

Inclination sensor

Flameproof enclosure Ex d, redundant, 0 ... 360°

Model N131C



WIKA data sheet FO 59.02



Applications

- Offshore installations, offshore cranes
- Drilling rigs
- Mobile cranes
- Ship cranes
- Oil and gas industry

Special features

- Measuring range 0 ... 360°
- Relative linearity error < 0.1 % of FS over the entire measuring range
- Good damping behaviour, no influence due to gravity
- Resistant to seawater, IP67
- Easy retrofitting

Description

Inclination sensors with flameproof enclosure for hazardous areas are designed for especially demanding tasks. The fields of application of these sensors are diverse. Inclination sensors for hazardous areas provide higher safety in cranes and excavators and in hazardous applications such as the oil and gas industry.



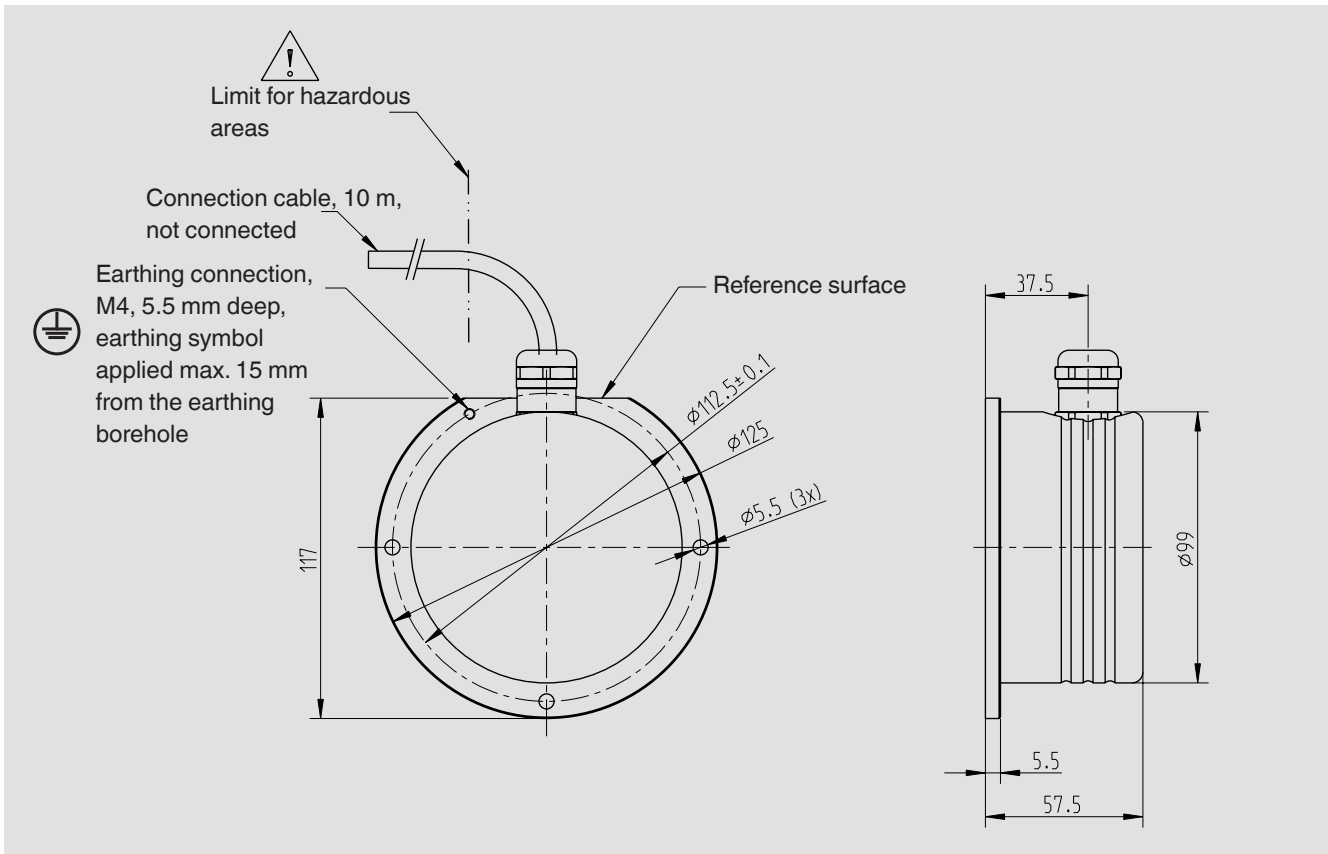
Inclination sensor, model N131C

They offer a precise orientation angle in relation to the gravitational field of the earth. The sensor is designed for redundant measurements of 360° and shows extraordinarily high accuracy and precision at a reading resolution of 0.01° over the entire measuring range.

Specifications

Model N131C	
Measuring range ■ Standard ■ Optional	0 ... 360° other measuring ranges possible
Relative linearity error d_{lin} ■ < 100° ■ > 100°	< 0.1° < 0.1 % of FS
Relative reversibility error v	< 0.05 % of FS
Resolution	< 0.01°
Transverse inclination error ■ ≤ 10° ■ ≤ 45°	< 0.05° < 0.2°
Service temperature $B_{T, G}$	-40 ... +80 °C
Temperature effect on ■ the characteristic value TK_c ■ the zero signal TK_0	0.0016 % of FS/K 0.0016 % of FS/K
Electrical connection	Connection cable, 10 m, flying leads (others on request)
Output signal (rated characteristic value) C_{nom}	2 x 4 ... 20 mA (3-wire)
Voltage supply	DC 9 ... 36 V
Material of the measuring body	Stainless steel
Salt spray testing	DIN EN 60068-2-52
Ingress protection (per IEC/EN 60529)	IP67
EMC	61326-1 IEC:2012, DIN EN 61000-4 Part 2, Part 3, Part 4, Part 6, Part 8, Part 9, Part 10; DIN ISO 7637 Part 2, DIN ISO 11452 Part 2, Part 4, Part 5; DIN EN 55025 Part 6.3, Part 6.4
Certifications ■ ATEX ■ IECEx	Ex II 2G Ex d IIC T4 Gb Zone 1 (BVS 13 ATEX E 030 X) Ex d IIC T4 Gb (IECEx BVS 13.0065X)

Dimensions in mm



Pin assignment

Cable assignment ATEX 2 x 4 ... 20 mA, 3-wire	
Cable colour	Output
Brown	UB1+/S1+
Blue	0V/S1-
White	UB2+/S2+
Black	0V/S2-

© 2019 WIKA Alexander Wiegand SE & Co. KG, all rights reserved.
 The specifications given in this document represent the state of engineering at the time of publishing.
 We reserve the right to make modifications to the specifications and materials.

