

2D LiDAR sensors TiM1xx

Sensor for area monitoring: small, simple, cost-effective

Benefits



- Low installation effort thanks to monitoring of a 200° field of view
- Low overall operating costs
- Low space requirements thanks to compact dimensions
- Rapid commissioning thanks to simple configuration of the detection zone with software
- Low installation costs and rapid replacement thanks to rotatable connector, IO-Link, and parameter cloning
- Particularly suitable for use in battery-operated vehicles thanks to low power consumption

Applications

Overrun monitoring and part counting at the material box



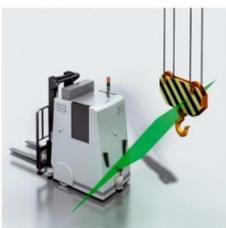
The TiM1xx 2D laser scanner is used for protrusion monitoring. It signals the maximum fill level at which the material box must be replaced. If a part falls into the material box, it breaks through the scanning field of the TiM1xx. This enables the parts to be counted.

Collision protection for automated guided carts implemented easily and at low cost



If an automated guided cart collides with protruding machine parts, major property damage results and the production line is stopped. 2D LiDAR sensors from the TiM series make the control of automated guided carts for preventing such collisions easy and cost-effective.

Avoiding collisions between AGV systems and hanging objects



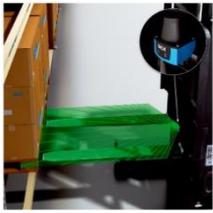
The slanted upwards orientation of a compact TiM3xx 2D LiDAR sensor allows hanging objects to be detected early on. The monitoring fields can be flexibly defined, enabling any objects encroaching on the sides of the vehicle to be detected too.

Empty bay detection for different load carriers (2D)



The compact TiM1xx 2D LiDAR sensor is used for storage bay monitoring. The laser scanner scans the entire breadth of the storage bay with its two-dimensional scanning surface and detects load carriers of all shapes and sizes. Alternatively, the TiM5xx 2D LiDAR sensor determines the profile of the shelf front, using the 2D point cloud as a positioning aid.

Faster load carrying with a driver assistance system equipped with a 2D LiDAR sensor



The small 2D LiDAR sensors of the TiM series can be placed between the fork arms to protect them. The contour of the pallet is scanned with the respective switching fields. The switching outputs control signal devices such as display lights or buzzers, actively supporting the driver during load lifting.

Anti-climb monitoring at automated boarding gates



The area above the swing doors of automated boarding gates can be monitored using 2D laser scanners. The laser scanners are activated when access is not permitted. Any attempt to climb over the doors immediately triggers an alarm signal.

Empty space monitoring in elevator cars



If the elevator is requested for a penthouse apartment, no undesired guests should be in the elevator car. The TiM1xx 2D LiDAR sensor reliably monitors the car and ensures that only an empty elevator arrives at the destination.

Activating escalators



WTE280-2 compact photoelectric proximity sensors detect approaching persons and activate escalators in stand-by mode. This reduces energy costs and ensures optimal availability. Thanks to the high operating reserve, the sensors are resistant to contamination.