LMS400-1000

LMS4xx

2D LIDAR SENSORS

SICK
Sensor Intelligence.

LMS400-1000 | LMS4xx
2D LIDAR SENSORS

Ordering information

Type	Part no.
LMS400-1000	1027897

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

CE EAC

Detailed technical data

Features

Application	Indoor
Reading field	Front
Light source	Visible red light (650 nm)
Laser class	2, in standby operation laser class 1 (IEC 60825-1:2014, EN 60825-1:2014)
Aperture angle	
Horizontal	70°
Scanning frequency	230 Hz ... 500 Hz
Angular resolution	0.1° ... 1.0°, configurable
Working range	0.7 m ... 3 m
Scanning range	
At 10% remission	3 m

Performance

Response time	≥ 2 ms
Detectable object shape	Almost any
Systematic error	± 4 mm [1]
Statistical error	3 mm [1]
Integrated application	Level Control

[1] Typical value; actual value depends on environmental conditions.

Interfaces

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

Mechanics/electronics

Supply voltage	≤ 24 V DC, ± 15 %
Power consumption	25 W
Housing	Aluminum die cast
Housing color	Light blue (RAL 5012)
Enclosure rating	IP65 (EN 60529, Section 14.2.7) [1]
Weight	2.3 kg
Dimensions (L x W x H)	179 mm x 107 mm x 130 mm

[1] With plug housing.

Ambient data

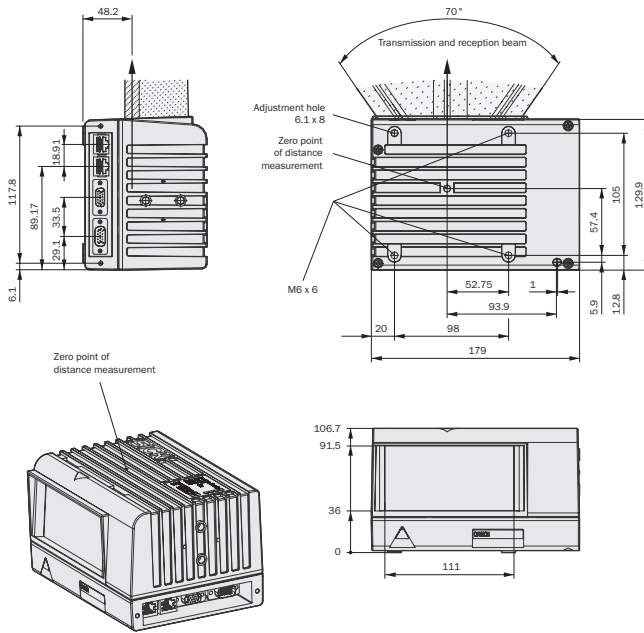|	
Object remission	6.5 % ... 200 %
Electromagnetic compatibility (EMC)	EN 61000G6G2:2001 / EN 61000G6G4:2001
Vibration resistance	EN 60068G2G6, G27, G29, G64
Shock resistance	EN 60068G2G6, G27, G29, G64
Ambient operating temperature	0 °C ... +40 °C
Storage temperature	−20 °C ... +70 °C

General notes

Note on use	The sensor does not constitute a safety component as defined by relevant legislation on machine safety.
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

Classifications

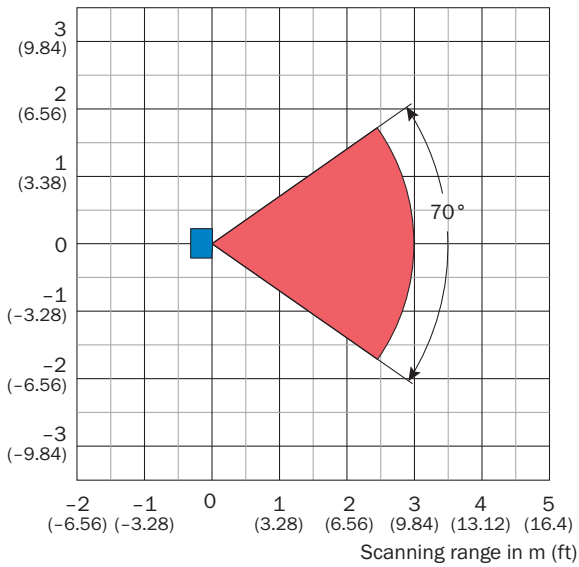|	
ECl@ss 5.0	27270990
ECl@ss 5.1.4	27270990
ECl@ss 6.0	27270913
ECl@ss 6.2	27270913
ECl@ss 7.0	27270913
ECl@ss 8.0	27270913
ECl@ss 8.1	27270913
ECl@ss 9.0	27270913
ETIM 5.0	EC002550
ETIM 6.0	EC002550
UNSPSC 16.0901	46171620

Dimensional drawing (Dimensions in mm (inch))

LMS400

Working 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			
	Alignment bracket for LMS	Alignment bracket	2043070
	Holder for Item Profile	Alignment bracket	2030421
Power supply units and power supply cables			
		PS95WE24V	7028790
Modules and gateways			
	Power supply unit, 25 W, installation by replacement of lid	CMP490	2030091
Plug connectors and cables			
	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 Head B: male connector Cable: unshielded, 3 m	Connection cable (male connector-male connector)	2030451
	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, 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	Modular hood	2030535
Optics cloths			
	Cloth for cleaning the front screen	Lens cloth	4003353
Modules			
	Modular connection module for one sensor	CDM490-0001	1025363

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:

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