TiM571-2050101

TiM5xx

2D LIDAR SENSORS

SICK
Sensor Intelligence.

TiM571-2050101 | TiM5xx

2D LIDAR SENSORS

Ordering information

Type	Part no.
TiM571-2050101	1075091

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

Detailed technical data

Features

Measurement principle	HDDM
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 … 25 m
Scanning range	
At 10% remission	8 m

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

Performance

Response time	Typ. 67 ms
Detectable object shape	Almost any

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

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
Digital inputs	0
Digital outputs	1 (PNP, "SYNC"/"device ready")
Optical indicators	2 LEDs (ON, "device ready")

Ambient data

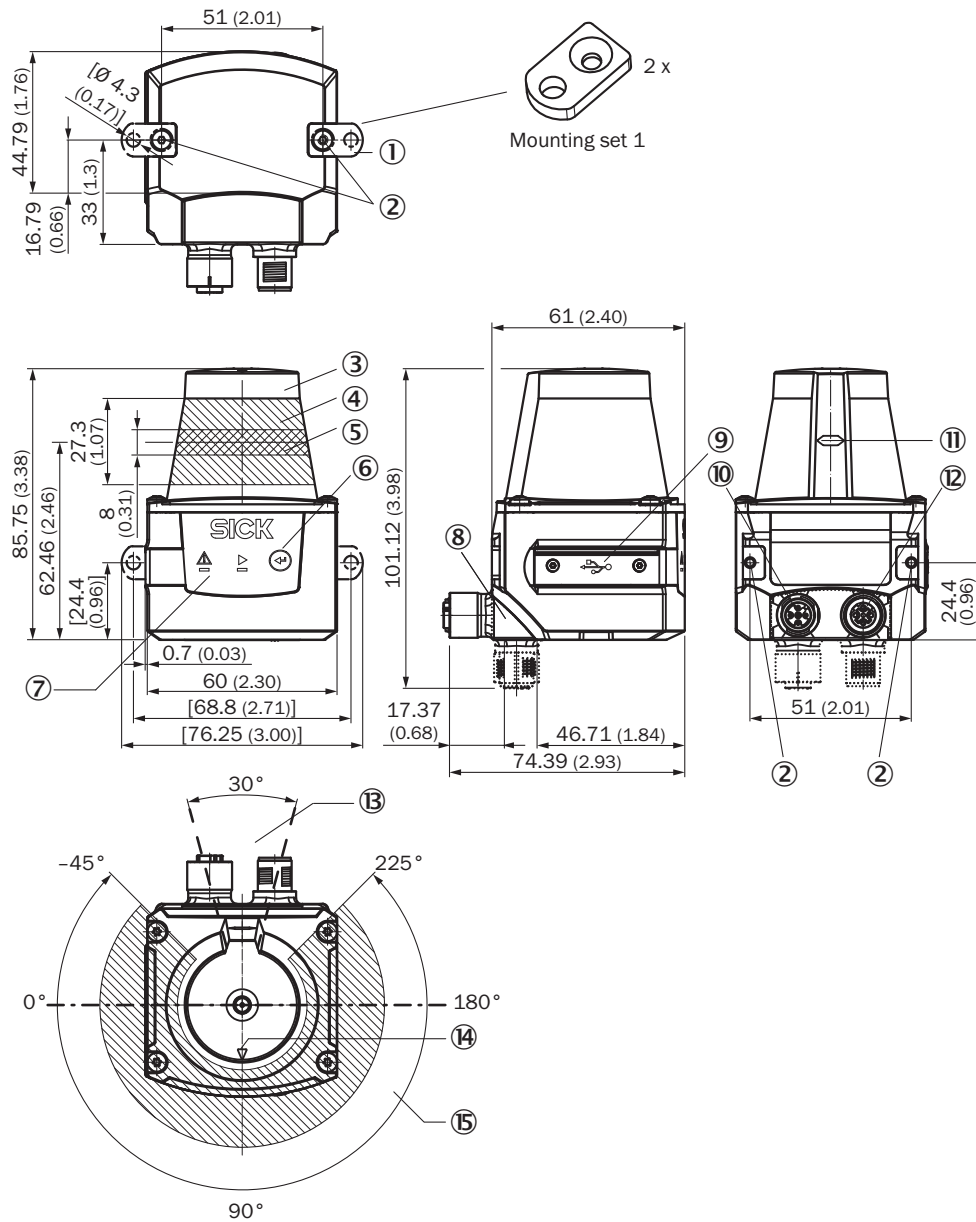| Object remission	4 % ... > 1,000 % (reflectors)
Electromagnetic compatibility (EMC)	IEC 61000-6-3:2006+AMD1:2010 / IEC 61000-6-2:2005
Vibration resistance	IEC 60068-2-6:2007
Shock resistance	IEC 60068-2-27:2008
Ambient operating temperature	−25 °C ... +50 °C
Storage temperature	−40 °C ... +75 °C
Ambient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

General notes

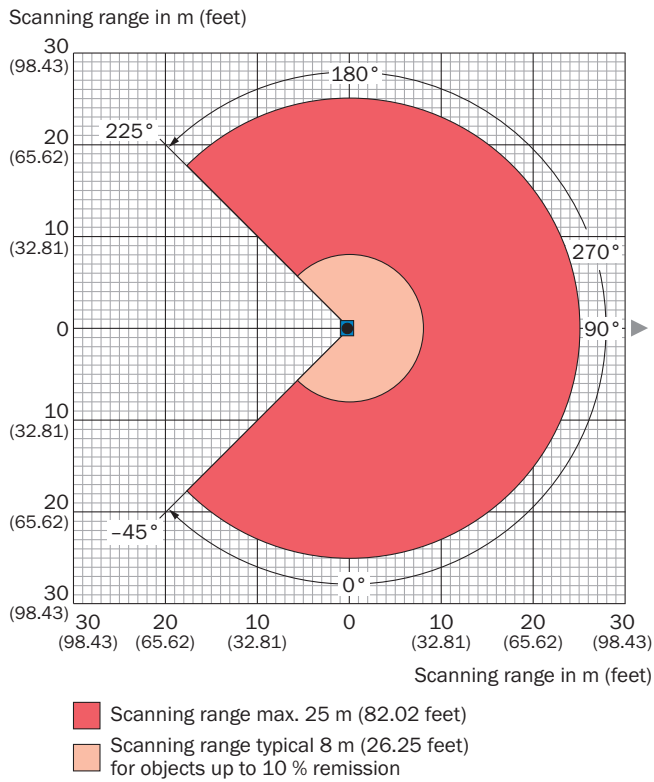| Note on use	The sensor does not constitute a safety component as defined by relevant legislation on machine safety.

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))
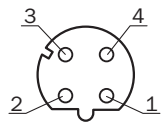

① 2 x straight plates with M3 x 4 mm screw (included in delivery)
② M3 threaded mounting hole, 2.8 mm deep (blind hole thread)
③ Optical hood
④ Receiving range (light inlet)
⑤ Transmission range (light emission)
⑥ Push-button (no function)
⑦ Red and green LED (status displays)
⑧ Swivel connector unit
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

Scanning range in m (feet)

Scanning range in m (feet)

■ Scanning range max. 25 m (82.02 feet)

□ Scanning range typical 8 m (26.25 feet)
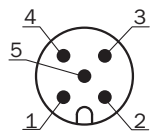for objects up to 10 % remission

Connection type

Ethernet

M12 female connector, 4-pin, D-coded
① TX+
② RX+
③ TX-
④ RX-

PIN assignment

Power

Connector M12, 5-pin, A-coded

① DC 9 V ... 28 V
② "SYNC"/"device ready"
③ GND
④ nc
⑤ nc

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	YF2A64-050XXXXLEAX	6036159
	Head A: male connector, M12, 4-pin, straight, D-coded Head B: male connector, RJ45, 8-pin, straight Cable: Ethernet, shielded, 5 m	YM2D24-050EB2MRJA4	6050200

Recommended services

Additional services ➜ www.sick.com/TiM5xx

	Type	Part no.
Warranty extensions		
• **Product area:** Identification solutions, Vision, Distance sensors, Detection and ranging solutions • **Range of services:** The services correspond to the scope of the statutory manufacturer warranty (SICK general terms and conditions of purchase), Long-term protection for calculable lump sum. • **Duration:** Five-year warranty from date of purchase.	Five-year extended warranty	1680671
Training		
• **Product family group:** 2D LiDAR sensors, 3D LiDAR sensors • **Range of services:** The training format and location can be worked out in collaboration with SICK • **Note:** A minimum and maximum number of participants is determined based on the training format, depending on the training format, content and location, a training course may take place over the course of one or more work days • **Duration:** The fixed price includes the specific training services agreed upon with the customer, the fixed price includes the work time required for the training services, the required work time depends on the range of services, Additional work will be invoiced separately based on time spent • **Travel expenses:** The prices include costs for the travel time and expenses, travel costs, such as flight or hotel expenses, are not included	Training LMS/MRS/NAV/TiM	1612234

	Type	Part no.
Commissioning		
• **Product area:** 2D LiDAR sensors, 3D LiDAR sensors • **Range of services:** Inspection of connection, fine adjustment, configuration of monitored areas, configuration and optimization of parameters of the LMS/MRS/NAV/TiM as well as verification tests, Setup of previously defined functions of basic settings, parameters of field application, filters for raw data output and product-specific configuration • **Documentation:** Archiving of product parameters in a SICK database, Documentation of performance, Creation of a commissioning log • **Duration:** Additional work will be invoiced separately based on time spent • **Note:** The prices do not include expenses or costs for the travel time	Commissioning LMS/MRS/NAV/TiM (Prime package)	1680672
Maintenance		
• **Product area:** 2D LiDAR sensors, 3D LiDAR sensors • **Range of services:** Inspection, analysis and restoring of defined functions, Inspection and adaptation of basic settings, parameters of field application, filters for raw data output, and product-specific configuration • **Documentation:** Documentation of operating hours and archiving of parameters in a SICK database, Creation of a maintenance log • **Duration:** Additional work will be invoiced separately based on time spent • **Note:** The prices do not include expenses or costs for the travel time	Maintenance LMS/MRS/NAV/TiM	1682593

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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