Product family overview

RMS3xx

Radar technology for quick object detection in harsh environments

RADAR SENSORS

SICK
Sensor Intelligence.

Advantages

Modern FMCW radar technology for industrial use

The RMS3xx is one of the world's first 2D radar sensors that was 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 RMS3xx 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 RMS3xx is not influenced even by rain, fog, dust, snow and extreme temperatures and is independent of light influences. The sensor can therefore be used during the day or night.

The FMCW (FMCW = frequency modulated continuous wave) technology enables the RMS3xx, in combination with object tracking, to detect the spacing, horizontal angle, radial speed, movement pattern and direction of movement of objects at the same time.

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

Aperture angle	
Horizontal	± 50°
Vertical	± 8°
Working range	1 m ... 45 m
Response time	< 60 ms
Number of field sets	Up to 6 fields
Ethernet	✓
CANopen	✓, under preparation
Enclosure rating	IP67
Ambient operating temperature	–40 °C ... +65 °C
Dimensions	85 mm x 97 mm x 60.75 mm
Weight	500 g

Product description

The RMS3xx radar sensor combines the high-performance radar technology from SICK on a foundation of trusted hardware and efficient software. The sensor reliably identifies objects such as obstacles within its detection range. It not only outputs the identification number of the object, but also its direction of movement, speed and distance to the sensor. Thanks to the individually adjustable monitored areas, the RMS3xx identifies objects on-time, e.g. to detect collision risks for driver assistance systems in a timely manner and prevent damage. Simultaneous detection of several objects and provision of associated object data secure operation even in areas in which several objects have to be monitored or in harsh environments.

At a glance

- Detection of static and movable objects
- 4 freely programmable transistor switching outputs
- Output of identification number, speed, direction of movement of the object via Ethernet
- Large scanning range for detection angles of ± 50° (azimuth) and ± 8° (elevation)
- Dust-free, waterproof housing (IP67)

Your benefits

- Quick and precise object detection
- Monitored areas can be adapted individually to applications
- Freely programmable transistor outputs for quick, break-free and stable data transmission
- Output of identification number, speed and direction of movement of the object via Ethernet
- Simultaneous determination of object distance and speed as well as the angle between sensor and object
- Simple configuration and installation

Fields of application

- Collision detection for semi-automated vehicles
- Driver assistance for manned forklift trucks, transport systems and cranes
- Agricultural and forestry machinery
- Mining: Earth movement equipment, height monitoring of bulk heaps
- Monitoring of railway crossings
- Entry monitoring and height control of vehicles

Ordering information

Other models and accessories ➜ www.sick.com/RMS3xx

- **Working range:** 1 m ... 45 m
- **Aperture angle:** ± 50°, ± 8°

Response time	Enclosure rating	Radio approval	Weight	Type	Part no.
< 60 ms	IP67	For country-specific restrictions see “Regulatory Compliance Information” (no. 8021596) technical information (downloads), also included with the product	500 g	RMS320-343300	1083661

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

SICK
Sensor Intelligence.