

LMS400-1000

LMS4xx

2D LASER SCANNERS

SICK
Sensor Intelligence.



Ordering information

| Type | Part no. |
|-------------|----------|
| LMS400-1000 | 1027897 |

Other models and accessories → www.sick.com/LMS4xx



Detailed technical data

Features

| | |
|--|---|
| Version | Short Range |
| Field of application | Indoor |
| Reading field | Front |
| Light source | Visible red light (650 nm) |
| Laser class | 2, in standby mode laser class 1 according to IEC60825-1:2007 |
| Aperture angle | 70° |
| Scanning frequency | 180 Hz ... 500 Hz |
| Angular resolution | 0.1° ... 1.0°, configurable |
| Operating range | 0.7 m ... 3 m |
| Max. range with 10 % reflectivity | 3 m |

Performance

| | |
|--------------------------------|---------------------------------|
| Response time | ≥ 2 ms |
| Detectable object shape | Almost any |
| Systematic error | ± 4 mm ¹⁾ |
| Statistical error | ± 3 mm ± 10 mm ¹⁾ |
| Integrated application | Level Control |

¹⁾ Typical value; actual value depends on environmental conditions.

Interfaces

| | |
|---------------------------|---|
| Serial (RS-232) | ✓ |
| Function | Host, AUX |
| Ethernet | ✓ |
| Function | Host |
| Data transmission rate | 10 Mbit, half-duplex |
| Protocol | TCP/IP |
| Switching inputs | 4 |
| Switching outputs | 5 (4 x PNP / analog 1 x 4 mA ... 20 mA) |
| Optical indicators | 6 LEDs |

Mechanics/electronics

| | |
|-------------------------------|---------------------------------|
| Operating voltage | ≤ 24 V DC, ± 15 % |
| Power consumption | 25 W |
| Housing | Aluminum die cast |
| Housing color | Light blue (RAL 5012) |
| Enclosure rating | IP 20, DIN 40 050 ¹⁾ |
| Weight | 2.3 kg |
| Dimensions (L x W x H) | 179 mm x 107 mm x 130 mm |

¹⁾ With IP65 plug-in cover.

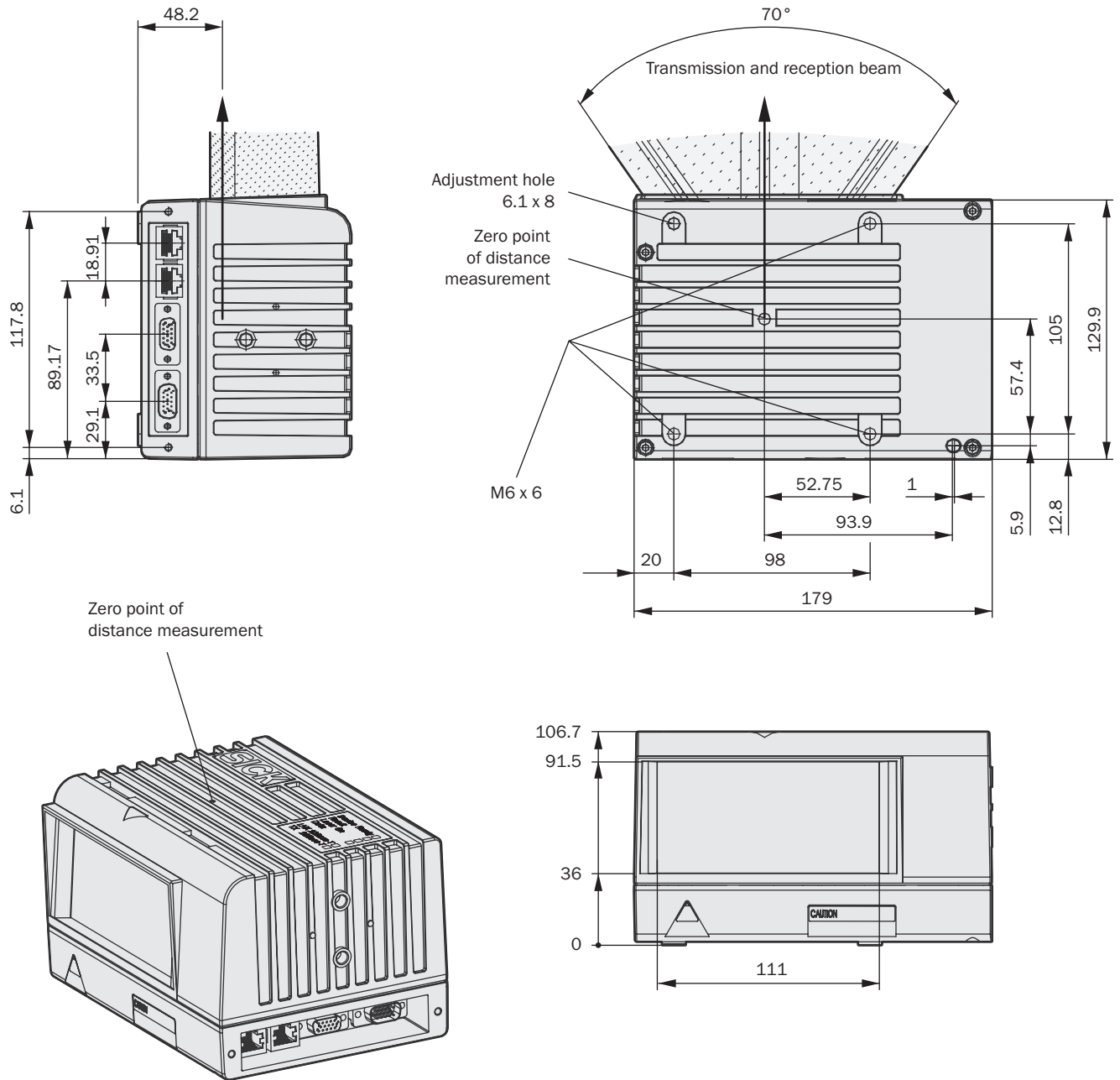
Ambient data

| | |
|--|---------------------------------------|
| Object remission | 6.5 % ... 200 % |
| Electromagnetic compatibility (EMC) | EN 61000G6G2:2001 / EN 61000G6G4:2001 |
| Vibration resistance | EN 60068G2G6, G27, G29, G64 |
| Shock resistance | EN 60068G2G6, G27, G29, G64 |
| Ambient operating temperature | 0 °C ... +40 °C |
| Storage temperature | -20 °C ... +70 °C |

General notes

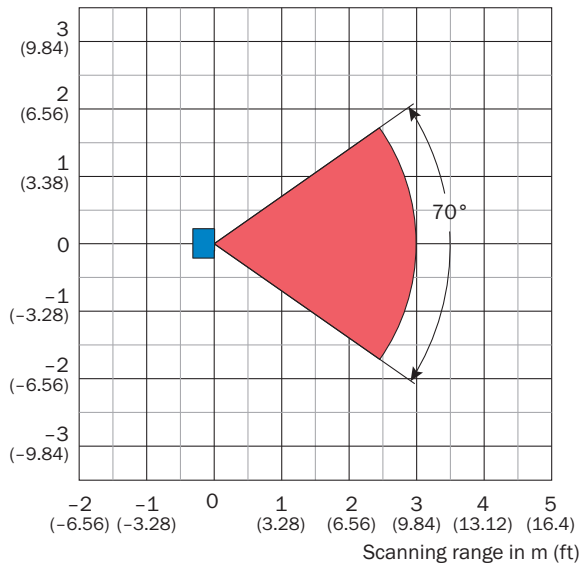
| | |
|--|--|
| Note on use | Not suitable for personnel protection |
| Selectable region of interest (ROI) | From 50 mm x 3,000 mm to 1,000 mm x 1,750 mm |
| Number of columns | Up to 50 equidistant or 30 freely positionable |
| Minimum column width | ≥ 50 mm |
| Minimum detectable object | 30 mm x 30 mm |
| Smallest height threshold above the container floor | 30 mm |
| Switching threshold output | Telegram, switch outputs or analog output |
| Output of height values in the columns | Telegram, Analog output |

Dimensional drawing (Dimensions in mm (inch))



Operating range diagram




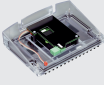
Scanning range in m (ft)



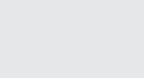




- Scanning range max. 3 m (9.84 ft)
- Scanning range for objects up to 10 % remission 3 m (9.84 ft)

Recommended accessories

Other models and accessories → www.sick.com/LMS4xx

| | Brief description | Type | Part no. |
|---|---|-------------------|----------|
| Terminal and alignment brackets | | | |
|  | Holder for Item Profile | Alignment bracket | 2030421 |
| Modules | | | |
|  | Modular connection module for one sensor | CDM490-0001 | 1025363 |
| Power supply units and power cord connectors | | | |
|  | | PS95WE24V | 7028790 |
| Modules and gateways | | | |
|  | Power supply unit, 25 W, installation by replacement of lid | CMP490 | 2030091 |
| Plug connectors and cables | | | |

| | Brief description | Type | Part no. |
|---|--|--|----------|
|  | Head A: female connector, D-Sub, 15-pin, straight Head B: male connector, D-Sub, 15-pin, straight Cable: shielded, 3 m | Connection cable for connection to CDM490 | 2020302 |
|  | Head A: male connector, RJ45 Head B: male connector, RJ45 Cable: Ethernet, unshielded, 10 m For plug hood | Connection cable (male connector-male connector) | 2030467 |
|  | Head A: male connector, RJ45 Head B: male connector, RJ45 Cable: Ethernet, unshielded, 3 m For plug hood | Connection cable standard | 2062036 |
|  | Head A: male connector, female connector, D-Sub-HD, 15-pin, straight Head B: male connector, D-Sub-HD, 15-pin, straight Female connector, RJ45 Cable: CAN, unshielded, 3 m For VMD, Master | Connection hood | 2030535 |
| Optics cloths | | | |
|  | Cloth for cleaning the front screen | Lens cloth | 4003353 |

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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.”

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