



# RAS407-2800201

RAS4xx

**RADAR SENSORS**

**SICK**  
Sensor Intelligence.



### Ordering information

| Type           | part no. |
|----------------|----------|
| RAS407-2800201 | 1072149  |

Other models and accessories → [www.sick.com/RAS4xx](http://www.sick.com/RAS4xx)

### Detailed technical data

#### Features

|                              |                                       |
|------------------------------|---------------------------------------|
| <b>Measurement principle</b> | FMCW HF                               |
| <b>Radio approval</b>        | China, France <sup>1)</sup>           |
| <b>Frequency band</b>        | 24.05 GHz ... 24.25 GHz <sup>2)</sup> |
| <b>Aperture angle</b>        | Horizontal ± 3.5°                     |
|                              | Vertical ± 14°                        |
| <b>Working range</b>         | 0.2 m ... 20 m                        |

<sup>1)</sup> France fixed installation.

<sup>2)</sup> Other values are permitted for compliance with country-specific regulations.

#### Mechanics/electronics

|                               |                                       |
|-------------------------------|---------------------------------------|
| <b>Connection type</b>        | 1 x Cable open end                    |
| <b>Supply voltage</b>         | 10 V DC ... 30 V DC                   |
| <b>Power consumption</b>      | 8 W                                   |
| <b>Housing color</b>          | Gray                                  |
| <b>Enclosure rating</b>       | IP65                                  |
| <b>Protection class</b>       | III <sup>1)</sup>                     |
| <b>Weight</b>                 | 1,480 g                               |
| <b>Dimensions (L x W x H)</b> | 101 mm x 151 mm x 60 mm <sup>2)</sup> |
|                               | 101 mm x 151 mm x 60 mm <sup>3)</sup> |
| <b>MTBF</b>                   | 56 years                              |

<sup>1)</sup> When using SELV or PELV power supply units.

<sup>2)</sup> Evaluation unit.

<sup>3)</sup> Sender/receiver unit.

#### Safety-related parameters

|                         |             |
|-------------------------|-------------|
| <b>MTTF<sub>D</sub></b> | > 100 years |
|-------------------------|-------------|

#### Performance

|                               |                     |
|-------------------------------|---------------------|
| <b>Response time</b>          | < 0.5 s             |
| <b>Integrated application</b> | Collision avoidance |
| <b>Number of field sets</b>   | 3 fields            |

#### Interfaces

|            |   |
|------------|---|
| <b>USB</b> | ✓ |
|------------|---|

| Function               | Parameterization |
|------------------------|------------------|
| <b>Digital outputs</b> | 3 (relays)       |

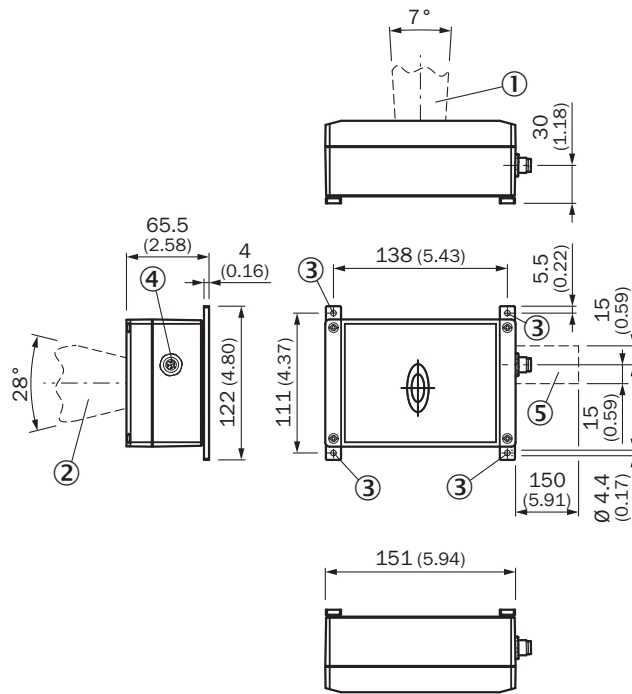
## Ambient data

|                                            |                                       |
|--------------------------------------------|---------------------------------------|
| <b>Electromagnetic compatibility (EMC)</b> | ETSI EN 301 489-1 / ETSI EN 301 489-3 |
| <b>Vibration resistance</b>                | EN 60068-2-6<br>EN 60068-2-64         |
| <b>Shock resistance</b>                    | EN 60068-2-27                         |
| <b>Ambient operating temperature</b>       | -20 °C ... +60 °C                     |
| <b>Storage temperature</b>                 | -20 °C ... +60 °C                     |

## Classifications

|                       |          |
|-----------------------|----------|
| <b>ECLASS 5.0</b>     | 27270890 |
| <b>ECLASS 5.1.4</b>   | 27270890 |
| <b>ECLASS 6.0</b>     | 27270890 |
| <b>ECLASS 6.2</b>     | 27270890 |
| <b>ECLASS 7.0</b>     | 27270890 |
| <b>ECLASS 8.0</b>     | 27270890 |
| <b>ECLASS 8.1</b>     | 27270890 |
| <b>ECLASS 9.0</b>     | 27270890 |
| <b>ECLASS 10.0</b>    | 27270807 |
| <b>ECLASS 11.0</b>    | 27270807 |
| <b>ECLASS 12.0</b>    | 27274501 |
| <b>ETIM 5.0</b>       | EC001825 |
| <b>ETIM 6.0</b>       | EC001825 |
| <b>ETIM 7.0</b>       | EC001825 |
| <b>ETIM 8.0</b>       | EC001825 |
| <b>UNSPSC 16.0901</b> | 39121528 |

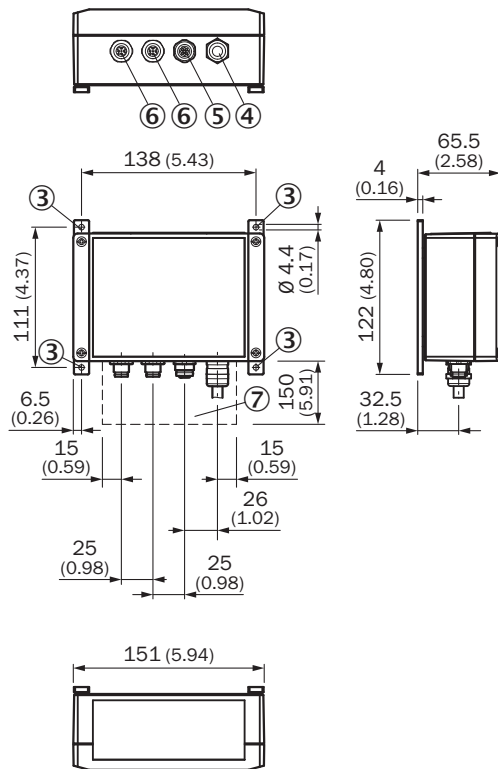
### Dimensional drawing RAS407-280xxx



Dimensions in mm (inch)

- ① angle horizontal
- ② angle vertical
- ③ Mounting holes, 4 x Ø 4.4 mm
- ④ connection for controller unit
- ⑤ Recommended free space for connections

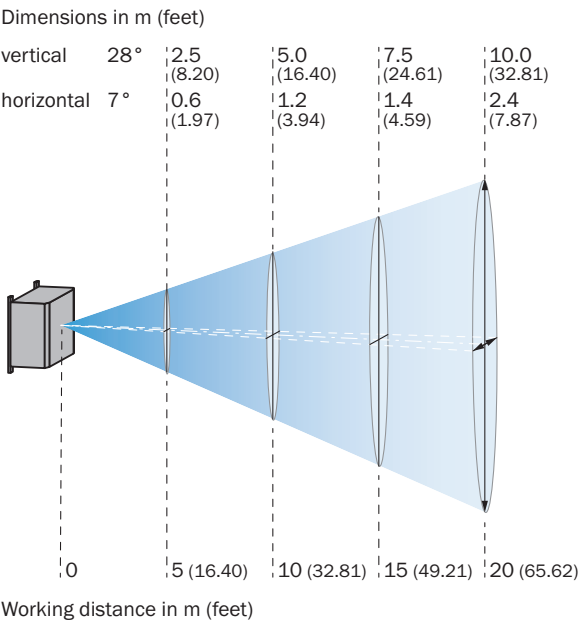
## Dimensional drawing RAS4xx-xx002xx



Dimensions in mm (inch)

- ③ Mounting holes, 4 x Ø 4.4 mm
- ④ power supply
- ⑤ USB port
- ⑥ sensor unit connection
- ⑦ Recommended free space for connections

Detection area RAS407



Recommended accessories

Other models and accessories → [www.sick.com/RAS4xx](http://www.sick.com/RAS4xx)

|                                                                                     | Brief description                                                                                                                                                                                                                                                                            | Type               | part no. |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------|
| Mounting systems                                                                    |                                                                                                                                                                                                                                                                                              |                    |          |
|  | <ul style="list-style-type: none"><li>• <b>Description:</b> Pivot mounting bracket, incl. assembly material</li></ul>                                                                                                                                                                        | Mounting bracket   | 2061737  |
| connectors and cables                                                               |                                                                                                                                                                                                                                                                                              |                    |          |
|  | <ul style="list-style-type: none"><li>• <b>Connection type head A:</b> Male connector, USB, 5-pin</li><li>• <b>Connection type head B:</b> Male connector, M12</li><li>• <b>Signal type:</b> USB 2.0</li><li>• <b>Cable:</b> 3 m</li><li>• <b>Description:</b> USB 2.0, unshielded</li></ul> | YM2Z15-030XXXMUSAX | 2079580  |

## 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)