



TIM320-0131000S02

TiM3xx

2D LIDAR SENSORS

SICK
Sensor Intelligence.



Ordering information

| Type | Part no. |
|-------------------|----------|
| TIM320-0131000S02 | 1069933 |

Other models and accessories → www.sick.com/TiM3xx



Detailed technical data

Features

| | |
|--|--------------------------------|
| Field of application | Indoor |
| Light source | Infrared (850 nm) |
| Laser class | 1, eye-safe (IEC 60825-1:2014) |
| Aperture angle | 270° |
| Scanning frequency | 15 Hz |
| Angular resolution | 1° |
| Operating range | 0.05 m ... 4 m |
| Max. range with 10 % reflectivity | 2 m |

Performance

| | |
|--------------------------------------|--|
| Response time | Typ. 134 ms |
| Detectable object shape | Almost any |
| Systematic error | ± 40 mm ¹⁾ |
| Statistical error | 30 mm ¹⁾ |
| Integrated application | Field evaluation with flexible fields |
| Number of field sets | 16 field triples (48 fields, 1 triple (3 flexible fields) can be configured directly at the scanner) |
| Simultaneous evaluation cases | 1 (3 fields) |

¹⁾ Typical value; actual value depends on environmental conditions.

Interfaces

| | |
|---------------------------|--|
| USB | ✓ |
| Remark | Micro USB |
| Function | AUX, parameterization |
| Switching inputs | 4 |
| Switching outputs | 3 (NPN, additional 1 x "Device Ready") |
| Delay time | 134 ms ... 30,000 ms (configurable) |
| Dwell time | 67 ms ... 10,000 ms (configurable) |
| Optical indicators | 2 LEDs (ON, switching status) |

Mechanics/electronics

| | |
|-------------------------------|---|
| Electrical connection | Open wires (2.0 m) |
| Operating voltage | 9 V DC ... 28 V DC |
| Power consumption | Typ. 4 W |
| Housing color | Light blue (RAL 5012) |
| Enclosure rating | IP65 (IEC 60529:1989+AMD1:1999+AMD2:2013) |
| Protection class | III (IEC 61140:2016-1) |
| Weight | 150 g, without connecting cables |
| Dimensions (L x W x H) | 60 mm x 60 mm x 79 mm |

Ambient data

| | |
|--|---|
| Object remission | 4 % ... > 1,000 % (reflectors) |
| Electromagnetic compatibility (EMC) | IEC 61000-6-3:2006+AMD1:2010 / IEC 61000-6-2:2005 |
| Vibration resistance | IEC 60068-2-6:2007 |
| Shock resistance | IEC 60068-2-27:2008 |
| Ambient operating temperature | -10 °C ... +50 °C |
| Storage temperature | -30 °C ... +70 °C |
| Ambient light immunity | 15,000 lx |

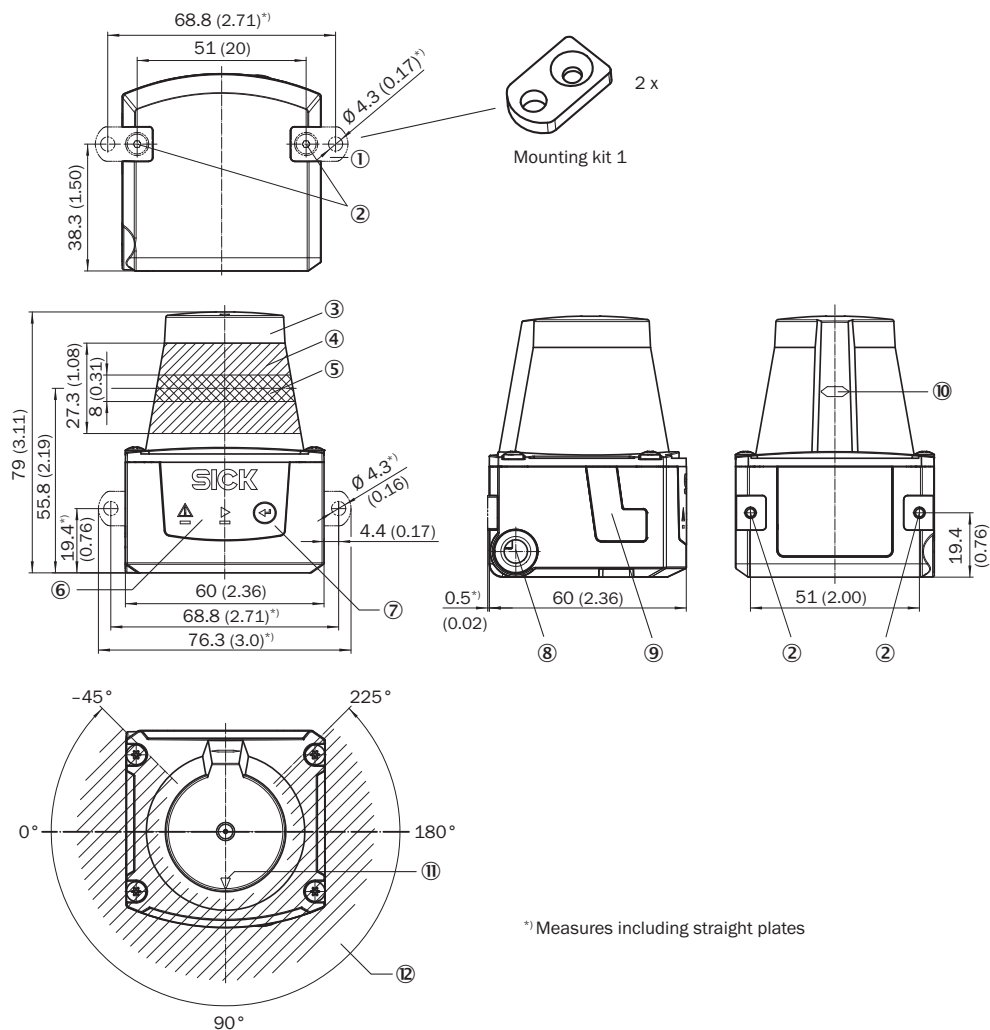
General notes

| | |
|--------------------|---------------------------------------|
| Note on use | Not suitable for personnel protection |
|--------------------|---------------------------------------|

Classifications

| | |
|-----------------------|----------|
| ECl@ss 5.0 | 27270990 |
| ECl@ss 5.1.4 | 27270990 |
| ECl@ss 6.0 | 27270913 |
| ECl@ss 6.2 | 27270913 |
| ECl@ss 7.0 | 27270913 |
| ECl@ss 8.0 | 27270913 |
| ECl@ss 8.1 | 27270913 |
| ECl@ss 9.0 | 27270913 |
| ETIM 5.0 | EC002550 |
| ETIM 6.0 | EC002550 |
| UNSPSC 16.0901 | 46171620 |

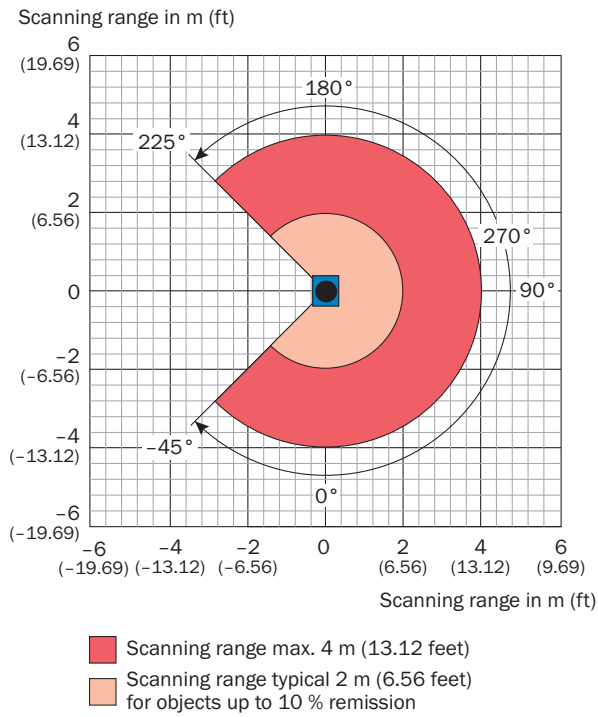
Dimensional drawing (Dimensions in mm (inch))



^{*)} Measures including straight plates


- ① 2 x straight plates with M3 x 4 mm screw (included in delivery)
- ② M3 threaded mounting hole, 2.8 mm deep (blind hole thread)
- ③ Optical hood
- ④ Receiving range (light inlet)
- ⑤ Transmission range (light emission)
- ⑥ Red and green LED (status displays)
- ⑦ Function button for teach-in
- ⑧ Connecting cable exit ("power/switching inputs/outputs" connection)
- ⑨ Micro USB female connector, type B
- ⑩ Marking for the position of the light emission level
- ⑪ Bearing marking to support alignment (90° axis)
- ⑫ Aperture angle 270° (scanning angle)

Operating range diagram



Recommended accessories

Other models and accessories → www.sick.com/TiM3xx

| | Brief description | Type | Part no. |
|---|--|----------------|----------|
| Mounting brackets and plates | | | |
|  | Mounting set 2, fender and alignment aid | Mounting kit 2 | 2061776 |

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.”

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