



Laser scanners  
TiM5xx / TiM55x / Outdoor / Short Range

TiM551-2050001



**Model Name** > [TIM551-2050001](#)  
**Part No.** > [1060445](#)



**At a glance**

- Rugged measurement and detection systems for monitoring outdoor areas
- Wide operating range, from a few meters to >100 m
- On-board application solutions
- Low sensitivity to ambient light

**Your benefits**

- Low sensitivity to ambient influences, improving efficiency
- Ideal for a wide range of anti-collision tasks
- Can be mounted in 'critical' work areas
- Flexible use for monitoring surfaces
- On-board applications since no external evaluating electronics are required
- Only one mounting point for observing and monitoring large surfaces



**Features**

Field of application:	Outdoor
Version:	Short Range
Light source:	Infrared (850 nm)
Laser class:	1 (EN 60825-1 (2007-10)), eye-safe
Field of view:	270 °
Scanning frequency:	15 Hz
Angular resolution:	1 °
Operating range:	0.05 m ... 10 m
Max. range with 10 % reflectivity:	8 m

**Performance**

Response time:	Typ. 67 ms
Detectable object shape:	Almost any
Systematic error <sup>1)</sup> :	± 60 mm
Statistical error <sup>2)</sup> :	± 20 mm

<sup>1) 2)</sup> Typical value; actual value depends on environmental conditions.

**Interfaces**

Serial (RS-232):	-
Ethernet:	✓

CAN bus:	-
PROFIBUS DP:	-
PROFINET:	-
DeviceNet:	-
USB:	✓
Remark (USB):	Micro USB
Function (USB):	AUX
Switching inputs:	0
Switching outputs:	1 ("SYNC"/"device ready")
Dwell time:	(programmable)
Optical indicators:	2 LEDs (ON, "device ready")

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### Mechanics/electronics

Electrical connection:	1 x 4-pin M12 male connector (Ethernet) 1 x 4-pin M12 male connector (power supply) 1 x micro USB female connector, type B
Operating voltage:	9 V DC ... 28 V DC
Power consumption:	Typ. 2.5 W, without output load
Housing color:	Gray (RAL 7032)
Enclosure rating:	IP 67 (EN 60529/A1:2000-02)
Protection class:	III (EN 60950-1/A11 (2009-03))
Weight:	250 g, without connecting cables
Dimensions:	60 mm x 60 mm x 86 mm

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### Ambient data

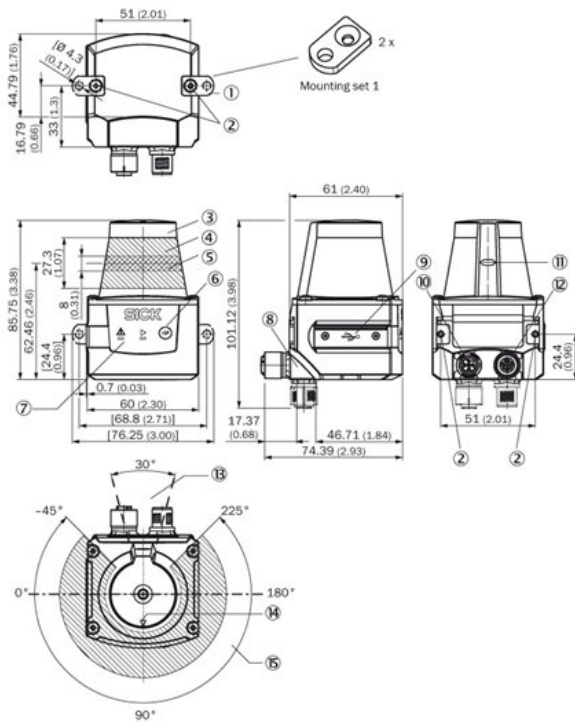
Object remission:	4 % ... > 1,000 % (reflectors)
Electromagnetic compatibility (EMC):	EN 61000-6-3 (2007-01)/EN 61000-6-2 (2005-08)
Vibration resistance:	EN 60068-2-6 (2008-02)
Shock resistance:	EN 60068-2-27 (2009-05)
Ambient operating temperature:	-25 °C ... 50 °C
Storage temperature:	-30 °C ... 70 °C
Ambient light safety:	80,000 lx

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### General notes

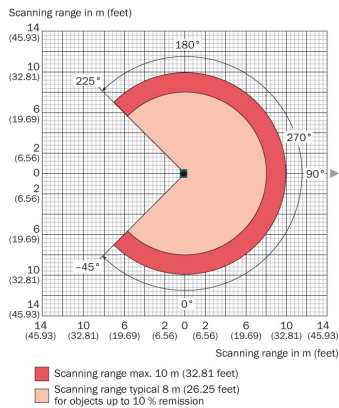
Note on use:	Not suitable for personnel protection
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## Dimensional drawing



- [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] push-button (no function)
- [7] Red and green LED (status displays)
- [8] Swivel connector unit
- [9] Micro USB socket, behind black rubber plate ("Aux interface" connection for configuration with PC)
- [10] connection "Power/Synchronization output" 5-pin, M12 female conn
- [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



--- Preliminary data sheet ---

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