



Laser scanners LMS5xx / LMS511 / Outdoor / Mid Range

LMS511-11100 Lite



Model Name > [LMS511-11100 Lite](#)
Part No. > [1054155](#)

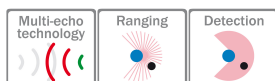


At a glance

- Powerful and efficient laser measurement sensor for ranges of up to 80 m
- Outstanding performance in adverse environmental conditions due to multi-echo technology
- IP 67 enclosure rating, built-in heater, highly compact design
- Low power consumption
- Fast signal processing
- Multiple I/Os
- Synchronization of multiple sensors possible

Your benefits

- Superior performance in a vast range of applications
- Smallest sensor with highest accuracy in its class
- Comprehensive range of lines and models to suit all performance and price requirements
- Fast, reliable object detection in nearly any weather conditions
- Low power consumption reduces total cost of ownership
- Best price/performance ratio in this sensor class on the market
- Fast, easy commissioning due to SOPAS software
- Self-monitoring functions increase system availability



Features

Field of application:	Outdoor
Version:	Mid Range
Variant:	Lite
Resolution power:	Standard Resolution
Light source:	Infrared (905 nm)
Laser class:	1 (IEC 60825-1 (2007-6)), eye-safe
Field of view:	190 °
Scanning frequency:	25 Hz/35 Hz/50 Hz/75 Hz
Angular resolution:	0.25 ° 0.5 ° 1 °
Heating:	Yes
Operating range:	0 m ... 80 m
Max. range with 10 % reflectivity:	40 m
Spot size:	11.9 mrad

Amount of evaluated echoes:	2
Fog correction:	Yes

Performance

Response time:	≥ 13 ms
Detectable object shape:	Almost any
Systematic error ¹⁾ :	± 25 mm (1 m ... 10 m) ± 35 mm (10 m ... 20 m) ± 50 mm (20 m ... 30 m)
Statistical error ²⁾ :	± 14 mm (20 m ... 30 m) ± 6 mm (1 m ... 10 m) ± 8 mm (10 m ... 20 m)
Integrated application:	Field evaluation
Number of field sets:	4 fields
Simultaneous processing cases:	4

1) 2) Typical value; actual value depends on environmental conditions.

Interfaces

Serial (RS-232, RS-422):	✓
Function (Serial (RS-232, RS-422)):	Host
Data transmission rate (Serial (RS-232, RS-422)):	9.6 kBaud ... 500 kBaud
Ethernet:	✓
Function (Ethernet):	Host
Data transmission rate (Ethernet):	10/100 Mbit
Protocol (Ethernet):	TCP/IP, OPC
CAN bus:	-
PROFIBUS DP:	-
PROFINET:	-
DeviceNet:	-
USB:	✓
Function (USB):	AUX
Data transmission rate (USB):	9.6 kBaud ... 500 kBaud
Remark (USB):	Mini-USB
Switching inputs:	2
Switching outputs:	3
Optical indicators:	5 LEDs (additional 7-segment display)

Mechanics/electronics

Electrical connection:	4 M12 circular plug-in connector
Operating voltage:	24 V DC
Power consumption:	22 W, + 55 W heating (typical)
Housing color:	Gray (RAL 7032)
Enclosure rating:	IP 67 (EN 60529, Section 14.2.7)
Protection class:	III (EN 60529, Section 14.2.7)
Weight:	3.7 kg
Dimensions:	160 mm x 155 mm x 185 mm

Ambient data

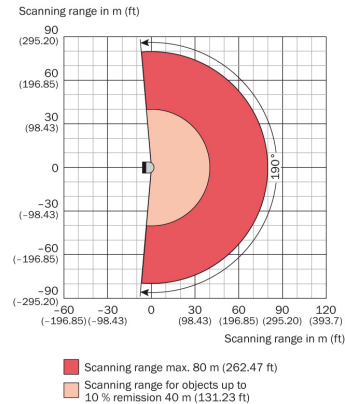
Object remission:	2 % ... > 1,000 % (reflectors)
Electromagnetic compatibility (EMC):	(EN 61000-6-2:2005) (EN 61000-6-3 (2001-10))
Vibration resistance:	(EN 60068-2-6 (1995-04))

Shock resistance:	(EN 60068-2-27 (1993-03)) (EN 60068-2-29 (1993-04))
Ambient operating temperature:	-30 °C ... 50 °C
Storage temperature:	-30 °C ... 70 °C
Ambient light safety:	70,000 lx

General notes

Note on use:	Not suitable for personnel protection
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Operating range diagram



Australia

Phone +61 3 9457 0600
1800 334 802 – tollfree
E-Mail sales@sick.com.au

Belgium/Luxembourg

Phone +32 (0)2 466 55 66
E-Mail info@sick.be

Brasil

Phone +55 11 3215-4900
E-Mail sac@sick.com.br

Canada

Phone +1 905 771 14 44
E-Mail information@sick.com

Ceská Republika

Phone +420 2 57 91 18 50
E-Mail sick@sick.cz

China

Phone +86 4000 121 000
E-Mail info.china@sick.net.cn
Phone +852-2153 6300
E-Mail ghk@sick.com.hk

Danmark

Phone +45 45 82 64 00
E-Mail sick@sick.dk

Deutschland

Phone +49 211 5301-301
E-Mail kundenservice@sick.de

España

Phone +34 93 480 31 00
E-Mail info@sick.es

France

Phone +33 1 64 62 35 00
E-Mail info@sick.fr

Great Britain

Phone +44 (0)1727 831121
E-Mail info@sick.co.uk

India

Phone +91-22-4033 8333
E-Mail info@sick-india.com

Israel

Phone +972-4-6801000
E-Mail info@sick-sensors.com

Italia

Phone +39 02 27 43 41
E-Mail info@sick.it

Japan

Phone +81 (0)3 3358 1341
E-Mail support@sick.jp

Magyarország

Phone +36 1 371 2680
E-Mail office@sick.hu

Nederlands

Phone +31 (0)30 229 25 44
E-Mail info@sick.nl

Norge

Phone +47 67 81 50 00
E-Mail austefjord@sick.no

Österreich

Phone +43 (0)22 36 62 28 8-0
E-Mail office@sick.at

Polska

Phone +48 22 837 40 50
E-Mail info@sick.pl

România

Phone +40 356 171 120
E-Mail office@sick.ro

Russia

Phone +7-495-775-05-30
E-Mail info@sick.ru

Schweiz

Phone +41 41 619 29 39
E-Mail contact@sick.ch

Singapore

Phone +65 6744 3732
E-Mail admin@sicksgp.com.sg

Slovenija

Phone +386 (0)1-47 69 990
E-Mail office@sick.si

South Africa

Phone +27 11 472 3733
E-Mail info@sickautomation.co.za

South Korea

Phone +82 2 786 6321/4
E-Mail info@sickkorea.net

Suomi

Phone +358-9-25 15 800
E-Mail sick@sick.fi

Sverige

Phone +46 10 110 10 00
E-Mail info@sick.se

Taiwan

Phone +886-2-2375-6288
E-Mail sales@sick.com.tw

Türkiye

Phone +90 (216) 528 50 00
E-Mail info@sick.com.tr

United Arab Emirates

Phone +971 (0) 4 8865 878
E-Mail info@sick.ae

USA/México

Phone +1(952) 941-6780
1 800-325-7425 – tollfree
E-Mail info@sickusa.com

More representatives and agencies
at www.sick.com