

# KINAX N702-INOX HART

## Abszolút dőlésszög távadó

### For heavy-duty applications in rough environments

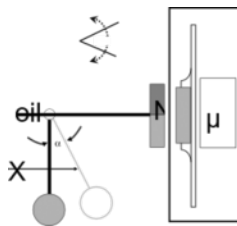
- Mágneses érzékelő
- Programozható tartomány: 0 ... 360°
- Pontosság:  $\pm 0,2^\circ$
- Felbontás: 14 Bit
- Válaszidő: 25° dőlés-szögnél  $\leq 1$  s
- Hart kompatibilis
- Kimenőjel: 4... 20 mA / 2-vezetékes áramkör
- Tápfeszültség: 8 ... 33 VDC
- Mechanikai védelem: IP 68
- Robusztus kompakt kivitel
- Nagy ellenálló képesség agresszív környezetben is, rozsdamentes tokozás
- Gyors és egyszerű felszerelés
- Könnyű paraméterezhetőség



### Technical data

#### General

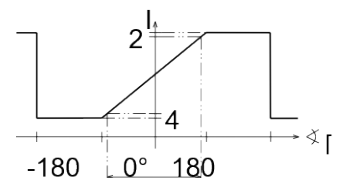
- Measured quantity: Tilt angle
- Measuring principle: Magnetic, one-dimensional inclination transmitter with hall sensor and oil-damped pendulum system, hermetically sealed, contact free, freely rotatable without stops



Pendulum damping: by oil filling

#### Measuring input

- Measuring range: Programmable between 0 ... 360°
- Inclination angle: Set to -180 ... 179.99°



- Sense of rotation: Adjustable for rotation clockwise or counter-clockwise

#### Measuring output

- Power supply: 8 ... 33 VDC
- Output signal  $I_A$ : Load-independent DC current, proportional to the inclination
- Standard range: 4...20 mA, 2-wire connection
- protection against wrong polarity

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## Absolute inclination transmitter

Interface: HART compatible  
 Current consumption: < 22 mA  
 Fault current: > 21.5 mA (nominal 21.7 mA) and < 3.5 mA (nominal 3.3 mA)

External resistance:  $R_{\text{ext max.}} [\text{k}\Omega] = \frac{H [\text{V}] - 8\text{V}}{I_A [\text{mA}]}$   
 H = Power supply  
 I<sub>A</sub> = Output signal end value

### Accuracy

Basic accuracy: ± 0.2 ° (at +25 °C)  
 Resolution: 14 bit  
 Transient response: by 25° tils < 1 sec.  
 Influence of temperature output current (-30°...+70°C): 0.1° / 10K (<100°)  
 [-22 ... +158°F] up to 0.2° / 10K (>100°)

### Installation data

Housing: Stainless-steel INOX AISi 316Ti (1.4571)  
 Mounting position: Perpendicular to the measurement object

Electrical connection: highly flexible shielded 2-pin signal line with PUR sheath  
 Weight: approx. 1.1 kg [35.366 oz]

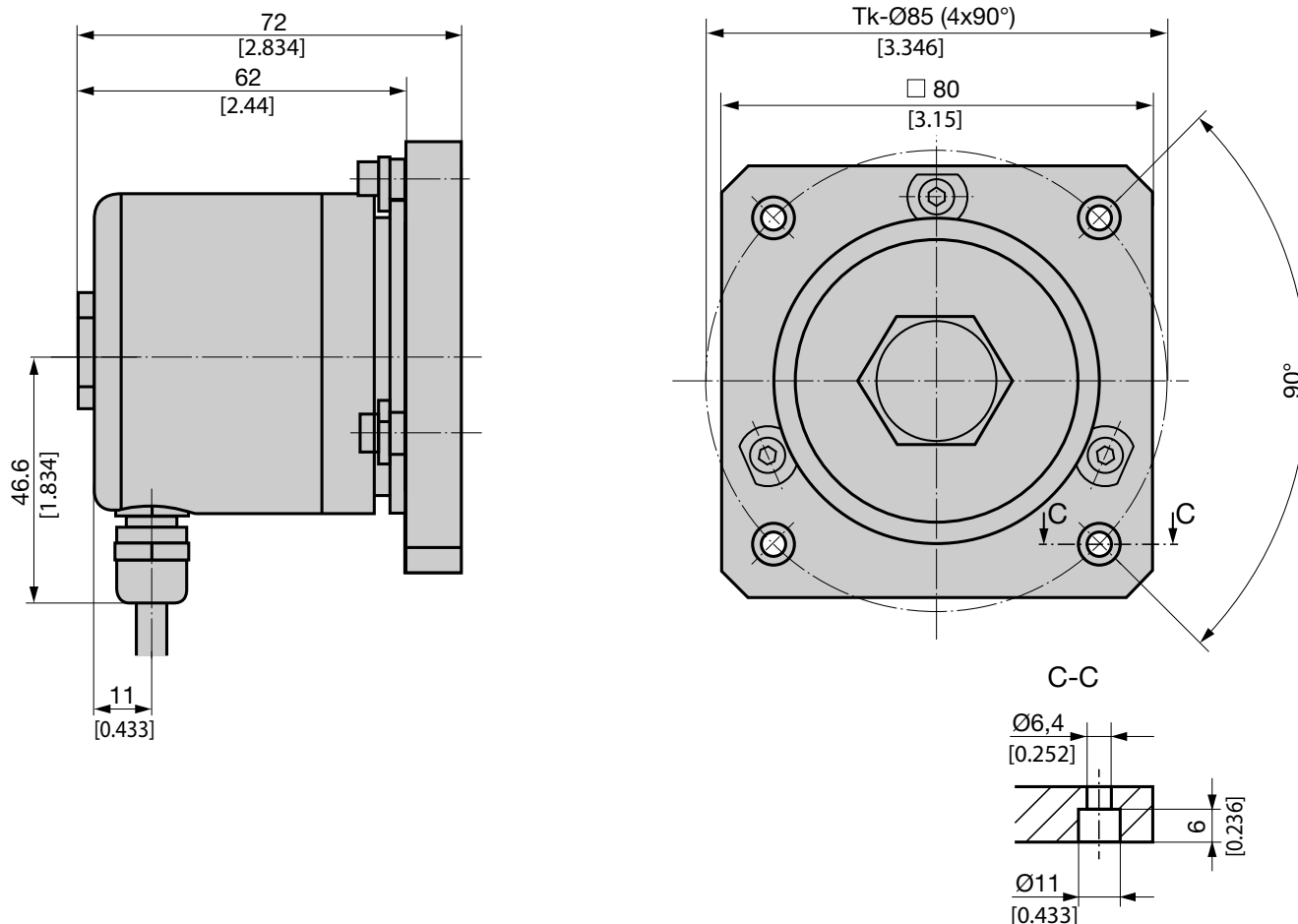
### Regulations

Spurious radiation: EN 61 000-6-4  
 Immunity: EN 61 000-6-2  
 Test voltage: 500 V<sub>eff</sub>, 50 Hz, 1 min.  
 Water column: 30 m  
 Housing protection: IP 68 acc. to EN 60 529

### Environmental condition

Climatic rating: Temperature - 30° to + 70° C [-22 ... +158 °F]  
 Vibration resistance: 40 m/s<sup>2</sup> / 10 ... 500 Hz acc. IEC 60068-2-6  
 Shock resistance: 300 m/s<sup>2</sup> / 18 ms acc. EN 60068-2-27  
 Transportation and storage temperature: - 30° to + 70° C [-22 ... +158 °F]

### Dimensional drawings

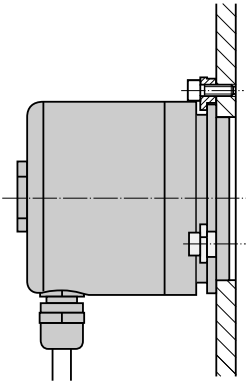
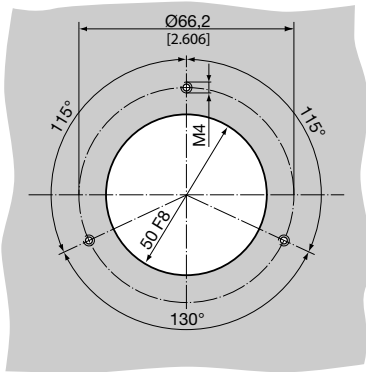
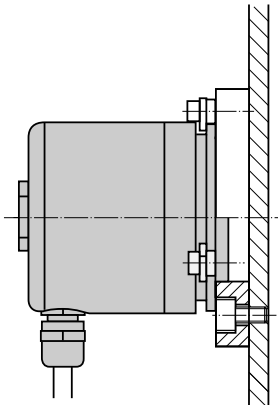
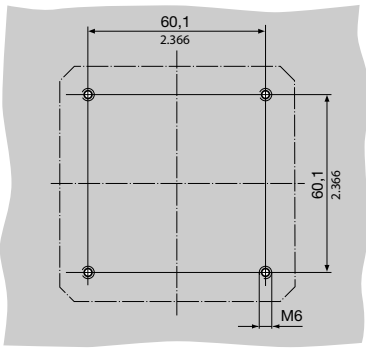


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## Absolute inclination transmitter

### Mounting

All inclination transmitters can be mounted either directly with 3 clamping brackets to the item being measured or with a mounting plate with 4 cheese head screws M6. Please take care that the installation position of the inclination transmitter is perpendicular to the gravity of the earth. The inclination transmitters are supplied standard with mounting plate but without cheese head screws M6.

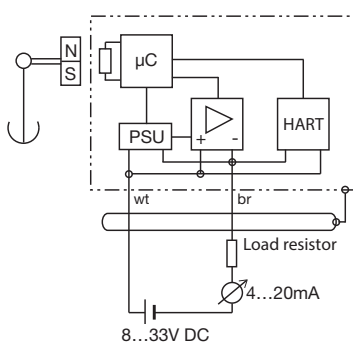
Mounting versions		Drilling and cut-out diagrams (for mounting transmitters)
directly with clamps		
with mounting plate		

### Electric connections

The inclination sensor is connected via a highly flexible, shielded signal line with 2 strands and PUR sheath. The same is preassembled at the factory, included in the delivery and available in different lengths.

Permissible cable-Ø: 5.9 mm [0.232]  
 conductor cross-section: 2 x 0.34 mm<sup>2</sup>

#### Wiring connection



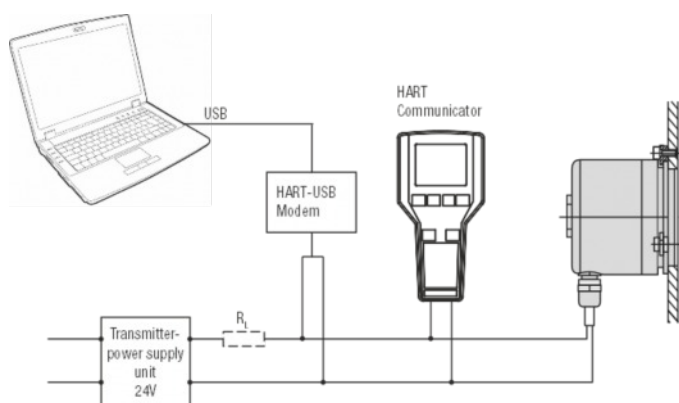
White (wt) = +24V  
 Brown (br) = 4...20 mA

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## Abszolút dőlésszög távadó

### Programming

The inclination transmitter can be programmed via HART modems (e.g. If ak system type is HRT USB) or via HART communicator (e.g. EMERSON type 475). To program the item you have to connect the cable terminals of the HART modem or communicator directly to the 4 ... 20 mA control line. The minimum value (0%), the maximum value (100%), zero position as well as the sense of rotation can be programmed.



Ordering information of variants	
Description	Article No.
KINAX N702-INOX HART, Cable length 1.5 m Set to 0 ... 60° (Special version)	172 510
KINAX N702-INOX HART, Cable length 5.0 m Set to -180 ... 179.99°	172 536
KINAX N702-INOX HART, Cable length 10.0 m Set to -180 ... 179.99°	172 544
KINAX N702-INOX HART, Cable length 30.0 m Set to -180 ... 179.99°	173 922
Further cable lengths on request	xxx xxx

### Accessories

Description	Article No.
Mounting plate N7xx INOX (already included in delivery)	172 619
Kit mounting clamp N7xx INOX (already included in delivery)	172 627

You find power supply units for KINAX 3W2 in our process instrumentation product range.

SINEAX B812 1-channel power supply unit	SINEAX B811 1-channel power supply unit

### Scope of delivery

- 1 Inclination transmitter KINAX N702-INOX HART
- 1 Mounting plate with 3 clamps
- 1 Operating instructions German, English, French, Italian

### Camille Bauer AG

Aargauerstrasse 7. CH-5610 Wohlen / Switzerland  
Phone: +41 56 618 21 11 Fax: +41 56 618 35 35  
E-mail: [info@camillebauer.com](mailto:info@camillebauer.com) [www.camillebauer.com](http://www.camillebauer.com)

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1184 Budapest, Üllői út 315.  
Tel.: 06 1 294 2900 Fax: 06 1 294 5837  
E-mail: [rapas@t-online.hu](mailto:rapas@t-online.hu) Internet: [www.rapas.hu](http://www.rapas.hu)