

SICK.COM



DATA SHEET

MRS6124R-131001

MRS6000
3D LiDAR sensors

SICK Sensor Intelligence



3D LIDAR SENSORS

MRS6124R-131001

ORDERING INFORMATION

Type	part no.
MRS6124R-131001	6065086

Further device versions and accessories at www.sick.com/MRS6000



DETAILED TECHNICAL DATA

FEATURES

Application	Outdoor, Indoor	
Light source	Infrared light (870 nm)	
Laser class	1 (IEC 60825-1:2014)	
Aperture angle	Horizontal	120°
	Vertical	15°
Scanning frequency	10 Hz	
Angular resolution	Horizontal	0.13°
	Vertical	0.625°
Working range	0.5 m ... 200 m	
Scanning range	At 10% remission factor	30 m
	At 90% remission factor	75 m
Amount of evaluated echoes	4	

MECHANICS/ELECTRONICS

Connection type	3 x M12 round connectors (supply voltage, Ethernet, I/O)
Supply voltage	10 V ... 29 V
Power consumption	20 W
Housing material	Aluminum / plastic (PMMA)
Housing color	Gray (RAL 7042)
Enclosure rating	IP65
	IP67
Protection class	III
Weight	2.2 kg
Dimensions (L x W x H)	125.5 mm x 176 mm x 131 mm
MTBF	9.5 years

SAFETY-RELATED PARAMETERS

MTTF _D	19 years
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PERFORMANCE

Systematic error	± 125 mm ¹⁾
Statistical error	30 mm ¹⁾

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

INTERFACES

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

AMBIENT DATA

Ambient operating temperature	-20 °C ... +60 °C
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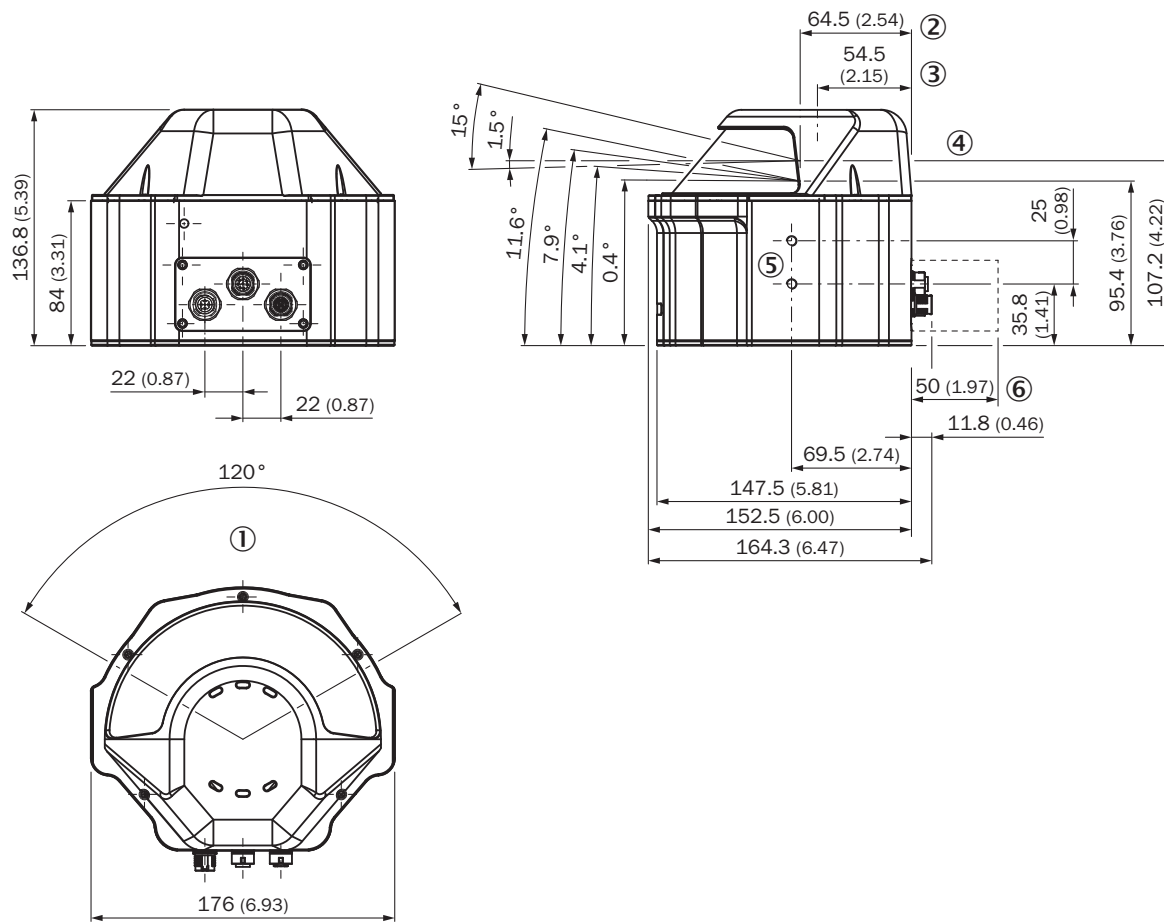
GENERAL NOTES

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

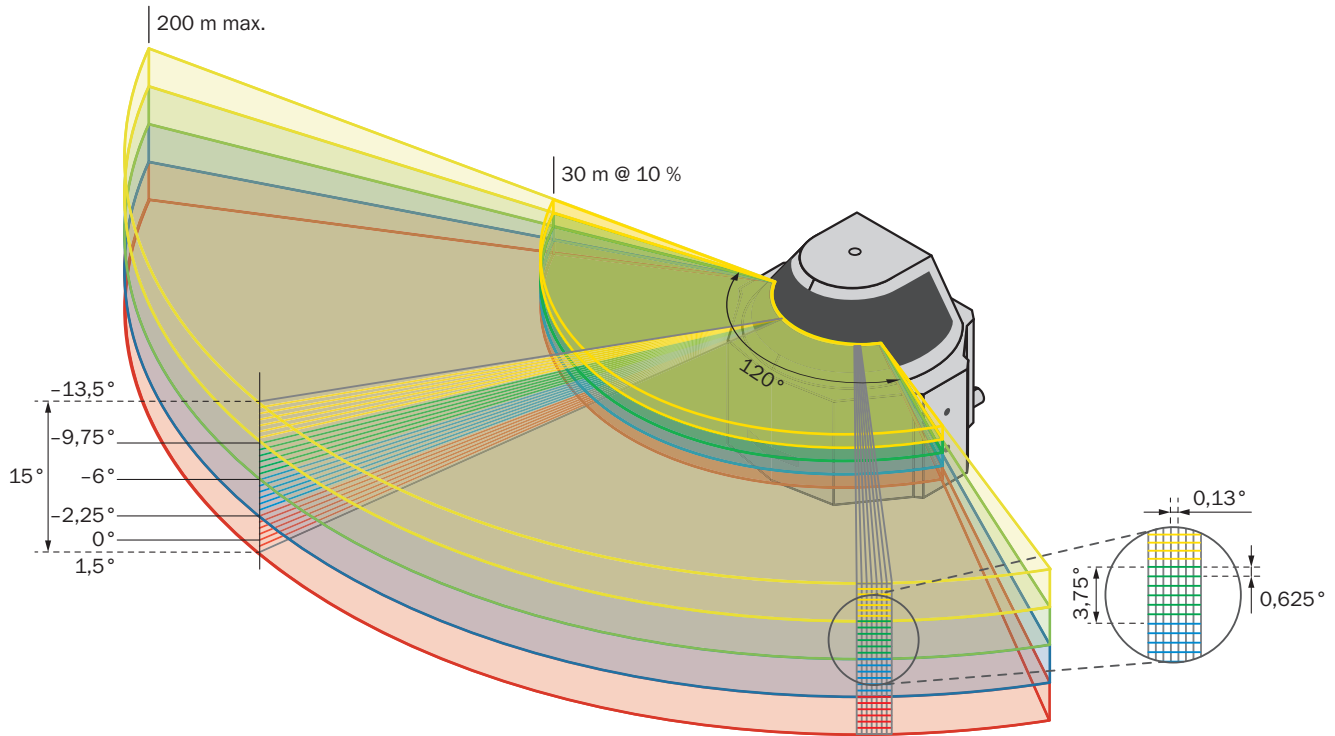
EU declaration of conformity	✓
ACMA declaration of conformity	✓
China RoHS	✓

DIMENSIONAL DRAWING

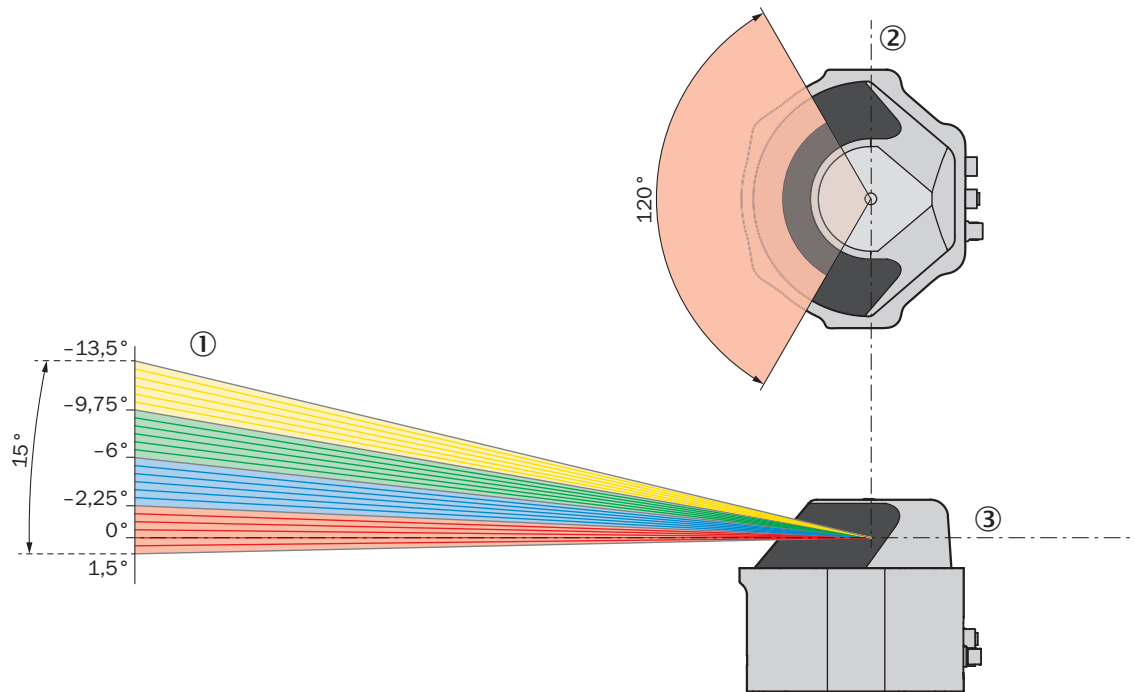


Dimensions in mm (inch)

- ① aperture angle
- ② Zeroset
- ③ Rotation axis
- ④ Horizontal axis
- ⑤ Mounting hole M6 x 10 mm
- ⑥ Area to be kept free for connecting cables



FUNCTIONAL PRINCIPLE



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

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/6065086



SICK AG
WALDKIRCH
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SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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