



RMS2000

2D radar sensor for reliable object detection in especially harsh weather conditions

SICK
Sensor Intelligence.

Advantages



Radar technology for industrial use

The RMS2000 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 RMS2000 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 RMS2000 is not influenced even by rain, fog, dust, snow and extreme temperatures. At the same time, the RMS2000 is not light-dependent and can therefore be used during the day and at night.

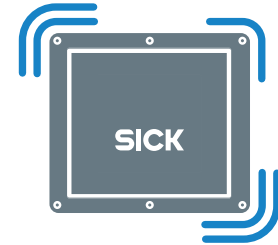


The FMCW (Frequency Modulated Continuous Wave) technology enables the RMS2000 to detect multiple static and dynamic objects simultaneously and determine their speeds via the Doppler effect.



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 RMS2000 is designed for extreme temperatures from $-40\text{ }^{\circ}\text{C}$ to $+65\text{ }^{\circ}\text{C}$.

Very easy and effective cleaning thanks to the protection against high pressure and high temperature spray at close range. At the same time, the RMS2000 is water-proof 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



Technical data overview

Application	Outdoor, Indoor
Frequency band	61 GHz ... 61.5 GHz / 60.5 GHz ... 61 GHz (depending on type)
Working range	0.4 m ... 200 m (depending on type)
Number of field sets	Up to 4 zones
Ethernet	✓
Enclosure rating	IP67 IP69
Ambient operating temperature	-40 °C ... +65 °C
Dimensions	34 mm x 97 mm x 96 mm
Weight	300 g

Product description

The RMS2000 radar sensor detects objects very reliably, even under especially harsh ambient and weather conditions, e.g., in strong rain or snowfall, thick fog, or high dust loads. Detection fields can be flexibly configured in the working range of the sensor. This enables the RMS2000 to simultaneously and very accurately detect distances, angles and speeds of objects. Depending on the parameterization of the device, detections classified as relevant can be signaled via the digital outputs, or measurement data transmitted via the Ethernet interface for further use.

At a glance

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

Your benefits

- Simultaneous detection of multiple object distances, angles and speeds
- Integrated field evaluation or output of measured values selectable
- Flexible configuration, easy to parameterize
- Quick and easy sensor cleaning
- Can be used internationally (certifications for numerous countries)

Fields of application

- Collision avoidance in a wide variety of applications and sectors such as mining, ports, agriculture.
- Measurement of speeds and movement directions on public roads and in non-public areas
- Access protection on heavy machines in outdoor areas
- Driver assistance, e.g., when docking or parking
- Automated opening of warehouse gates

Ordering information

Other models and accessories → www.sick.com/RMS2000

- **Enclosure rating:** IP67, IP69
- **Weight:** 300 g

Radio approval	Frequency band	Working range	Type	Part no.
European Union, United Kingdom, China, Australia, Turkey, India, South Africa, The Philippines, United Arab Emirates, Korea, Egypt, Saudi Arabia, Singapore, Malaysia, Vietnam	61 GHz ... 61.5 GHz	0.4 m ... 100 m	RMS2731C-636111	1128853
		1.6 m ... 200 m	RMS2831C-636111	1129088
Japan	60.5 GHz ... 61 GHz	0.4 m ... 100 m	RMS2731C-636011	1129086
		1.6 m ... 200 m	RMS2831C-636011	1129090
USA, Canada, New Zealand	61 GHz ... 61.5 GHz	0.4 m ... 100 m	RMS2731C-636511	1129087
USA, New Zealand, Canada	61 GHz ... 61.5 GHz	1.6 m ... 200 m	RMS2831C-636511	1129091

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