

Detailed technical data

Features

	LMS500-20000	LMS511-20100	LMS511-10100
Type	High Resolution	High Resolution	Standard Resolution
Application environment	Indoor	Outdoor	
Light source	Infrared (905 nm)		
Laser class	1, eye-safe (IEC 60825-1 (2007-6))		
Field of view	190°		
Scanning frequency	25 Hz / 35 Hz / 50 Hz / 75 Hz / 100 Hz		
Heating	No	Yes	
Measurement range	0 m ... 65 m		
Max. range with 10 % reflectivity	26 m		40 m
Angular resolution	0.1667°, 0.25°, 0.333°, 0.5°, 0.667°, 1°		
Spot size	4.2 mrad		11 mrad

Performance

Systematic error (at 10 % object reflectivity)	± 25 mm (1 m ... 10 m) ± 35 mm (10 m ... 20 m)	± 25 mm (1 m ... 10 m) ± 35 mm (10 m ... 20 m) ± 50 mm (20 m ... 30 m)
Statistical error (1 σ) (typical), (at 10 % object reflectivity)	± 7 mm (1 m ... 10 m) ± 9 mm (10 m ... 20 m)	± 6 mm (1 m ... 10 m) ± 8 mm (10 m ... 20 m) ± 14 mm (20 m ... 30 m)

Interfaces

Serial (RS-232, RS-422/485)	Function	✓ Host
	Data transmission rate	9.6 kBaud ... 115.2 kBaud
Ethernet	Function	✓ Host
	Data transmission rate	10/100 Mbit/s
	Protocol	TCP/IP
USB	Function	✓ AUX
	Data transmission rate	Reduced data rate (max. 115.2 kBaud)
Switching inputs	4	2 (Sync only)
Switching outputs	6	3
Optical indicators	5 LED (additional 7-segment display)	

Mechanics/electronics

Electrical connection	1 x M12 4-pin plug-in connector 2 x 14-pin terminal block	2 x M12 4-pin + 2 x M12 12-pin plug-in connector
Operating voltage	24 V DC ± 20 %	
Power consumption (typical)	22 W	22 W, + 43 W heating
Housing color	Light blue (RAL 5012)	Gray (RAL 7032)
Enclosure rating	IP 65 (EN 60529)	IP 67 (EN 60529)
Protection class	III	
Weight	3.7 kg	
Dimensions	159 mm x 155 mm x 185 mm ¹⁾	

¹⁾ Without supernatant connection element.

Ambient data

	LMS500-20000	LMS511-20100	LMS511-10100
Object reflectivity	2 % ... > 1,000 % (reflectors)		
Electromagnetic compatibility (EMC)	EN 61000-6-3 (2007-01), EN 61000-6-2 (2005-08)		
Vibration resistance	EN 60068-2-6 (2008-10)		
Shock resistance	EN 60068-2-27 (2009-05), EN 60068-2-29 (1995-03) Complies with EN 60068-2-27 (2010-02)		
Ambient operating temperature	0 °C ... +50 °C	-30 °C ... +50 °C	
Storage temperature	-30 °C ... +70 °C		
Ambient light safety	70,000 lx		

Ordering information

Sub product family	Field of application	Type	Spotsize	Model Name	Part No.
LMS500	Indoor	High Resolution	3.6 mrad x 3.6 mrad	LMS500-20000	1047468
LMS511	Outdoor	High Resolution	3.6 mrad x 3.6 mrad	LMS511-20100	1047782
		Standard Resolution	3.6 mrad x 10.2 mrad	LMS511-10100	1046135