

SICK Sensor Intelligence.

3D LIDAR SENSORS



3D LIDAR SENSORS



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Detailed technical data

Features		
Application	Outdoor	
Laser class	1 (IEC 60825-1:2014, EN 60825-1:2014)	
Aperture angle		
Horizontal	85° (Working range with 4 measuring planes, 25° extension of working range with 2 measuring planes to a total of $110^\circ)$	
Vertical	3.2°	
Scanning frequency	12.5 Hz 50 Hz, object tracking at 12.5 Hz	
Angular resolution	0.125° 0.25° 0.5°	
Working range	0.5 m 300 m	
Scanning range		
At 10% remission	30 m	
At 90% remission	150 m	
Amount of evaluated echoes	3	

Mechanics/electronics

Electrical connection	Circular plug-in connector
Supply voltage	9 V 27 V
Power consumption	8 W
Housing	AI
Housing color	Gray (RAL 7032), black (RAL 9005)
Enclosure rating	IP69K
Protection class	III
Weight	1 kg
Dimensions (L x W x H)	94 mm x 165 mm x 88 mm
Performance	
Detectable object shape	Almost any
Systematic error	± 300 mm ¹⁾

 $^{\mbox{\sc 1})}$ Typical value; actual value depends on environmental conditions.

Statistical error



 $100 \text{ mm}^{-1)}$

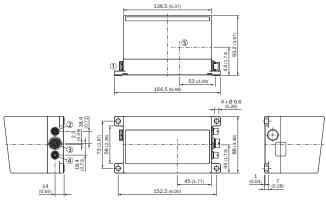
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Integrated application	Object tracking			
¹⁾ Typical value; actual value depends on environmental conditions.				
Interfaces				
Ethernet	✓, TCP/IP			
Function	Raw data interface/parameterization			
Data transmission rate	100 Mbit/s			
Serial	✔, RS-232			
Function	Auxiliary interface			
Data transmission rate	57,600 Baud			
CAN	1			
Function	Output: Objects, Input: Vehicle ego motion data			
Ambient data				
Ambient operating temperature	-40 °C +70 °C			
General notes				
Note on use	The sensor does not constitute a safety component as defined by relevant legislation on ma- chine safety.			
Classifications				
ECI@ss 5.0	27270990			
ECI@ss 5.1.4	27270990			
ECI@ss 6.0	27270913			
ECI@ss 6.2	27270913			
ECI@ss 7.0	27270913			
ECI@ss 8.0	27270913			
ECI@ss 8.1	27270913			
ECI@ss 9.0	27270913			
ETIM 5.0	EC002550			
ETIM 6.0	EC002550			
UNSPSC 16.0901	46171620			



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Dimensional drawing (Dimensions in mm (inch))

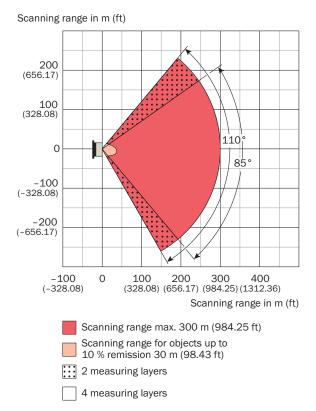


① Venting element

- 2 "Ethernet" connection, 4-pin female connector
- ③ Connection data interface / synchronisation, 12-pin female connector
- (a) Connection "Power", 4-pin female connector

Working range diagram

Working range diagram 30 m



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Recommended accessories

	Brief description	Туре	Part no.		
Terminal and alignment brackets					
10 000	Bracket for LD-MRS, alignment adjustable in 2 axes	Alignment bracket	1047429		
Plug connectors and cables					
	Head A: male connector, round plug, 12-pin, straight Head B: female connector, D-Sub, 9-pin, straight Cable: CAN/CANopen, shielded, 2 m For LD-MRS	Connection cable (male connector- male connector)	2054647		
1 20	Head A: female connector, round socket, 4-pin, straight Head B: Flying leads Cable: shielded, 2 m	Connection cable (male connector- male connector)	2049823		
36	Head A: male connector, round plug, straight Head B: male connector, RJ45, straight Cable: Ethernet, shielded, 2 m Connects the Ethernet interface of the LD-MRS to the Ethernet interface of the PC	Connection cable (male connector- male connector)	2049826		
Test and monitoring tools					
	Scan finder, receiver to localize infrared scans	Scan-Finder LS-80L	6020756		



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."



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