



TiM2xx

Compact. Cost-effective. Reliable.

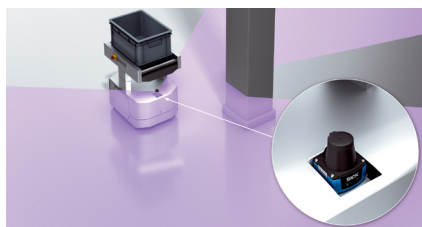
2D LIDAR SENSORS

SICK
Sensor Intelligence.

Trends & news



The e-commerce industry is growing. And with it the demand for automation solutions so as to meet the growing requirements on logistics infrastructure and the transport of goods and products. More and more, mobile platforms are assuming logistics tasks; at the same time, their designs are becoming more compact. New economic sectors are raising the demand for smart media. 2D LiDAR sensor solutions must keep up with these developments when it comes to functionality, size and price. With the TiM2xx, SICK is launching a sensor which fulfills these new requirements.



Simultaneous localization and map creation (SLAM)

The TiM2xx is a economical sensor which can be used to generate reference maps of the environment and localize mobile platforms at the same time. Implementation is a breeze with the ROS (robot operation system) driver.



Interaction on large screen

In new smart media such as virtual natural walls or interactive games, the TiM2xx detects, for example, where the hand of a person or the person itself is currently situated in the interactive area. The sensor transfers the measurement data into a signal which then triggers the display of a new image or the opening of an info window.



HDDM+

The innovative HDDM+ technology enables measurement at long distances and is characterized by low noise in the measured value data as well as multi-echo capability.



In addition to industrial fields of application such as mobile automation, new areas of application are opening up for the TiM2xx.

Advantages



The TiM240 is the first variant of the TiM2xx 2D LiDAR sensors and features enclosure rating IP65 for indoor use. The user can cover a monitored area of up to 200 m² with only one 2D laser scanner, which detects even the smallest changes with its high scan rate. The low power consumption of 2.9 watts is a particular advantage when used in battery-operated vehicles. At only 150 g, the TiM2xx is a flyweight among the LiDAR sensors and does not require much space thanks to its compact design. It can be integrated into ever-shrinking mobile platforms and does not interfere in the housing of new smart media.



Measurement data output via quick Ethernet interface

The proven HDDM⁺ technology ensures stable and reliable measurement. The measurement data is quickly transmitted to the control via Ethernet. The TiM2xx directly identifies changes in the monitored area, thereby ensuring initiation of corresponding actions, such as slowing down an automated vehicle.



High scan performance in a small housing

The TiM2xx can monitor a space of up to 200 m² at 15 scans per second. It quickly detects changes to the environment. These are optimal prerequisites for use in small automated vehicles.



Great benefits at a low price

The right technical equipment for your requirements at an impressive price.

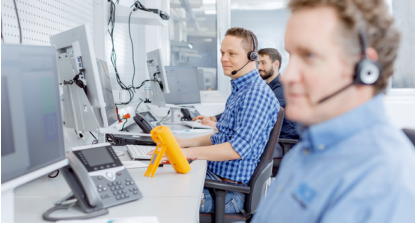


The TiM2xx is the answer to new requirements in which the focus is on functionality, size and price.

SICK LifeTime Services

SICK's services increase machine and plant productivity, enhance the safety of people all over the world, provide a solid foundation for a sustainable business operation, and protect investment goods. In addition to its usual consulting services, SICK provides direct on-site support during the conceptual design and commissioning phases as well as during operation.

The range of services not only covers aspects like maintenance and inspection, but also includes performance checks as well as upgrades and retrofits. Modular or customized service contracts extend the service life of plants and therefore increase their availability. If faults occur or limit values are exceeded, these are detected at all times by the corresponding sensors and systems.



Consulting and design

Application-specific advice on the product, its integration and the application itself.



commissioning and maintenance

Application-optimized and sustainable – thanks to professional commissioning and maintenance by a trained SICK service technician.



service contracts

Extended warranty, SICK Remote Service, 24-hour helpdesk, maintenance, availability guarantees and other modular components can be individually combined on request.



Technical data overview

Application	Indoor
Measurement principle	HDDM ⁺
Integrated application	Output of measurement data
Aperture angle	Horizontal 240°
Angular resolution	1°
Working range	0.05 m ... 10 m
Scanning range	At 10% remission 0.05 m ... 3 m, depending on the angle
Scanning frequency	14.5 Hz
Ambient operating temperature	-10 °C ... +50 °C
Ethernet	✓
Digital inputs	0
Digital outputs	1 (Push-pull, "Device Ready")
Weight	150 g

Product description

The TiM2xx is a compact, cost-effective and reliable 2D LiDAR sensor for a range of applications. Its HDDM⁺ technology ensures reliable presence monitoring, localization and object detection along with maximum machine availability. The installed rotatable M12 male connector allows for flexibility when installing the sensor and makes it the most compact of its kind. The TiM2xx offers a monitored area of up to 200 m². The sensor transmits data in real time via its integrated Ethernet interface, thereby enabling simple sensor integration into any industrial control. The SOPAS engineering tool and standard telegram ensure simple configuration.

At a glance

- Quick measurement data output via Ethernet interface
- Working range up to 10 m with focused aperture angle
- Distance measurement with fine angular resolution and HDDM⁺ technology
- Configuration via SOPAS ET and standard telegram
- Compact, light plastic housing
- Low power consumption

Your benefits

- Quick installation and commissioning
- Simultaneous localization and mapping (English: SLAM)
- Reliable object detection and maximum machine availability
- Easy and transmittable parameterization
- Small space requirements and easy machine integration thanks to the small dimensions and rotatable male connector
- Particularly well-suited for use in battery-operated vehicles

Fields of application

- Mobile platforms: Localization and mapping
- Mobile platforms: Object detection and collision avoidance
- Warehouse: Presence monitoring
- Area monitoring: Counting persons and detecting their direction of movement

Ordering information

Other models and accessories → www.sick.com/TiM2xx

- **Application:** Indoor
- **Integrated application:** output of measurement data
- **Working range:** 0.05 m ... 10 m

Angular resolution	Digital outputs	Connection type	Measurement principle	Type	Part no.
1°	1 (Push-pull, "Device Ready")	1 x "Ethernet" connection, 4-pin M12 female connector 1 x connection "Power", 5-pin, M12 male connector	HDDM ⁺	TiM240-2050300	1104981

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