Data sheet

AOS503

AOS LiDAR

OBJECT DETECTION SYSTEMS

SICK
Sensor Intelligence.

Ordering information

Type	part no.
AOS503	1066131

Included in delivery: FX3-CPU000000 (1), FX3-XTI084002 (2), LMS511-10100S02 (2), DSL-8U04G02M025KM1 (1), FX3-MPL000001 (1), LMS511 accessories set 1 (1), YM2D24-100PN1MRJA4 (1)

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

Detailed technical data

Features

Sensor	LMS511-10100S02
Number of sensors	3
Aperture angle	190°
Max. range with 10 % reflectivity	40 m
Version	Standard

Mechanics/electronics

Housing dimensions (W x D x H)	160 mm x 155 mm x 185 mm (sensor) 67.5 mm x 96.5 mm x 120.6 mm (control with three modules, 22.5 mm each)
Weight	3.7 kg, Per LMS, without connection box
Supply voltage	24 V DC [1]
Power consumption	22 W, Per LMS511 (+ heating 55 W, per LMS) 6.9 W, Flexi Soft with 2 x I/O module (without load)
Fixing	Mounting kit (sensor), Mounting rail (control)
Enclosure rating	IP65/ IP67 [2] IP20 [3]

[1] Per LMS.
[2] Sensor.
[3] Control.

Performance

Number of laserscanners	3
Response time	330 ms

Interfaces

Number of safety inputs	✓ (16)
Number of safe outputs	✓ (8)
Configuration interface	Ethernet (sensor), USB (control)
Output data	Alarm via control signal Warning field intrusion, stop field intrusion System test error Contamination warning

Ambient data

Ambient operating temperature	–30 °C ... +50 °C, Sensor –25 °C ... +55 °C, Control
Ambient temperature, storage	–30 °C ... +70 °C [1] –25 °C ... +70 °C [2]
Ambient light immunity	70,000 lx
Vibration resistance	
Standard	IEC 60068-2-6:2007-12
Shock resistance	IEC 60068-2-27:2008-03

[1] Sensor.
[2] Control.

General notes

Items supplied	LMS511-10100S02 (3 x) Flexi Soft main module FX3-CPU000000 Flexi Soft system plug FX3-MPL000001 Flexi Soft I/O module FX3-XTIO84002 (2 x) USB configuration cable USB stick with configuration files Ethernet connection cable LMS511 accessory set 1 (3 x)
Note on use	The AOS LiDAR object detection system is not a safety device for human protection and it therefore does not comply with any safety standards. For safety applications,please contact SICK AG.

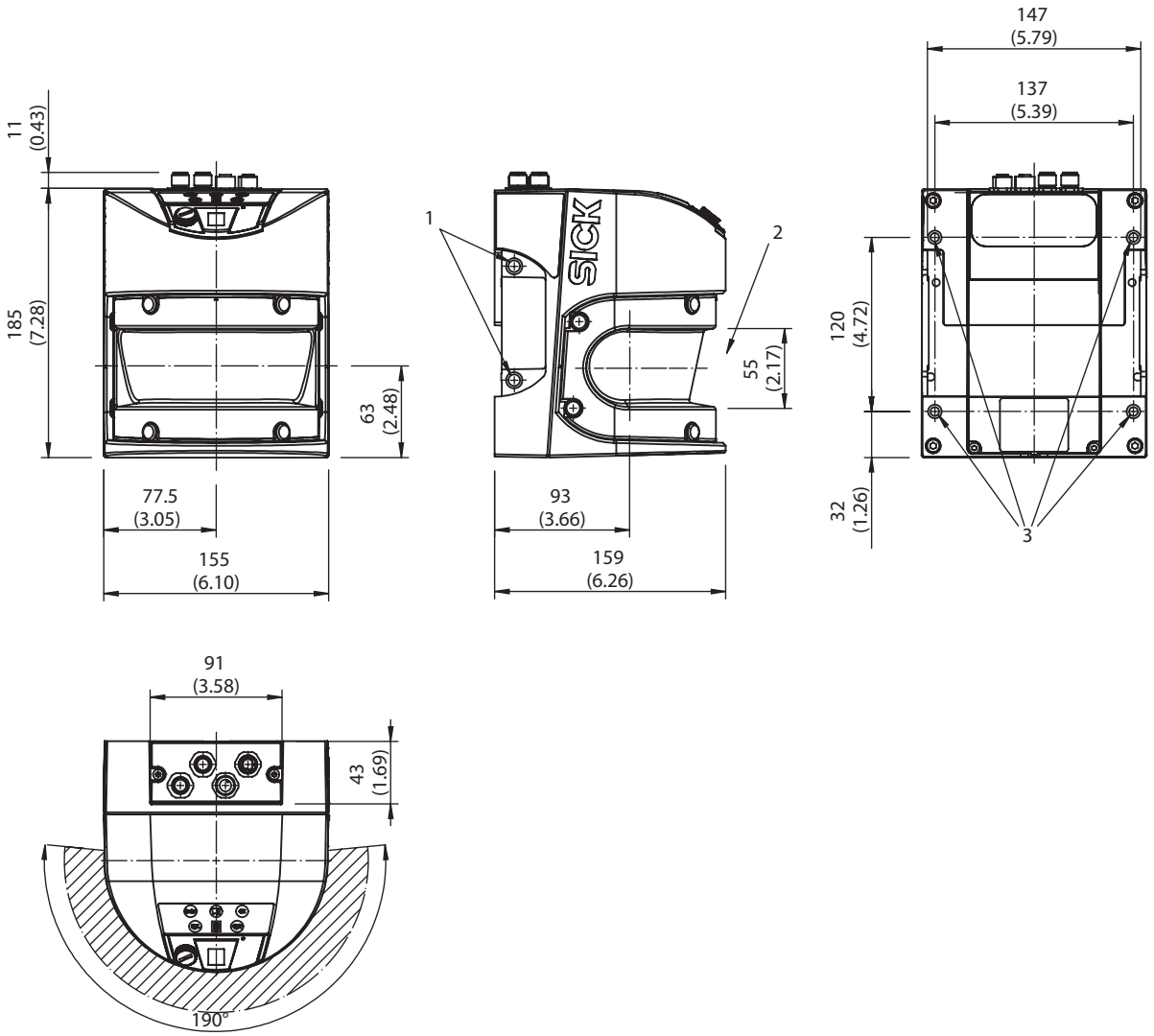
Certificates

EU declaration of conformity	✓
UK declaration of conformity	✓
China RoHS	✓

Classifications

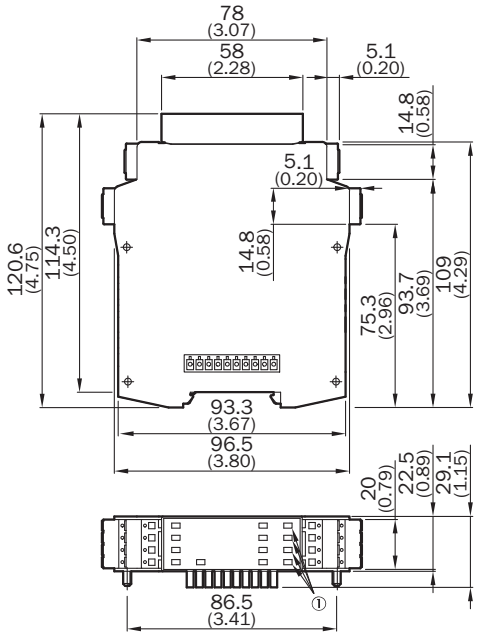
ECLASS 5.0	27281001
ECLASS 5.1.4	27280190
ECLASS 6.0	27280190
ECLASS 6.2	27280190
ECLASS 7.0	27280190
ECLASS 8.0	27280190
ECLASS 8.1	27280190
ECLASS 9.0	27280190
ECLASS 10.0	27280190
ECLASS 11.0	27280190
ECLASS 12.0	27280190
UNSPSC 16.0901	43211701

Dimensional drawing LMS511



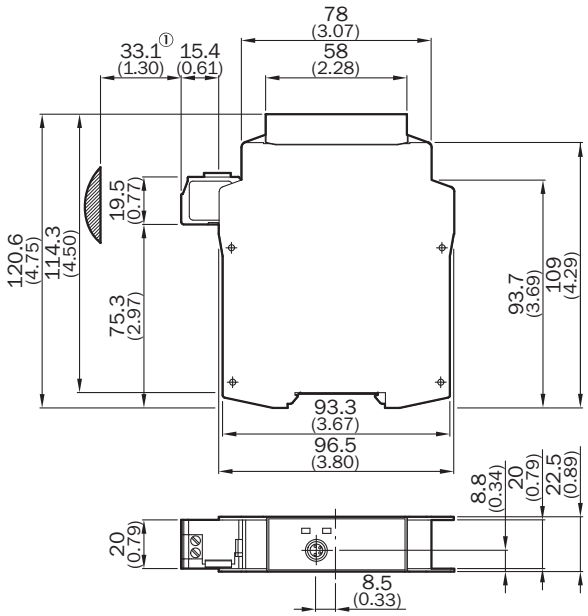
Dimensions in mm (inch)
① 4 screw holes M8 x 9
② do not block front screen
③ 4 screw holes M6 x 8

Dimensional drawing FX3-XTIO, FX3-XTDI



Dimensions in mm (inch)
① Only valid for FX3-XTIO

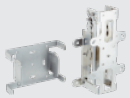
Dimensional drawing FX3-CPU0



Dimensions in mm (inch)
① Approximate connector range

Recommended accessories

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

	Brief description	Type	part no.
device protection and care			
	• **Description:** Weather hood (125°), aluminum powder-coated • **Material:** Aluminum (powder-coating) • **Suitable for:** Weather hood for LMS5xx	Weather hood 125° for LMS5xx	2026151
Mounting systems			
	• **Description:** Mounting kit for mast mount. When mounting with tightening straps, suitable for mast diameter of 95 mm or greater • **Material:** Stainless steel • **Details:** Stainless steel V2A (1.4301)	Mounting kit	1081412
	• **Description:** Mounting kit for fine adjustment For LMS1000/MRS1000, always use “Mounting kit 1a 2093194” or “Mounting kit 1b 2085935” and “Adapter plate 2085937” • **Material:** Stainless steel • **Details:** Stainless steel V2A (1.4301) • **Suitable for:** LRS4000, MRS1000, LMS1000, LRS4000	Fine adjustment bracket	2076764
Commissioning aids and test equipment			
	• **Product:** Alignment aids • **Description:** Alignment aid for detecting the infrared light (wavelength 780 nm to 1050 nm) of SICK sensors	Alignment aid	2101720

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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