CAMILLE BAUER

KINAX N702-SSI
Absolute inclination transmitter

For robust industrial applications

The KINAX N702-SSI is a robust absolute inclination transmitter. Thanks to its high mechanical strength and the compact design it is particularly suitable for use in industrial applications. It detects tilt and angular positions and provides them via SSI.

The very simple assembly by the synchro flange or mounting plate, the sensor connection via M12x1/8 poles, the free on-site parameterization and the digital SSI-Businterface offers maximum installation flexibility.



Your benefits

TOP QUALITY TESTED
- Compact industrial housing
- Splash and dust proof housing IP66
- Contact arm measuring principle
- Digital SSI Businterface

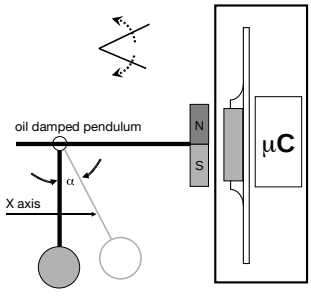
ACCURATE, SAFE, MAINTENANCE FREE
- High degree of absolute measuring accuracy (±0.2°)
- Resistant against high mechanical strains thanks to robust design and high quality materials
- Secure electrical connection through sensor connector M12x1

SIMPLE AND QUICK COMMISSIONING
- Standard synchro flange or mounting plate
- No shaft adaptation necessary
- 3-wire connection with sensor connector M12x1 / 8 poles
- Auto-configuration of the network
- Free on-site parameterization

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:	-180°…179.9°
Inclination angle:	Fixed adjustment -180,0° … +179,9°
Sense of rotation:	Adjustable for rotation clockwise or counter-clockwise

Measuring output

Power supply:	9 … 33 VDC protection against wrong polarity
Output signal:	14 Bit binary code
Protocol:	SSI
Max. clock rate:	1 MHz
Current consumption:	< 100 mA

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Accuracy

Basic accuracy:	± 0,2° (bei + 25 °C)
Resolution:	14 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

Material:	Housing cap: (3.2382) Aluminium GD-AlSi10Mg coated Housing flange: (3.2315) Aluminium AlMgSiF30
Mounting position:	Perpendicular to the measurement object
Electrical connection:	Connector M12x1, 8 poles
Weight:	ca. 0,3 kg [9.645 oz]

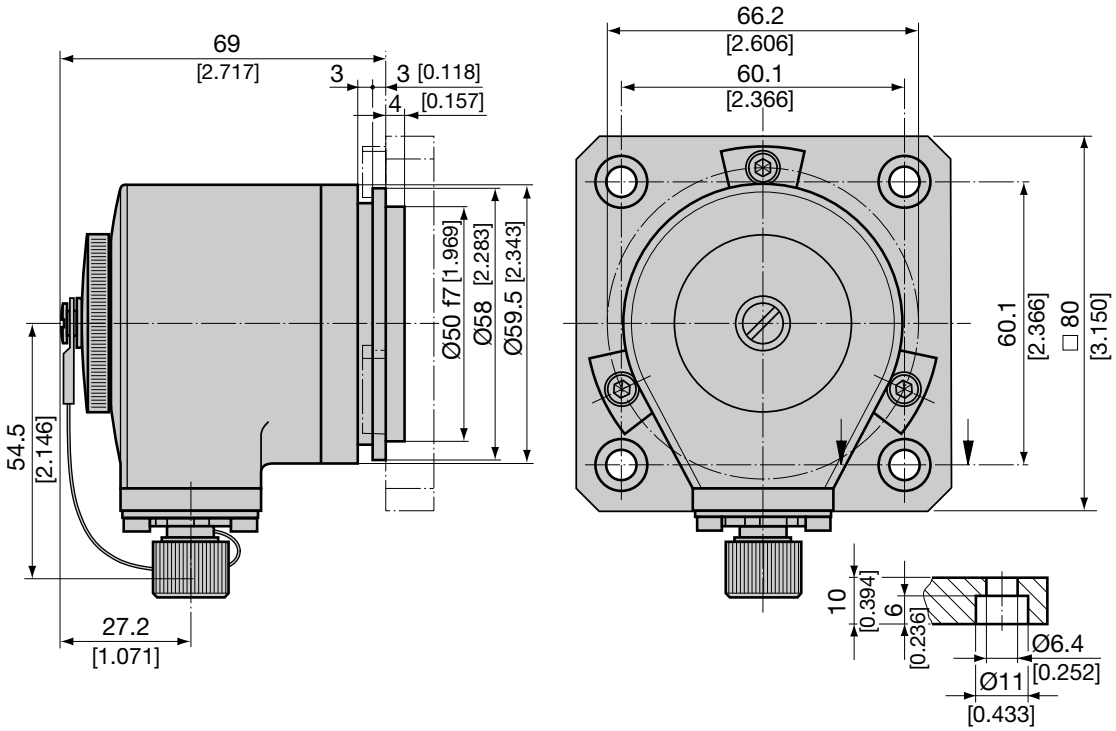
Regulations

Spurious radiation:	EN 61 000-6-3
Immunity:	EN 61 000-6-2
Test voltage:	500 Veff., 50 Hz, 1 Min.
Housing protection:	IP 66 acc. to EN 60 529

Environmental condition

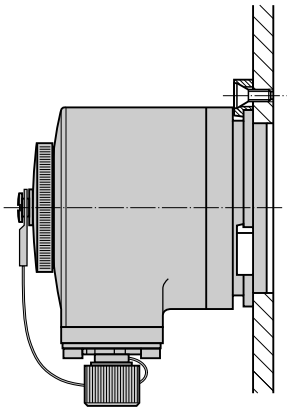
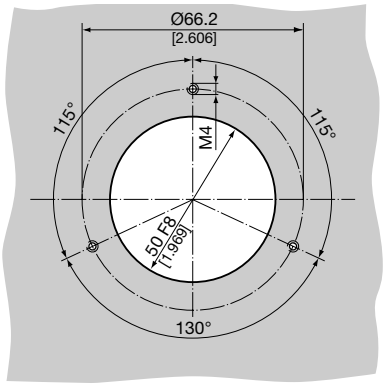
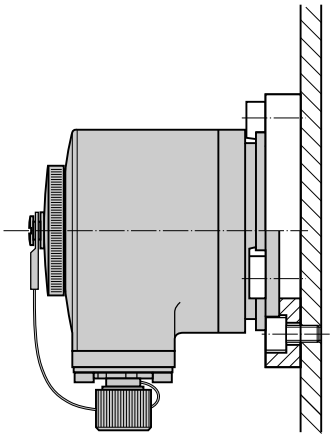
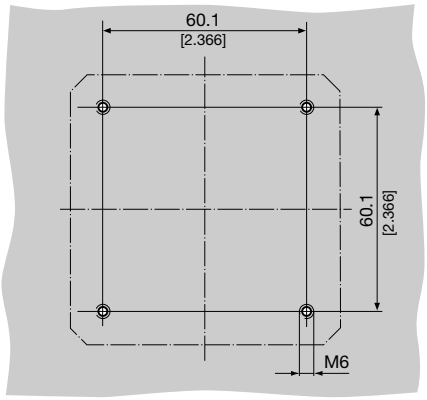
Climatic rating:	Temperature -30° to + 70° C [-22 ... +158 °F] Relative humidity < 95%
Vibration resistance:	≤ 40 m/s² / 5…100 Hz acc. EN 60068-2-6
Shock resistance:	300 m/s² / 18 ms acc. EN 60068-2-27
Transportation and storage temperature:	-30° … +70 °C [-22 … +158 °F]

Dimensional drawings



Mounting

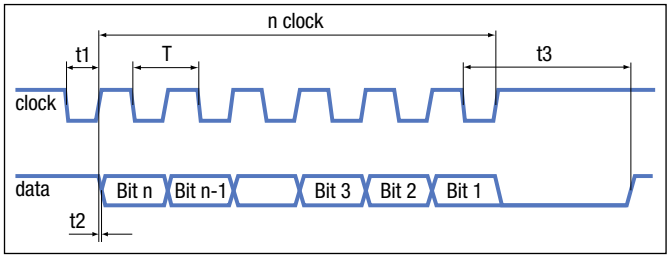
All inclination transmitter can be mounted either directly with 3 clamping brackets to the item being measured or with a mounting plate with 4 cheese head screws M6. Please take care that the installation position of the inclination transmitter is perpendicular to the gravity of the earth. The inclination 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

To connect the electrical lines, the inclination transmitter has a sensor connector M12x1 / 8 poles.

Readout of positional values



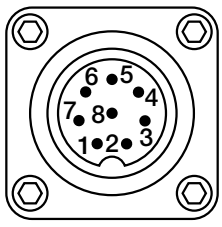
Impulse times:

T = 1 to 10 µs / t1 = 0,5 to 5 µs
I2 = < 0,2 µs / t3 = > 12 to 25 µs

PIN configuration

Pin assignments:

1 = 0 V
2 = +24 Vs
3 = Clock +
4 = Clock –
5 = Data +
6 = Data –
7 = not used
8 = not used



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Programming

The parameters can be made using the keypad on the device itself. The measuring range is factory set and divided symmetrically. By pressing a button the zero position can be adjusted.

In case of incorrect operation the factory settings can always be restored.



Ordering information of variants

Description	Article No.
KINAX N702-SSI	157 562

Scope of delivery

1 Inclination transmitter KINAX N702-SSI (157 562)
1 Mounting plate with 3 clamps (168 379, 168 353)
1 Connector M12x1, 8 poles (168 113)
1 Operating instructions German, English, French (157 645)

Accessories

Description	Article No.
Connector M12x1 / 8 poles	168 113
Kit mounting clamp N7xx	168 353
Mounting plate N7xx	168 379

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