



LMS400-2000

LMS4xx

2D LIDAR SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	part no.
LMS400-2000	1041725

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



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)
Scanning frequency	300 Hz ... 500 Hz
Angular resolution	
Horizontal	0.1° ... 1.0°, configurable
Working range	0.7 m ... 3 m
Scanning range	
At 10% remission factor	3 m

Mechanics/electronics

Supply voltage	≤ 24 V DC, ± 15 %
Power consumption	25 W
Housing material	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.

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	Data interface (read result output)
Data transmission rate	10 Mbit/s, half-duplex
Serial	✓ , RS-232
Function	Data interface (read result output), Service interface
Digital inputs	4
Digital outputs	5 (4 x PNP / analog 1 x 4 mA ... 20 mA)
Optical indicators	6 LEDs

Ambient data

Object remission	4.5 % ... 100 %
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, digital outputs or analog output
Output of height values in the columns	Telegram, Analog output

Certificates

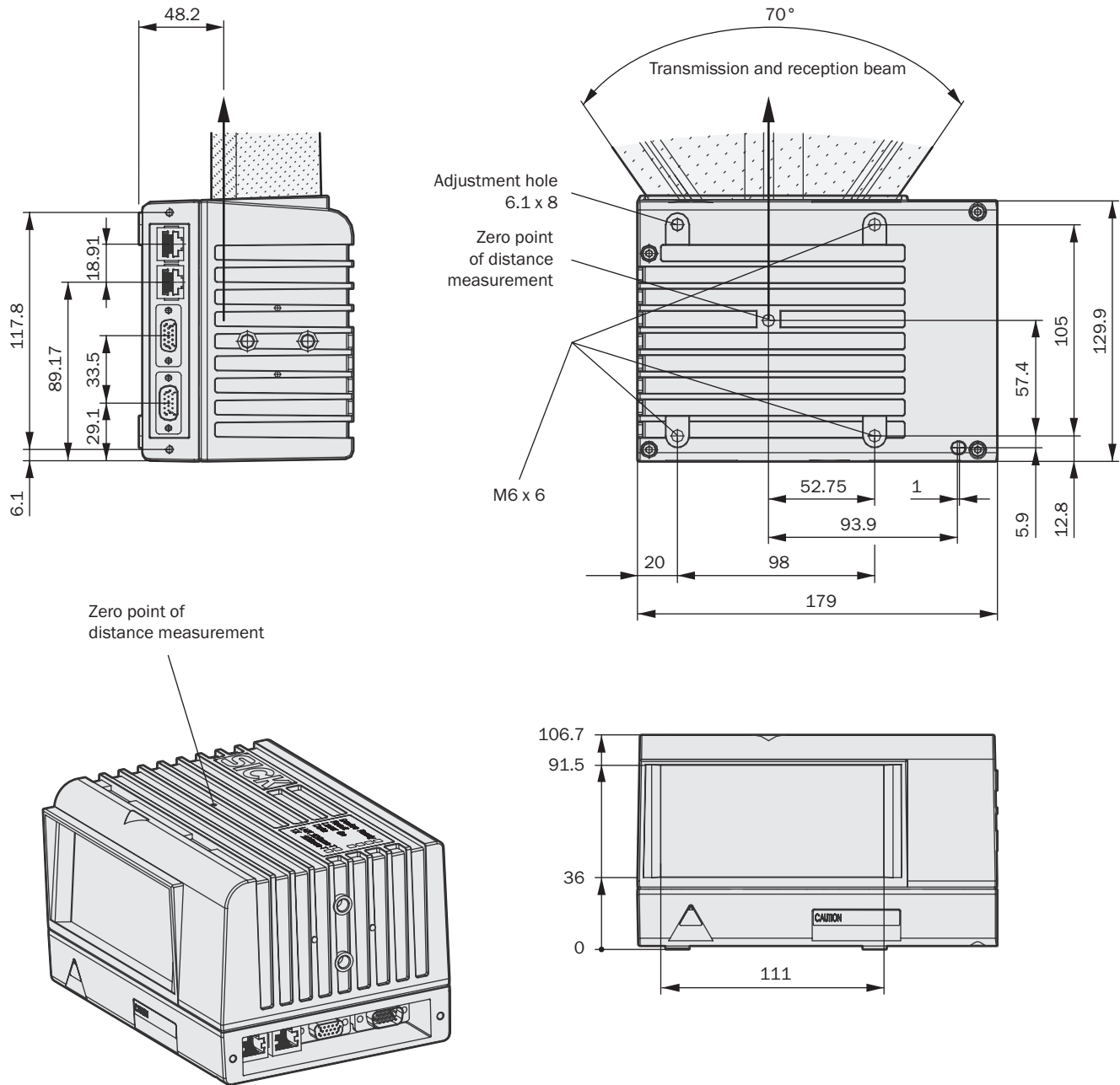
EU declaration of conformity	✓
ACMA declaration of conformity	✓
China RoHS	✓
Information according to Art. 3 of Data Act (Regulation EU 2023/2854)	✓

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

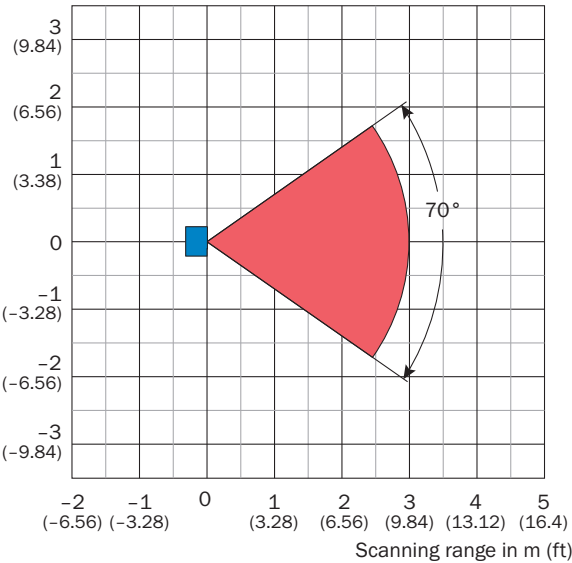
Dimensional drawing LMS400



Dimensions in mm (inch)

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.
connectors and cables			
	Connection type head A: Male connector, RJ45 Connection type head B: Male connector, RJ45 Signal type: Ethernet Cable: 3 m Description: Ethernet, unshielded Note: For plug hood	YMR-JA8-030XXXMRJA8	2062036
	Connection type head A: Male connector, RJ45 Connection type head B: Male connector, RJ45 Signal type: Ethernet Cable: 10 m Description: Ethernet, unshielded Note: For plug hood	YMR-JA8-100XXXMRJA8	2030467
	Connection type head A: Male connector, D-Sub-HD, 15-pin, straight, Female connector Connection type head B: Male connector, D-Sub-HD, 15-pin, straight Signal type: CAN Items supplied: With connection cable 15-pin D-sub, 3 m Cable: 3 m Description: CAN, unshielded Note: For VMD, Master	Modular hood	2030535
	Connection type head A: Male connector Connection type head B: Male connector Cable: 3 m, FSI Description: Unshielded	YMR-JA8-030XXXMRJA8	2030451
	Connection type head A: Female connector, D-Sub, 15-pin, straight Connection type head B: Male connector, D-Sub, 15-pin, straight Items supplied: 2 x required Cable: 3 m, 15-wire Description: Shielded	YFH-DAC-030XXXMHDAC	2020302
Power supply units and power supply cables			
	Input voltage: 100 V AC ... 240 V AC Output voltage: 24 V DC Output current: 3.9 A	PS95W-24V	7028790
Mounting systems			
	Description: Alignment bracket for LMS	Alignment bracket	2043070
	Description: Holder for Item Profile	Alignment bracket	2030421
Junction boxes			
		CDM490-0001	1025363
integration modules and adapters			
	Description: Power supply unit, 25 W, installation by replacement of lid	CMP490	2030091

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