At 10% remission factor 16 m At 90% remission factor 30 m
<b>Amount of evaluated echoes</b>	3
<b>Scanning frequency</b>	150 Hz, 4 x 37,5 Hz
<b>Heating</b>	Self-heating
<b>Ambient operating temperature</b>	-30 °C ... +50 °C
<b>Ethernet</b>	✓
<b>Weight</b>	1.2 kg

## Product description

The LMS1000 is SICK's quickest 2D LiDAR sensor at 150 Hz. Even when the weather is bad, the high speed and exceptional performance ensure that the scanner collects large data quantities and detects even very quick objects. Thanks to the HDDM<sup>+</sup> method with multi-echo technology, the scanner is best suited for use outdoors. The combination of high speed and ruggedness makes this scanner the perfect candidate in applications that require fast data acquisition such as in traffic management. The LMS1000 is versatile: With field evaluation and data output in one sensor, it is the ideal solution in a wide range of tasks and rotating male connectors make mounting flexible. User-friendly operation rounds off this exceptional profile.

## At a glance

- Efficient sensor with integrated high-speed evaluation
- High weather resistance and reliability through HDDM<sup>+</sup> with multi-echo technology
- Field evaluation and measured data in one sensor
- Easy configuration, with the ability to adapt to a changing environment
- Convenient and simple diagnostics via web server

## Your benefits

- The very high scan rate makes the collection of large data volumes and detection of quick objects possible
- HDDM<sup>+</sup> with multi-echo technology for greater availability when subjected to environmental influences like rain, snow, and dust
- High flexibility for installation thanks to rotating male/female connectors
- Integrated field evaluation and measurement data output makes it possible to tackle various applications with one sensor
- Low setup costs: Identical telegram for all 2D LiDAR sensors from SICK
- Fields that are easy to teach in save time during setup
- Low maintenance costs thanks to high weather resistance

## Fields of application

- Speed monitoring in traffic management, for example, even in fast-moving traffic
- Quick pass-through monitoring, for example, wherever high safety precautions are necessary such as in airports, correctional facilities, or in anti-theft systems

## Ordering information

Other models and accessories → [www.sick.com/LMS1000](http://www.sick.com/LMS1000)

- **Working range:** 0.2 m ... 64 m
- **Integrated application:** Field evaluation with flexible fields

Enclosure rating	Color	Connection type	Scanning frequency	Type	Part no.
IP65	Gray (RAL 7042)	M12 round connectors with swivel connector	150 Hz, 4 x 37,5 Hz	LMS1104C-111031S01	1092445

## 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)