



Laser scanners
LMS5xx / LMS500 / Indoor / Mid Range

LMS500-21000 Lite



Model Name > [LMS500-21000 Lite](#)

Part No. > [1054153](#)

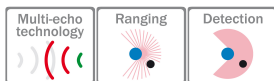


At a glance

- 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:	Indoor
Version:	Mid Range
Variant:	Lite
Resolution power:	High 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 °
Operating range:	0 m ... 80 m
Max. range with 10 % reflectivity:	26 m
Spot size:	4.7 mrad
Amount of evaluated echoes:	2

Fog correction: No

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)
Statistical error ²⁾: ± 7 mm (1 m ... 10 m)
 ± 9 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: 1 system plug with screw terminal block
Operating voltage: 24 V DC
Power consumption: 22 W
Housing color: Light blue (RAL 5012)
Enclosure rating: IP 65 (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

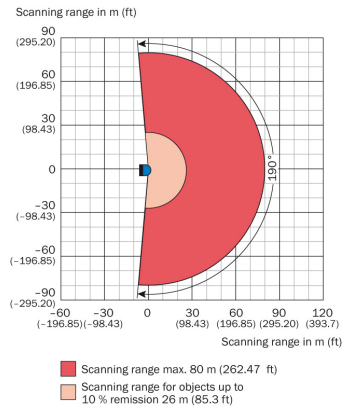
Object remission: 2 % ... > 1,000 % (reflectors)
Electromagnetic compatibility (EMC): (EN 61000-6-2:2005) (EN 61000-6-3 (2001-10))
Vibration resistance: (EN 60068-2-6 (1995-04))
Shock resistance: (EN 60068-2-27 (1993-03))
(EN 60068-2-29 (1993-04))
Ambient operating temperature: 0 °C ... 50 °C

Storage temperature: -12 °C ... 50 °C
Ambient light safety: 70,000 lx

General notes

Note on use: Not suitable for personnel protection

Operating range diagram



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