



# S10B-9011DA

S100

2D LIDAR SENSORS

**SICK**  
Sensor Intelligence.



### Ordering information

Type	Part no.
S10B-9011DA	1042267

The system plug has to be ordered separately. For details, see "Accessories".

Other models and accessories → [www.sick.com/S100](http://www.sick.com/S100)



### Detailed technical data

#### Features

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

#### Mechanics/electronics

<b>Connection type</b>	1 x system plug with screw terminal block (accessory)
<b>Supply voltage</b>	16.8 V DC ... 30 V DC
<b>Power consumption</b>	8 W
<b>Output current</b>	≤ 250 mA
<b>Housing color</b>	Black (RAL 9005)
<b>Enclosure rating</b>	IP65 (EN 60529, Section 14.2.5)
<b>Protection class</b>	II (VDE 0106, EN50178)
<b>Weight</b>	1.2 kg, without connecting cables
<b>Dimensions (L x W x H)</b>	105 mm x 102 mm x 152 mm
<b>MTBF</b>	> 100 years

#### Safety-related parameters

<b>MTTF<sub>D</sub></b>	> 100 years
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## Performance

<b>Detectable object shape</b>	Almost any (diameter: 30 mm, 40 mm, 50 mm, 70 mm, 150 mm (selectable))
<b>Integrated application</b>	Field evaluation
<b>Number of field sets</b>	16 field pairs (32 fields)
<b>Simultaneous evaluation cases</b>	1 (2 fields)

## Interfaces

<b>Serial</b>	✓, RS-232
<b>CANopen</b>	✓
<b>Digital inputs</b>	5 (4 x IN, standby)
<b>Digital outputs</b>	5 (Q1, Q2, Q̄1, Q̄2, diagnosis)
<b>Optical indicators</b>	1 7-segment display (contamination warning) , initial condition

## Ambient data

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

## General notes

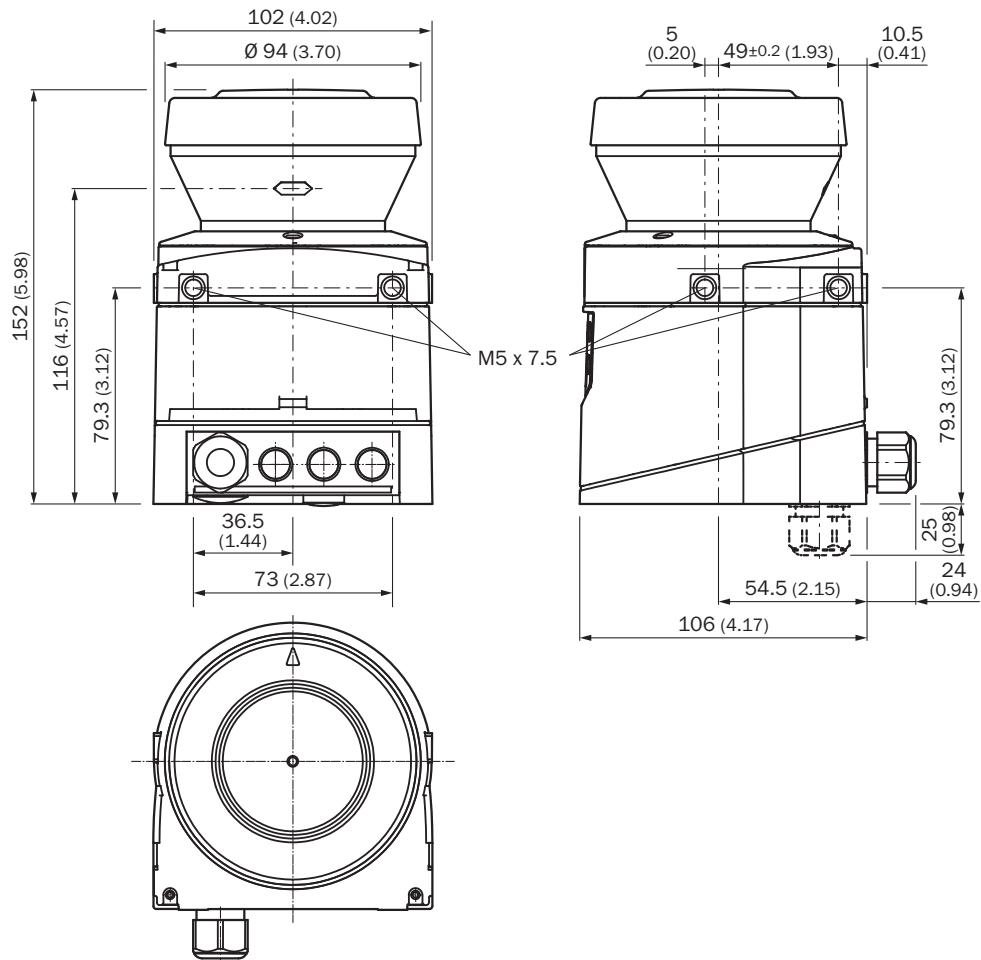
<b>Note on use</b>	The sensor does not constitute a safety component as defined by relevant legislation on machine safety.
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## Classifications

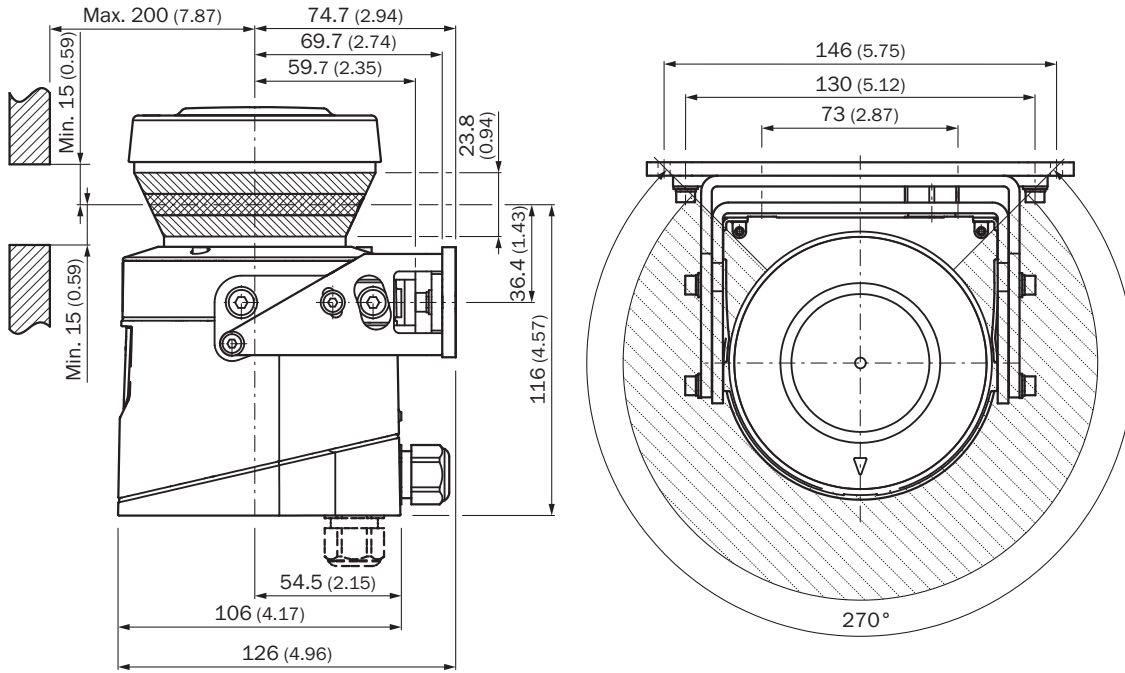
<b>eCl@ss 5.0</b>	27270990
<b>eCl@ss 5.1.4</b>	27270990
<b>eCl@ss 6.0</b>	27270913
<b>eCl@ss 6.2</b>	27270913
<b>eCl@ss 7.0</b>	27270913
<b>eCl@ss 8.0</b>	27270913
<b>eCl@ss 8.1</b>	27270913
<b>eCl@ss 9.0</b>	27270913
<b>eCl@ss 10.0</b>	27270913
<b>eCl@ss 11.0</b>	27270913
<b>eCl@ss 12.0</b>	27270913
<b>ETIM 5.0</b>	EC002550
<b>ETIM 6.0</b>	EC002550
<b>ETIM 7.0</b>	EC002550
<b>ETIM 8.0</b>	EC002550
<b>UNSPSC 16.0901</b>	41111615

### Dimensional drawing (Dimensions in mm (inch))

Laser scanner

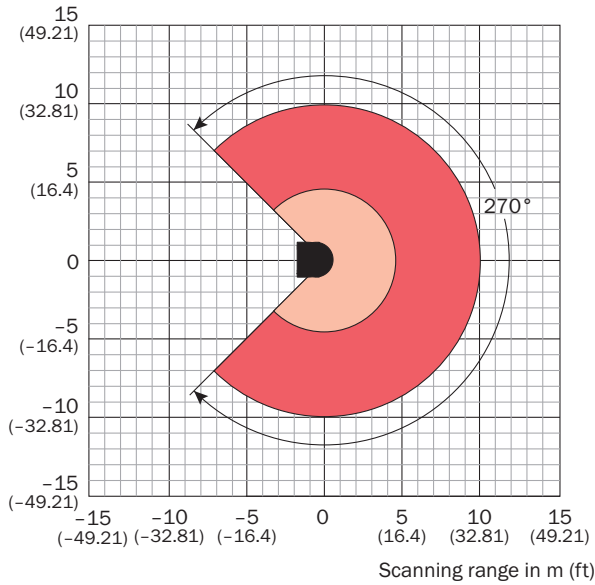


Scan plane origin



Working range diagram







Scanning range in m (ft)



- 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](http://www.sick.com/S100)

	Brief description	Type	Part no.
<b>Mounting brackets and plates</b>			
	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
<b>Plug connectors and cables</b>			
	Head A: system plug Cable: pre-assembled, Not for use of incremental encoders, integrated configuration storage, PVC, unshielded, 10 m	SX0B-B1510G	2034265
<b>Others</b>			
	Head A: male connector, M8, 4-pin, straight Head B: male connector, USB-A, straight Cable: PVC, unshielded, 2 m		On request
		PS50WE24V	7028789

### Recommended services

Additional services → [www.sick.com/S100](http://www.sick.com/S100)

	Type	Part no.
<b>Maintenance</b>		
<ul style="list-style-type: none"> <li>• <b>Product area:</b> 2D LiDAR sensors, 3D LiDAR sensors</li> <li>• <b>Range of services:</b> 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</li> <li>• <b>Duration:</b> Additional work will be invoiced separately</li> <li>• <b>Travel expenses:</b> The prices do not include travel costs such as hotel, flight, travel time and expenses.</li> </ul>	Maintenance LMS/MRS/NAV/TiM/LRS/multiScan	1682593
<b>Commissioning</b>		
<ul style="list-style-type: none"> <li>• <b>Product area:</b> 2D LiDAR sensors, 3D LiDAR sensors</li> <li>• <b>Range of services:</b> Inspection of connection, fine adjustment, configuration of monitored areas, configuration and optimization of parameters as well as tests, Setup of previously defined functions of basic settings, parameters of field application, filters for raw data output and product-specific configuration</li> <li>• <b>Travel expenses:</b> The prices do not include travel costs such as hotel, flight, travel time and expenses.</li> <li>• <b>Duration:</b> Additional work will be invoiced separately</li> </ul>	Commissioning LMS/MRS/NAV/TiM/LRS/multiScan (Prime package)	1680672

	Type	Part no.
Extended warranty		
<ul style="list-style-type: none"><li>• <b>Product area:</b> Identification solutions, machine vision, Distance sensors, Detection and ranging solutions</li><li>• <b>Range of services:</b> The services correspond to the scope of the statutory manufacturer warranty (SICK general terms of delivery).</li><li>• <b>Duration:</b> Five-year warranty from delivery date.</li></ul>	Extended warranty for a total of five years from delivery date	1680671

## 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](http://www.sick.com)