



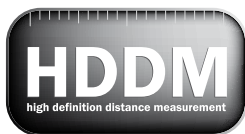
## TiM3xx Laser Measurement Technology

Perfect in detail, brilliant overall

## TiM3xx – so small, so simple, so affordable

In short, the TiM3xx is the essence of performance in miniature housing. However, it goes without saying for a SICK laser scanner that it certainly doesn't need to hide: the latest HDDM technology, 48 available fields and a “Touch and Teach” function for setup without a PC.

All this is contained in the TiM3xx, which is only 7.9 cm high, making it a flexible, cost-effective and user-friendly laser scanner for portable and stationary applications in logistics and factory automation. Thanks to its low power consumption and its robust, industrial design, the TiM3xx indoor laser scanner is optimally suited for collision protection in automatic vehicles and for checking presence in high-bay warehouses.



The TiM31x is the world's first laser sensor for surface monitoring to use SICK's own HDDM technology. This method is based on the emission of laser pulses. In contrast to other time-of-flight methods, more reflected laser pulses are measured and an average measured value is generated from these. As a result, no gaps arise during scanning and the measurement remains very stable even when affected by ambient light or by other optical systems.



### 48 available fields

The TiM3xx features 16 pre-configured field sets, each containing 3 fields that can be selected via input wiring. The shape of the fields is adjustable: rectangular, radial or free form.



### “Touch and Teach”

Adapting the field shape and dimensions to the detected surrounding contour is extremely simple: by pressing the teach-in button, the automatically run teach-in program is started and the updated field set is saved after less than 2 minutes.



Overhead conveyors



Anti-collision, mobile vehicles



Checking of storage space occupancy, checking for projections





## Small, easy-to-use anti-collision solution



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### Product description

The TiM3xx is the next step in the evolution of laser scanners. The sensor uses SICK's new HDDM technology, which reduces machine downtime due to its extremely high measurement reliability and immunity to ambient light. The design of the TiM3xx offers a large detection range - up to 4 m. This compact sensor is one of the smallest laser scanner on the market, making it easily hidden from view. Its "touch and teach" feature enables users to set the sensor's surveillance area

without a PC. In addition, 16 preconfigured fieldsets (3 field per set) can be selected via the inputs. The TiM3xx is a flexible, cost-efficient and easy-to-use laser scanner for applications in logistics and factory automation. It can be used on fixed applications or mobile vehicles. With its low power consumption and rugged design, plus optional protection cover and shock absorber, the TiM3xx is ideal for AGVs and other industrial vehicles.

### At a glance

- Configure without a PC using "touch and teach"
- Small, light and economical measurement system
- Field evaluation using intelligent algorithms
- Set parameter interface accessible while device is mounted
- One of the smallest laser scanners on the market
- Proven industrial design
- Low power consumption (typ. 3 W)

### Your benefits

- Low cost of ownership
- Easily hidden from view due to small dimension
- Low installation costs and exchange time due to D-Sub connector
- Long operation for battery-driven vehicles
- Intuitive and preconfigured fields ensure short installation time
- Reduced hardware costs due to one sensor for large anti-collision fields
- No wiring necessary between sender and receiver

→ [www.mysick.com/en/TiM3xx](http://www.mysick.com/en/TiM3xx)

## Detailed technical data

### Features

Field of application	Indoor
Version	Short Range
Light source	Infrared (850 nm)
Laser class	1, eye-safe (EN 60825-1 (2007-10))
Field of view	270°
Operating range	0.05 m ... 4 m
Max. range with 10 % reflectivity	2 m

### Performance

Response time	Typ. 134 ms
Detectable object shape	Almost any
Systematic error	± 40 mm
Statistical error	± 30 mm
Integrated application	Field evaluation
Number of field sets	16 field tripples (48 fields, thereof 1 tripple (3 fields) programmable directly at the scanner)
Simultaneous processing cases	1 (3 fields)

### Interfaces

USB	Function	✓, micro USB
	AUX	
Switching inputs		4
Switching outputs		3 (plus 1 x "device ready")
Delay time		134 ms ... 30 s (programmable)
Dwell time		67 ms ... 10 s (programmable)
Optical indicators		2 LEDs (ON, switching status)

### Mechanics/electronics

Electrical connection	1 15-pin D-sub HD plug (0.9 m)
Operating voltage	10 V DC ... 28 V DC
Power consumption	Typ. 3 W, without output load
Housing color	Light blue (RAL 5012)
Enclosure rating	IP 65 (EN 60529/A1:2000-02)
Protection class	III (EN 60950-1/A11 (2009-03))
Weight	150 g, without connecting cables
Dimensions	60 mm x 60 mm x 79 mm

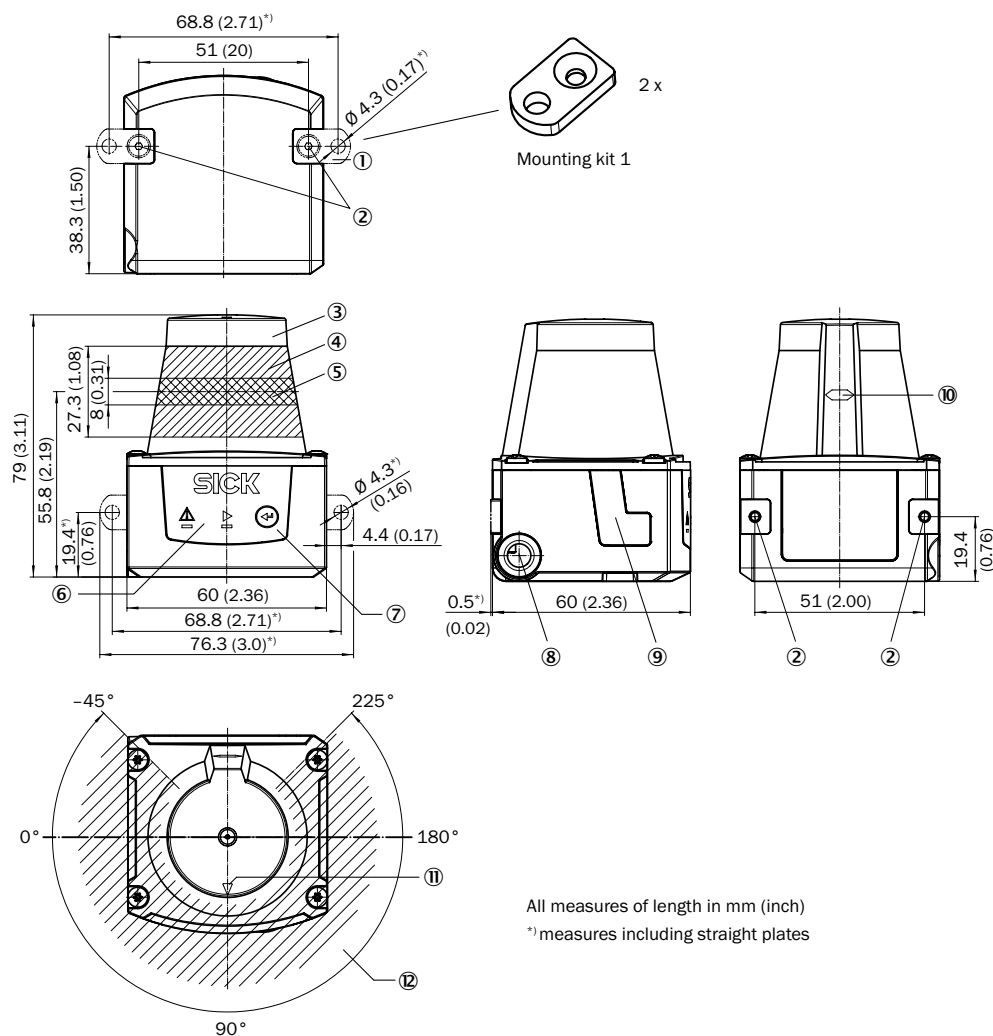
### Ambient data

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	-10 °C ... +50 °C
Storage temperature	-30 °C ... +70 °C
Ambient light safety	15,000 lx

## Ordering information

Sub product family	Version	Model name	Part no.
TiM31x	Short Range	TiM310-1030000	1052627

## Dimensional drawings

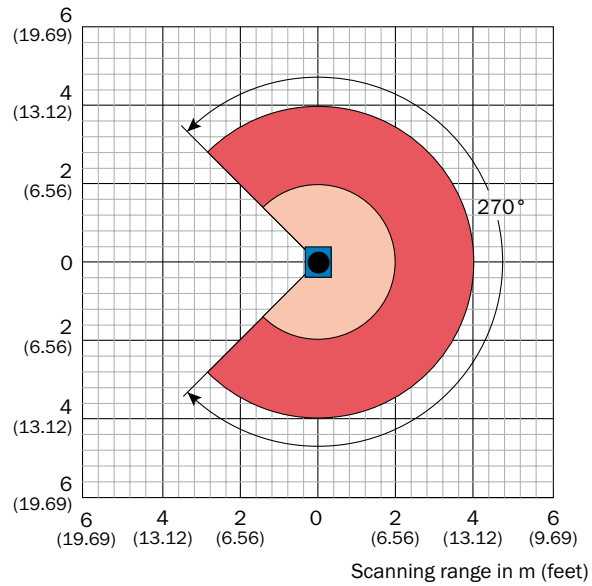


- ① 2 x straight plates with M3 x 4 mm screw (included in delivery)
- ② M3 threaded mounting hole, 2.8 mm deep (blind hole thread)
- ③ Optical hood
- ④ Receiving range (light inlet)
- ⑤ Transmission range (light emission)
- ⑥ Red and green LED (status displays)
- ⑦ Function button for teach-in
- ⑧ Exit of the 0.9 m (2.95 ft) connecting cable with 15-pin D-Sub HD plug ("Power/switching inputs/outputs" connection).
- ⑨ Micro USB socket, behind black rubber plate ("Aux interface" connection for configuration with PC)
- ⑩ Mark for the position of the light emission level
- ⑪ Direction finding mark to aid alignment (90° axis)
- ⑫ Aperture angle 270° (scanning angle)

## Operating range diagram


### TiM31x Short Range

Scanning range in m (feet)





## Accessories

### Modules

	Brief description	Model name	Part no.
	Small connection module for one sensor, 4 cable glands	CDB730-001	1055981

### Plug connectors and cables

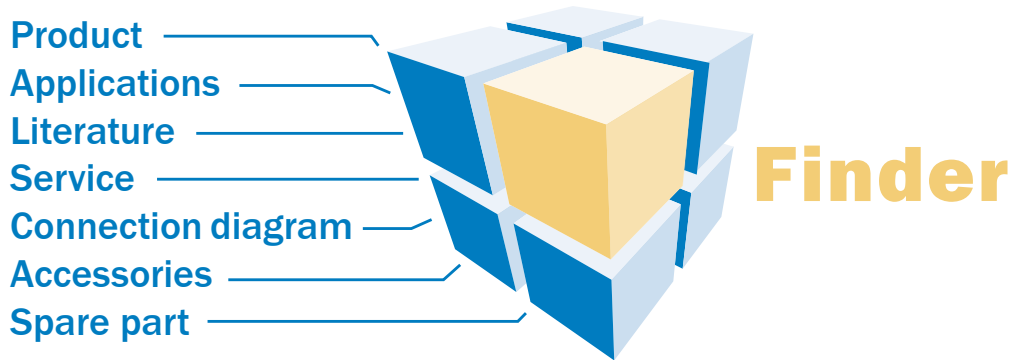
	Brief description	Model name	Part no.
	Extension cable, 2 m, 15-wired, shielded, with 15-pin D-sub HD (socket/open end) AWG26	Extension cable 2 m (socket-open end)	2043413
	USB cable, 2 m	USB cable	6036106







## Search online quickly and safely with the SICK “Finders”



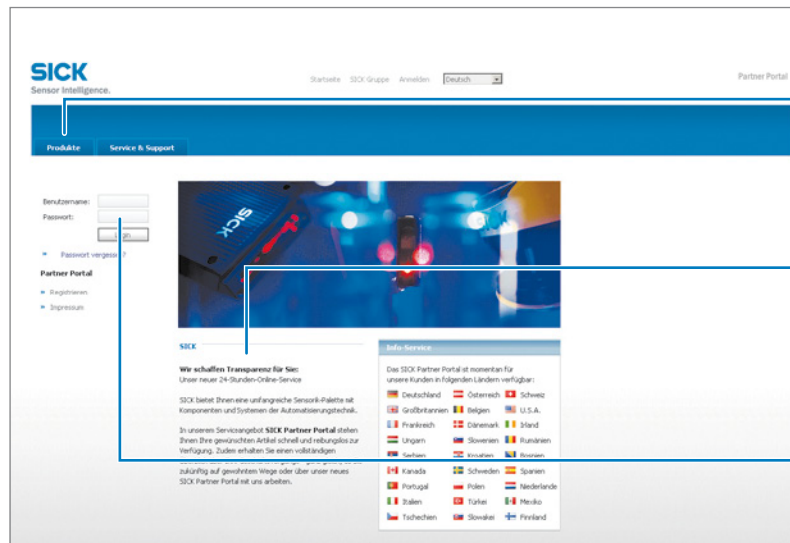
**Product Finder:** We can help you to quickly target the product that best matches your application.

**Applications Finder:** Select the application description on the basis of the challenge posed, industrial sector, or product group.

**Literature Finder:** Go directly to the operating instructions, technical information, and other literature on all aspects of SICK products.

These and other Finders at [www.mysick.com](http://www.mysick.com)

## Efficiency – with SICK e-commerce tools



**Clearly structured:** You can find everything you need for your sensor planning under the menu items Products, Information, and My Account.

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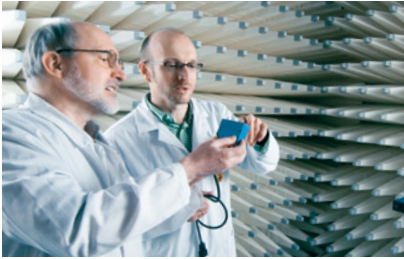
### Order online

You can go through the ordering process in just a few steps.

### Request or view a quote

You can have a quote generated online here. Every quote is confirmed to you via e-mail.

## SICK at a glance



### Leading technologies

With a staff of more than 5,000 and over 50 subsidiaries and representations worldwide, SICK is one of the leading and most successful manufacturers of sensor technology. The power of innovation and solution competency have made SICK the global market leader. No matter what the project and industry may be, talking with an expert from SICK will provide you with an ideal basis for your plans – there is no need to settle for anything less than the best.



### Unique product range

- Non-contact detecting, counting, classifying, positioning and measuring of any type of object or media
- Accident and operator protection with sensors, safety software and services
- Automatic identification with bar code and RFID readers
- Laser measurement technology for detecting the volume, position and contour of people and objects
- Complete system solutions for analysis and flow measurement of gases and liquids



### Comprehensive services

- SICK LifeTime Services – for safety and productivity
- Application centers in Europe, Asia and North America for the development of system solutions under real-world conditions
- E-Business Partner Portal [www.mysick.com](http://www.mysick.com) – price and availability of products, requests for quotation and online orders

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