



TIM351-2134001

TiM3xx

2D LIDAR SENSORS

**SICK**  
Sensor Intelligence.



### Ordering information

Type	Part no.
TIM351-2134001	1067299

Other models and accessories → [www.sick.com/TiM3xx](http://www.sick.com/TiM3xx)



### Detailed technical data

#### Features

<b>Field of application</b>	Outdoor
<b>Light source</b>	Infrared (850 nm)
<b>Laser class</b>	1, eye-safe (IEC 60825-1:2014)
<b>Aperture angle</b>	270°
<b>Scanning frequency</b>	15 Hz
<b>Angular resolution</b>	1°
<b>Operating range</b>	0.05 m ... 10 m
<b>Max. range with 10 % reflectivity</b>	8 m

#### Performance

<b>Response time</b>	Typ. 67 ms
<b>Detectable object shape</b>	Almost any
<b>Systematic error</b>	± 60 mm <sup>1)</sup>
<b>Statistical error</b>	20 mm <sup>1)</sup>
<b>Integrated application</b>	Field evaluation with flexible fields
<b>Number of field sets</b>	16 field triples (48 fields, Contour as reference; 1 triple (3 fields) can be configured directly at the scanner)
<b>Simultaneous evaluation cases</b>	1 (3 fields) 2 (2 fields for detection and 1 field for contour as reference)

<sup>1)</sup> Typical value; actual value depends on environmental conditions.

#### Interfaces

<b>Ethernet TCP/IP</b>	✓, TCP/IP
<b>USB</b>	✓
Remark	Micro USB
Function	AUX, parameterization
<b>Switching inputs</b>	4
<b>Switching outputs</b>	3 (PNP, additional 1 x "Device Ready")

<b>Delay time</b>	67 ms ... 30,000 ms (configurable)
<b>Dwell time</b>	67 ms ... 10,000 ms (configurable)

## Mechanics/electronics

<b>Electrical connection</b>	1 x "Ethernet" connection, 4-pin M12 female connector 1 x connection "Power", 12-pin, M12 male connector 1 x Micro USB female connector, type B
<b>Operating voltage</b>	9 V DC ... 28 V DC
<b>Power consumption</b>	Typ. 4 W
<b>Housing color</b>	Gray (RAL 7032)
<b>Enclosure rating</b>	IP67 (IEC 60529:1989+AMD1:1999+AMD2:2013)
<b>Protection class</b>	III (IEC 61140:2016-1)
<b>Weight</b>	250 g, without connecting cables
<b>Dimensions (L x W x H)</b>	60 mm x 60 mm x 86 mm

## Ambient data

<b>Object remission</b>	4 % ... > 1,000 % (reflectors)
<b>Electromagnetic compatibility (EMC)</b>	IEC 61000-6-3:2006+AMD1:2010 / IEC 61000-6-2:2005
<b>Vibration resistance</b>	IEC 60068-2-6:2007
<b>Shock resistance</b>	IEC 60068-2-27:2008
<b>Ambient operating temperature</b>	-25 °C ... +50 °C
<b>Storage temperature</b>	-40 °C ... +75 °C
<b>Ambient light immunity</b>	80,000 lx

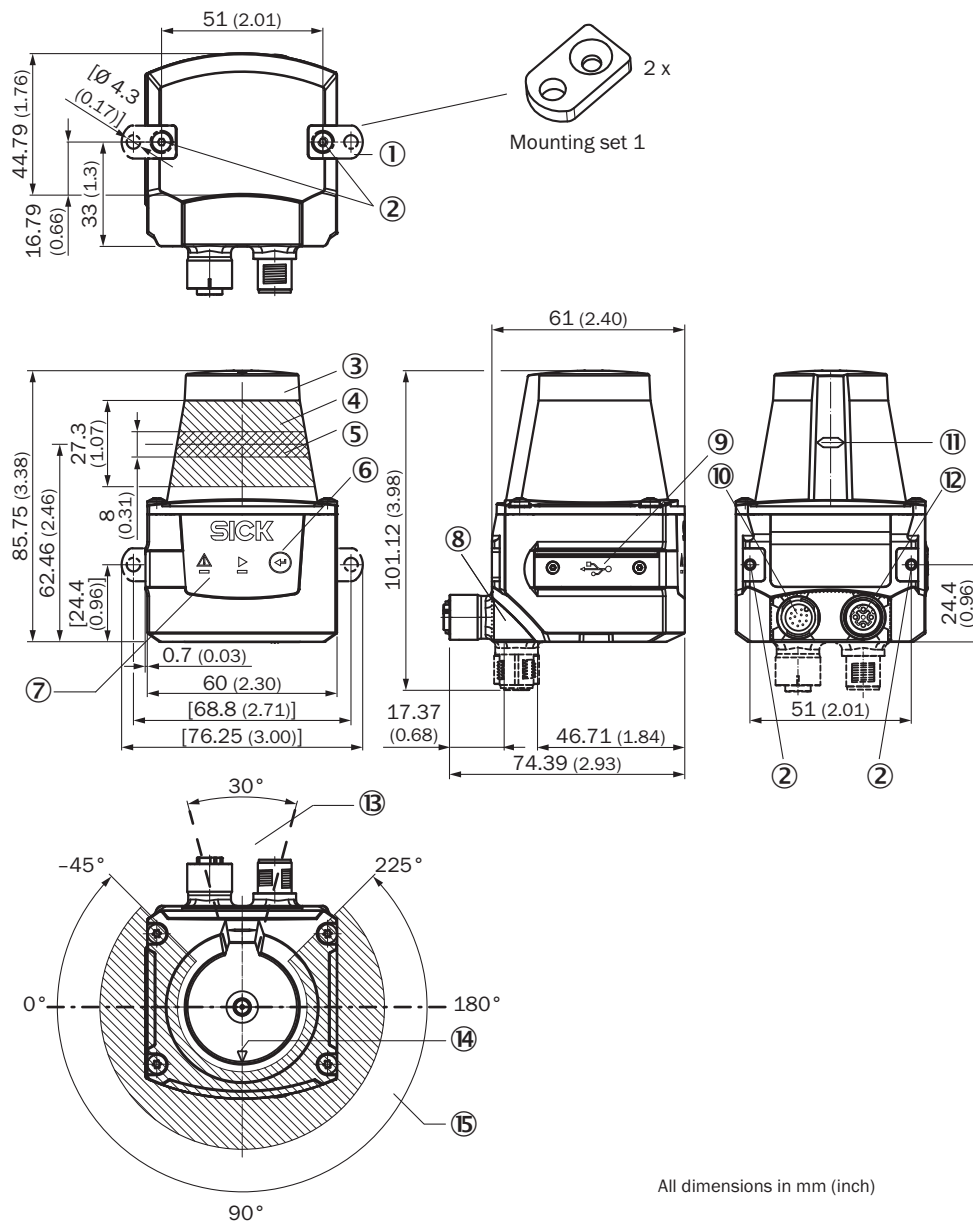
## General notes

<b>Note on use</b>	Not suitable for personnel protection
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## Classifications

<b>ECl@ss 5.0</b>	27270990
<b>ECl@ss 5.1.4</b>	27270990
<b>ECl@ss 6.0</b>	27270913
<b>ECl@ss 6.2</b>	27270913
<b>ECl@ss 7.0</b>	27270913
<b>ECl@ss 8.0</b>	27270913
<b>ECl@ss 8.1</b>	27270913
<b>ECl@ss 9.0</b>	27270913
<b>ETIM 5.0</b>	EC002550
<b>ETIM 6.0</b>	EC002550
<b>UNSPSC 16.0901</b>	46171620

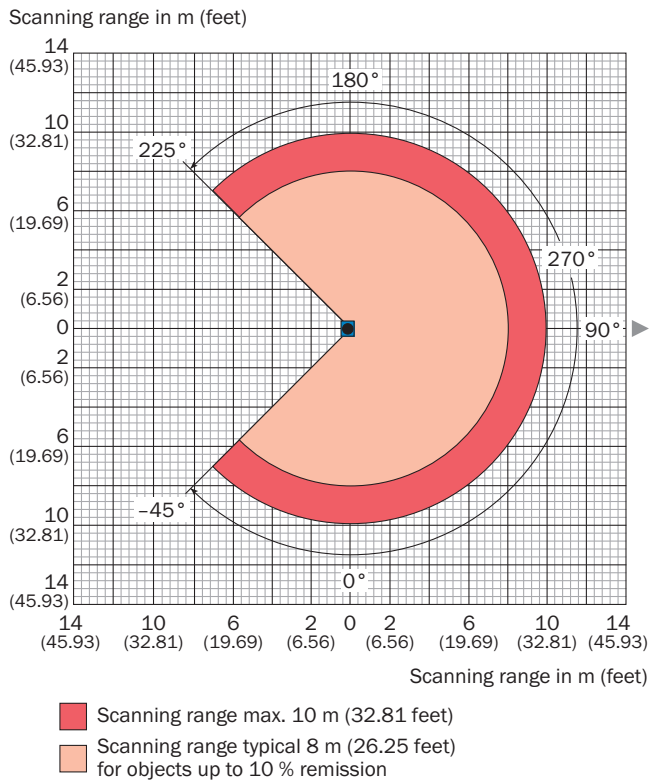
### Dimensional drawing (Dimensions in mm (inch))



All dimensions in mm (inch)



- 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 Function button for teach-in
- ⑦ Red and green LED (status displays)
- ⑧ Swivel connector unit
- ⑨ Micro USB female connector, type B
- ⑩ Connection "Power", 12-pin, M12 male connector
- ⑪ Marking for the position of the light emission level
- ⑫ "Ethernet" connection, 4-pin M12 female connector
- ⑬ Area in which no reflective surfaces are allowed for mounted devices
- ⑭ Bearing marking to support alignment (90° axis)
- ⑮ Aperture angle 270° (scanning angle)

### Operating range diagram



### Recommended accessories

Other models and accessories → [www.sick.com/TiM3xx](http://www.sick.com/TiM3xx)

	Brief description	Type	Part no.
<b>Mounting brackets and plates</b>			
	Mounting kit with sun shade/weather protection	Mounting kit	2068398
<b>Plug connectors and cables</b>			
	Head A: female connector, M12, 12-pin, straight, A-coded Head B: cable Cable: Power, I/O, PUR, shielded, 5 m	Connecting cable (female connector - open)	6054974

## 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)