TMS/TMM88 Dynamic

Maximum precision in dynamic applications

DYNAMIC INCLINATION SENSORS

SICK
Sensor Intelligence.

TMS/TMM88 Dynamic
DYNAMIC INCLINATION SENSORS

Technical data overview

Number of axis		1 / 2 (depending on type)
Communication interface		CANopen / SAE J1939 (depending on type)
Measurement range		
	1-dimensional	360°
	2-dimensional	± 90°
Housing material		Plastic (PBT) / Aluminum (depending on type)
Connection type		Male connector, 1x, M12, 5-pin Female connector, 1x, M12, 5-pin
Programmable/configurable		Over PGT-12-Pro
Accuracy		

Product description

The inclination sensors from the TMS/TMM Dynamic product family are setting new standards with respect to signal quality and response time. Thanks to an intelligent sensor fusion filter, not only are they extremely quick to respond – they are also highly precise, even when influenced by external accelerations. The foundation for this is a six-axis inertial measurement unit (IMU), consisting of an acceleration sensor and a gyroscope that is based on MEMS technology. Various configuration options enable the dynamic inclination sensors to be flexibly adapted to the application. The rugged design with enclosure ratings up to IP69 is able to withstand even the harshest ambient conditions.

At a glance

- Single-axis (360°) and two-axis (+/-90°) inclination sensors based on a six-axis IMU
- Intelligent sensor fusion filter
- Highly accurate even with dynamic movements
- Interfaces: CANopen, SAE J1939
- Programmable with the PGT-12-Pro
- Temperature range: −40 °C to +80 °C
- Shock resistance: 100 g
- Enclosure rating: IP67/69

Your benefits

- Inclination measurement in two axes without mutual interference
- Single-axis angle measurement over the full 360° with configurable zero point
- High signal quality and quick response time thanks to innovative and powerful sensor fusion algorithm
- Access to raw data of the acceleration sensor and gyroscope opens up additional application possibilities
- Use under the harshest conditions possible thanks to completely encapsulated electronics and high enclosure rating
- Flexible configuration via CANopen or SAE J1939 as well with the PGT-12-Pro

Fields of application

- Agricultural and forestry machinery
- Construction machinery
- Special vehicles
- Automated guided vehicle systems
- Crane and lifting technology

Ordering information

Other models and accessories ➜ www.sick.com/TMS_TMM88_Dynamic

- **Communication interface:** CANopen

Number of axis	Measuring range	Housing material	Type	Part no.
1	360°	Aluminum	TMS88D-ACI360	1098668
		Plastic (PBT)	TMS88D-PCI360	1094483
2	± 90°	Aluminum	TMM88D-ACI090	1098669
		Plastic (PBT)	TMM88D-PCI090	1094485

- **Communication interface:** SAE J1939

Number of axis	Measuring range	Housing material	Type	Part no.
1	360°	Aluminum	TMS88D-AJI360	1098670
		Plastic (PBT)	TMS88D-PJI360	1094486
2	± 90°	Aluminum	TMM88D-AJI090	1098671
		Plastic (PBT)	TMM88D-PJI090	1094488

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:

Contacts and other locations –**www.sick.com**

SICK AG | Waldkirch | Germany | www.sick.com