TIM100-3010200
TiM1xx

2D LIDAR SENSORS

SICK
Sensor Intelligence.

TIM100-3010200 | TiM1xx
2D LIDAR SENSORS

Ordering information

Type	Part no.
TIM100-3010200	1077524

Other models and accessories ➔ www.sick.com/TiM1xx

Detailed technical data

Features

Field of application	Indoor
Light source	Infrared (850 nm)
Laser class	1, eye-safe (IEC 60825-1:2014)
Aperture angle	200°
Scanning frequency	14.5 Hz
Angular resolution	1°
Operating range	0.05 m … 3 m
Max. range with 10 % reflectivity	1.5 m [1]

[1] Sensing range 1.2 m to 1.5 m for objects with 10% remission, depending on the angle.

Performance

Response time	Typ. 70 ms
Detectable object shape	Almost any
Systematic error	± 100 mm [1]
Statistical error	20 mm [1]
Integrated application	Field evaluation
Number of field sets	1 field set
Simultaneous evaluation cases	1 (1 field)

[1] Typical value; actual value depends on environmental conditions.

Interfaces

IO-Link		✓
	Function	AUX, parameterization
Switching inputs		1
Switching outputs		1
Delay time		69 ms … 30,015 ms (configurable)
Dwell time		69 ms … 30,015 ms (configurable)

Optical indicators	2 LEDs (ON, switching status)

Mechanics/electronics

Electrical connection	1 x 5-pin M12 male device connector (rotatable)
Operating voltage	9 V DC … 28 V DC [1]
Power consumption	Typ. 2.2 W
Housing color	Light blue (RAL 5012)
Enclosure rating	IP65 (IEC 60529:1989+AMD1:1999+AMD2:2013)
Protection class	III (IEC 61140:2016-1)
Weight	90 g, without connecting cables
Dimensions (L x W x H)	60 mm x 60 mm x 75.8 m

[1] When using IO-Link output V_s > 18 V.

Ambient data

Object remission	4 % … > 1,000 % (reflectors)
Electromagnetic compatibility (EMC)	IEC 61000-6-3:2006+AMD1:2010 / IEC 61000-6-2:2005
Vibration resistance	IEC 60068-2-6:2007
Shock resistance	IEC 60068-2-27:2008
Ambient operating temperature	–10 °C … +50 °C
Storage temperature	–30 °C … +70 °C
Ambient light immunity	80,000 lx

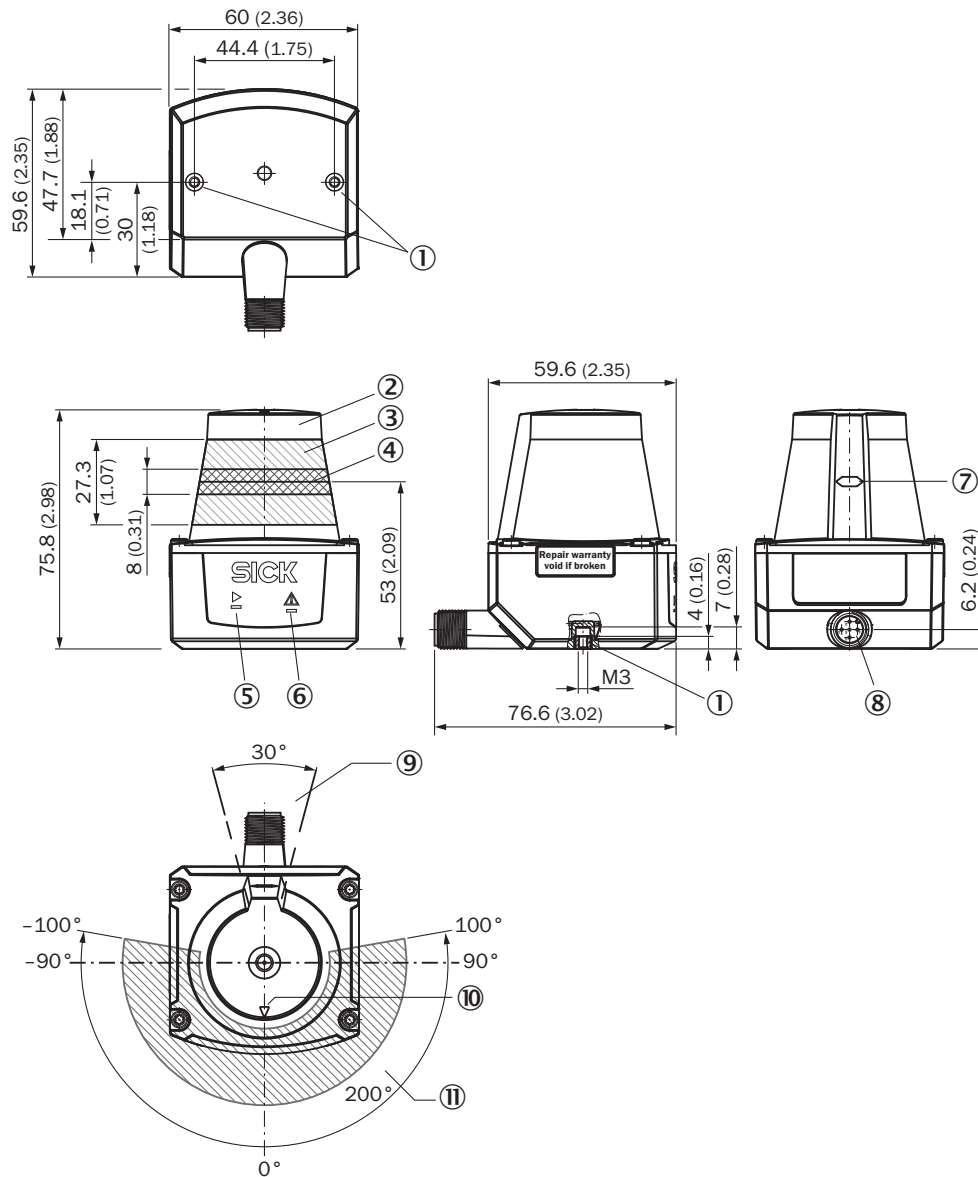## General notes

Note on use	Not suitable for personnel protection

Classifications

ECl@ss 5.0	27270990
ECl@ss 5.1.4	27270990
ECl@ss 6.0	27270913
ECl@ss 6.2	27270913
ECl@ss 7.0	27270913
ECl@ss 8.0	27270913
ECl@ss 8.1	27270913
ECl@ss 9.0	27270913
ETIM 5.0	EC002550
ETIM 6.0	EC002550
UNSPSC 16.0901	46171620

Dimensional drawing (Dimensions in mm (inch))

① M3 threaded mounting hole, 2.8 mm deep (blind hole thread), tightening torque 0.8 Nm
② Optical hood
③ Receiving range (light inlet)
④ Transmission range (light emission)
⑤ Green LED
⑥ Red LED
⑦ Marking for the position of the light emission level
⑧ 5-pin M12 male connector (rotatable)
⑨ Area in which no reflective surfaces are allowed for mounted devices
⑩ Bearing marking to support alignment (0° axis)
⑪ Aperture angle 200° (scanning angle)

Operating range diagram

Scanning range in m (ft)

Scanning range in m (ft)

■ Scanning range max. 3 m (9.84 ft)

■ Scanning range 1.2 m to 1.5 m (3.94 ft to 4.92 ft)
for objects with 10 % remission, dependent on the angle
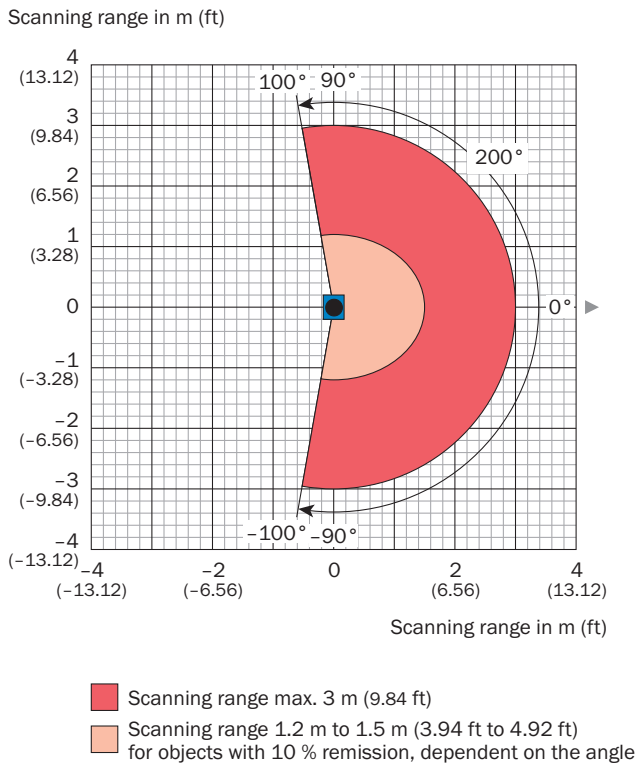
Recommended accessories

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Brief description	Type	Part no.
Mounting brackets and plates		
Mounting kit	Mounting kit	2082188
Q-lock mounting system	Q-Lock mounting kit	2083311
Modules and gateways		
IO-Link V1.1 Class A port, USB2.0 port, optional external power supply 24V / 1A	IOLA2US-01101 (SiLink2 Master)	1061790
Plug connectors and cables		
Head A: female connector, M12, 5-pin, straight Head B: cable Cable: Power, I/O, drag chain use, PUR, halogen-free, unshielded, 2 m	DOL-1205-G02MC	6025906
Head A: female connector, M12, 5-pin, straight, A-coded Head B: male connector, M12, 5-pin, straight, A-coded Cable: digital I/Os, drag chain use, PUR, halogen-free, unshielded, 2 m	DSL-1205-G02MC	6025931

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."

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