



# RMS2731C-636111

RMS2000

**RADAR SENSORS**

**SICK**  
Sensor Intelligence.



Ordering information

Type	part no.
RMS2731C-636111	1128853

Other models and accessories → [www.sick.com/RMS2000](http://www.sick.com/RMS2000)



Detailed technical data

Features

Application	Outdoor, Indoor	
Variant	Model RMS-A	
Measurement principle	FMCW	
Radio approval	European Union United Kingdom China Australia Turkey India South Africa The Philippines United Arab Emirates Korea Egypt Saudi Arabia Singapore Malaysia Vietnam	
Frequency band	61 GHz ... 61.5 GHz	
Transmitting power	≤ 100 mW (e.i.r.p.)	
Aperture angle	Horizontal	± 60°
	Vertical	± 4°
Angular accuracy (azimuth)	1.5°	
Angular resolution (azimuth)	15°	
Working range	0.4 m ... 100 m	
Scanning range	For 1 m² RCS	50 m
	At 10 m² RCS	100 m
Distance accuracy	1 m² RCS to 20 m	0.04 m

<sup>1)</sup> Resolution in the context of radar means that two signals can be separated if they differ in spacing, angle or speed by more than twice the specified values.

	1 m <sup>2</sup> RCS to 50 m	0.1 m
<b>Distance resolution</b>		0.4 m <sup>1)</sup>
<b>Speed range</b>		± 30 m/s
<b>Speed resolution</b>		0.625 m/s <sup>1)</sup>
<b>Speed accuracy</b>		
	1 m <sup>2</sup> RCS to 20 m	0.0625 m/s
	1 m <sup>2</sup> RCS to 50 m	0.15 m/s

<sup>1)</sup> Resolution in the context of radar means that two signals can be separated if they differ in spacing, angle or speed by more than twice the specified values.

## Mechanics/electronics

<b>Connection type</b>	1 x M12 male connector, 8-pin, A-coded 1 x male connector M12, 5-pin, A-coded 1 x M12 female connector, 4-pin, D-coded
<b>Supply voltage</b>	9 V DC ... 32 V DC
<b>Power consumption</b>	Typ. 4 W, For digital outputs without load, max. 36 W
<b>Housing color</b>	Gray (RAL 7042)
<b>Enclosure rating</b>	IP67 IP69
<b>Protection class</b>	III
<b>Weight</b>	300 g
<b>Dimensions (L x W x H)</b>	34 mm x 97 mm x 96 mm
<b>MTBF</b>	81 years

## Safety-related parameters

<b>MTTF<sub>D</sub></b>	> 100 years
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## Performance

<b>Initialization time</b>	Typ. 20 s
<b>Processing latency</b>	1 measurement cycle
<b>Measurement cycle duration</b>	100 ms
<b>Integrated application</b>	Zone evaluation
<b>Number of field sets</b>	Up to 4 zones

## Interfaces

<b>Ethernet</b>	✓
Function	Parameterization, Data output
Data transmission rate	10/100 MBit/s
<b>Digital inputs</b>	2 (digital)
<b>Digital outputs</b>	4 (digital)

## Ambient data

<b>Electromagnetic compatibility (EMC)</b>	ETSI EN 301 489-1 / EN 61000-6-2 / EN 61000-6-4
<b>Radio standard</b>	ETSI EN 305 550
<b>Vibration resistance</b>	EN 60068-2-6:2008-02
<b>Shock resistance</b>	EN 60068-2-27:2009-05
<b>Ambient operating temperature</b>	-40 °C ... +65 °C

Storage temperature	-40 °C ... +85 °C
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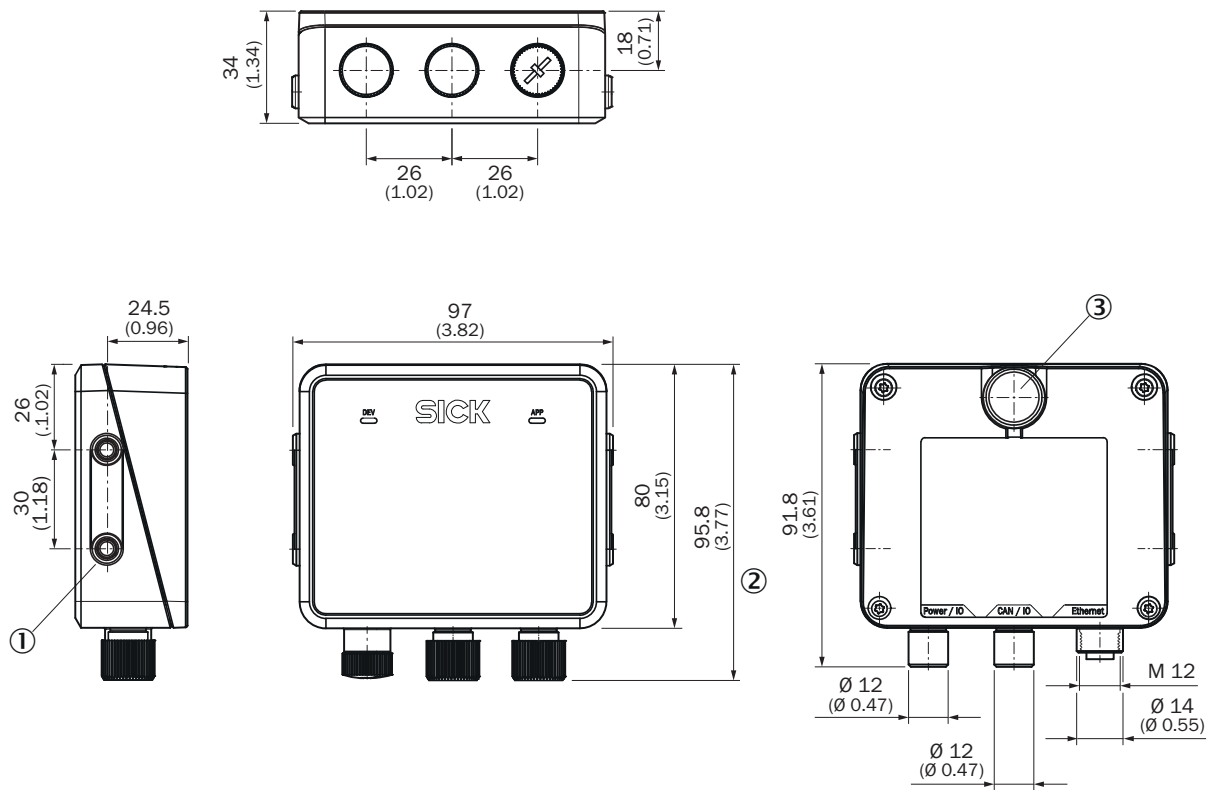
Certificates

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
China-RoHS	✓
EC-Type-Examination approval	✓
Radio Approval certificate	✓

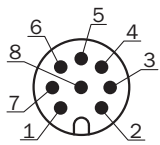
Classifications

ECLASS 5.0	27270890
ECLASS 5.1.4	27270890
ECLASS 6.0	27270890
ECLASS 6.2	27270890
ECLASS 7.0	27270890
ECLASS 8.0	27270890
ECLASS 8.1	27270890
ECLASS 9.0	27270890
ECLASS 10.0	27270807
ECLASS 11.0	27270807
ECLASS 12.0	27274501
ETIM 5.0	EC001825
ETIM 6.0	EC001825
ETIM 7.0	EC001825
ETIM 8.0	EC001825
UNSPSC 16.0901	39121528

## Dimensional drawing



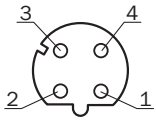
## PIN assignment CAN



Connector M12, 8-pin, A-coded

- ① CAN<sub>H</sub>
- ② CAN<sub>L</sub>
- ③ In<sub>2</sub>
- ④ GND IN1/2
- ⑤ OUT2
- ⑥ OUT3
- ⑦ GND
- ⑧ OUT4

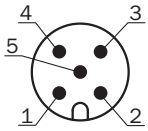
### PIN assignment Ethernet



M12 female connector, 4-pin, D-coded

- ① TX+
- ② RX+
- ③ TX-
- ④ RX-

### PIN assignment Power



Connector M12, 5-pin, A-coded

- ① L+
- ② In<sub>1</sub>
- ③ GND
- ④ OUT1
- ⑤ GND IN1/2

## 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)