



Laser scanners
TiM3xx / TiM31x

TiM310-1030000



Model Name > [TIM310-1030000](#)
Part No. > [1052627](#)



At a glance

- Configure without a PC using "touch and teach"
- Small, lightweight and economical measurement sensor
- Field evaluation using intelligent algorithms
- Set parameter interface is 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 dimensions
- Low installation costs and exchange time due to M12 x 12 or D-Sub connector
- Long operation for battery-driven vehicles
- Preconfigured fields ensure short installation time
- Reduced hardware costs since only one sensor can be used for large anti-collision fields (up to 235 qm)
- No wiring necessary between sender and receiver



Features

| | |
|------------------------------------|------------------------------------|
| Light source: | Infrared (850 nm) |
| Laser class: | 1 (EN 60825-1 (2007-10)), eye-safe |
| Field of view: | 270 ° |
| Scanning frequency: | 15 Hz |
| Angular resolution: | 1 ° |
| 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 ¹⁾ : | ± 40 mm |
| Statistical error ²⁾ : | ± 30 mm |
| Integrated application: | Field evaluation |
| Number of field sets: | 16 field triples (48 fields, 1 triple (3 fields) programmable directly at the scanner) |

Simultaneous processing cases: 1 (3 fields)

1) 2) Typical value; actual value depends on environmental conditions.

Interfaces

| | |
|---------------------|-------------------------------------|
| Serial (RS-232): | - |
| Ethernet: | - |
| CAN bus: | - |
| PROFIBUS DP: | - |
| PROFINET: | - |
| DeviceNet: | - |
| USB: | ✓ |
| Function (USB): | AUX, parameterization |
| Remark (USB): | Micro USB |
| Switching inputs: | 4 (PNP) |
| Switching outputs: | 3 (PNP, plus 1 x "device ready") |
| Optical indicators: | 2 LEDs (ON, switching status) |
| Delay time: | 134 ms ... 30,000 ms (programmable) |
| Dwell time: | 67 ms ... 10,000 ms (programmable) |

Mechanics/electronics

| | |
|------------------------|--|
| Electrical connection: | 1 x 15-pin D-sub HD male connector (0.9 m) |
| Operating voltage: | 9 V DC ... 28 V DC |
| Power consumption: | 3 W |
| 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 |

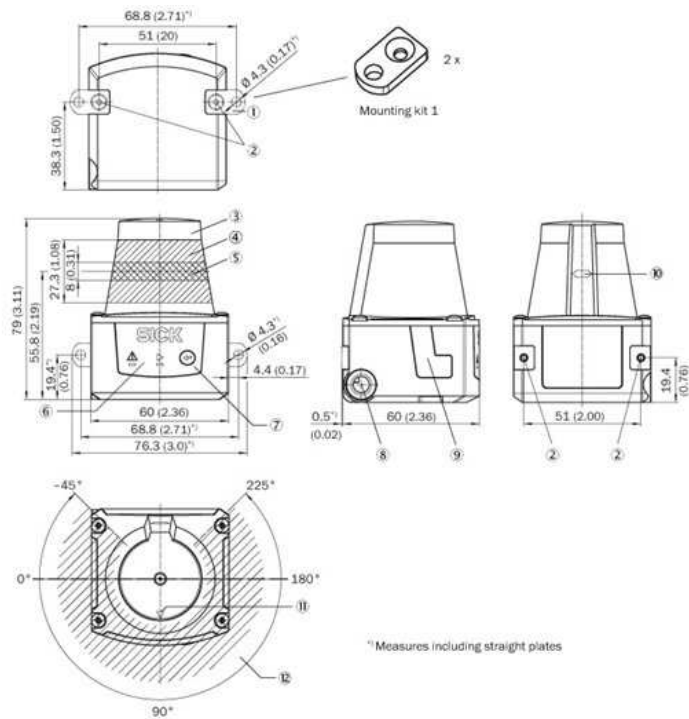
Ambient data

| | |
|--------------------------------------|---|
| 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 immunity: | 15,000 lx |

General notes

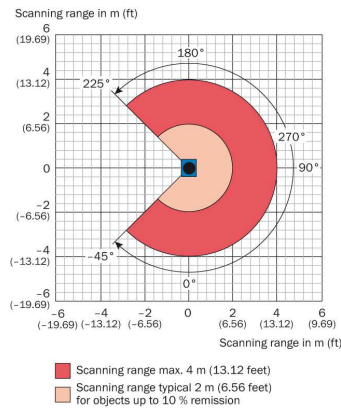
| | |
|--------------|---------------------------------------|
| Note on use: | Not suitable for personnel protection |
|--------------|---------------------------------------|

Dimensional drawing



- |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 connecting cable
(*Power/switching inputs/outputs" connection)
- |9| Micro USB female connector, type B
- |10| Marking for the position of the light emission level
- |11| Bearing marking to support alignment (90° axis)
- |12| Aperture angle 270° (scanning angle)

Operating range diagram



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