



TiM561-2050101

TiM5xx

2D LIDAR SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
TiM561-2050101	1071419

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



Detailed technical data

Features

Application	Outdoor
Light source	Infrared (850 nm)
Laser class	1 (IEC 60825-1:2014, EN 60825-1:2014)
Aperture angle	
Horizontal	270°
Scanning frequency	15 Hz
Angular resolution	0.33°
Working range	0.05 m ... 10 m
Scanning range	
At 10% remission	8 m

Performance

Response time	Typ. 67 ms
Detectable object shape	Almost any
Systematic error	± 60 mm ¹⁾
Statistical error	20 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

Ethernet	✓, TCP/IP
USB	✓
Remark	Micro USB
Function	AUX, parameterization
Switching inputs	0
Switching outputs	1 (PNP, "SYNC"/"device ready")
Optical indicators	2 LEDs (ON, "device ready")

Mechanics/electronics

Electrical connection	1 x "Ethernet" connection, 4-pin M12 female connector 1 x connection "Power/Synchronization output" 5-pin, M12 male connector 1 x Micro USB female connector, type B
Supply voltage	9 V DC ... 28 V DC
Power consumption	Typ. 4 W
Housing color	Gray (RAL 7032)
Enclosure rating	IP67 (IEC 60529:1989+AMD1:1999+AMD2:2013)
Protection class	III (IEC 61140:2016-1)
Weight	250 g, without connecting cables
Dimensions (L x W x H)	60 mm x 60 mm x 86 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	-25 °C ... +50 °C
Storage temperature	-40 °C ... +75 °C
Ambient light immunity	80,000 lx

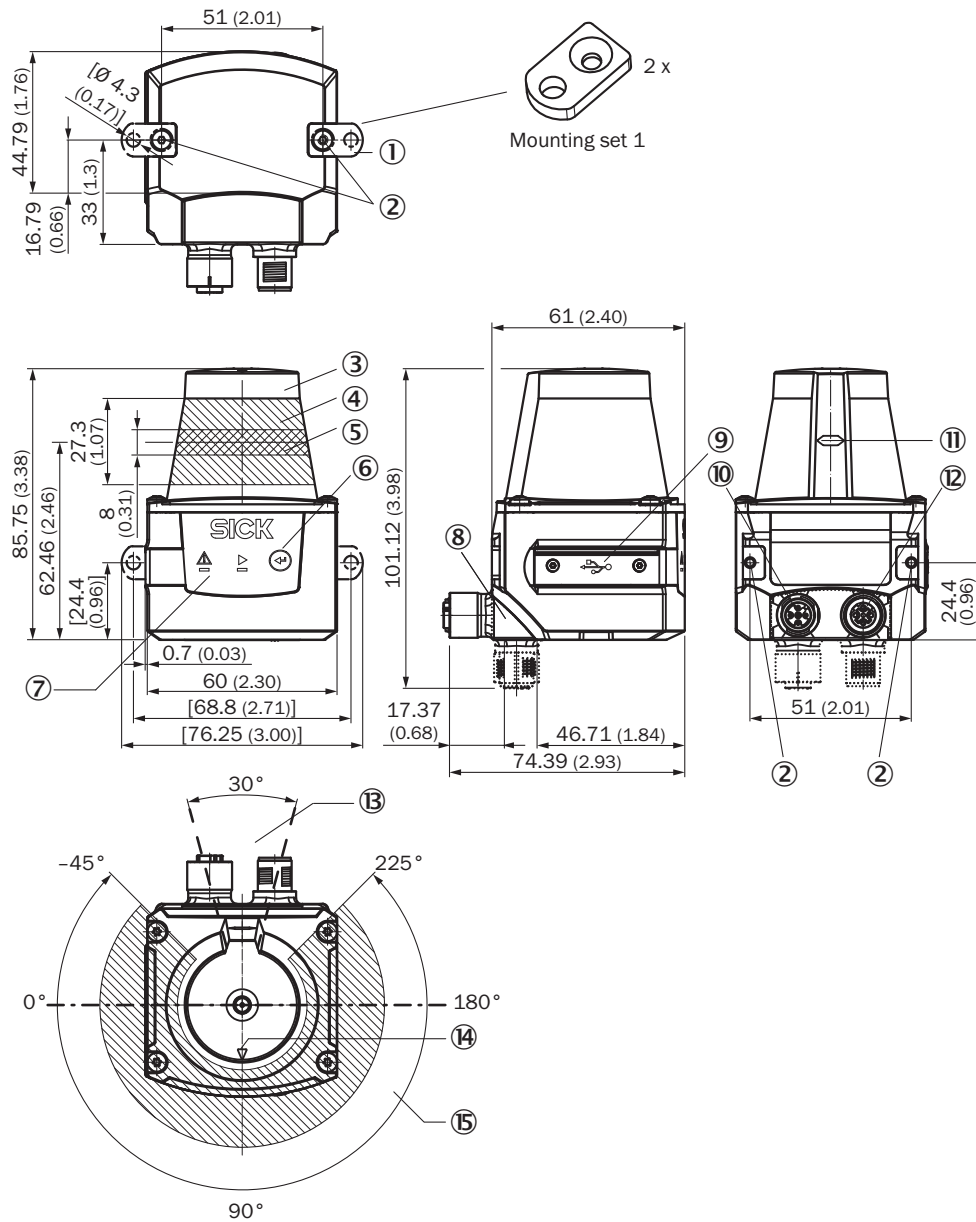
General notes

Note on use	The sensor does not constitute a safety component as defined by relevant legislation on machine safety.
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Classifications

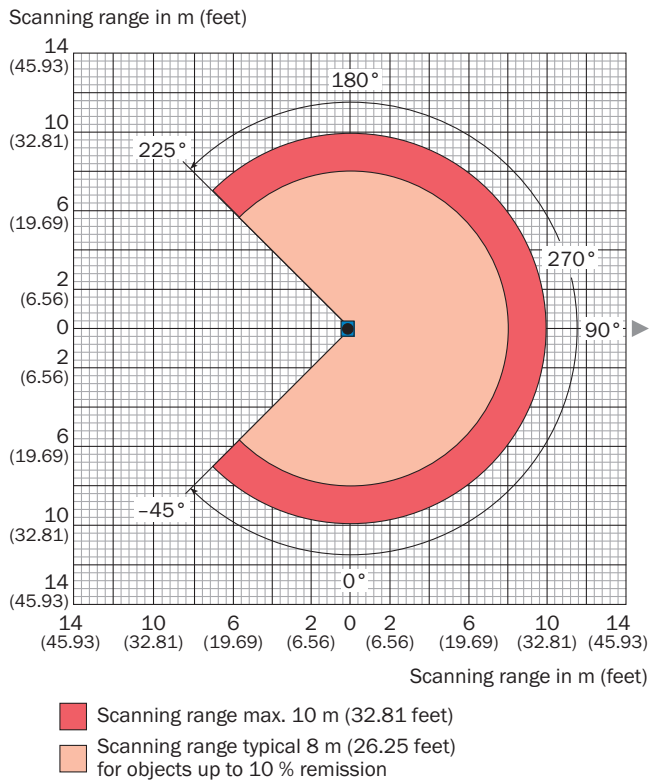
ECI@ss 5.0	27270990
ECI@ss 5.1.4	27270990
ECI@ss 6.0	27270913
ECI@ss 6.2	27270913
ECI@ss 7.0	27270913
ECI@ss 8.0	27270913
ECI@ss 8.1	27270913
ECI@ss 9.0	27270913
ETIM 5.0	EC002550
ETIM 6.0	EC002550
UNSPSC 16.0901	46171620

Dimensional drawing (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 Push-button (no function)
- ⑦ Red and green LED (status displays)
- ⑧ Swivel connector unit
- ⑨ Micro USB female connector, type B
- ⑩ Connection "Power/Synchronization output" 5-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)

Working range diagram



Recommended accessories

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

	Brief description	Type	Part no.
Mounting brackets and plates			
	Mounting kit with sun shade/weather protection	Mounting kit	2068398
Plug connectors and cables			
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: Flying leads Cable: Power, shielded, 5 m	Connecting cable (female connector - open)	6036159
	Head A: male connector, M12, 4-pin, straight, D-coded Head B: male connector, RJ45, 8-pin, straight Cable: Ethernet, shielded, 5 m	Connection cable (male connector-male connector)	6050200

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