

# QG series

QG30-KI-090E-AV-K

## Inclination sensor

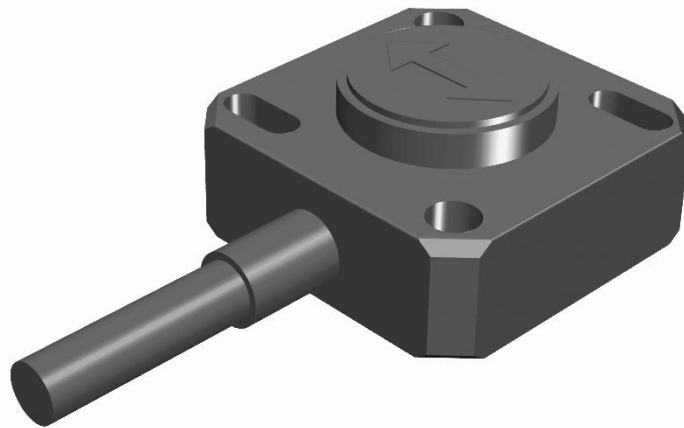
1 axis

Non-programmable device

Output: 0,5 - 4,5 V

horizontal/vertical mounting

Measuring range  
± 90°



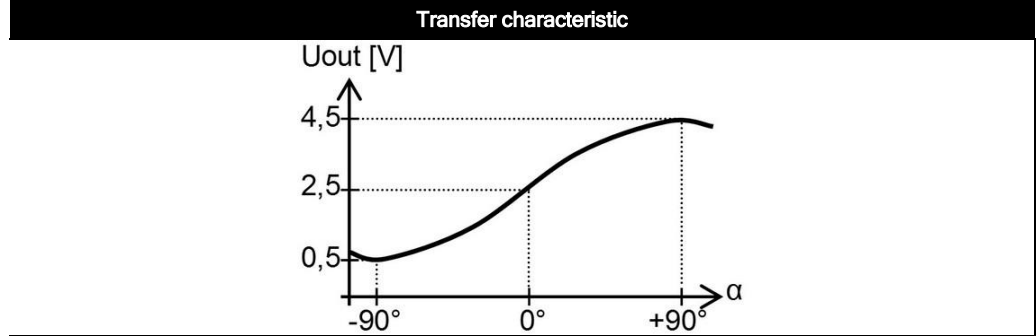
### General specifications 11477, v20220221

Housing	Plastic injection molded housing (Arnite T06 202 PBT black)
Dimensions (indicative)	30x30x15 mm
Mounting	Included: 2x M3x16 mm zinc plated steel pozidrive pan head screws, self-tapping (PZ DIN 7500CZ) Mounting on flat surface only. Screw with maximum Torque 1,5 Nm
Ingress Protection (IEC 60529)	IP67
Relative humidity	0 - 95% (non condensing, housing fully potted)
Weight	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)
Accuracy (overall @20°C)	0,9° typ. (offset excluded) (-45°...+45°)
Offset error	± 1° typ. (± 3° 2σ)
Non linearity	± 0,6° typ. (-45°...+45°)
Sensitivity error	± 2% typ., Repeatability 0.1°
Resolution	0,03°
Temperature coefficient	± 0,02°/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)
Output refresh rate	continuous (analog)
Programming options	not applicable

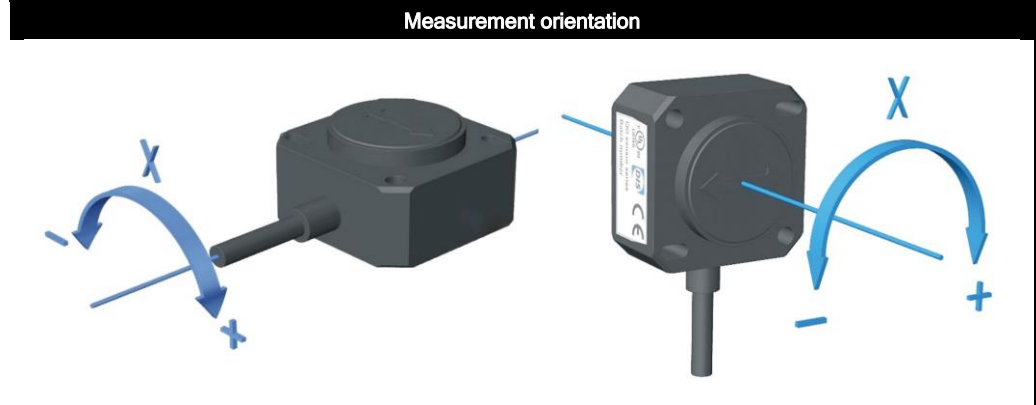
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## QG30-KI-090E-AV-K

$U_{out} = 2,5 + 2 \cdot \sin(\alpha)$  [V]  
 output clipping outside measuring range at 0,1 V and 4,9 V approximately

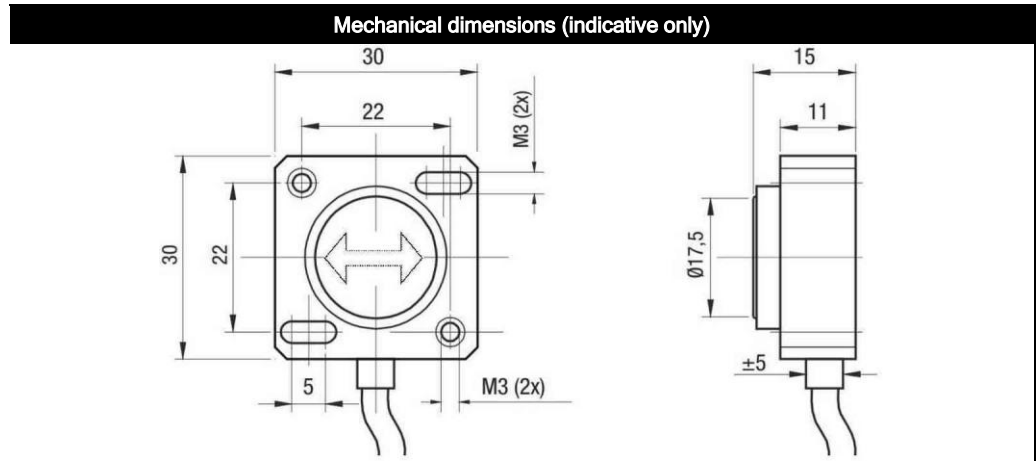


The QG30 can be used in both vertical and horizontal mounting position.



Connection  
 Wire / pin coding

**Connectivity (cable length ±10%)**  
 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



**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 fulfil your requirements.