



TMS88B-AKC360

TMS/TMM88

INCLINATION SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

| Type | Part no. |
|---------------|----------|
| TMS88B-AKC360 | 1073790 |

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

Detailed technical data

Performance

| | |
|---|--|
| Number of axis | 1 |
| Measuring range | 360° |
| Resolution | 0.01° |
| 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 |
| Initialization time | 265 ms |

¹⁾ Referring to the temperature of 25 °C.

Interfaces

| | |
|----------------------------------|---|
| Electrical interface | 4...20 mA, linearised |
| Load resistance max, | 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 |

¹⁾ On Us = 24 V.

Electrical data

| | |
|--|--|
| Electrical interface | 4...20 mA, linearised |
| Connection type | Male connector, M12, 5-pin |
| Operating voltage range | 17 V DC ... 35 V DC |
| Current consumption | < 35 mA (+ Iloop) @ 24 V |
| Reverse polarity protection | ✓ |
| Short-circuit protection of the outputs | ✓ |
| MTTF: mean time to dangerous failure | 299 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.

Mechanical data

| | |
|-------------------|-----------------------|
| Dimensions | 58 mm x 90 mm x 31 mm |
|-------------------|-----------------------|

| | |
|-------------------------|----------|
| Mass | 200 g |
| Housing material | Aluminum |

Ambient data

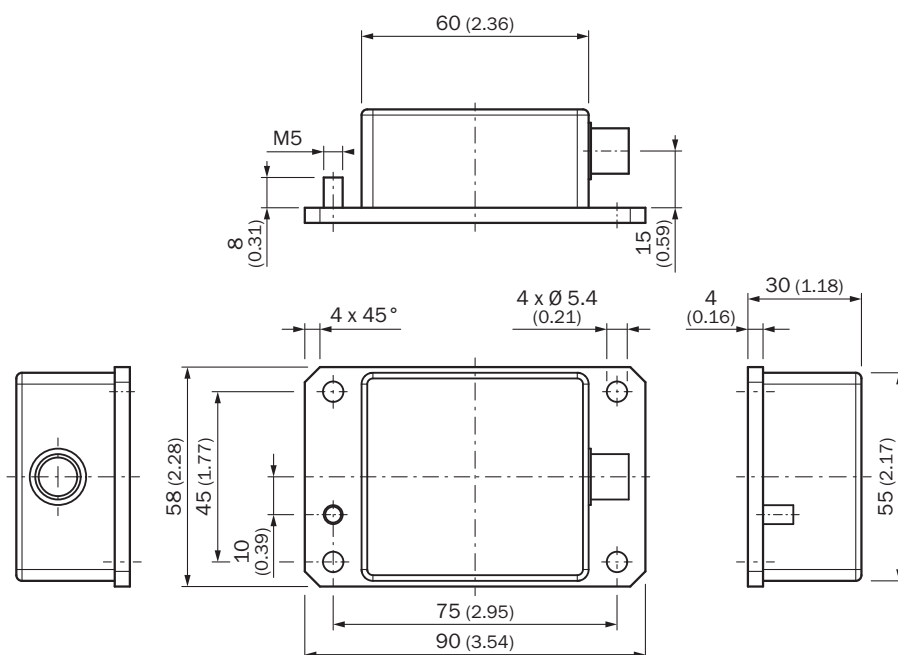
| | |
|----------------------------------|--|
| EMC | EN 61326-1, EN ISO 14982, EN ISO 13309 |
| Enclosure rating | IP65/IP67 (according to IEC 60529) |
| Working temperature range | -40 °C ... +80 °C |
| Storage temperature range | -40 °C ... +85 °C |
| Resistance to shocks | 100 g, 6 ms (according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

Classifications

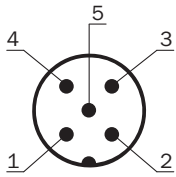
| | |
|-----------------------|----------|
| ECl@ss 5.0 | 27270790 |
| ECl@ss 5.1.4 | 27270790 |
| ECl@ss 6.0 | 27270790 |
| ECl@ss 6.2 | 27270790 |
| ECl@ss 7.0 | 27270790 |
| ECl@ss 8.0 | 27270790 |
| ECl@ss 8.1 | 27270790 |
| ECl@ss 9.0 | 27270790 |
| ETIM 5.0 | EC001852 |
| ETIM 6.0 | EC001852 |
| UNSPSC 16.0901 | 41111613 |

Dimensional drawing (Dimensions in mm (inch))

TMx88B-AxC









PIN assignment



| PIN Male connector M12, 5-pin | Signal | Function |
|----------------------------------|--------|------------------------------|
| 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 |

Recommended accessories

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

| | Brief description | Type | Part no. |
|---|--|--------------------|----------|
| Plug connectors and cables | | | |
|  | Head A: female connector, M12, 5-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, Power, PUR, halogen-free, shielded, 1.5 m | DOL-1205-W1M5ACSCO | 6049455 |
|  | Head A: female connector, M12, 5-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, shielded, 1.5 m | YF2A25-015UB6XLEAX | 2095833 |
| | Head A: female connector, M12, 5-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, shielded, 3 m | YF2A25-030UB6XLEAX | 2095834 |
|  | Head A: female connector, M12, 5-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, shielded, 3 m | YG2A25-030UB6XLEAX | 2095791 |
| | Head A: female connector, M12, 5-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, shielded, 5 m | YG2A25-050UB6XLEAX | 2095792 |
| | Head A: female connector, M12, 5-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, shielded, 10 m | YG2A25-100UB6XLEAX | 2095793 |
|  | Head A: female connector, M12, 5-pin, straight Cable: unshielded | DOS-1205-G | 6009719 |
|  | Head A: male connector, M12, 5-pin, straight Cable: unshielded For field bus technology | STE-1205-G | 6022083 |
| Programming and configuration tools | | | |
|  | Hand-held programming device for the programmable SICK AHS/AHM36 CANopen encoders, TMS/TMM61 CANopen inclination sensors, TMS/TMM88 CANopen, TMS/TMM88 Analog, and wire draw encoders with AHS/AHM36 CANopen. Compact dimensions, low weight, and intuitive operation. | PGT-12-Pro | 1076313 |

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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