



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



Detailed technical data

Features

Application	Indoor
Light source	Infrared (905 nm)
Laser class	1 (IEC 60825-1:2014, EN 60825-1:2014+A11:2021)
Aperture angle	
Horizontal	270°
Scanning frequency	25 Hz
Angular resolution	
Horizontal	0.5°, 1°
Working range	0 m ... 10 m
Scanning range	
At 10% remission factor	4.5 m

Mechanics/electronics

Connection type	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
MTBF	> 100 years

Safety-related parameters

MTTF <sub>D</sub>	> 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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## Certificates

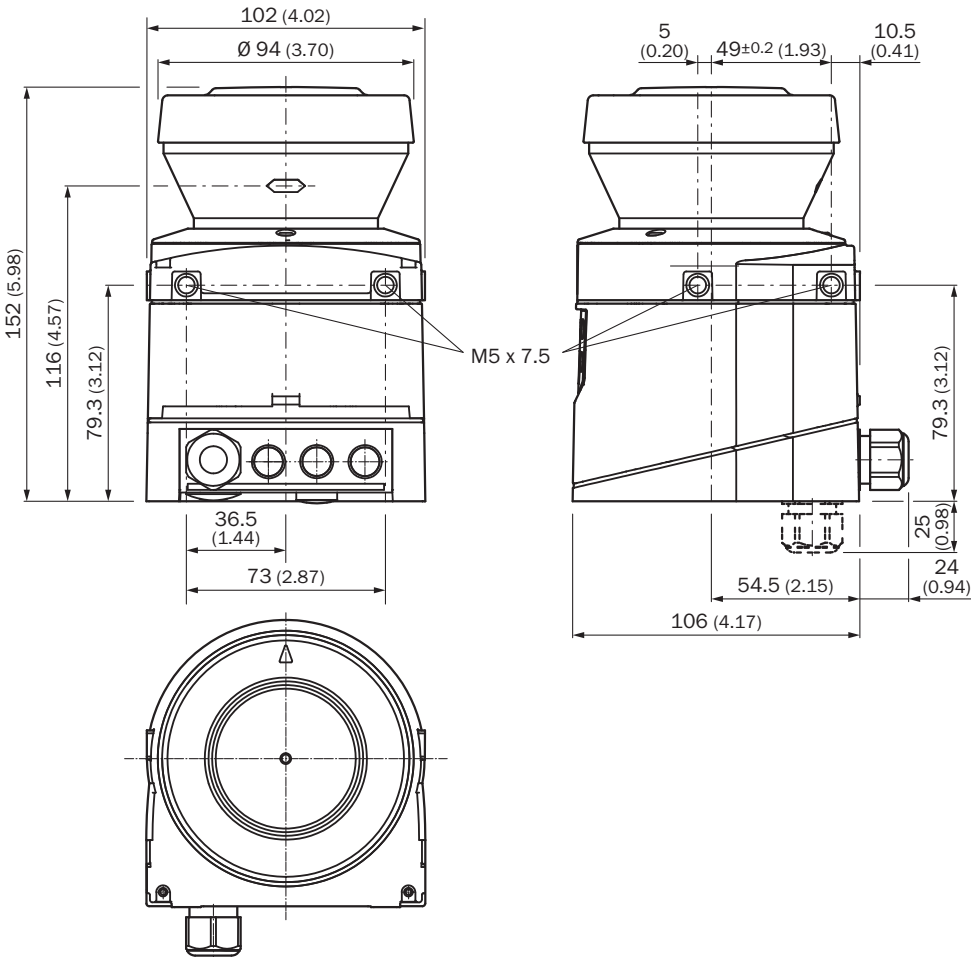
<b>EU declaration of conformity</b>	✓
<b>UK declaration of conformity</b>	✓
<b>ACMA declaration of conformity</b>	✓
<b>China-RoHS</b>	✓

## Classifications

<b>ECLASS 5.0</b>	27270990
<b>ECLASS 5.1.4</b>	27270990
<b>ECLASS 6.0</b>	27270913
<b>ECLASS 6.2</b>	27270913
<b>ECLASS 7.0</b>	27270913
<b>ECLASS 8.0</b>	27270913
<b>ECLASS 8.1</b>	27270913
<b>ECLASS 9.0</b>	27270913
<b>ECLASS 10.0</b>	27270913
<b>ECLASS 11.0</b>	27270913
<b>ECLASS 12.0</b>	27270913
<b>ETIM 5.0</b>	EC002550
<b>ETIM 6.0</b>	EC002550

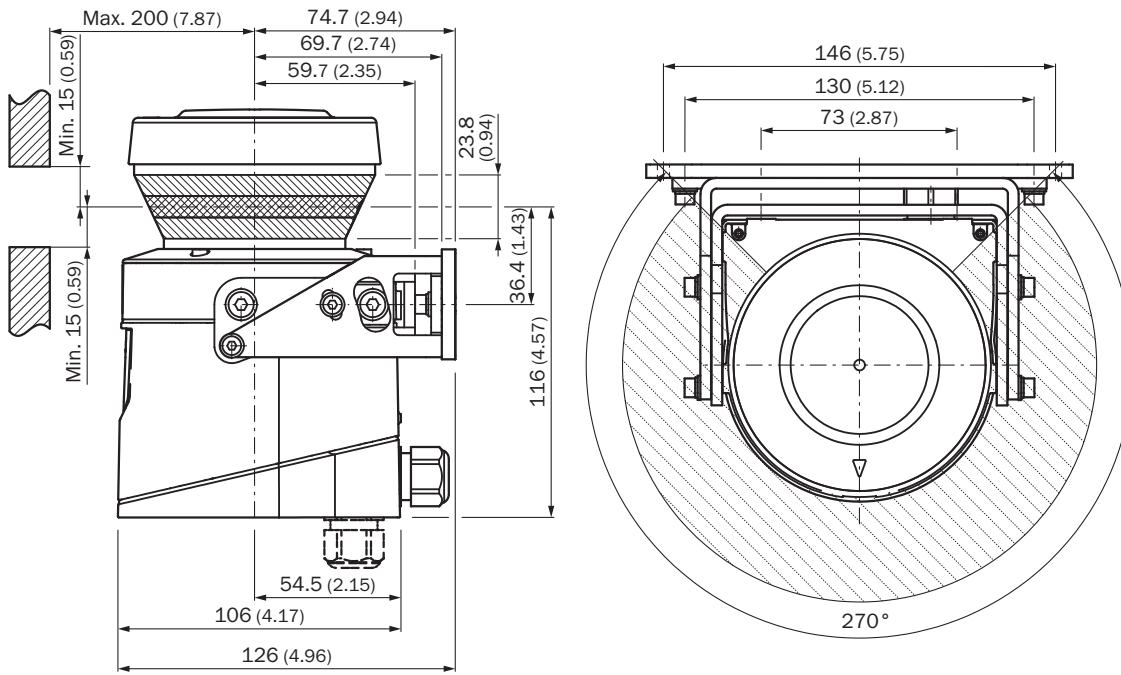
ETIM 7.0	EC002550
ETIM 8.0	EC002550
UNSPSC 16.0901	41111615

Dimensional drawing Laser scanner



Dimensions in mm (inch)

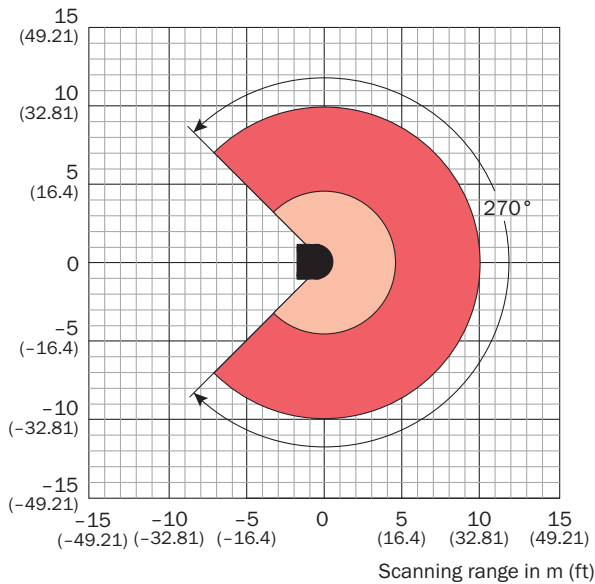
## Dimensional drawing Scan plane origin



Dimensions in mm (inch)



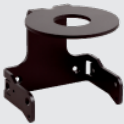


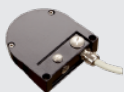
## Working range diagram

Scanning range in m (ft)



### Recommended accessories

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

	Brief description	Type	part no.
connectors and cables			
	<ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Male connector, M8, 4-pin, straight</li> <li>• <b>Connection type head B:</b> Male connector, USB-A, straight</li> <li>• <b>Cable:</b> 2 m, 4-wire, PVC</li> <li>• <b>Description:</b> Unshielded</li> </ul>	DSL-8U04G02M025KM2	6034574
Power supply units and power supply cables			
	<ul style="list-style-type: none"> <li>• <b>Input voltage:</b> 100 V AC ... 240 V AC</li> <li>• <b>Output voltage:</b> 24 V DC</li> <li>• <b>Output current:</b> 2.1 A</li> </ul>	PS50W-24V	7028789
Mounting systems			
	<ul style="list-style-type: none"> <li>• <b>Description:</b> Mounting bracket for rear mounting on wall or machine with protection of optics hood</li> <li>• <b>Packing unit:</b> 1 piece</li> </ul>	Mounting kit 1b	2034325
	<ul style="list-style-type: none"> <li>• <b>Description:</b> Mounting bracket, adjustable lateral axis, only in conjunction with mounting kit 1a (2034324) or 1b (2034325)</li> <li>• <b>Packing unit:</b> 1 piece</li> </ul>	Mounting kit 2	2039302
	<ul style="list-style-type: none"> <li>• <b>Description:</b> Mounting plate, adjustable longitudinal axis, only in conjunction with mounting kit 2 (2039302)</li> <li>• <b>Packing unit:</b> 1 piece</li> </ul>	Mounting kit 3	2039303
system plugs and extension modules			
	<ul style="list-style-type: none"> <li>• <b>Cable:</b> 10 m, 15-wire, PVC</li> <li>• <b>Description:</b> Pre-assembled, unshielded, For S300 Advanced, Expert and ProfessionalNot for use of incremental encoders, integrated configuration storage</li> <li>• <b>Connection systems:</b> Flying leads</li> </ul>	SX0B-B1510G	2034265

## 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)