Online data sheet

S10B-9011DA

S100

2D LIDAR SENSORS

SICK
Sensor Intelligence.

Ordering information

Type	Part no.
S10B-9011DA	1042267

Other models and accessories ➜ www.sick.com/S100

Detailed technical data

Features

Application	Indoor
Light source	Infrared (905 nm)
Laser class	1, complies with 21 CFR 1040.10 and 1040.11 except for the tolerance according to “Laser Notice No. 50” from June 24, 2007 (IEC 60825-1:2014, EN 60825-1:2014)
Aperture angle	
Horizontal	270°
Scanning frequency	25 Hz
Angular resolution	0.5° 1°
Working range	0 m ... 10 m
Scanning range	
At 10% remission	4.5 m

Mechanics/electronics

Electrical connection	1 x system plug with screw terminal block (accessory)
Supply voltage	16.8 V DC ... 30 V DC
Power consumption	8 W
Output current	≤ 250 mA
Housing color	Black (RAL 9005)
Enclosure rating	IP65 (EN 60529, Section 14.2.5)
Protection class	II (VDE 0106, EN50178)
Weight	1.2 kg, without connecting cables
Dimensions (L x W x H)	105 mm x 102 mm x 152 mm

Performance

Detectable object shape	Almost any (diameter: 30 mm, 40 mm, 50 mm, 70 mm, 150 mm (selectable))
Integrated application	Field evaluation
Number of field sets	16 field pairs (32 fields)

Simultaneous evaluation cases	1 (2 fields)

Interfaces

Serial	✓, RS-232
CANopen	✓
Digital inputs	5 (4 x IN, standby)
Digital outputs	5 (Q1, Q2, $\bar{Q}$1, $\bar{Q}$2, diagnosis)
Optical indicators	1 7-segment display (contamination warning, initial condition)

Ambient data

Object remission	1.8 % ... > 1,000 % (reflectors)
Electromagnetic compatibility (EMC)	EN 61000-6-2:2005-08
Vibration resistance	IEC 60068-2-6:2007-12
Shock resistance	IEC 60068-2-29:1987
Ambient operating temperature	–10 °C ... +50 °C
Storage temperature	–30 °C ... +70 °C

General notes

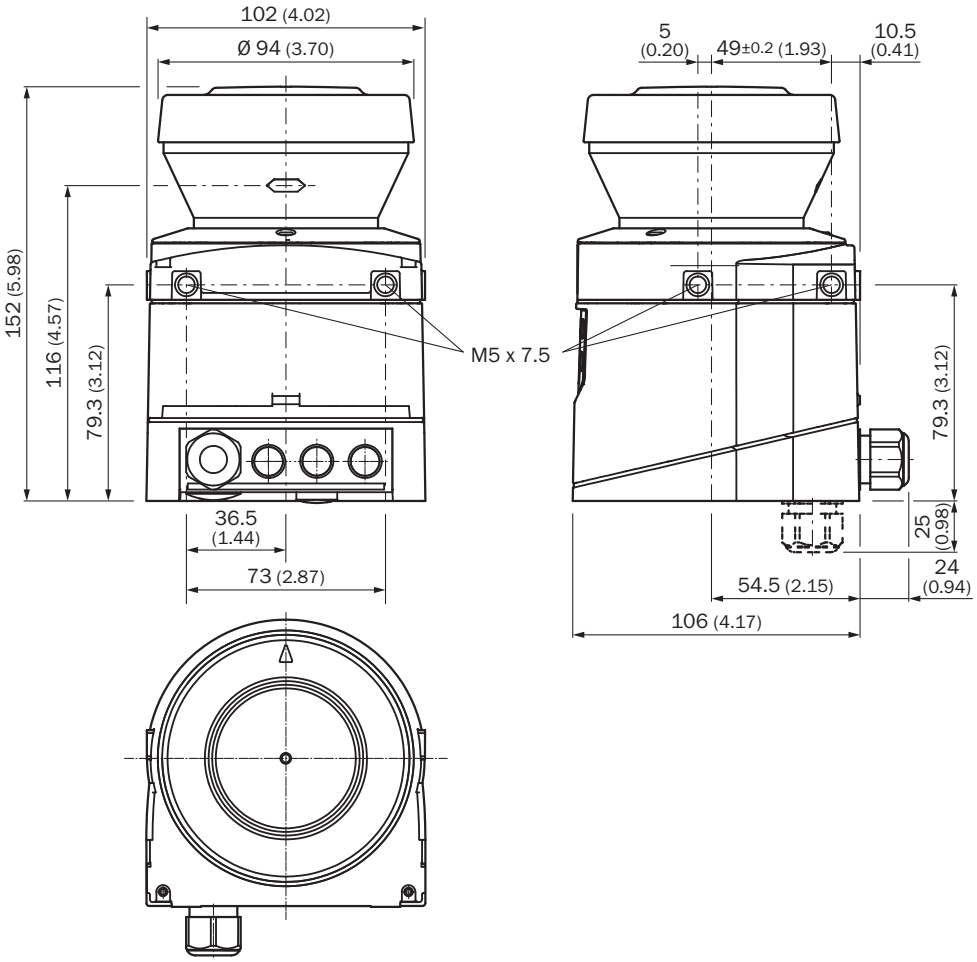
Note on use	The sensor does not constitute a safety component as defined by relevant legislation on machine safety.

Classifications

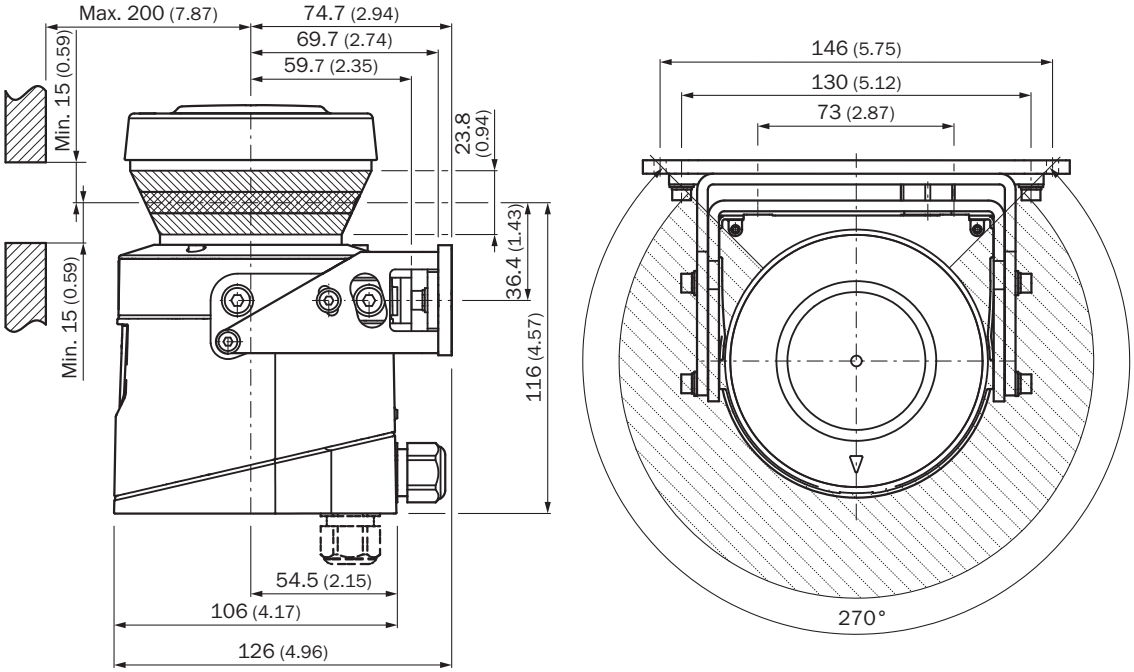
ECl@ss 5.0	27270990
ECl@ss 5.1.4	27270990
ECl@ss 6.0	27270913
ECl@ss 6.2	27270913
ECl@ss 7.0	27270913
ECl@ss 8.0	27270913
ECl@ss 8.1	27270913
ECl@ss 9.0	27270913
ETIM 5.0	EC002550
ETIM 6.0	EC002550
UNSPSC 16.0901	46171620

Dimensional drawing (Dimensions in mm (inch))

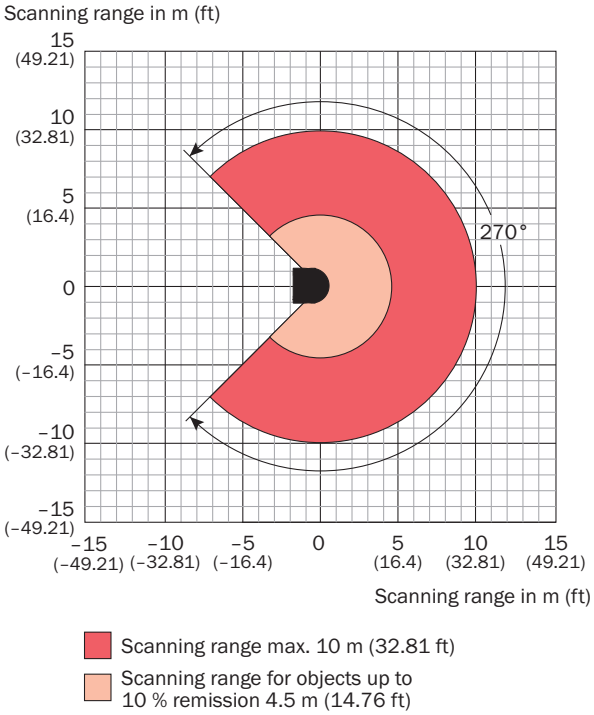
Laser scanner



Origin of scan plane



Working range diagram

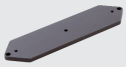


Scanning range max. 10 m (32.81 ft)

Scanning range for objects up to 10 % remission 4.5 m (14.76 ft)

Recommended accessories

Other models and accessories ➜ www.sick.com/S100

	Brief description	Type	Part no.
Mounting brackets and plates			
	1 piece, mounting bracket for rear mounting on wall or machine with protection of optics hood	Mounting kit 1b	2034325
	1 piece, mounting bracket, adjustable lateral axis, only in conjunction with mounting kit 1a (2034324) or 1b (2034325)	Mounting kit 2	2039302
	1 piece, mounting plate, adjustable longitudinal axis, only in conjunction with mounting kit 2 (2039302)	Mounting kit 3	2039303
Power supply units and power supply cables			
		PS50WE24V	7028789
Plug connectors and cables			
	Head A: male connector, M8, 4-pin, straight Head B: male connector, USB-A, straight Cable: PVC, unshielded, 2 m	DSL-8U04G02M025KM1	6034574
	Head A: system plug Cable: pre-assembled, Not for use of incremental encoders, integrated configuration storage, PVC, unshielded, 10 m	SX0B-B1510G	2034265
Optics cloths			
	Cloth for cleaning optical surfaces	Lens cloth	4003353

Recommended services

Additional services ➜ www.sick.com/S100

	Type	Part no.
Warranty extensions		
• **Product area:** Identification solutions, Vision, Distance sensors, Detection and ranging solutions • **Range of services:** The services correspond to the scope of the statutory manufacturer warranty (SICK general terms and conditions of purchase), Long-term protection for calculable lump sum. • **Duration:** Five-year warranty from date of purchase.	Five-year extended warranty	1680671

	Type	Part no.
Training		
• **Product family group:** 2D LiDAR sensors, 3D LiDAR sensors • **Range of services:** The training format and location can be worked out in collaboration with SICK • **Note:** A minimum and maximum number of participants is determined based on the training format, depending on the training format, content and location, a training course may take place over the course of one or more work days • **Duration:** The fixed price includes the specific training services agreed upon with the customer, the fixed price includes the work time required for the training services, the required work time depends on the range of services, Additional work will be invoiced separately based on time spent • **Travel expenses:** The prices include costs for the travel time and expenses, travel costs, such as flight or hotel expenses, are not included	Training LMS/MRS/NAV/TiM	1612234
Commissioning		
• **Product area:** 2D LiDAR sensors, 3D LiDAR sensors • **Range of services:** Inspection of connection, fine adjustment, configuration of monitored areas, configuration and optimization of parameters of the LMS/MRS/NAV/TiM as well as verification tests, Setup of previously defined functions of basic settings, parameters of field application, filters for raw data output and product-specific configuration • **Documentation:** Archiving of product parameters in a SICK database, Documentation of performance, Creation of a commissioning log • **Duration:** Additional work will be invoiced separately based on time spent • **Note:** The prices do not include expenses or costs for the travel time	Commissioning LMS/MRS/NAV/TiM (Prime package)	1680672
Maintenance		
• **Product area:** 2D LiDAR sensors, 3D LiDAR sensors • **Range of services:** Inspection, analysis and restoring of defined functions, Inspection and adaptation of basic settings, parameters of field application, filters for raw data output, and product-specific configuration • **Documentation:** Documentation of operating hours and archiving of parameters in a SICK database, Creation of a maintenance log • **Duration:** Additional work will be invoiced separately based on time spent • **Note:** The prices do not include expenses or costs for the travel time	Maintenance LMS/MRS/NAV/TiM	1682593

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

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