TiM5xx

Complete measurement accuracy

2D LIDAR SENSORS

SICK
Sensor Intelligence.

TiM5xx
2D LIDAR SENSORS

Technical data overview

Application	Indoor / Outdoor (depending on type)
Measurement principle	HDDM$^+$ / HDDM (depending on type)
Integrated application	Output of measurement data
Aperture angle	
Horizontal	270°
Angular resolution	1° 0.33°
Working range	0.05 m … 25 m (depending on type)
Scanning range	
At 10% remission	2 m … 8 m (depending on type)
Scanning frequency	15 Hz
Ambient operating temperature	–25 °C … +50 °C [1] (depending on type)
Serial	✓
USB	✓
Ethernet	✓
Digital inputs	0
Digital outputs	1 (PNP, "SYNC"/"device ready")
Weight	150 g / 250 g (depending on type)

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

Product description

More than just object detection: The TiM5xx 2D LiDAR sensor is a non-contact ranging solution within the TiM series from SICK. Thanks to its HDDM technology, the TiM5xx is able to monitor large areas in indoor and outdoor applications – regardless of the surface or ambient light. Enclosed in a compact, rugged housing, the TiM5xx provides accurate measurement data from the scanned surface, making it possible to determine additional information such as the size and shape of objects. The TiM5xx is flexible for use in a variety of industrial applications as well as in building automation. The integrated Ethernet interface makes for easy implementation and remote maintenance. The TiM5xx is an efficient solution for stationary use as well as for use on automated guided vehicles (AVG) and in other mobile applications.

At a glance

- Monitoring area of up to 1,470 m² with just one sensor
- High ambient light tolerance due to HDDM technology
- Rugged housing with up to an IP 67 enclosure rating
- Low power consumption (typ. 4 W)
- Compact design with a housing height of just 86 mm maximum
- Integrated Ethernet interface
- Long sensing range of up to max. 25 m
- Industry-standard design and M12 male connector

Your benefits

- Reliable object detection independent of the surface and ambient light
- IP 67 enclosure rating can be relied upon to withstand both indoor and outdoor conditions
- Easy integration into compact automated guided vehicles (AGV) due to small size
- Ethernet interface makes for easy implementation and remote maintenance
- Can determine additional information such as object size, shape, etc. through measurement data output
- Low implementation costs due to scalability: Sensor telegram is identical to sensor telegrams for 2D LiDAR sensors in the SICK-portfolio

Fields of application

- Collision avoidance for automated guided vehicles (AGV)
- Object measurement and detection
- Monitoring of objects in the field of building automation
- Pallet detection
- Navigation of automated guided vehicles (AGV)

Ordering information

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

- **Application:** Indoor
- **Integrated application:** output of measurement data
- **Working range:** 0.05 m ... 4 m

Angular resolution	Digital outputs	Connection type	Measurement principle	Type	Part no.
1°	1 (PNP, "SYNC"/"device ready")	1 x cable with 12-pin M12 male connector (0,3 m) 1 x Micro USB female connector, type B	HDDM$^+$	TIM510-9950000S01	1062210

- **Application:** Outdoor
- **Integrated application:** output of measurement data
- **Digital outputs:** 1 (PNP, "SYNC"/"device ready")
- **Connection type:** 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

Working range	Angular resolution	Measurement principle	Type	Part no.
0.05 m ... 10 m	0.33°	HDDM	TIM561-2050101S80	1106065
		HDDM$^+$	TiM561-2050101	1071419
	1°	HDDM$^+$	TIM551-2050001	1060445
0.05 m ... 25 m	0.33°	HDDM	TiM571-2050101	1075091
		HDDM$^+$	TiM581-2050101	1099504

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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