SERIES INAX2

Inclinometer / position sensor for inclination angle measurement of 3 axes

- Measurement of multi-dimensional inclinations of 3 axes
- Diverse serial or analog output interfaces available
- Compact and robust construction
- System resolution 0.025°
- High shock resistance
- Easy to install
The robust constructed INAX2 inclinometer is able to realize a high precision and reliable inclination angle measurement. Inclinations within a range of ± 180° (Z axis) and ± 90° (X / Y axes) can be measured.

With the optionally available protection class of IP67, the sensor is also suited for rough environments. Further impressive features of the INAX2 system are its easy installation and high shock resistance.

With inclinometer measurements, a seismic mass is placed between two capacitor plates. An electrostatic feedback defines the slope change of the sensor. This feedback is converted by an integrated circuit into serial or analog interface signals (see below).

Diverse output interfaces are available:
- CANopen - extended DS406
- RS422
- Analog 0 … 10 V
- Analog 4 … 20 mA

The respective order code can be found in the type designation.

**Inclination angles and measuring ranges:**

**Axis X**

- 0°
- Range: ± 90°

**Axis Y**

- 0°
- Range: ± 90°

**Axis Z**

- 0°
- Range: ± 180°
**Technical Specifications:**

### Mechanical Data
- **Measurement principle:** inclinometrical
- **Housing material:** zinc die cast
- **Housing dimensions:** L x W x H = 72 x 48 x 24 mm
- **Max. Measuring range:**
  - X axis: ± 90°
  - Y axis: ± 90°
  - Z axis: ± 180°
- **Connection type:** open cable ends
- **Weight:**
  - INAX2: ca. 150 g without cable
  - Cable: ca. 60 g per meter

### Electrical Data
- **Power supply voltage:** +24 VDC (± 20 %)
- **Consumption:** max. 50 mA
- **Available interfaces:**
  - RS422
  - CANopen (extended DS406)
  - Analog 0 … 10 V
  - Analog 4 … 20 mA
- **Sensor cable:** 3 m standard cable length (others on request), drag chain suitable
- **System resolution:** 0.025 °
- **Conversion time:** max. 500 ms

### Ambient conditions
- **Storage temperature:** -25 ... +85° C
- **Operating temperature:** -25 ... +85° C
- **Protection class:** IP54 (standard)
  - IP67 (option V, extra charge)

### Dimensions:

![Dimensions Diagram]

**Type Designation:**

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**Ordering example:**

INAX2-00-030-025-0-M8M0

INAX2 with 3 m cable, Analog output 0 ... 10 V for axis Z, 24 VDC power supply and a 8 pin M16 round connector
INAX2 - Inclinometer for inclination angle measurement for 3 axes

Application example:

Inclination angle measurement on a solar panel

Further Applications:

- Construction machinery
- Storage & transmission systems
- Agricultural machines
- Shipping industry
- Screen lock systems
- Utility vehicles
- Wind turbines
- Mining

… and many other ranges in mechanical engineering.