



# LMS511-20100 PRO

LMS5xx

2D LASER SCANNERS

**SICK**  
Sensor Intelligence.



### Ordering information

Type	Part no.
LMS511-20100 PRO	1047782

Other models and accessories → [www.sick.com/LMS5xx](http://www.sick.com/LMS5xx)



### Detailed technical data

#### Features

<b>Version</b>	Mid Range
<b>Variant</b>	PRO
<b>Field of application</b>	Outdoor
<b>Resolution power</b>	High Resolution
<b>Light source</b>	Infrared (905 nm)
<b>Laser class</b>	1, eye-safe (IEC 60825-1 (2007-6))
<b>Aperture angle</b>	190°
<b>Scanning frequency</b>	25 Hz / 35 Hz / 50 Hz / 75 Hz / 100 Hz
<b>Angular resolution</b>	0.167° 0.25° 0.333° 0.5° 0.667° 1°
<b>Heating</b>	Yes
<b>Operating range</b>	0 m ... 80 m
<b>Max. range with 10 % reflectivity</b>	26 m
<b>Spot size</b>	4.7 mrad
<b>Amount of evaluated echoes</b>	5
<b>Fog correction</b>	Yes

#### Performance

<b>Response time</b>	≥ 10 ms
<b>Detectable object shape</b>	Almost any
<b>Systematic error</b>	± 25 mm (1 m ... 10 m) ± 35 mm (10 m ... 20 m) <sup>1)</sup>
<b>Statistical error</b>	± 7 mm (1 m ... 10 m) ± 9 mm (10 m ... 20 m) <sup>1)</sup>

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

<b>Integrated application</b>	Field evaluation
<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>Serial (RS-232, RS-422)</b>	✓
Function	Host
Data transmission rate	9.6 kBaud ... 500 kBaud
<b>Ethernet</b>	✓
Function	Host
Data transmission rate	10/100 MBit/s
Protocol	TCP/IP, OPC
<b>CAN bus</b>	✓
Function	Extension of outputs
<b>USB</b>	✓, Mini-USB
Function	AUX
Data transmission rate	9.6 kBaud ... 500 kBaud
<b>Switching inputs</b>	4 (Encoders)
<b>Switching outputs</b>	6
<b>Optical indicators</b>	5 LEDs (Additional 7-segment display)

## Mechanics/electronics

<b>Electrical connection</b>	4 x M12 round connector
<b>Operating voltage</b>	24 V DC
<b>Power consumption</b>	22 W, + 55 W heating (typical)
<b>Housing color</b>	Gray (RAL 7032)
<b>Enclosure rating</b>	IP 67 (EN 60529, Section 14.2.7)
<b>Protection class</b>	III (EN 60529, Section 14.2.7)
<b>Weight</b>	3.7 kg
<b>Dimensions (L x W x H)</b>	160 mm x 155 mm x 185 mm

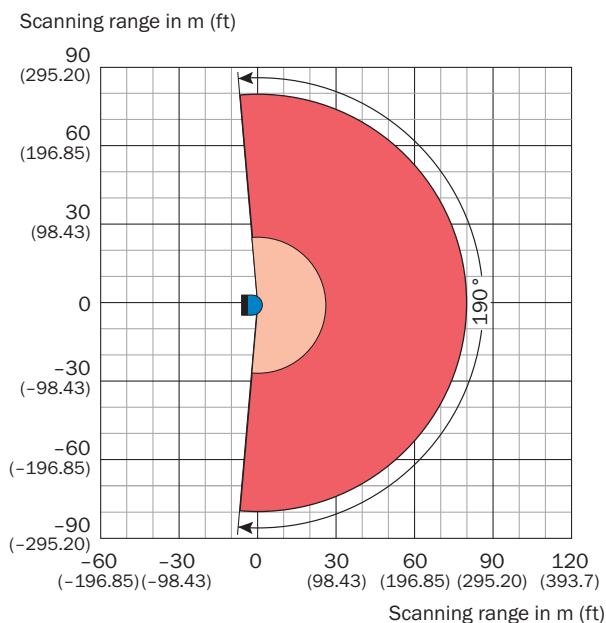
## Ambient data

<b>Object remission</b>	2 % ... > 1,000 % (reflectors)
<b>Electromagnetic compatibility (EMC)</b>	EN 61000-6-2:2005 / EN 61000-6-3 (2007-03)
<b>Vibration resistance</b>	EN 60068-2-6 (1995-04)
<b>Shock resistance</b>	EN 60068-2-27 (1993-03) EN 60068-2-29 (1993-04)
<b>Ambient operating temperature</b>	-30 °C ... +50 °C
<b>Storage temperature</b>	-30 °C ... +70 °C
<b>Ambient light immunity</b>	70,000 lx

## General notes

<b>Note on use</b>	Not suitable for personnel protection
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### Operating range diagram




- Scanning range max. 80 m (262.47 ft)
- Scanning range for objects up to 10 % remission 26 m (85.3 ft)

### Recommended accessories

Other models and accessories → [www.sick.com/LMS5xx](http://www.sick.com/LMS5xx)

	Brief description	Type	Part no.
<b>Device protection (mechanical)</b>			
	Protection hood	Protection cover	2056850
<b>Mounting brackets and mounting plates</b>			
	1 piece, mounting bracket for direct mounting, from the rear, on wall or machine, not adjustable	Mounting kit 1	2015623
<b>Plug connectors and cables</b>			
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: cable Cable: shielded, 5 m	Connecting cable (female connector - open)	6036159
	Head A: female connector, M12, 12-pin, straight, A-coded Head B: cable Cable: shielded, 5 m	Connecting cable (female connector - open)	6042735
	Head A: male connector, M12, 12-pin, straight, A-coded Head B: cable Cable: shielded, 5 m	Connecting cable (male connector-open)	6042732

	Brief description	Type	Part no.
	Head A: male connector, M12, 4-pin, straight, D-coded Head B: male connector, RJ45, 8-pin, straight Cable: Ethernet, drag chain use, PUR, shielded, 5 m	SSL-2J04-G05ME	6034415

## 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)