ELGO ELECTRONIC

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

INAX2 - Inclinometer for inclination angle measurement for 3 axes (X, Y and Z)

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).

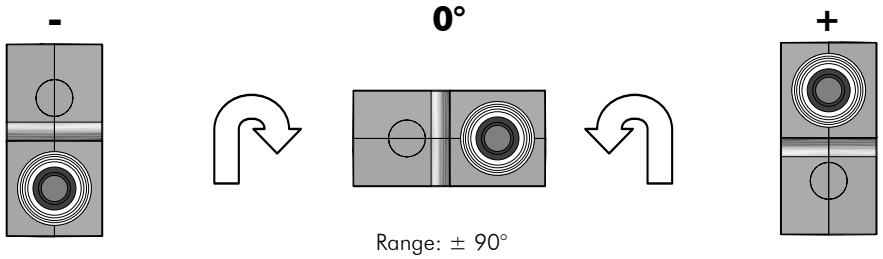
Diverse output interfaces are available:

- CANopen - extended DS406
- RS422
- Analog 0 … 10 V
- Analog 4 … 20 mA

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

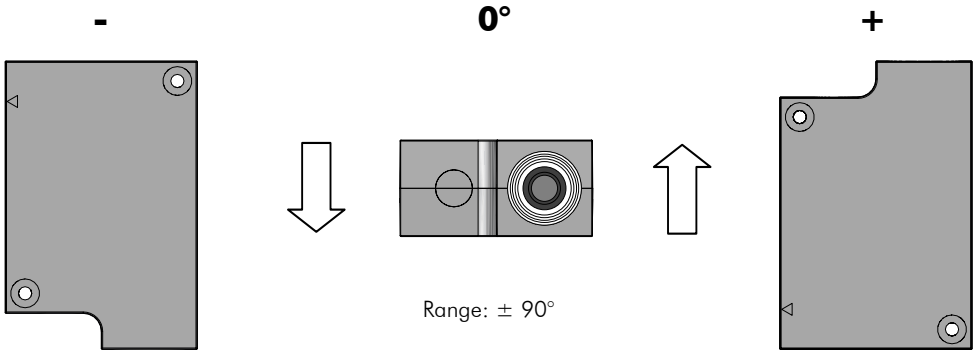
Inclination angles and measuring ranges:

Axis X



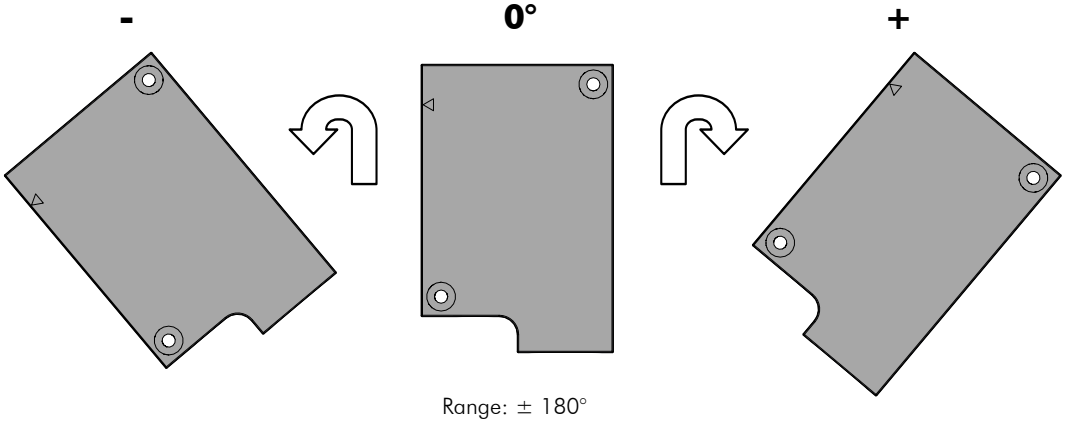
Range: ± 90°

Axis Y



Range: ± 90°

Axis Z



Range: ± 180°

INAX2 - Inclinometer for inclination angle measurement for 3 axes (X, Y and Z)

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)

Type Designation:

INAX2 - AA - BBB - CCC - DDDD E F F F F - G

A **SN number**
- 00 ELGO standard version
- 01 1st special version, etc.

B **Signal cable length (in dm)**
- 030 = 30 dm (≥ 3.0 m)

C **Resolution**
- 025 0.025° resolution

D **Interface**
- CANO CANopen
- 4220 RS422
- V10X Analog 0 … 10 V (X axis)
- V10Y Analog 0 … 10 V (Y axis)
- V10Z Analog 0 … 10 V (Z axis)
- A20X Analog 4 … 20 mA (X axis)
- A20Y Analog 4 … 20 mA (Y axis)
- A20Z Analog 4 … 20 mA (Z axis)

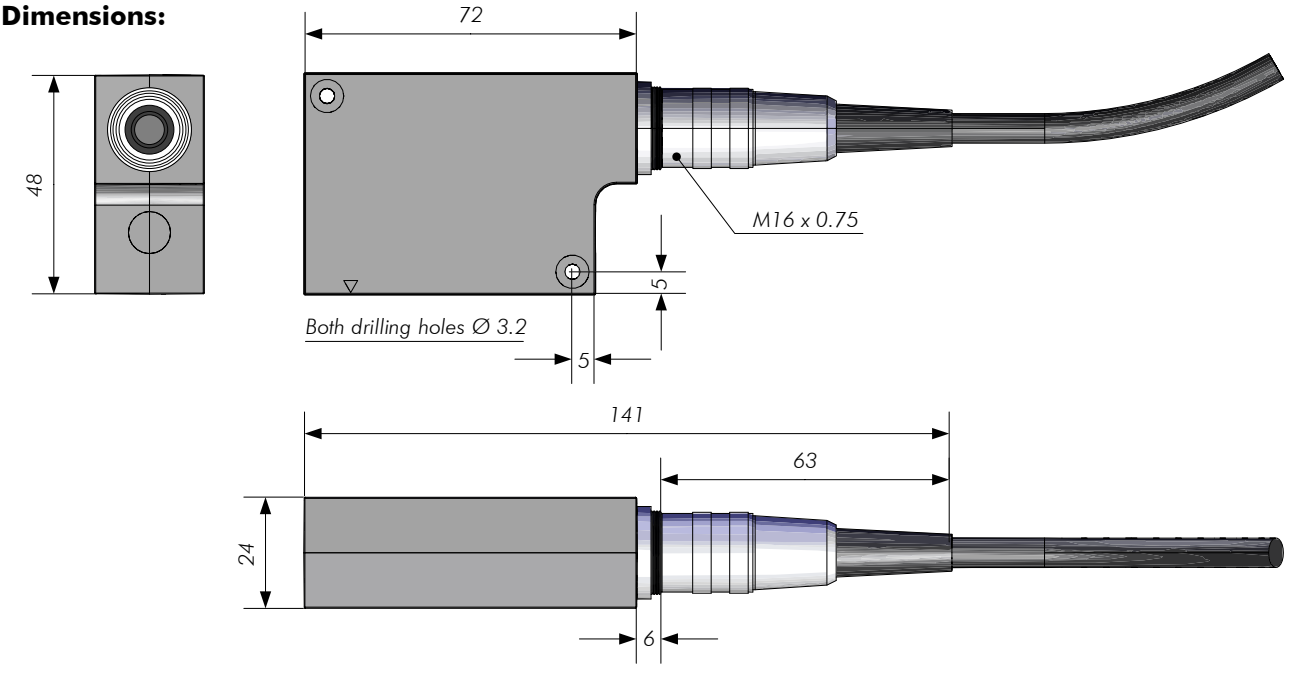
E **Power supply**
- 0 24 VDC

F **Connector**
- M8M0 8-pin M16 round connector

G **Options**
- V Sealed IP67 construction

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

Dimensions:



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Application example:

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.

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