TMS/TMM88

High-precision inclination measurement for harsh ambient conditions

SICK
Sensor Intelligence.

TMS/TMM88

Technical data overview

Number of axis	2 / 1 (depending on type)
Communication interface	Analog, Current Analog, Voltage CANopen
Measurement range	
2-dimensional	± 90°
1-dimensional	360°
Housing material	Plastic (PBT) / Aluminum (depending on type)
Connection type	Male connector, M12, 5-pin Male connector, Female connector, 1x, 1x, M12, M12, 5-pin, 5-pin Male connector, M12, 5-pin [1]
Programmable/configurable	Over PGT-12-Pro
Accuracy	
± 90°, 2-dimensional, ≤ ± 60° ≤ ± 80°	Typ. ± 0.1°, max. ± 0.2° Typ. ± 0.2°, max. ± 0.4° Typ. ± 0.2°, max. ± 0.3°
± 90°, 2-dimensional, ≤ ± 60° ≤ ± 70° ≤ ± 80° ≤ ± 85°	Typ. ± 0.02°, max. ± 0.05° Typ. ± 0.04°, max. ± 0.1° Typ. ± 0.08°, max. ± 0.2° Typ. ± 0.16°, max. ± 0.4° Typ. ± 0.02°, max. ± 0.06° Typ. ± 0.04°, max. ± 0.12° Typ. ± 0.08°, max. ± 0.24° Typ. ± 0.16°, max. ± 0.48°
360°, 1-dimensional	Typ. ± 0.15°, max. ± 0.25° Typ. ± 0.04°, max. ± 0.12°

[1] Max. length of connecting cable: 3 meters.

Product description

The TMS88 one-dimensional inclination sensor and the TMM88 two-dimensional inclination sensor take measurements with an accuracy of up to +/- 0.02°. The inclination value is provided either via a current or voltage interface with a linearized output signal or via a standardized CANopen interface. The PGT-12-Pro handheld programming tool allows the inclination sensors to be configured with ease, tailoring them perfectly to the application.
The sensors are available in UV-resistant plastic housings and in rugged aluminum housings.

At a glance

- Inclination sensor with measuring range of 360° (single-axis) or ±90° (dual-axis)
- Compensated cross sensitivity and configurable vibration suppression
- Freely configurable current or voltage interface or convenient CANopen interface
- Accuracy up to ±0.02°
- Plastic or aluminum housing
- Programmable with the PGT-12-Pro

Your benefits

- Inclination measurement in two axes without mutual interference
- Single-axis inclination measurement over 360° with configurable zero point
- Flexible adaptation to the application via the CANopen interface or PGT-12-Pro handheld programming tool
- Reliable output signal thanks to configurable digital filters
- Suitable for precise leveling tasks thanks to high accuracy over the entire measuring range and exceptional temperature stability
- Can also be used in the harshest ambient conditions thanks to fully encapsulated electronics

Fields of application

- Agricultural and forestry machinery
- Construction machinery and special-purpose vehicles
- Solar thermal energy and photovoltaics
- Automated guided systems
- Crane and lifting technology
- Wind power plant

Ordering information

Other models and accessories ➔ www.sick.com/TMS_TMM88

- **Communication interface:** Analog
- **Communication Interface detail:** Current
- **Programmable/configurable:** ✓
- **Current output:** 4 mA … 20 mA

Number of axis	Measuring range	Housing material	Type	Part no.
1	360°	Aluminum	TMS88B-AKC360	1073790
		Plastic (PBT)	TMS88A-PKC360	1073798
			TMS88B-PKC360	1073794
2	± 90°	Aluminum	TMM88B-AKC090	1073791
		Plastic (PBT)	TMM88A-PKC090	1073799
			TMM88B-PKC090	1073795

- **Communication interface:** Analog
- **Communication Interface detail:** Voltage
- **Programmable/configurable:** ✓
- **Voltage output:** 0 V … 10 V

Number of axis	Measuring range	Housing material	Type	Part no.
1	360°	Aluminum	TMS88B-ALC360	1073792
		Plastic (PBT)	TMS88A-PLC360	1073800
			TMS88B-PLC360	1073796
2	± 90°	Aluminum	TMM88B-ALC090	1073793
		Plastic (PBT)	TMM88A-PLC090	1073801
			TMM88B-PLC090	1073797

- **Communication interface:** CANopen
- **Programmable/configurable:** ✓

Number of axis	Measuring range	Housing material	Type	Part no.
1	360°	Aluminum	TMS88B-ACC360	1073788
		Plastic (PBT)	TMS88A-PCI360	1073802
2	± 90°	Aluminum	TMM88B-ACC090	1073789
		Plastic (PBT)	TMM88A-PCI090	1073805

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."

WORLDWIDE PRESENCE:

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