TIM510-9950000S01

TiM5xx

2D LIDAR SENSORS

SICK
Sensor Intelligence.

TIM510-9950000S01 | TiM5xx
2D LIDAR SENSORS

Ordering information

Type	Part no.
TIM510-9950000S01	1062210

Other models and accessories ➜ www.sick.com/TiM5xx

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	3°
Operating range	0.05 m ... 4 m
Max. range with 10 % reflectivity	2 m

Performance

Response time	Typ. 67 ms
Detectable object shape	Almost any
Systematic error	± 40 mm [1]
Statistical error	30 mm [1]
Integrated application	Output of measurement data

[1] Technical data such as measurement errors and sensing range can only be guaranteed up to a sensing range of 10 m.

Interfaces

Serial		✔, RS-232
	Function	Host
	Data transmission rate	115.2 Baud
USB		✔
	Remark	Micro USB
	Function	AUX, parameterization
Switching inputs		0
Switching outputs		1 (PNP, "SYNC"/"device ready")
Optical indicators		2 LEDs (ON, switching status)

Mechanics/electronics

Electrical connection	1 x cable with 12-pin M12 male connector (0,3 m)

	1 x Micro USB female connector, type B
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 / EN 61000-6-1:2016
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	80,000 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))

Mounting kit 1

*) Measures including straight plates
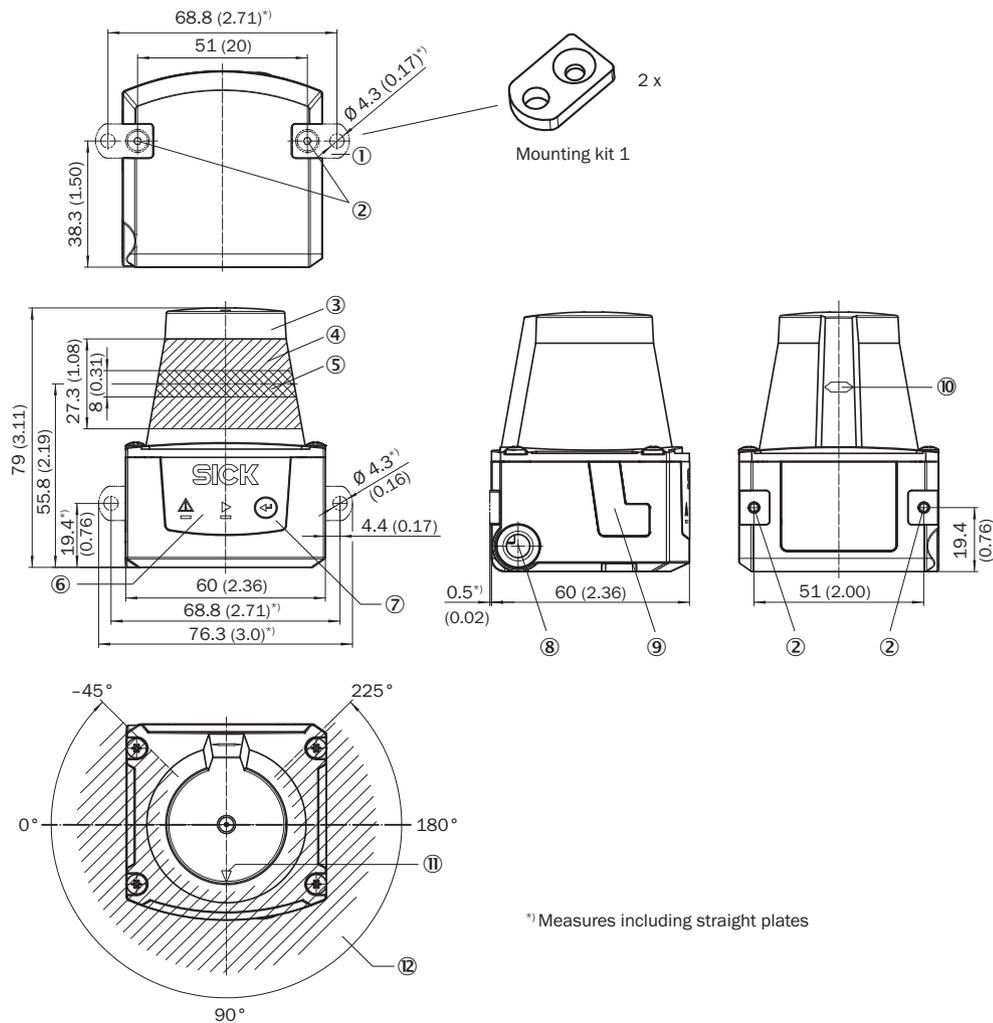
① 2 x straight plates with M3 x 4 mm screw (included in delivery)
② M3 threaded mounting hole, 2.8 mm deep (blind hole thread)
③ Optical hood
④ Receiving range (light inlet)
⑤ Transmission range (light emission)
⑥ Red and green LED (status displays)
⑦ Function button for teach-in
⑧ Connecting cable exit ("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

Scanning range in m (ft)

Scanning range in m (ft)

■ Scanning range max. 4 m (13.12 feet)

■ Scanning range typical 2 m (6.56 feet)
for objects up to 10 % remission
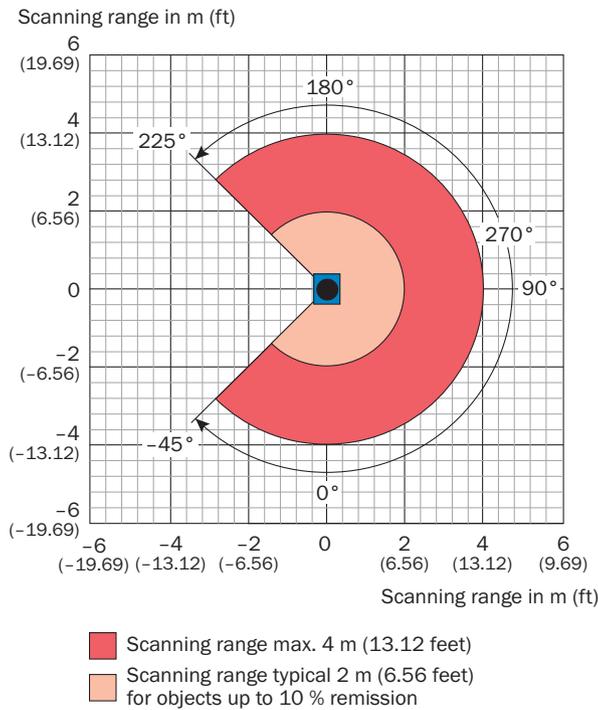
Recommended accessories

Other models and accessories → www.sick.com/TiM5xx

	Brief description	Type	Part no.
Mounting brackets and plates			
	Mounting set 2, fender and alignment aid	Mounting kit 2	2061776
Plug connectors and cables			
	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
	Head A: male connector, USB-A Head B: male connector, Micro-B Cable: USB 2.0, unshielded, 2 m	USB cable	6036106

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:

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