



Laser scanners
TiM3xx / TiM31x

TiM310-1130000



Model Name > [TIM310-1130000](#)
Part No. > [1056550](#)



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 M12 12-pin male connector (0.8 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

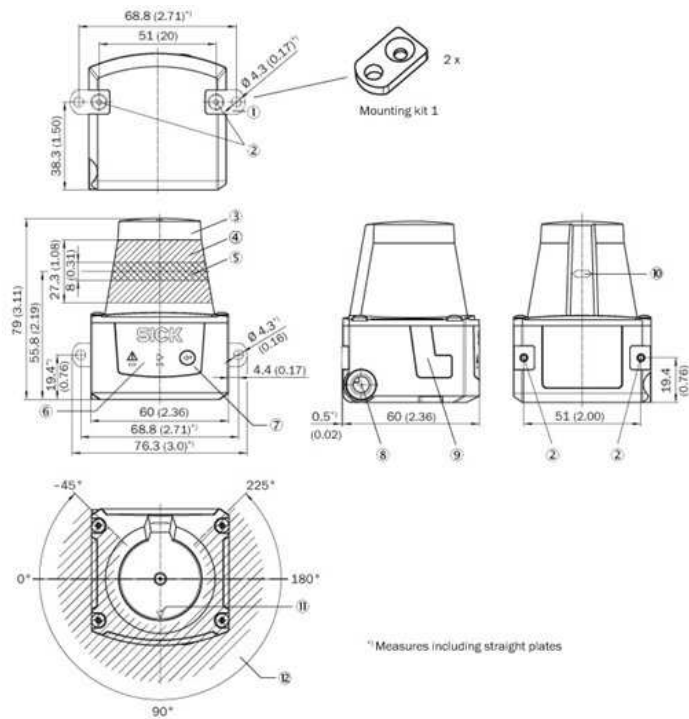
Ambient data

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

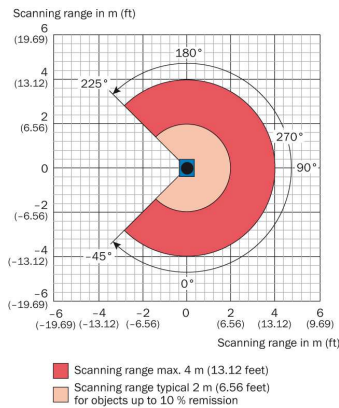
Note on use:	Not suitable for personnel protection
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Dimensional drawing



- |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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