



LMS1xx

Compact and economical, even in harsh environments

2D LIDAR SENSORS

SICK
Sensor Intelligence.



Technical data overview

Application	Indoor Outdoor Security (depending on type)
Integrated application	Field evaluation with flexible fields, easy teach option, security conform parameterization, Easy Teach lite and pro, Easy Teach lite (depending on type)
Aperture angle	Horizontal 270°
Angular resolution	0.25° 0.5°
Working range	0.5 m ... 50 m (depending on type)
Scanning range	At 10% remission 18 m ... 30 m (depending on type) At 90% remission 20 m ... 50 m (depending on type)
Amount of evaluated echoes	2
Scanning frequency	25 Hz 50 Hz
Heating	No / yes (depending on type)
Ambient operating temperature	-40 °C ... +60 °C (depending on type)
Ethernet	✓
Serial	✓
CAN	✓
Digital inputs	2 digital and 2 encoder inputs 4 digital 4 digital (thereof 2 suitable for encoders)
Digital outputs	3 3 (2 relay, 1 digital)
Weight	1.1 kg

Product description

The LMS1xx 2D LiDAR sensors form part of the extensive portfolio of 2D laser scanner from SICK, and offer an efficient and cost-effective alternative to other solutions for both indoor and outdoor use. SICK offers these 2D LiDAR sensors in a number of variants. The LMS1xx scanners can therefore easily cope with various requirements in terms of sensing range and application software. And there are a number of security versions to round off the wide range of applications. All variants in this product family are marked out by their compact design and dimensions, as well as their light weight. Compact design meets impressive innovation: Multi-echo technology increases the availability of the sensors outdoors and even enables them to be installed behind glass.

At a glance

- Efficient and cost-effective 2D LiDAR sensors for measuring ranges of up to 50 m
- Outstanding performance whatever the weather, thanks to multi-echo technology and intelligent algorithms
- Rugged, compact housing with enclosure rating up to IP 67, integrated heating, and a temperature range of -40 °C to +60 °C
- Variants for security applications with relay outputs and VdS certification available
- Measurement data output via Ethernet interface in real time
- Number of digital outputs can be expanded via external CAN modules

Your benefits

- Straightforward integration and mounting due to compact design
- Low purchase and operating costs: One device monitors areas of over 5,500 m² in size
- Product family with many variants, which also provide solutions for demanding and specialized applications
- Extended filter options significantly reduce measurement errors caused by conditions such as fog, rain or snow
- Optional CAN I/O module increases number of digital outputs for greater application flexibility
- Ethernet interface makes for easy implementation and remote maintenance

Fields of application

- Navigation and anti-collision sensor for automated guided systems, freely navigating vehicles and robots
- Anti-collision for vehicles and cranes, even in harsh environments
- Traffic applications through quick triggering, vehicle detection and profiling
- Object protection for monitoring facades, roofs and high-security buildings
- Protection for buildings, sculptures and paintings
- Perimeter protection and camera control

Ordering information

Other models and accessories → www.sick.com/LMS1xx

- **Scanning frequency:** 25 Hz, 50 Hz

Working range	Integrated application	Enclosure rating	Color	Connection type	Type	Part no.
0.5 m ... 20 m	Field evaluation with flexible fields	IP65	Light blue (RAL 5012)	1 x system plug with screw terminal block	LMS100-10000	1041113
			Black (RAL 9005)	1 x system plug with screw terminal block	LMS102-10000	1048235
			Gray (RAL 7032)	1 x system plug with screw terminal block	LMS101-10000	1048236
	Field evaluation with flexible fields, easy teach option	IP67	Gray (RAL 7032)	1 x M12 round connector	LMS111-10100	1041114
			Gray (RAL 7032)	1 x M12 round connector	LMS111-10100S09	1068858
	Field evaluation with flexible fields, security conform parameterization, Easy Teach lite and pro	IP65	Black (RAL 9005)	1 x system plug with screw terminal block	LMS122-10000 Security	1044322
			Gray (RAL 7032)	1 x system plug with screw terminal block	LMS121-10000 Security	1051384
		IP67	Black (RAL 9005)	1 x M12 round connector	LMS132-10100 Security	1051402
			Signal white (RAL 9003)	1 x M12 round connector	LMS133-10100 Security	1051403
	0.5 m ... 40 m	Field evaluation with flexible fields, security conform parameterization, Easy Teach lite	IP67	Gray (RAL 7032)	1 x M12 round connector	LMS141-05100 Security Core
Field evaluation with flexible fields, security conform parameterization, Easy Teach lite and pro		IP67	Black (RAL 9005)	1 x M12 round connector	LMS142-15100 Security Prime	1070410
			Gray (RAL 7032)	1 x M12 round connector	LMS141-15100 Security Prime	1070409
			Signal white (RAL 9003)	1 x M12 round connector	LMS143-15100 Security Prime	1070411
0.5 m ... 50 m		Field evaluation with flexible fields	IP67	Gray (RAL 7032)	1 x M12 round connector	LMS151-10100
	Signal white (RAL 9003)			1 x M12 round connector	LMS153-10100	1065550

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