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PRODUCT OVERVIEW

RMS

Radar sensors

SICK Sensor Intelligence



RADAR SENSORS

RMS

Reliable radar sensors for object detection in challenging environments

The RMS radar sensors provide precise 1D or 2D object detection under harsh weather and ambient conditions. Even in heavy rain, snowfall, fog, or high levels of dust, the sensors reliably detect objects. Detection fields can be flexibly set within the working range. RMS sensors can detect multiple objects at the same time and are highly adaptable thanks to a variety of configuration options and different interfaces. This makes RMS the ideal solution for complex applications in harsh environments. The RMS radar sensors provide precise 1D or 2D object detection under harsh weather and ambient conditions. Even in heavy rain, snowfall, fog, or high levels of dust, the sensors reliably detect objects. Detection fields can be flexibly set within the working range. RMS sensors can detect multiple objects at the same time and are highly adaptable thanks to a variety of configuration options and different interfaces. This makes RMS the ideal solution for complex applications in harsh environments.

RMS AT A GLANCE

BENEFITS

- Reliable detection under difficult visibility and ambient conditions such as heavy snowfall, rain, dense fog, or dust
- Durable and very resistant to shock and vibration
- Simultaneous detection of multiple objects
- Flexible adjustment, easy to parameterize
- Integrated field evaluation or measurement data output selectable
- Direct measurement of object velocities
- Quick and easy sensor cleaning
- Can be used internationally (certifications for numerous countries)

FEATURES

- Modern FMCW radar technology
- Integrated digital inputs and outputs as well as an Ethernet interface
- Sensor parameterization via web browser
- Enclosure ratings: IP67 and IP69
- Fundamental frequency: 61 GHz with a bandwidth of 500 MHz

TECHNICAL DATA OVERVIEW

Application	Outdoor, Indoor
Frequency band	61 GHz ... 61.5 GHz / 60.5 GHz ... 61 GHz
Aperture angle	
Horizontal	120°
Vertical	8°
Working range	0.4 m ... 200 m
Number of field sets	Up to 4 zones
Ethernet	✓
CAN	Future option, hardware built into product
Enclosure rating	IP67 IP69
Ambient operating temperature	–40 °C ... +65 °C
Dimensions	34 mm x 97 mm x 96 mm
Weight	300 g

ADVANTAGES



Radar technology for industrial use

The RMS radar sensor is designed for industrial use and consistently geared to the application requirements of countless branches. Not least due to the use of extremely powerful algorithms adapted to industrial applications, the RMS stands out due to its detection performance, especially under very harsh ambient and weather conditions such as fog, rain, snow, dust and extreme temperatures.



The detection performance of the RMS is not influenced even by rain, fog, dust, snow and extreme temperatures. At the same time, the RMS is not light-dependent and can therefore be used during the day and at night.

FMCW
frequency modulated continuous wave

The FMCW (FMCW = frequency modulated continuous wave) technology enables the RMS to detect the spacing from the sensor to the objects and the radial speed of objects at the same time.



Reliability you can build on

High-quality and rugged aluminum housing that can withstand even very demanding industrial conditions.



Whether Siberian cold or tropical heat: The RMS is designed for extreme temperatures from –40 °C to + 65 °C.



Very easy and effective cleaning thanks to the protection against high pressure and high temperature spray at close range. At the same time, the RMS is waterproof up to a depth of 1 m.



No moving parts and therefore very high resistance to shocks and vibrations.



The pressure compensation diaphragm prevents negative effects due to rapid internal pressure changes. These are caused by rapid changes in temperature.



Nickel-plated plug connectors prevent corrosion and ensure a stable connection, even under very harsh conditions.



Safe and reliable M12 plug connectors for cabling: The industrial cables in straight and angled versions have been extensively tested.



SICK LifeTime Services

From consulting to modernization: SICK LifeTime Services increase the productivity of plants and machines, improve the safety of your employees, and provide a solid foundation for sustainable business operations. As a solution provider, SICK works with you to manage the holistic implementation of projects relating to industrial automation, safety and digitalization.

→ Comprehensive industry know-how and more than 75 years of practical experience create ideas and provide knowledge for your solutions. Find out more

Select the right product variant and accessories directly online. There you will also find example applications as well as downloads such as CAD dimensional models, operating instructions and software.
www.sick.com/RMS

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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 partnership with our customers is more than just a promise: Together, we optimize productivity, elevate quality, protect health and safety, and sustain the 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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