



## RMS1000

Radar sensor for reliable object detection in especially harsh environments

**SICK**  
Sensor Intelligence.

## Advantages



## Radar technology for industrial use

The RMS1000 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 RMS1000 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 RMS1000 is not influenced even by rain, fog, dust, snow and extreme temperatures. At the same time, the RMS1000 is not light-dependent and can therefore be used during the day and at night.

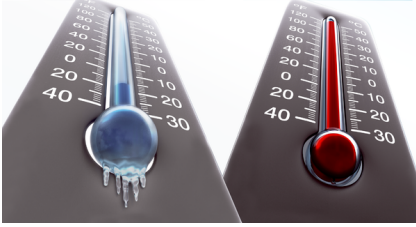


The FMCW (FMCW = frequency modulated continuous wave) technology enables the RMS1000 to detect the spacing from the sensor to the objects and the radial speed of objects at the same time.



## 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 RMS1000 is designed for extreme temperatures from  $-40\text{ }^{\circ}\text{C}$  to  $+65\text{ }^{\circ}\text{C}$ .



IP67  
IP69

Very easy and effective cleaning thanks to the protection against high pressure and high temperature spray at close range. At the same time, the RMS1000 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.

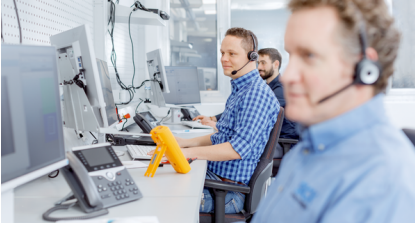


**High availability even under very unfavorable ambient conditions and very good reliability when detecting objects**

## SICK LifeTime Services

**SICK's services increase machine and plant productivity, enhance the safety of people all over the world, provide a solid foundation for a sustainable business operation, and protect investment goods. In addition to its usual consulting services, SICK provides direct on-site support during the conceptual design and commissioning phases as well as during operation.**

**The range of services not only covers aspects like maintenance and inspection, but also includes performance checks as well as upgrades and retrofits. Modular or customized service contracts extend the service life of plants and therefore increase their availability. If faults occur or limit values are exceeded, these are detected at all times by the corresponding sensors and systems.**



### **Consulting and design**

Application-specific advice on the product, its integration and the application itself.



### **commissioning and maintenance**

Application-optimized and sustainable – thanks to professional commissioning and maintenance by a trained SICK service technician.



### **service contracts**

Extended warranty, SICK Remote Service, 24-hour helpdesk, maintenance, availability guarantees and other modular components can be individually combined on request.



## Technical data overview

<b>Frequency band</b>	61 GHz ... 61.5 GHz / 60.5 GHz ... 61 GHz (depending on type)	
<b>Aperture angle</b>	Horizontal	$\pm 60^\circ$
	Vertical	$\pm 4^\circ$
<b>Working range</b>	0.4 m ... 100 m	
<b>Number of field sets</b>	Up to 4 zones	
<b>Ethernet</b>	✓	
<b>Enclosure rating</b>	IP67 IP69	
<b>Ambient operating temperature</b>	-40 °C ... +65 °C	
<b>Dimensions</b>	34 mm x 97 mm x 96 mm	
<b>Weight</b>	300 g	

## Product description

The RMS1000 radar sensor is designed to detect obstacles, even in the most adverse ambient conditions. Even in heavy rain or snowfall, dense fog and in very dusty environments, it detects objects reliably. Within its working range, it allows flexible adjustment of monitored areas and, in addition to a radial object distance, it can also output a radial object speed – and all this for several objects at a time. The ability to adjust the aperture angle and the range of interfaces offer enormous flexibility and adaptability to many different applications, making the RMS1000 an indispensable component for the most demanding applications.

## At a glance

- Radar technology for highest outdoor capability
- Rugged aluminum housing without moving parts
- Adjustable horizontal aperture angle
- Large working range for diverse applications
- Parameterization via web browser
- High-pressure cleaning possible
- State-of-the-art FMCW radar technology
- Digital I/Os and additional data interfaces

## Your benefits

- Reliable detection in the most difficult visibility and ambient conditions, such as heavy snow, rain, dense fog or dust
- Durable and very resistant to shock and vibration
- Highest flexibility and simple parameterization
- Quick and easy cleaning
- Simultaneous determination of radial distance and speed of objects
- Quick and stable signal transmission
- Raw data output for further data processing or data use

## Fields of application

- Collision awareness for driver assistance, e.g. for cranes, trucks, mobile machines, manned forklift trucks
- Detection of vehicles or people for automated opening of doors
- Detection of ships in locks
- Non-contact measurement of water level
- Docking help for trucks at loading and unloading stations
- Prevention of aircraft damage with belt loaders

## Ordering information

Other models and accessories → [www.sick.com/RMS1000](http://www.sick.com/RMS1000)

- **Working range:** 0.4 m ... 100 m
- **Aperture angle:** ± 60°
- **Enclosure rating:** IP67
- **Weight:** 300 g

Radio approval	Frequency band	Type	Part no.
European Union	61 GHz ... 61.5 GHz	RMS1731C-636111	1107598
Japan	60.5 GHz ... 61 GHz	RMS1731C-636011	1122087
New Zealand	61 GHz ... 61.5 GHz	RMS1731C-636511	1125718

## 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)