TiM7xx

Simultaneous field evaluation and measurement data output in just one device

2D LIDAR SENSORS

SICK
Sensor Intelligence.

TiM7xx
2D LIDAR SENSORS

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Technical data overview

Application	Indoor / Outdoor (depending on type)
Measurement principle	HDDM / HDDM$^+$ (depending on type)
Integrated application	Protective field evaluation with flexible fields, output of measurement data, Field evaluation with flexible fields (depending on type)
Aperture angle	
Horizontal	270°
Angular resolution	0.33°
Working range	0.05 m ... 25 m, > 90% remission (depending on type)
Scanning range	
At 10% remission	8 m
Scanning frequency	15 Hz
Ambient operating temperature	–25 °C ... +50 °C [1]
Ethernet	✓
USB	✓
Digital inputs	4 (PNP, for field set switching)
Digital outputs	3 (PNP, to display a protective field violation, additional 1 x "Device Ready") 3 (PNP, additional 1 x "Device Ready")
Weight	250 g

[1] IEC 60068-2-14:2009.

Product description

SICK is adding the TiM7xx to the TiM series for a seamless and scalable 2D-LiDAR sensor portfolio. This sensor combines intelligent field evaluation and measurement data output in one device. This makes it possible to output both data about the presence of an object in a defined area and exact measured data of the scanned surface. The TiM7xx is SICK´s solution for reducing the number of sensors needed for mobile applications. This enables customers to develop customized solutions for their applications. The compact design of the sensors is ideal for applications such as mobile platforms, automated guided vehicles (AGVs) and mobile service robots. The TiM7xx supports localization and collision avoidance in these applications.

At a glance

• Wide detection range: 0.05 m up to maximum 25 m
• Low power consumption (typically: 4 W)
• Immediate commissioning and configuration via USB and Ethernet
• Intelligent field evaluation and measurement data output in one device
• Rugged design suitable for industry thanks to enclosure rating up to IP67

Your benefits

• Enables new solutions for mobile applications by combining intelligent field evaluation and measurement data output.
• Reliable object detection independent of the object, even with strong ambient light
• The measurement data output enables capture of additional data about parameters such as object size, shape, etc.
• Easy integration into compact AGVs thanks to small size of the sensor
• Easy commissioning with rotatable connections and accessories perfectly attuned to the sensors; only a few adjustable SOPAS software parameters are necessary for commissioning
• Improved behavior for edge hits thanks to HDDM$^+$

Fields of application

- Navigation of automated guided vehicles (AGV)
- Collision protection for AGVs and overhead tracks
- Intelligent object detection for mobile applications
- Presence monitoring in automated high-bay warehouses
- Intervention monitoring and height control
- Protrusion monitoring at pallets
- Area monitoring

Ordering information

Other models and accessories ➜ www.sick.com/TiM7xx

- **Application:** Indoor
- **Integrated application:** Protective field evaluation with flexible fields, output of measurement data
- **Working range:** 0.05 m … 25 m, > 90% remission
- **Number of field sets:** 16
- **Angular resolution:** 0.33°
- **Digital outputs:** 3 (PNP, to display a protective field violation, additional 1 x "Device Ready")
- **Connection type:** 1 x "Ethernet" connection, 4-pin M12 female connector, 1 x connection "Power", 12-pin, M12 male connector, 1 x Micro USB female connector, type B

Measurement principle	Type	Part no.
HDDM	TIM771S-2174104	1105052
HDDM$^+$	TIM781S-2174104	1096363

- **Application:** Outdoor
- **Integrated application:** Field evaluation with flexible fields, output of measurement data
- **Working range:** 0.05 m … 25 m
- **Number of field sets:** 16

Angular resolution	Digital outputs	Connection type	Measure-ment principle	Type	Part no.
0.33°	3 (PNP, additional 1 x "Device Ready")	1 x "Ethernet" connection, 4-pin M12 female connector 1 x connection "Power", 12-pin, M12 male connector 1 x Micro USB female connector, type B	HDDM$^+$	TIM781-2174101	1096807

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**

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