SICK.COM

DATA SHEET

TLOC100-100

Triton Floor-LOC
Localization systems

SICK Sensor Intelligence

LOCALIZATION SYSTEMS

TLOC100-100

ORDERING INFORMATION

Type	part no.
TLOC100-100	6087307

Further device versions and accessories at www.sick.com/Triton_Floor-LOC

DETAILED TECHNICAL DATA

FEATURES

Description	Triton Floor-LOC is an image-based localization system for mobile robots which uses microstructures of a floor to determine the position of the vehicle.
Application	Localization of mobile robots in logistics and production
Output data	Absolute position (x, y, direction angle) Relative position (visual odometry)
Localization accuracy	< 1 mm Position (on mapped texture) < 0.3° Orientation
Position output	At up to 150 Hz
Odometry support	Wheel odometry must be integrated.
Reading distance	40 mm, ± 5 mm
Speed	Up to 2.5 m/s with Clock Syncing
Optical indicators	4 (LEDs) Multi-coloured for joint status display
Lighting	24 LEDs 850 nm, ± 30 nm, IR
LED class	0 - exempt risk group (IEC 62471:2006-07, EN 62471:2008-09)
Map size	Total length: 40 km Area (1x1 m grid): approx. 20 000 m²
Weight	600 g
Housing material	Aluminum
Dimensions, system (L x W x H)	110 mm x 110 mm x 40 mm

MECHANICS/ELECTRONICS

Supply voltage	24 V DC, ± 15 %
Power consumption	Typ. 15 W (6 W standby mode)
Electrical safety	IEC 61010-1:2010-06+AMD1:2016
Enclosure rating	EN 60529, EN 60529/A2
Protection class	III (IEC 61140:2016-11)

INTERFACES

Ethernet	✓
Type	TCP/IP
Function	Data output, configuration
Data transmission rate	10/100/1,000 Mbit/s
Optical indicators	4, LEDs, multi-coloured for joint status display
Connection type	1 x M12, 5-pin plug 1 x M12, 8-pin Ethernet socket
Driver	ROS, ROS2, C++

AMBIENT DATA

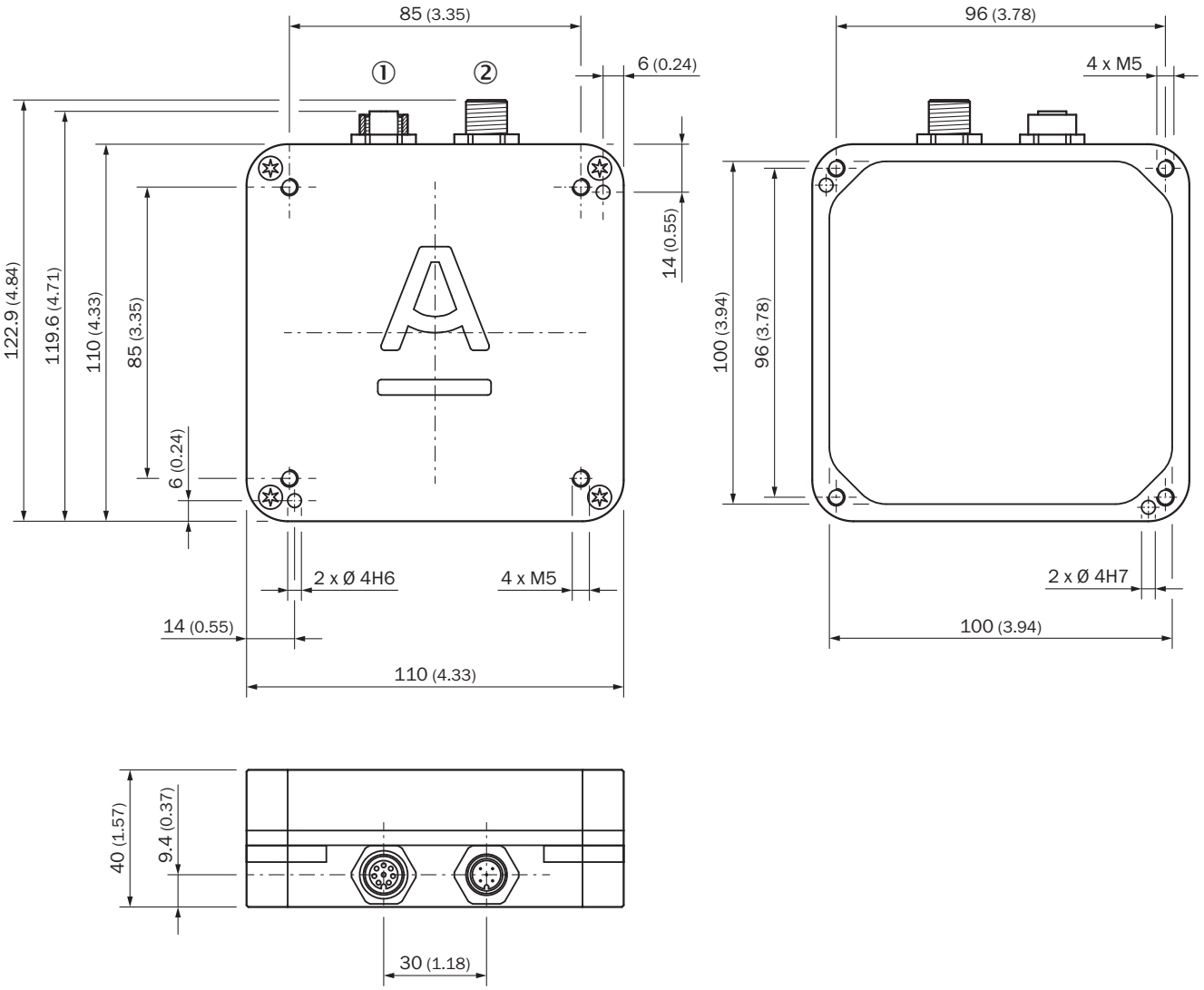
Ambient operating temperature	0 °C ... +40 °C, While taking account of the mounting requirements described, see operating instructions.
Floor types	All concrete floors and many other textured industrial floors. [1]
Electromagnetic compatibility (EMC)	EN 61000-6-3:2007+A1:2011 / EN 61000-6-2:2019

[1] Compatibility can be easily tested.

CERTIFICATES

EU declaration of conformity	✓
KC Mark certificate	✓
Information according to Art. 3 of Data Act (Regulation EU 2023/2854)	✓

DIMENSIONAL DRAWING



Dimensions in mm (inch)
① M12, 8-pin Ethernet socket
② Plug, M12, 5-pin

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/6087307

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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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