



# MRS6224R-131001

MRS6000

3D LIDAR SENSORS

**SICK**  
Sensor Intelligence.



## Ordering information

Type	part no.
MRS6224R-131001	6081153

Other models and accessories → [www.sick.com/MRS6000](http://www.sick.com/MRS6000)



## Detailed technical data

## Features

<b>Application</b>	Outdoor, Indoor
<b>Light source</b>	Infrared light (870 nm)
<b>Laser class</b>	1 (IEC 60825-1:2014, EN 60825-1:2014+A11:2021)
<b>Aperture angle</b>	Horizontal 120°
	Vertical 15°
<b>Scanning frequency</b>	10 Hz
<b>Angular resolution</b>	Horizontal 0.13°
	Vertical 0.625°
<b>Working range</b>	0.5 m ... 200 m
<b>Scanning range</b>	
At 10% remission factor	30 m, x 1.4 (typ.) in mode: Extended measuring range
At 90% remission factor	75 m, x 1.4 (typ.) in mode: Extended measuring range
<b>Amount of evaluated echoes</b>	4

## Mechanics/electronics

<b>Connection type</b>	3 x M12 round connectors (supply voltage, Ethernet, I/O)
<b>Supply voltage</b>	10 V ... 29 V
<b>Power consumption</b>	20 W
<b>Housing material</b>	Aluminum / plastic (PMMA)
<b>Housing color</b>	Gray (RAL 7042)
<b>Enclosure rating</b>	IP65 IP67
<b>Protection class</b>	III
<b>Weight</b>	2.4 kg
<b>Dimensions (L x W x H)</b>	125.5 mm x 176 mm x 131 mm
<b>MTBF</b>	9.5 years

## Safety-related parameters

<b>MTTF<sub>D</sub></b>	19 years
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## Performance

<b>Systematic error</b>	$\pm 125 \text{ mm}^{1)}$
<b>Statistical error</b>	$30 \text{ mm}^{1)}$

<sup>1)</sup> Typical value; actual value depends on environmental conditions.

## Interfaces

<b>Ethernet</b>	✓, TCP/IP
Function	Raw data interface/parameterization
Data transmission rate	100 Mbit/s ... 1 Gbit/s

## Ambient data

<b>Ambient operating temperature</b>	-20 °C ... +60 °C
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## General notes

<b>Note on use</b>	The sensor does not constitute a safety component as defined by relevant legislation on machine safety.
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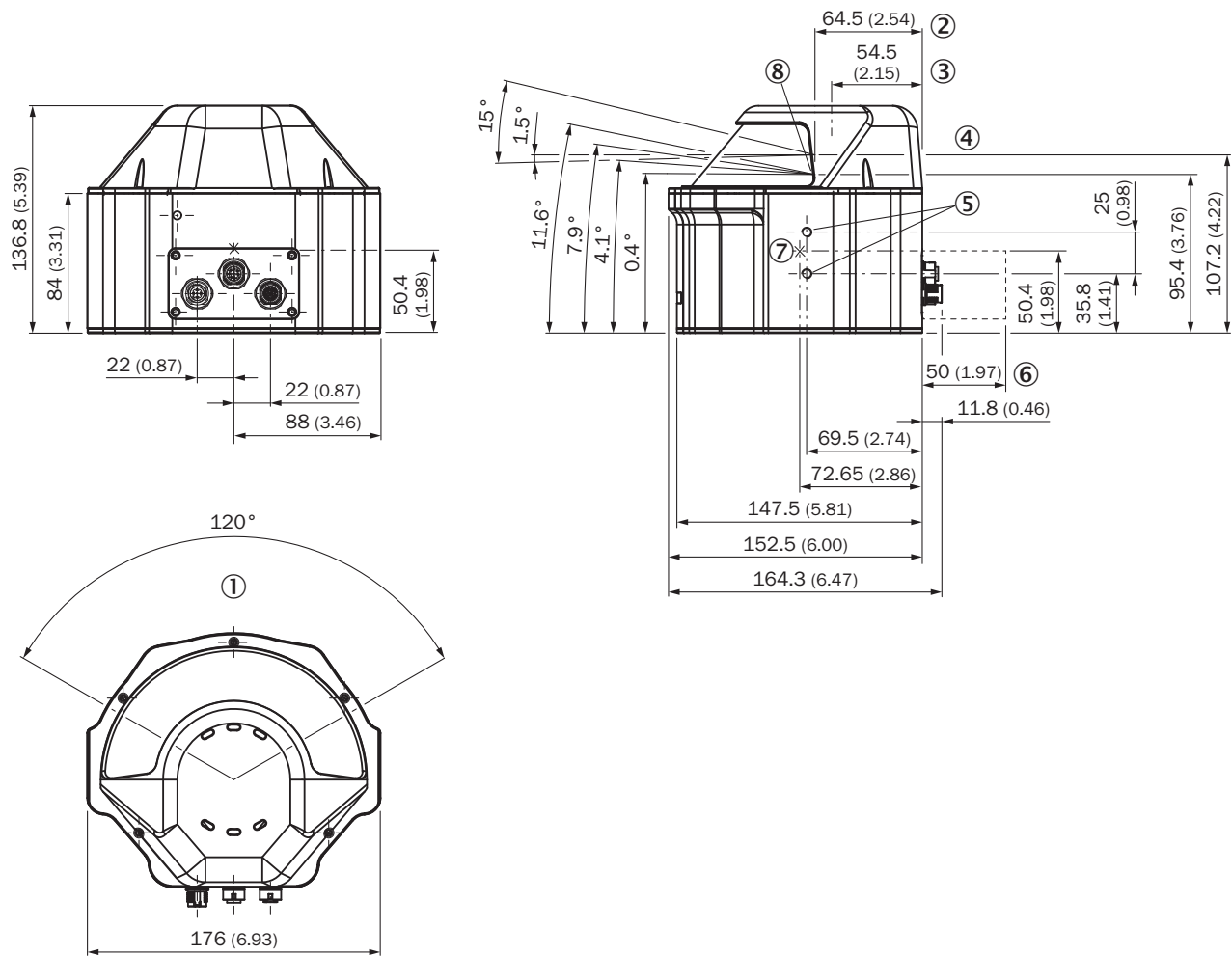
## Certificates

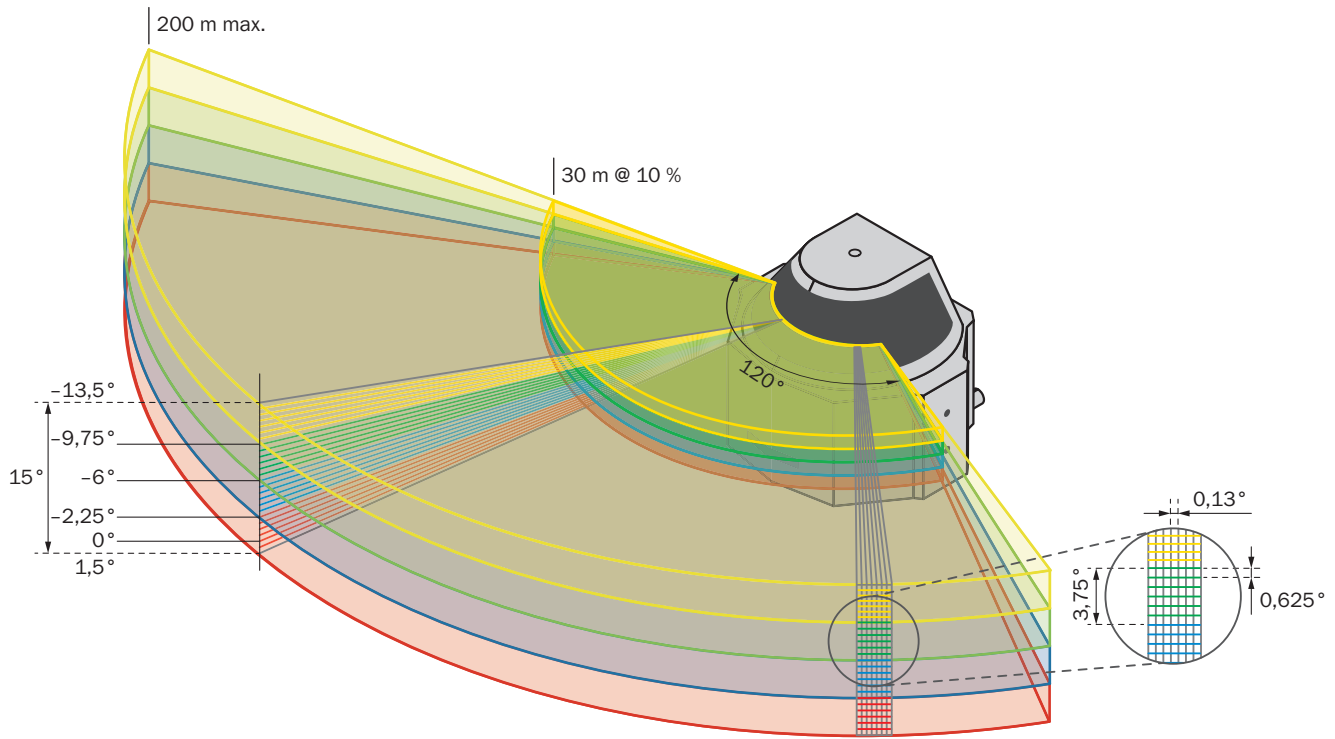
<b>EU declaration of conformity</b>	✓
<b>UK declaration of conformity</b>	✓
<b>ACMA declaration of conformity</b>	✓
<b>China-RoHS</b>	✓

## Classifications

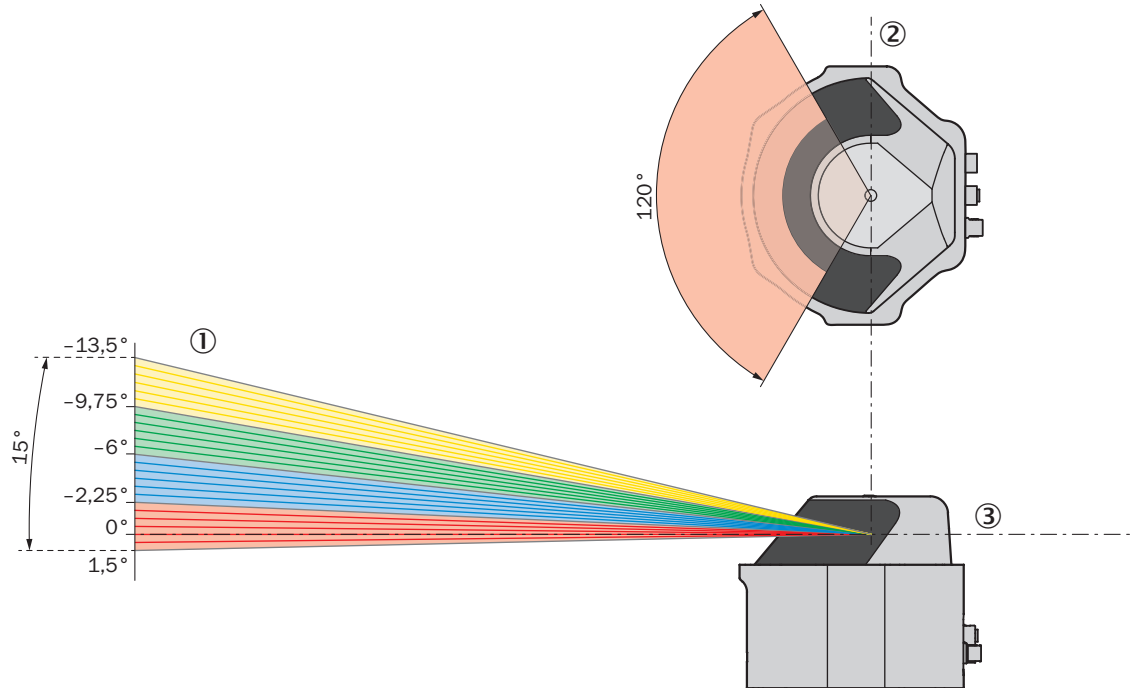
<b>ECLASS 5.0</b>	27270990
<b>ECLASS 5.1.4</b>	27270990
<b>ECLASS 6.0</b>	27270913
<b>ECLASS 6.2</b>	27270913
<b>ECLASS 7.0</b>	27270913
<b>ECLASS 8.0</b>	27270913
<b>ECLASS 8.1</b>	27270913
<b>ECLASS 9.0</b>	27270913
<b>ECLASS 10.0</b>	27270913
<b>ECLASS 11.0</b>	27270913
<b>ECLASS 12.0</b>	27270913
<b>ETIM 5.0</b>	EC002550
<b>ETIM 6.0</b>	EC002550
<b>ETIM 7.0</b>	EC002550
<b>ETIM 8.0</b>	EC002550
<b>UNSPSC 16.0901</b>	41111615

### Dimensional drawing






### Functional principle



- ① 4 scan planes with 6 layers each
- ② Vertical axis
- ③ Horizontal axis

Recommended accessories

Other models and accessories → [www.sick.com/MRS6000](http://www.sick.com/MRS6000)

	Brief description	Type	part no.
Mounting systems			
	<ul style="list-style-type: none"><li>• <b>Description:</b> MRS6000 bracket for mounting from behind</li><li>• <b>Dimensions (W x H x L):</b> 224 mm x 90 mm x 117 mm</li><li>• <b>Material:</b> Stainless steel</li><li>• <b>Details:</b> Stainless steel</li><li>• <b>Items supplied:</b> Mounting hardware included</li><li>• <b>Suitable for:</b> MRS6000</li></ul>	Mounting kit	2102120

## 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](http://www.sick.com)