

DATA SHEET

TMM55E-PMH045

TMM55
Inclination sensors

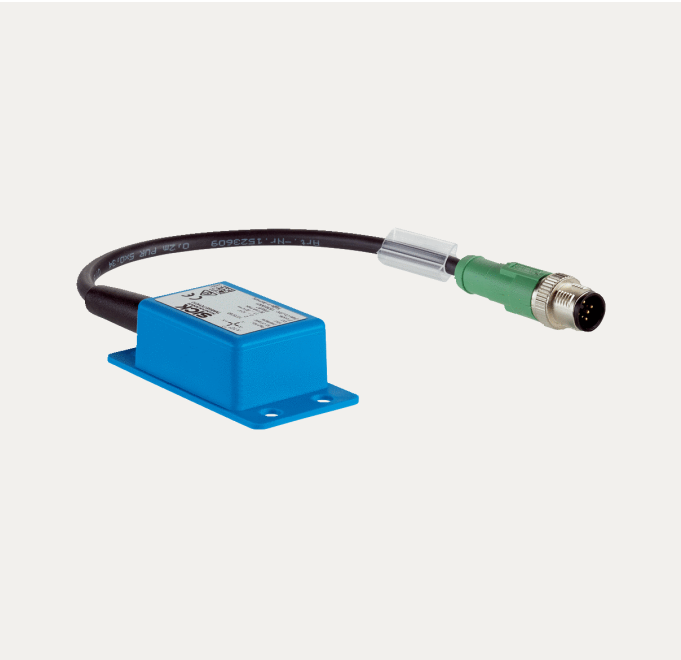


Illustration may differ

INCLINATION SENSORS

TMM55E-PMH045

ORDERING INFORMATION

Type	part no.
TMM55E-PMH045	1073781

Further device versions and accessories at www.sick.com/TMM55



DETAILED TECHNICAL DATA

SAFETY-RELATED PARAMETERS

MTTF _D (mean time to dangerous failure)	378 years (EN ISO 13849-1) ¹⁾
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¹⁾ This product is a standard product and does not constitute a safety component as defined in the Machinery Directive. Calculation based on nominal load of components, average ambient temperature 40°C, frequency of use 8760 h/a. All electronic failures are considered hazardous. For more information, see document no. 8015532.

PERFORMANCE

Number of axis	2
Measuring range	± 45°
Resolution	0.05°
Static measurement accuracy	± 0.3°
Compensated cross-sensitivity (2-dimensional)	Typ. ± 0.9°, max. ± 1.8°
Temperature coefficient (zero point)	Max. ± 0.009°/K
Limit frequency	18 Hz
Sampling rate	1.95 kHz

INTERFACES

Communication interface	- / Current
Current output	4 mA ... 20 mA
Load resistance	≤ 930 Ω
Initialization time	75 ms

ELECTRONICS

Connection type	Cable, 5-wire, with male connector, M12, 5-pin, 0.2 m
Supply voltage	11 V DC ... 30 V DC
Current consumption	15 ... 45 mA

Reverse polarity protection	✓
Short-circuit protection of the outputs	✓

MECHANICS

Dimensions	65 mm x 35 mm x 20 mm
Weight	55 g (with cable)
Housing material	Plastic (ABS)
Material, cable	PUR

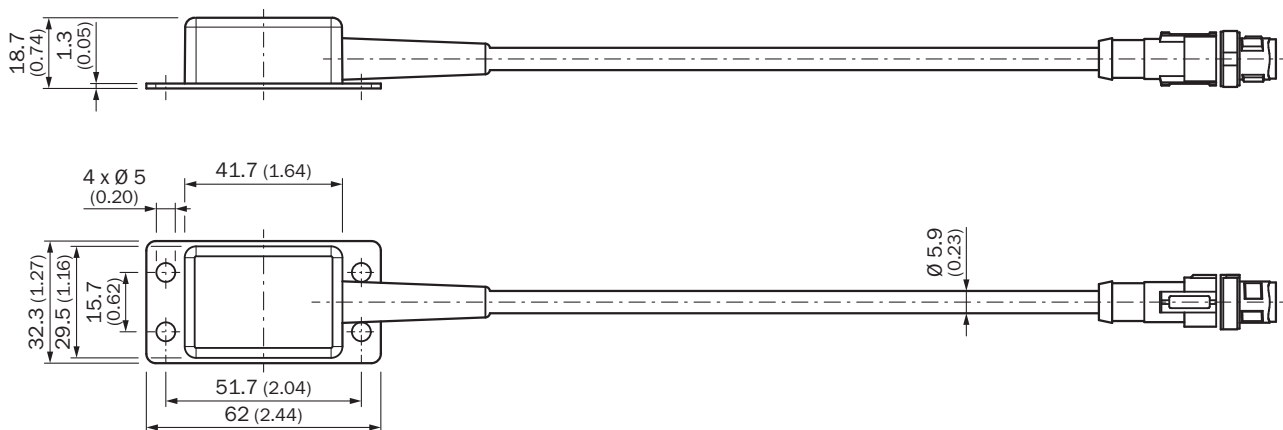
AMBIENT DATA

EMC	EN 61326-1, EN ISO 14982, EN ISO 13309
Enclosure rating	IP65 (IEC 60529) IP67 (IEC 60529)
Operating temperature range	-40 °C ... +80 °C
Storage temperature range	-40 °C ... +85 °C
Resistance to shocks	100 g, 6 ms (EN 60068-2-27)
Resistance to vibration	10 g, 10 Hz ... 2,000 Hz (EN 60068-2-6)

CERTIFICATES

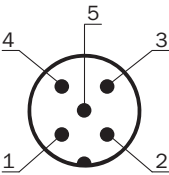
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
China RoHS	✓
Information according to Art. 3 of Data Act (Regulation EU 2023/2854)	✓

DIMENSIONAL DRAWING



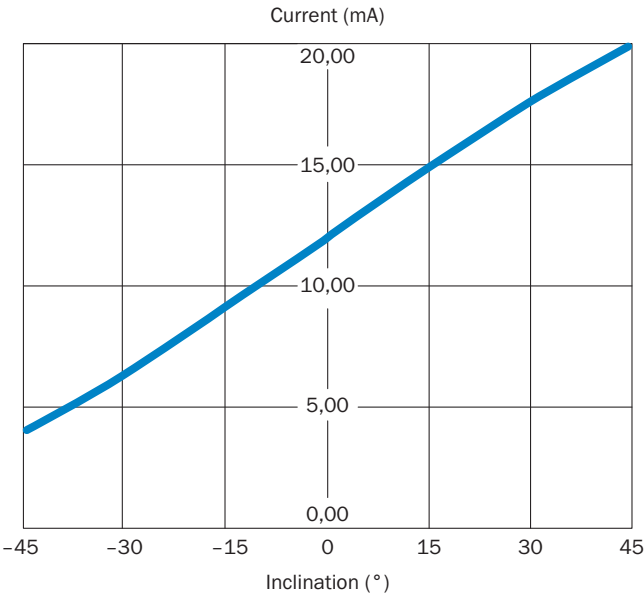
Dimensions in mm (inch)

ANSCHLUSSBELEGUNG



PINPlug, M12, 5-pin	Wire colors (cable connection)	Signal	Description
1	Brown	VDC	Supply voltage
2	White	Y-OUT	Sensorsignal y-axis
3	Blue	GND	0V (GND)
4	Black	X-OUT	Sensorsignal x-axis
5	Green/yellow	Signal- GND	Signal GND (internally connected to GND)

DIAGRAMS



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/1073781



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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

SICK
Sensor Intelligence