



LD-OEM1501

LD-OEM

2D LIDAR SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	part no.
LD-OEM1501	1060829

Other models and accessories → www.sick.com/LD-OEM

Detailed technical data

Features

Application	Indoor
Light source	Infrared (905 nm)
Laser class	1 (IEC 60825-1:2014, EN 60825-1:2014+A11:2021)
Aperture angle	
Horizontal	360°
Scanning frequency	5 Hz ... 20 Hz
Angular resolution	
Horizontal	0.125°
	0.1875°
	0.375°
	0.5°
	1°
	0.25°
	0.75°
	0.0625°, interlaced
Working range	0.5 m ... 250 m
Scanning range	
At 10% remission factor	55 m
At 90% remission factor	180 m
Fog correction	No

Mechanics/electronics

Connection type	3 x M12 male connector/female connector
Supply voltage	24 V DC, ± 15 %
Power consumption	36 W
Housing material	Aluminum die cast
Housing color	Light blue (RAL 5012)

Enclosure rating	IP65
Protection class	III
Weight	+ 2.4 kg
Dimensions (L x W x H)	115 mm x 120 mm x 222 mm
MTBF	86 years

Safety-related parameters

MTTF_D	> 100 years
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Performance

Detectable object shape	Almost any
Systematic error	± 10 mm ¹⁾
Statistical error	15 mm ¹⁾

¹⁾ Actual value depends on environmental conditions.

Interfaces

Ethernet	Function	✓ , TCP/IP
	Data transmission rate	Data interface (read result output) ≤ 100 Mbit/s
Serial	Function	✓ , RS-232
	Data transmission rate	19,200 Baud ... 115,200 Baud
Digital inputs/outputs	Inputs	
	Outputs	1 (digital)
Optical indicators		4 LEDs (Status display)

Ambient data

Ambient operating temperature	0 °C ... +50 °C
Storage temperature	-20 °C ... +80 °C
Permissible relative humidity	85 %, Non-condensing

General notes

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

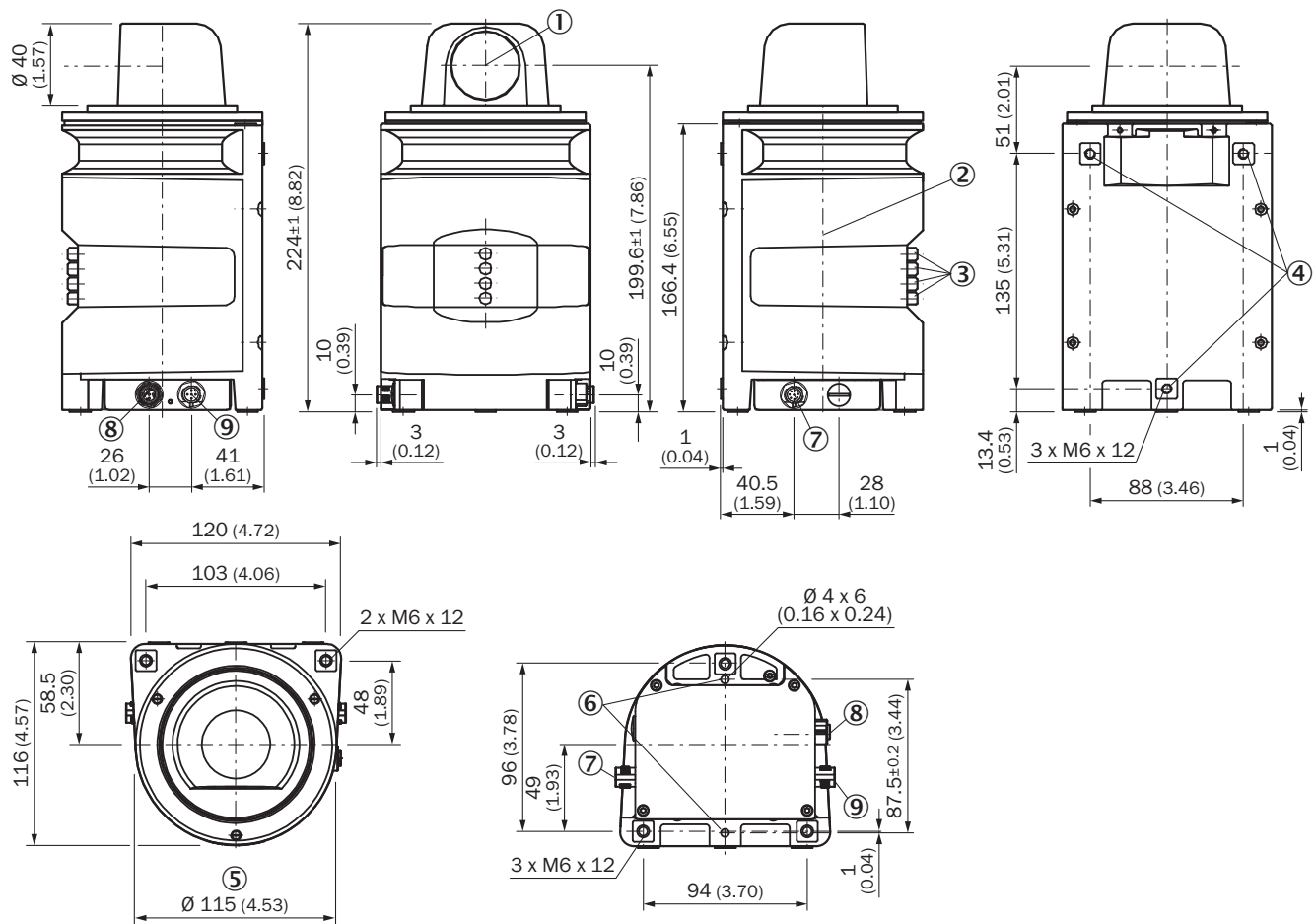
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
China-RoHS	✓
Information according to Art. 3 of Data Act (Regulation EU 2023/2854)	✓

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

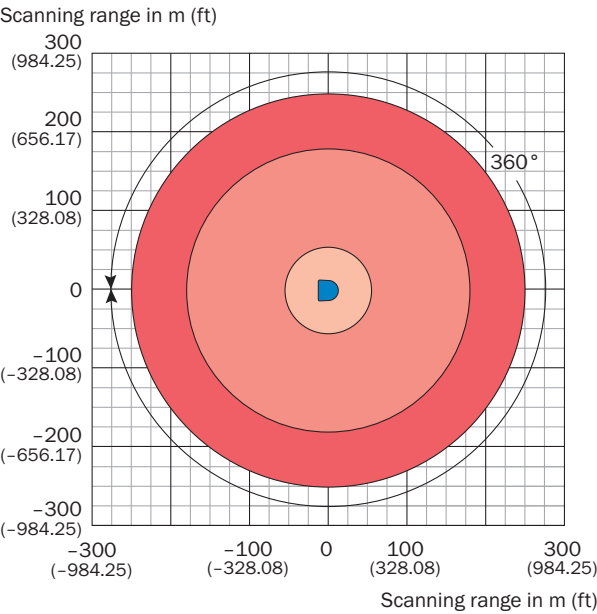


Dimensions in mm (inch)

- ① Optical axis
- ② Zero level
- ③ LED (from top: yellow, yellow, green, red)

- ④ Mounting hole M6 x 12
- ⑤ Rotating diameter
- ⑥ Aligning pin
- ⑦ RS-232 connection (M12 x 8, male connector)
- ⑧ Ethernet connection (M12 x 4, female connector)
- ⑨ power supply connection (M12 x 5, male connector)


Working range diagram









- Scanning range max. 250 m (820.21 ft)
- Scanning range white targets
90 % remission 180 m (590.55 ft)
- Scanning range for objects up to
10 % remission 55 m (180.45 ft)

Recommended accessories

Other models and accessories → www.sick.com/LD-OEM

	Brief description	Type	part no.
Mounting systems			
	<div><div>Description: Assembly support</div><div>Items supplied: Mounting hardware included</div></div>	Assembly support	5311055

	Brief description	Type	part no.
connectors and cables			
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 8-pin, straight, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 5 m, 8-wire, PUR, halogen-free • Description: Sensor/actuator cable, shielded • Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation 	YF2A28-050UA6XLEAX	2095835
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 8-pin, straight, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 0.6 m, 8-wire, PUR, halogen-free • Description: Sensor/actuator cable, shielded • Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation 	YF2A28-C60UA6XLEAX	2145470
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 8-pin, straight, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 1 m, 8-wire, PUR, halogen-free • Description: Sensor/actuator cable, shielded • Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation 	YF2A28-010UA6XLEAX	2145471
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 8-pin, straight, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 2 m, 8-wire, PUR, halogen-free • Description: Sensor/actuator cable, shielded • Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation 	YF2A28-020UA6XLEAX	2145472
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 8-pin, straight, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 3 m, 8-wire, PUR, halogen-free • Description: Sensor/actuator cable, shielded • Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation 	YF2A28-030UA6XLEAX	2145473
Power supply units and power supply cables			
	<ul style="list-style-type: none"> • Output voltage: 24 V DC • Output current: 10 A • Description: Power supply DC 24 V / 10 A 	Power supply	6020875

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