CAMILLE BAUER

KINAX N702-INOX
Absolute inclination transmitter

For heavy-duty applications in rough environments

A very robust, absolute inclination transmitter. It is particularly suited for use in harsh environments due to its high mechanical strength and the hermetically sealed stainless steel housing. It makes it resistant against aggressive media such as sea water and detergents.

The very simple assembly by the synchro flange or mounting plate, the highly flexible 4-pole control line, the free parameterisation via the control line offers maximum installation flexibility.



Your benefits

LOW LIFE CYCLE COSTS DUE TO:

TOP QUALITY TESTED

- Hermetic watertight and dust-proof housing IP68/IP69K
- Optimally resistant to aggressive media such as sea water and cleaning agents
- Stainless steel housing INOX AiSi 316Ti (1.4571)

ACCURATE, SAFE, MAINTENANCE FREE

- High degree of absolute measuring accuracy (±0.2°)
- Resistant against high mechanical strains thanks to robust design and high quality materials
- Safe electrical connection through flexible control cable

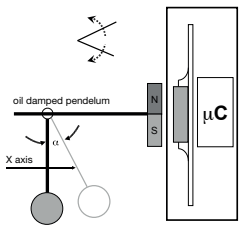
SIMPLE AND QUICK COMMISSIONING

- Standard synchro flange or mounting plate
- 2-wire connection via flexible control cable
- Free parameterization via control line

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 0 ... 359,9°
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
Current consumption:	< 22 mA
Standard range:	4…20 mA, 2-wire connection protection against wrong polarity
External resistance:	$R_{ext\ max.}\ [k\Omega] = \frac{H\ [V]-8V}{I_A\ [mA]}$

H = Power supply
I_A= Output signal end value

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Accuracy

Basic accuracy:	< ± 0.2 ° (at +25 °C)
Resolution:	12 bit
Transient response:	by 25° tils < 1 sec.
Influence of temperature output current (–30°…+70°C): [-22 ... +158°F]	± 0,1° / 10K (>100°)

Installation data

Housing:	Stainless-steel INOX AiSi 316Ti (1.4571)
Mounting position:	Perpendicular to the measurement object
Electrical connection:	highly flexible shielded 4-pin control cable
Weight:	approx. 1.1 kg [35.366 oz]

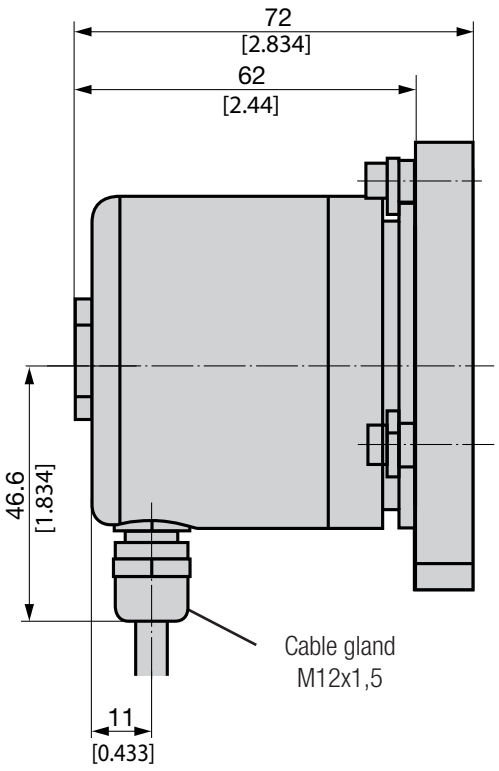
Regulations

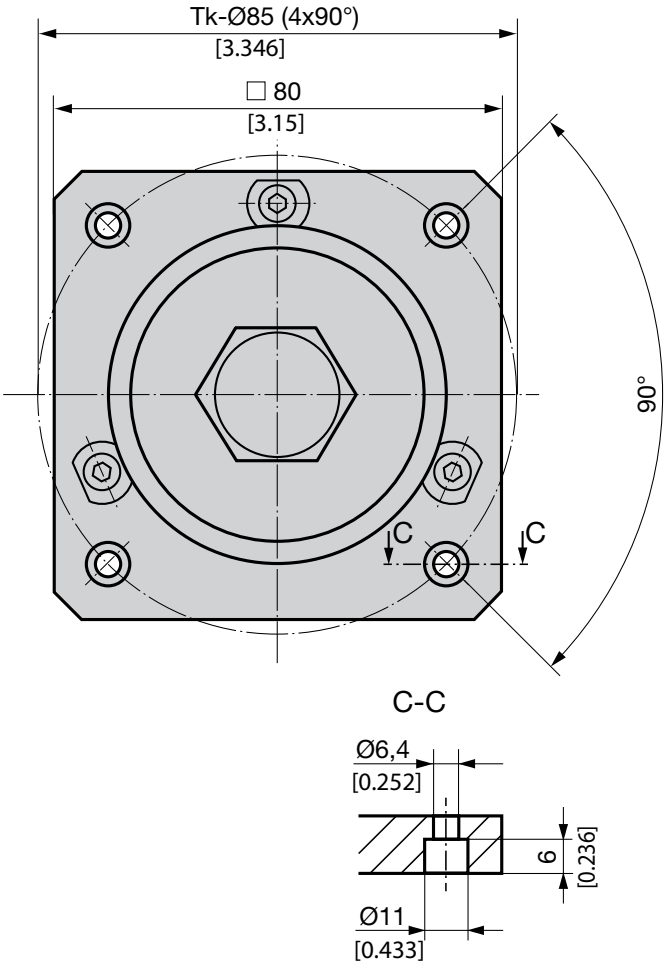
Spurious radiation:	EN 61 000-6-3
Immunity:	EN 61 000-6-2
Test voltage:	500 Veff, 50 Hz, 1 min.
Housing protection:	IP 68 acc. to EN 60 529 IP 69k acc. to EN 40 050-9
Water column:	30 m

Environmental condition

Climatic rating:	Temperature – 30° to + 70° C [-22 ... +158 °F] Relative humidity < 100%
Vibration resistance:	≤ 40 m/s² / 10 … 500 Hz acc. IEC 60068-2-6
Shock resistance:	300 m/s² / 18 ms acc. IEC 60068-2-27
Transportation and storage temperature:	– 30° to + 70° C [-22 ... +158 °F]

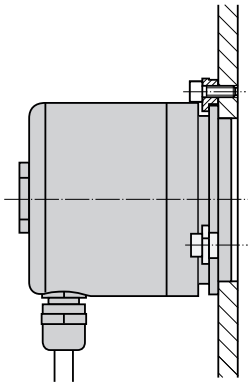
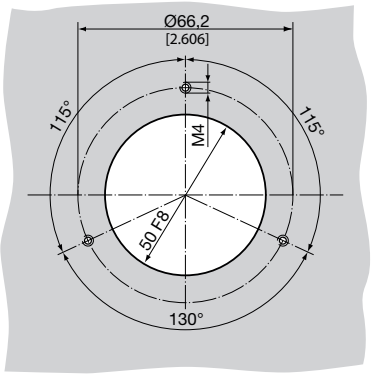
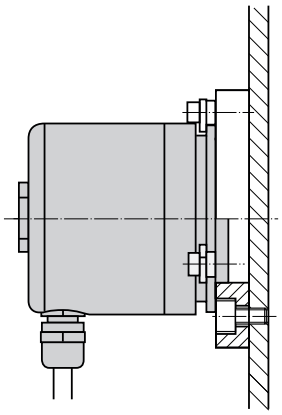
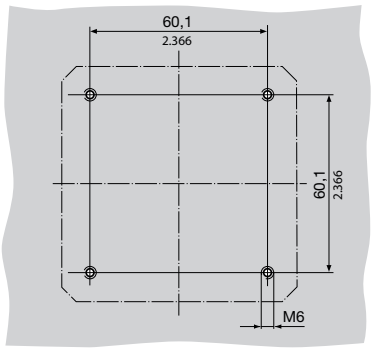
Dimensional drawings





Mounting

All inclination transmitter 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 transmitter are supplied standard with mounting plate but without cheese head screws M6.

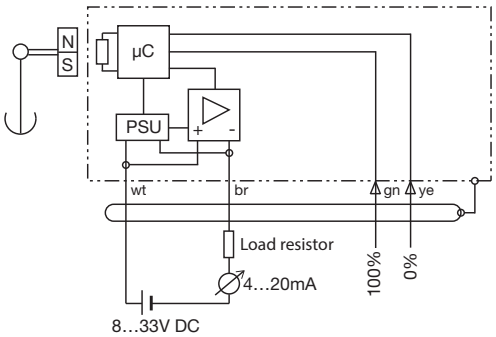
Mounting versions		Drilling aund cut-out diagrams (for mounting transmitters)
directly with clamps		
with mounting plate		

Electric connections

The inclination sensor is connected via a highly flexible, shielded control lead with 4 strands. The same is preassembled at the factory, included in the delivery and available in different lenghts.

conductor cross-section: 4 x 0,25 mm²

Wiring connection



white (wt) = +24V
Brown (br) = 4…20 mA
Green (gn) = 100%
Yellow (ye) = 0%

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Programming

KINAX-N702-INOX can be programmed via the connecting cable. The minimum value (0%) and the maximum value (100%) as well as the direction of rotation can be programmed via the connecting cables green, yellow and white.

Ordering information of variants

Description	Article No.
KINAX N702-INOX, Cable length 1,5 m	172 479
KINAX N702-INOX, Cable length 3,0 m	172 487
KINAX N702-INOX, Cable length 5,0 m	172 495
KINAX N702-INOX, Cable length 10,0 m	172 502
KINAX N702-INOX, Cable length 15,0 m	186 107
KINAX N702-INOX, Cable length 20,0 m	173 097
KINAX N702-INOX, Cable length 30,0 m	172 528
Further cable lengths on request	xxx xxx

Scope of delivery

1 Inclination transmitter KINAX N702-INOX

1 Mounting plate with 3 clamps

1 Operating instructions German, English, French

Accessories

Description	Article No.
Mounting plate N7xx INOX	172 619
Kit mounting clapmp N7xx INOX	172 627

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Camille Bauer Metrawatt AG
www.mod-tronic.com
sales@mod-tronic.com
1-800-794-5883