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DAS

DATA SHEET

DAS picoScan100

Drive Assist System
Object detection systems

SICK Sensor Intelligence



OBJECT DETECTION SYSTEMS

DAS picoScan100

ORDERING INFORMATION

Type	part no.
DAS picoScan100	On request

Further device versions and accessories at www.sick.com/Drive_Assist_System

DETAILED TECHNICAL DATA

FEATURES

Areas of application	Indoor and outdoor areas (50 m)
Scanning frequency	20 Hz / 40 Hz (configurable)
Aperture angle	276°
Angular resolution	0.10° @ 20 Hz 0.25° @ 40 Hz (configurable)
Max. range with 10 % reflectivity	25 m
Vehicles	Industrial trucks
Working range	0.05 m ... 60 m

MECHANICS/ELECTRONICS

Weight	220 g, without connecting cables
Supply voltage	(9 V DC ... 28 V DC)
Power consumption	4.5 W
Enclosure rating	IP65, IP67
Laser class	1 (EN 60825-1:2014, IEC 60825-1:2014)

PERFORMANCE

Working range	0.05 m ... 60 m
Functions	Output in polar coordinates
Monitored area	Vehicle rear, vehicle front or side
Number of field sets	63, configurable
Response time	1 Scan, typ. 50 ms @ 20 Hz, typ. 25 ms @ 40 Hz
Detectable object shape	Almost any
GPS	–
WebInterface	Yes (parameterization)

INTERFACES

Ethernet	✓ , TCP/IP
CAN	CANopen message structure

AMBIENT DATA

Ambient operating temperature	–33 °C ... +50 °C
Ambient temperature, storage	–40 °C ... +70 °C
Ambient light immunity	100,000 lx
Vibration resistance	
Sine resonance scan	10 Hz ... 1,000 Hz, 1 g [1]
Sine test	10 Hz ... 500 Hz, 10 g, 10 frequency cycles [1]
Noise test	10 Hz ... 500 Hz, 13.5 g RMS, 5 h [2] Short restriction in measurement data availability possible.
Shock resistance	100 g, 6 ms, ± 3 single shocks/axis [3] 40 g, 6 ms, ± 4,000 continuous shocks/axis [3] 50 g, 6 ms, ± 5,000 continuous shocks/axis [3] Short restriction in measurement data availability possible.

[1] IEC 60068-2-6:2007.

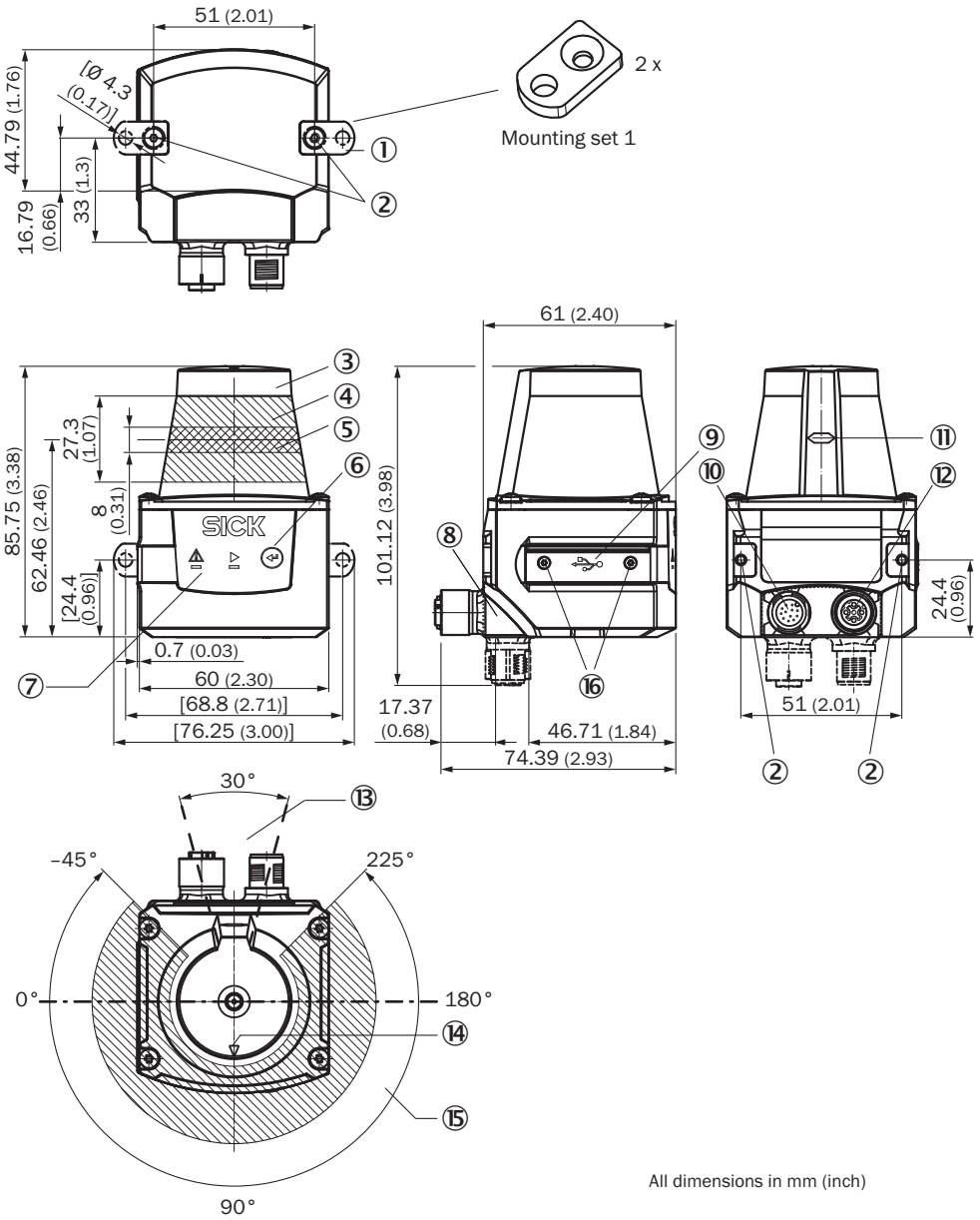
[2] IEC 60068-2-64:2008.

[3] IEC 60068-2-27:2008.

GENERAL NOTES

Items supplied	picoScan150 2D LiDAR sensor with preinstalled Drive Assist System app

DIMENSIONAL DRAWING



All dimensions in mm (inch)

Dimensions in mm (inch)
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), max. tightening torque 0.8 Nm
③ Optical hood
④ Receiving range (light inlet)
⑤ Transmission range (light emission)
⑥ Function button for teach-in
⑦ Red and green LED (status displays)
⑧ swivel connector unit
⑨ Micro USB female connector, type B
⑩ connection “Power”, 12-pin, M12 male connector
⑪ Marking for the position of the light emission level
⑫ “Ethernet” connection, 4-pin M12 female connector
⑬ Area in which no reflective surfaces are allowed for mounted devices
⑭ Bearing marking to support alignment (90° axis)
⑮ Aperture angle 270° (scanning angle)
⑯ 2 x countersunk screw (Torx TX 6) M2 x 4 mm

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/Drive Assist System

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SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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