# AOS503

AOS LiDAR

**OBJECT DETECTION SYSTEMS**

**SICK**
Sensor Intelligence.

## Ordering information

| Type | part no. |
|---|---|
| AOS503 | 1066131 |

**Included in delivery:** FX3-CPU000000 (1), FX3-XTIO84002 (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)<br>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)<br>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]<br>IP20 [3] |

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

### Performance

| | |
|---|---|
| **Number of laserscanners** | 3 |
| **Response time** | 330 ms |

### Interfaces

| | |
|---|---|
| **Configuration interface** | Ethernet (sensor), USB (control) |
| **Output data** | Alarm via control signal<br>Warning field intrusion, stop field intrusion<br>System test error<br>Contamination warning |

## Ambient data

| | |
|---|---|
| **Ambient operating temperature** | –30 °C ... +50 °C, Sensor<br>–25 °C ... +55 °C, Control |
| **Ambient temperature, storage** | –30 °C ... +70 °C [1]<br>–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

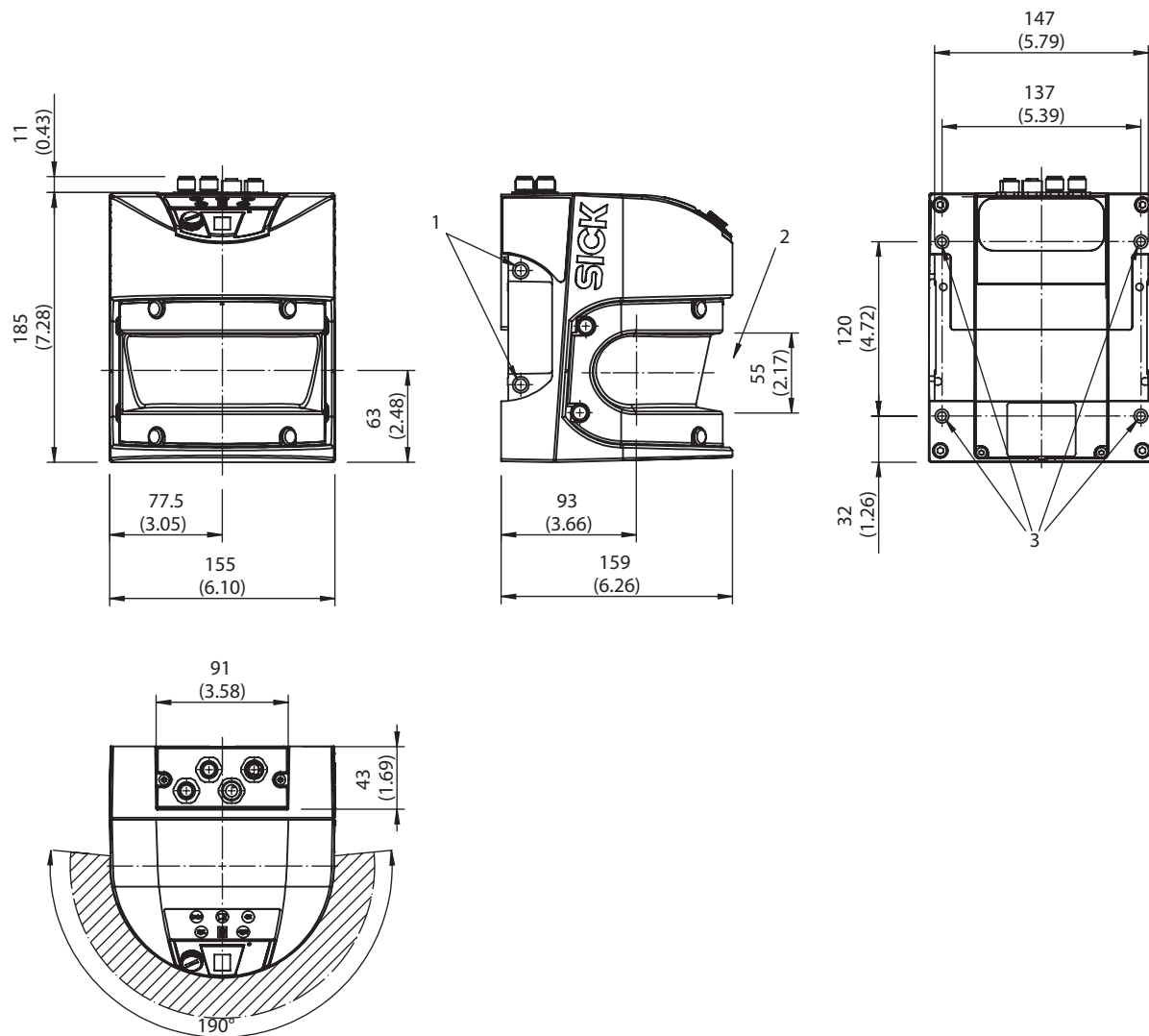| | |
|---|---|
| **Items supplied** | LMS511-10100S02 (3 x)<br>Flexi Soft main module FX3-CPU000000<br>Flexi Soft system plug FX3-MPL000001<br>Flexi Soft I/O module FX3-XTIO84002 (2 x)<br>USB configuration cable<br>USB stick with configuration files<br>Ethernet connection cable<br>LMS511 accessory set 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. |

## 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 |

## Certificates

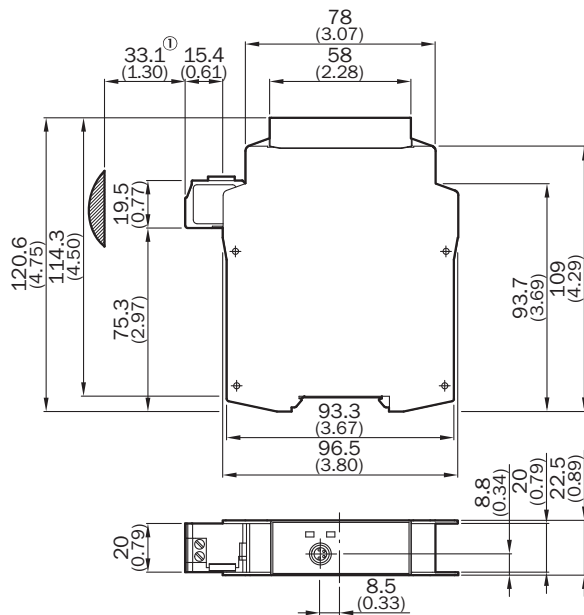| | |
|---|---|
| **EU declaration of conformity** | ✓ |
| **UK declaration of conformity** | ✓ |
| **China RoHS** | ✓ |

## Dimensional drawing LMS511

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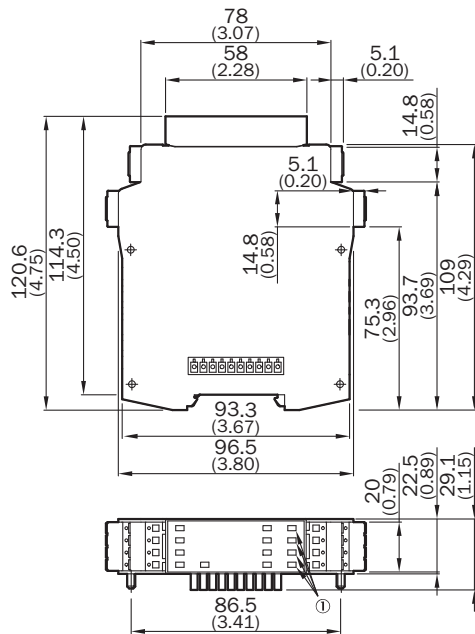② do not block front screen
③ 4 screw holes M6 x 8

## Dimensional drawing FX3-CPU0

Dimensions in mm (inch)
① Approximate connector range
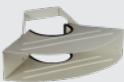
## Dimensional drawing FX3-XTIO, FX3-XTDI

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

## 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<br>• **Material:** Aluminum (powder-coating)<br>• **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<br>• **Material:** Stainless steel<br>• **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"<br>• **Material:** Stainless steel<br>• **Details:** Stainless steel V2A (1.4301)<br>• **Suitable for:** LRS4000, MRS1000, LMS1000, LRS4000 | Fine adjust-ment bracket | 2076764 |
| **Commissioning aids and test equipment** | | |
| • **Product:** Alignment aids<br>• **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**

SICK AG | Waldkirch | Germany | www.sick.com

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Sensor Intelligence.