

TMS61B-PCH360

TMS/TMM61

INCLINATION SENSORS

SICK
Sensor Intelligence.



Illustration may differ

Ordering information

Type	Part no.
TMS61B-PCH360	1073786

Other models and accessories → www.sick.com/TMS_TMM61



Detailed technical data

Performance

Number of axis	1
Measuring range	360°
Resolution	0.01°
Static measurement accuracy	Typ. ± 0.15°, max. ± 0.25°
Temperature coefficient (zero point)	Typ. ±0.01°/K ¹⁾
Limit frequency	0.1 Hz ... 25 Hz, 8. range (with digital filter)
Sampling rate	80 Hz

¹⁾ Referring to the temperature of 25 °C.

Interfaces

Communication interface	CANopen
Device profile	CiA DS-301 (Application layer) CiA DS-410 v4.2.0 (Device profile for inclination sensors) CiA DSP-305 (Layer Setting Service (LSS) and protocols)
Address setting	0...127, default: 10
Data transmission rate (baud rate)	10 kbit/s ... 1,000 kbit/s, Default: automatic baud rate detection
Status information	CANopen status via status LED
Bus termination	Via external terminator
Parameterising data	Zerose Limit frequency Preset value Inverting of counting direction
Programmable/configurable	Over PGT-12-Pro
Initialization time	75 ms

Electrical data

Connection type	Cable, 5-wire, with male connector, M12, 5-pin, 0.2 m
Supply voltage	8 V DC ... 36 V DC
Current consumption	< 16 mA @ 24 V
Reverse polarity protection	✓
Short-circuit protection of the outputs	✓

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.

MTTFd: mean time to dangerous failure	663 years (EN ISO 13849-1) ¹⁾
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Mechanical data

Dimensions	68 mm x 36.3 mm x 20.7 mm
Weight	80 g (with cable)
Housing material	Plastic (ABS)
Material, cable	PUR

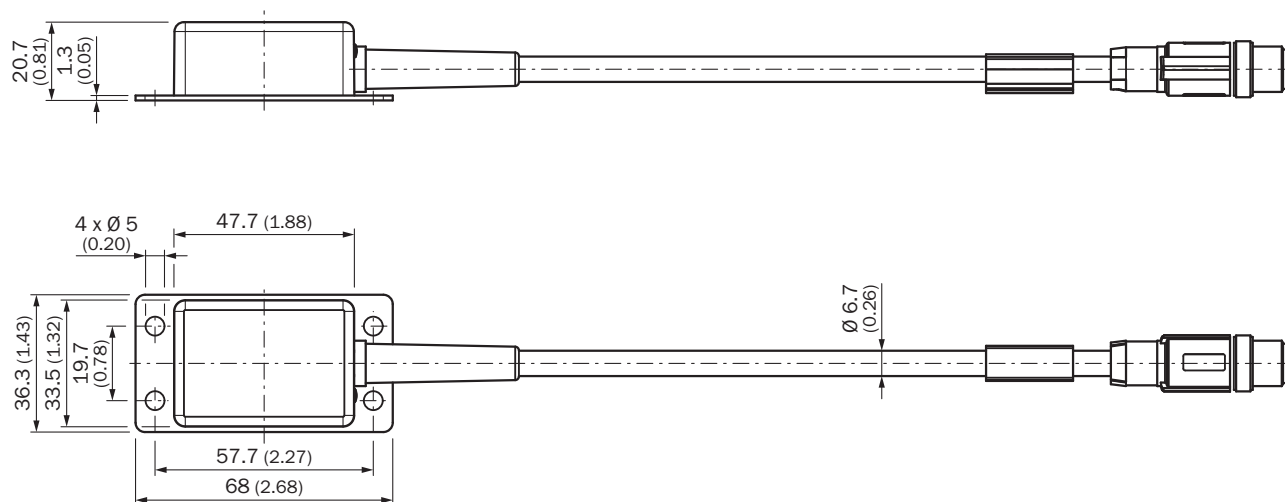
Ambient data

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

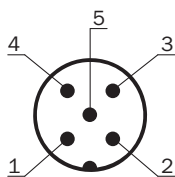
Classifications

ECLASS 5.0	27270790
ECLASS 5.1.4	27270790
ECLASS 6.0	27270790
ECLASS 6.2	27270790
ECLASS 7.0	27270790
ECLASS 8.0	27270790
ECLASS 8.1	27270790
ECLASS 9.0	27270790
ECLASS 10.0	27271101
ECLASS 11.0	27271101
ECLASS 12.0	27271101
ETIM 5.0	EC001852
ETIM 6.0	EC001852
ETIM 7.0	EC001852
ETIM 8.0	EC001852
UNSPSC 16.0901	41111613

Dimensional drawing (Dimensions in mm (inch))




PIN assignment



PIN	Signal	
Male connector M12, 5-pin		
1	CAN Shield	Shielding
2	VDC	Supply voltage
3	GND/CAN GND	0V (GND)
4	CAN high	CAN signal
5	CAN low	CAN signal

Recommended accessories

Other models and accessories → www.sick.com/TMS_TMM61

	Brief description	Type	Part no.
Others			
	<ul style="list-style-type: none"> Connection type head A: Female connector, M12, 5-pin, straight, X-coded Signal type: CANopen, DeviceNet™ Description: CANopen, DeviceNet™, shielded, Head A: female connector, M12, 5-pin, straight, shielded, for cable diameter 4.5 mm ... 7 mm Head B: - Connection systems: Screw-type terminals Permitted cross-section: ≤ 0.75 mm² 	DOS-1205-GA	6027534

	Brief description	Type	Part no.
	<ul style="list-style-type: none"> • Connection type head A: Male connector, M12, 5-pin, straight, A-coded • Signal type: CANopen, DeviceNet™ • Description: CANopen, DeviceNet™, shielded, Head A: male connector, M12, 5-pin, straight, A coded, shielded, for cable diameter 4 mm ... 8 mm Head B: - • Connection systems: Screw-type terminals • Permitted cross-section: ≤ 0.75 mm² 	STE-1205-GA	6027533
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 5-pin, A-coded • Connection type head B: Male connector, M12, 5-pin, A-coded • Connection type head C: Female connector, M12, 5-pin, A-coded • Description: T-piece for simultaneous connection to sender and receiver, splits the cable from the control cabinet to the sender and receiver • Note: 5-pin 	DSC-1205T000025KM0	6030664
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 5-pin, straight, A-coded • Connection type head B: Female connector, M12, 5-pin, straight, A-coded • Signal type: CAN, Power • Cable: 0.5 m, 5-wire • Description: CAN, Power, Y-CAN cable 	Y-CAN cable	6027647
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 5-pin, straight, A-coded • Connection type head B: Flying leads • Signal type: Fieldbus, CANopen, DeviceNet™ • Cable: 2 m, 4-wire, PUR, halogen-free • Description: Fieldbus, CANopen, DeviceNet™, shielded • Application: Drag chain operation, Zones with oils and lubricants 	YF2A15-020C1BXLEAX	2106283
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 5-pin, straight, A-coded • Connection type head B: Flying leads • Signal type: Fieldbus, CANopen, DeviceNet™ • Cable: 5 m, 4-wire, PUR, halogen-free • Description: Fieldbus, CANopen, DeviceNet™, shielded • Application: Drag chain operation, Zones with oils and lubricants 	YF2A15-050C1BXLEAX	2106284
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 5-pin, straight, A-coded • Connection type head B: Flying leads • Signal type: Fieldbus, CANopen, DeviceNet™ • Cable: 10 m, 4-wire, PUR, halogen-free • Description: Fieldbus, CANopen, DeviceNet™, shielded • Application: Drag chain operation, Zones with oils and lubricants 	YF2A15-100C1BXLEAX	2106286
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 5-pin, straight, A-coded • Connection type head B: Male connector, M12, 5-pin, straight, A-coded • Signal type: Fieldbus, CANopen, DeviceNet™ • Cable: 2 m, 4-wire, PUR, halogen-free • Description: Fieldbus, CANopen, DeviceNet™, shielded • Application: Drag chain operation, Zones with oils and lubricants 	YF2A15-020C1BM2A15	2106279
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 5-pin, straight, A-coded • Connection type head B: Male connector, M12, 5-pin, straight, A-coded • Signal type: Fieldbus, CANopen, DeviceNet™ • Cable: 5 m, 4-wire, PUR, halogen-free • Description: Fieldbus, CANopen, DeviceNet™, shielded • Application: Drag chain operation, Zones with oils and lubricants 	YF2A15-050C1BM2A15	2106281
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 5-pin, straight, A-coded • Connection type head B: Male connector, M12, 5-pin, straight, A-coded • Signal type: Fieldbus, CANopen, DeviceNet™ • Cable: 10 m, 4-wire, PUR, halogen-free • Description: Fieldbus, CANopen, DeviceNet™, shielded • Application: Drag chain operation, Zones with oils and lubricants 	YF2A15-100C1BM2A15	2106282

SICK AT A GLANCE

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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.”

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