



S10B-9011BA

S100

2D LIDAR SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	part no.
S10B-9011BA	1042266

Other models and accessories → 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
MTTFd	> 100 years

Safety-related parameters

MTTF_D	> 100 years
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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	1 field pair (2 fields)
Simultaneous evaluation cases	1 (2 fields)

Interfaces

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

Ambient data

Remission factor	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.
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Certificates

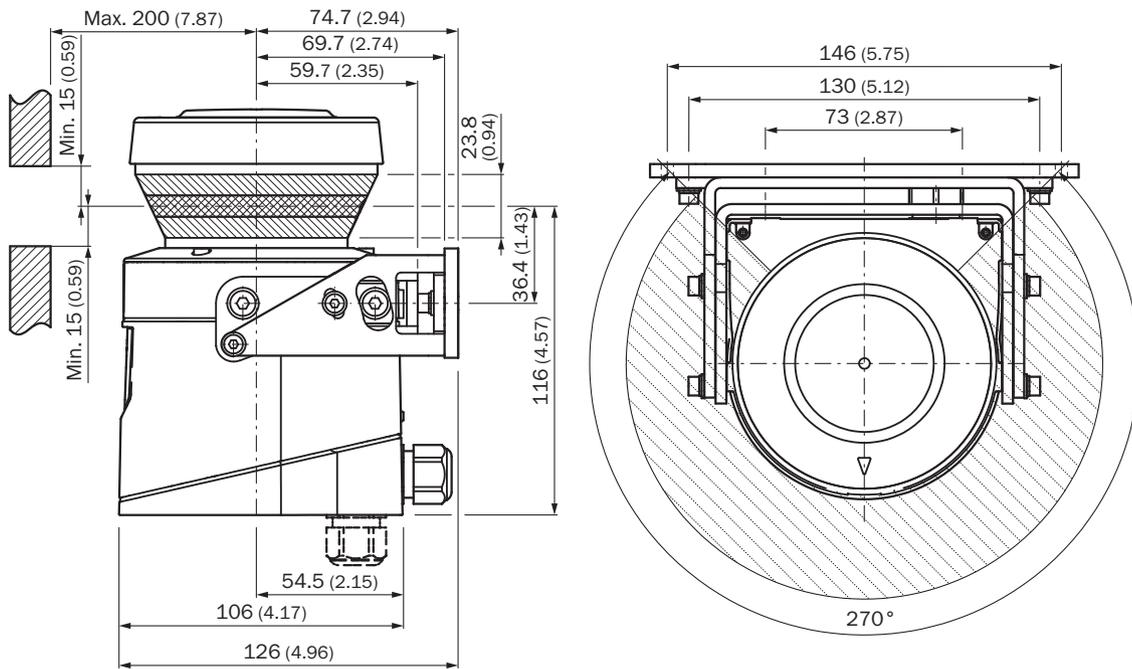
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
China RoHS	✓
Information according to Art. 3 of Data Act (Regulation EU 2023/2854)	✓

Classifications

ECLASS 5.0	27270990
ECLASS 5.1.4	27270990
ECLASS 6.0	27270913
ECLASS 6.2	27270913
ECLASS 7.0	27270913
ECLASS 8.0	27270913
ECLASS 8.1	27270913
ECLASS 9.0	27270913

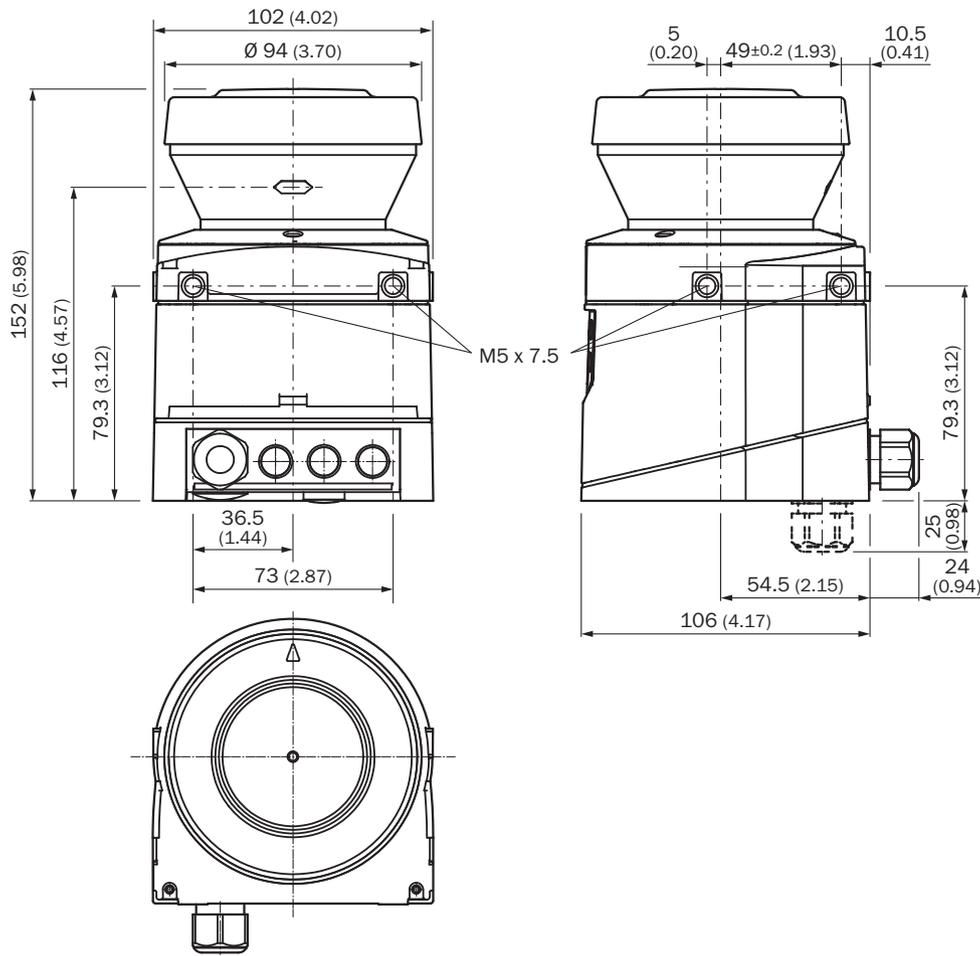
ECLASS 10.0	27270913
ECLASS 11.0	27270913
ECLASS 12.0	27270913
ETIM 5.0	EC002550
ETIM 6.0	EC002550
ETIM 7.0	EC002550
ETIM 8.0	EC002550
UNSPSC 16.0901	41111615

Dimensional drawing Scan plane origin



Dimensions in mm (inch)

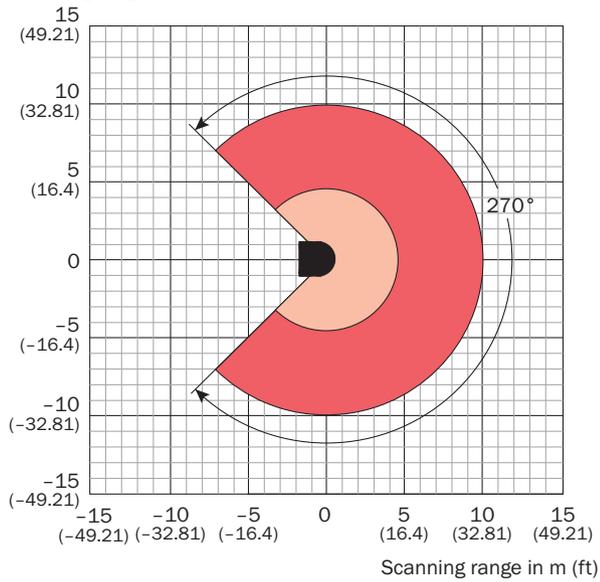
Dimensional drawing Laser scanner



Dimensions in mm (inch)

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

	Brief description	Type	part no.
connectors and cables			
	<ul style="list-style-type: none"> • Connection type head A: Male connector, M8, 4-pin, straight • Connection type head B: Male connector, USB-A, straight • Cable: 2 m, 4-wire, PVC • Description: Unshielded 	DSL-8U04G02M025KM:	6034574
Power supply units and power supply cables			
	<ul style="list-style-type: none"> • Input voltage: 100 V AC ... 240 V AC • Output voltage: 24 V DC • Output current: 2.1 A 	PS50W-24V	7028789

	Brief description	Type	part no.
Mounting systems			
	<ul style="list-style-type: none"> Description: Mounting bracket for rear mounting on wall or machine with protection of optics hood Material: Anodized aluminum Details: AlMg3 Packing unit: 1 piece Items supplied: Mounting bracket, 4 x M5 x 10 countersunk screws 	Mounting kit 1b	2034325
	<ul style="list-style-type: none"> Description: Mounting bracket, adjustable lateral axis, only in conjunction with mounting kit 1a (2034324) or 1b (2034325) Material: Anodized aluminum Details: AlMg3 Packing unit: 1 piece Items supplied: Mounting bracket, 4 x M4 x 10 countersunk screws, spring ring 	Mounting kit 2	2039302
	<ul style="list-style-type: none"> Description: Mounting plate, adjustable longitudinal axis, only in conjunction with mounting kit 2 (2039302) Material: Anodized aluminum Details: AlMg3 Packing unit: 1 piece Items supplied: Mounting plate, 2 x M4 x 10 countersunk screws, spring ring 	Mounting kit 3	2039303
system plugs and extension modules			
	<ul style="list-style-type: none"> Cable: 10 m, 11-wire, PVC Description: Pre-assembled, unshielded, For S300 standard Not for use of incremental encoders, integrated configuration storage Connection systems: Flying leads 	SX0B-B1110G	2032860

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