**Inclination sensor**
1 axis

Non-programmable device

Output: 0.5 - 4.5 V

horizontal/vertical mounting

For standard applications

Measuring range
± 90°

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### General specifications 11477, v20170705

- Plastic injection molded housing (Arnite T06 202 PBT black)
- Dimensions (indicative): 30x30x15 mm
- Included: 2x M3x16 mm zinc plated steel pozidrive pan head screws, self-tapping (PZ DIN 7500C)
- Ingress Protection (IEC 60529): IP67
- Relative humidity: 0 - 100%
- approx. 15 gram (cable excluded)
- Supply voltage: 10 - 30 V dc
- Polarity protection: Yes
- Current consumption: ≤ 10 mA
- Operating temperature: -25 .. +80 °C
- Storage temperature: -25 .. +80 °C
- Measuring range: ± 90°
- Centering function: No
- Frequency response (-3dB): 0 - 10 Hz (±2,5 Hz)
- Typ. Accuracy @20°C (2σ): overall 0,9° typ. (offset excluded) (-45°..+45°)
- Offset error: < ± 1° typ. (< ± 3° max.)
- < ± 0,6° (-45°..+45°)
- < ± 2% typ. (< ± 3.5% max.)
- Non linearity: 0,03°
- Sensitivity error: ± 0,02°/K typ
- Resolution: ± 0,03°
- Temperature coefficient: ± 0,2°/K typ
- Max mechanical shock: 3.500g
- Output: 0,5 - 4,5 V
- Output load: Rload ≥20kΩ, Cload ≤20 nF
- Short circuit protection: Yes (max 10 s)
- Repeatability: 0,1°
- Programming options: not applicable
QG series

QG30-KI-090E-AV-K

Transfer characteristic

\[ U_{out} = 2.5 + 2\sin(\alpha) \] [V]
output clipping outside measuring range at 0,1 V and 4,9 V approximately

Measurement orientation

Connectivity (length ±10%)

Connection: 2 m PVC/PVC Liyy, black Ø 4,6 mm, wires: 3x0,34 mm²
Sensor colors (static usage)

Brown + Supply Voltage
Black Output
Blue Gnd

Mechanical dimensions (indicative only)

Remarks

As this device is accelerometer-based the sensor is inherent sensitive for accelerations/vibrations. Application specific testing must be carried out to check whether this sensor will fulfill your requirements.