

# TMM55E-PMH045

TMM55

INCLINATION SENSORS

**SICK**  
Sensor Intelligence.



Illustration may differ

### Ordering information

Type	Part no.
TMM55E-PMH045	1073781

Other models and accessories → [www.sick.com/TMM55](http://www.sick.com/TMM55)



### Detailed technical data

#### Performance

Number of axis	2
Measuring range	± 45°
Resolution	0.05°
Accuracy	± 0.3°
Compensated cross-sensitivity (2-dimensional)	Typ. ± 0.9°, max. ± 1.8°
Temperature coefficient (zero point)	Max. ± 0.009°/K
Limit frequency	18 Hz
Sampling rate	1.95 kHz

#### Interfaces

Communication interface	Analog / Current
Current output	4 mA ... 20 mA
Load resistance	≤ 930 Ω
Initialization time	75 ms

#### Electrical data

Connection type	Cable, 5-wire, with male connector, M12, 5-pin, 0.2 m
Supply voltage	11 V DC ... 30 V DC
Current consumption	15 ... 45 mA
Reverse polarity protection	✓
Short-circuit protection of the outputs	✓
MTTFd: mean time to dangerous failure	378 years (EN ISO 13849-1) <sup>1)</sup>

<sup>1)</sup> 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	65 mm x 35 mm x 20 mm
Weight	55 g (with cable)
Housing material	Plastic (ABS)
Material, cable	PUR

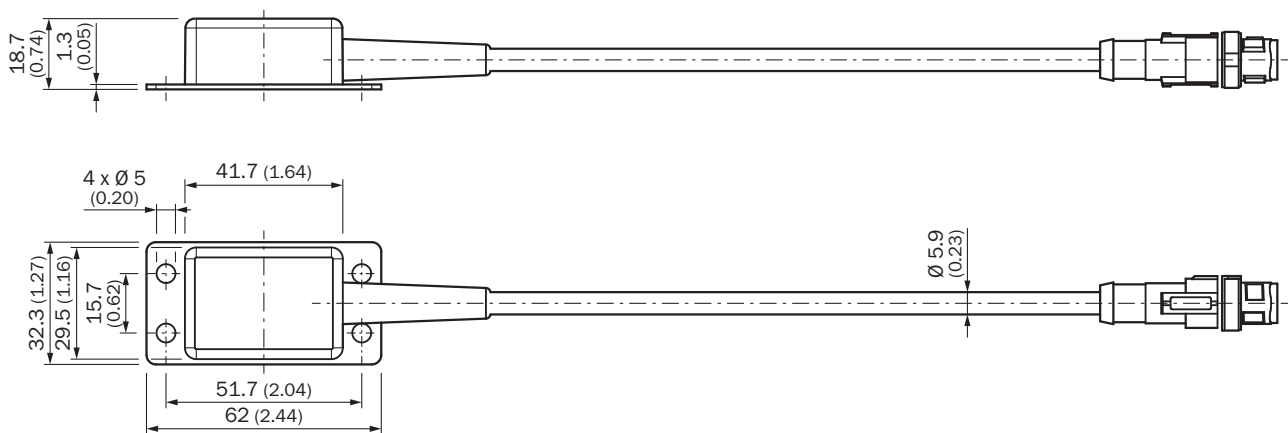
## Ambient data

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

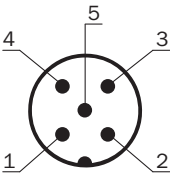
## Classifications

<b>eCl@ss 5.0</b>	27270790
<b>eCl@ss 5.1.4</b>	27270790
<b>eCl@ss 6.0</b>	27270790
<b>eCl@ss 6.2</b>	27270790
<b>eCl@ss 7.0</b>	27270790
<b>eCl@ss 8.0</b>	27270790
<b>eCl@ss 8.1</b>	27270790
<b>eCl@ss 9.0</b>	27270790
<b>eCl@ss 10.0</b>	27271101
<b>eCl@ss 11.0</b>	27271101
<b>eCl@ss 12.0</b>	27271101
<b>ETIM 5.0</b>	EC001852
<b>ETIM 6.0</b>	EC001852
<b>ETIM 7.0</b>	EC001852
<b>ETIM 8.0</b>	EC001852
<b>UNSPSC 16.0901</b>	41111613

## Dimensional drawing (Dimensions in mm (inch))

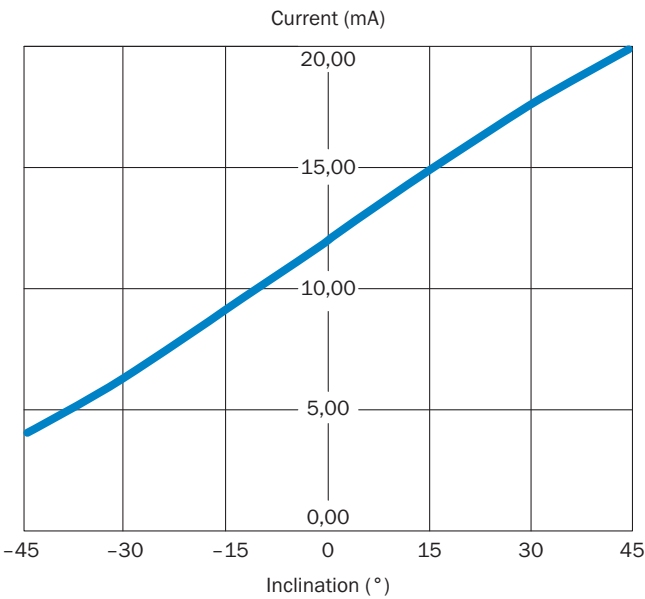


PIN assignment




PIN Male connector M12, 5-pin	Wire colors (cable connection) Cable connection	Signal	Function
1	Brown	VDC	Supply voltage
2	White	Y-OUT	Sensorsignal y-axis
3	Blue	GND	0V (GND)
4	Black	X-OUT	Sensorsignal x-axis
5	Green/yellow	Signal- GND	Signal GND (internally connected to GND)





Diagrams



Recommended accessories

Other models and accessories → [www.sick.com/TMM55](http://www.sick.com/TMM55)

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

	Brief description	Type	Part no.
  	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

## 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](http://www.sick.com)