

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

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.

Inclinometers

| | | |
|---|----------------------------|----------------|
| Inclinometer MEMS / capacitive | IS60, 1-dimensional | CANopen |
|---|----------------------------|----------------|

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]

