

Inclinometers

**Inclinometer
MEMS / capacitive**

IS60, 1-dimensional

CANopen



With the IS60 inclinometer 1-dimensional inclinations in the measuring range 360° can be measured.

The sensor has a standardised CANopen interface, which enables easy configuration and start-up. All the parameters are stored in the internal permanent memory.



CANopen



High protection level



Shock / vibration resistant



Reverse polarity protection

Robust and reliable

- Protection rating IP68/IP69K
- Robust plastic housing
- High shock resistance

User-friendly and accurate

- High resolution and accuracy
- Programmable vibration suppression
- High sampling rate and bandwidth

Order code Inclinometer IS60

8.IS60 . **14523**
Type **a b c d e**

Attention:

This is not a standard product. Delivery on request.
Min. order quantity / frame order required.

a Measuring direction
1 = 1-dimensional

b Measuring range
4 = 360°

c Interface
5 = CANopen

d Supply voltage
2 = 10 ... 30 V DC

e Type of connection
3 = 2 x M12 connector

Connection Technology

Connector, self-assembly (straight)

M12 female connector with coupling, Bus in
M12 male connector with external thread, Bus out

05.B-8151-0/9
05.BS-8151-0/9

Cordset, pre-assembled

M12 female connector with coupling, 6 m [19.69'] PVC cable, Bus in
M12 male connector with external thread, 6 m [19.69'] PVC cable, Bus out

05.00.6021.2211.006M
05.00.6021.2411.006M

Further accessories can be found in the accessories section or in the accessories area of our website.
Additional connectors can be found in the connection technology section or in the connection technology area of our website.

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Technical data

Mechanical characteristics	
Connection CAN	M12 connector, 5-pin
Weight	approx. 0.2 kg
Protection EN 60529	IP68 / IP69K
Working temperature range	-40°C ... +80°C
Materials	plastic PA12-GF30
Shock resistance	30 g, 11 ms
Vibration resistance	55 Hz (1 mm)
Dimensions	68 x 42.5 x 42.5 mm

General electrical characteristics	
Supply voltage	10 ... 30 V DC
Power consumption	40 ... 105 mA
Reverse polarity protection (+V)	yes
Measuring axes	1
Measuring range	360°, no limit stop
Resolution	≤ 0.01°
Linearity deviation	max. ± 0.4°
Calibration accuracy (at 25°C)	± 0.1° (Zero point and final values)
Temperature drift (Zero point)	typ. ± 0.008°/K
Sampling rate	100 Hz
CE compliant acc. to	EN 61326-2-3
RoHS compliant acc. to	EU guideline 2011/65/EU

Interface characteristics CANopen	
Interface	CANopen according to CiA DS-301, Profile to CiA DSP-410
Data rates	10 kbit/s, 20 kbit/s, 50 kbit/s, 125 kbit/s, 250 kbit/s, 500 kbit/s, 800 kbit/s, 1 Mbit/s
Functions	TPDO (RTR, cyclic, event-driven, synchronized), parameterization per SDO and object register, digital filter (Butterworth Low pass, 8th order), SYNC Consumer, EMCY Producer, output and control of internal device temperature (±2.0 K accuracy), failure control with the help of Heartbeat or Nodeguarding / Lifeguarding

A full description of the technical data can be found in the relevant product manual.

Terminal assignment

PIN	Signal	Assignment
1	CAN_SHLD	Shield
2	CAN V+	Supply voltage (+24 V DC)
3	CAN_GND	0 V
4	CAN_H	CAN_H Bus cable
5	CAN_L	CAN_L-Bus cable



Dimensions

Dimensions in mm [inch]

