SICK.COM



DATA SHEET

TMM88A-PKC090S05

TMS/TMM88
Inclination sensors

SICK Sensor Intelligence



Illustration may differ

INCLINATION SENSORS

TMM88A-PKC090S05

ORDERING INFORMATION

Type	part no.
TMM88A-PKC090S05	1115732

Further device versions and accessories at www.sick.com/TMS_TMM88

DETAILED TECHNICAL DATA

FEATURES

Special device	✓
Specialty	Critical damped filter set to 0.800
Standard reference device	TMM88A-PKC090, 1073799

SAFETY-RELATED PARAMETERS

$MTTF_D$ (mean time to dangerous failure)	301 years (EN ISO 13849-1) [1]

[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	± 90°
Resolution	0.01°
Static measurement accuracy	≤ ± 60°, typ. ± 0.02°, max. ± 0.06° ≤ ± 70°, typ. ± 0.04°, max. ± 0.12° ≤ ± 80°, typ. ± 0.08°, max. ± 0.24° ≤ ± 85°, typ. ± 0.16°, max. ± 0.48°
Compensated cross-sensitivity (2-dimensional)	Typ. ± 0.09°, max. ± 0.45°
Temperature coefficient (zero point)	Typ. +0.0088°/K, –0.0102°/K [1]
Limit frequency	0.1 Hz ... 25 Hz, 8. range (with digital filter)
Sampling rate	100 Hz

[1] Reffering to the temperature of 25 °C.

INTERFACES

Communication interface	- / Current
Current output	4 mA ... 20 mA
Load resistance	≤ 850 Ω [1]
Parameterising data	Measuring range Zeroset Limit frequency Preset value Inverting of counting direction Axis assignment Free adjustable outbound
Programmable/configurable	Over PGT-12-Pro
Initialization time	330 ms

[1] On Us = 24 V.

ELECTRONICS

Connection type	Male connector, M12, 5-pin
Supply voltage	17 V DC ... 35 V DC
Current consumption	40 mA @ 24 V + Iloop
Reverse polarity protection	✓
Short-circuit protection of the outputs	✓

MECHANICS

Dimensions	66 mm x 90 mm x 36 mm
Weight	200 g
Housing material	Plastic (PBT)

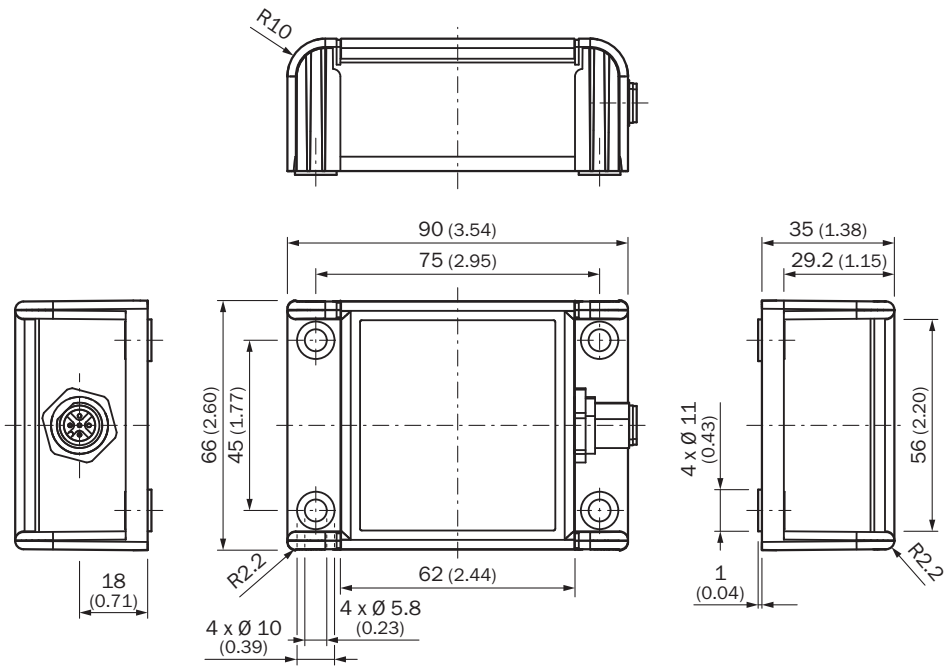
AMBIENT DATA

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

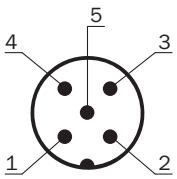
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
China RoHS	✓
Information according to Art. 3 of Data Act (Regulation EU 2023/2854)	✓

TMX88X-PXC



Dimensions in mm (inch)

ANSCHLUSSBELEGUNG



PINPlug, M12, 5-pin	Signal	Description
1	VDC	Supply voltage
2	B-OUT	Sensor output B (default: Y)
3	GND	0V (GND)
4	A-OUT	Sensor output A (default: X)
5	TEACH	Input for Zero point setting

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/1115732

SICK AG
WALDKIRCH
GERMANY
SICK.COM

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