

QG30-KI-030H-AV-K

Inclination sensor

1 axis

Non-programmable device

Output: 0,5 - 4,5 V

horizontal/vertical mounting

For demanding applications

Measuring range
 $\pm 30^\circ$



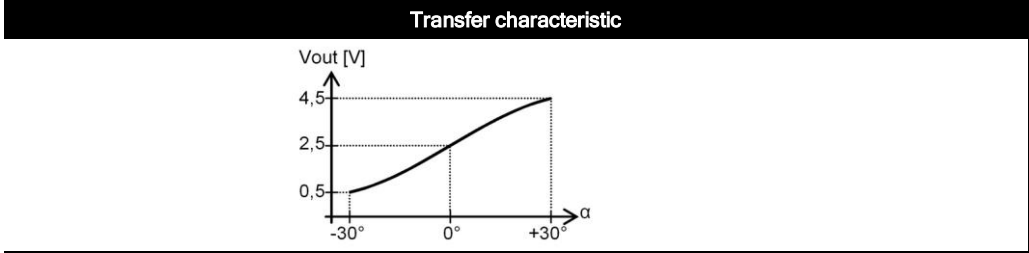
General specifications 04309, v20180115

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 7500C)
Ingress Protection (IEC 60529)	IP67
Relative humidity	0 - 100%
Weight	approx. 15 gram (cable excluded)
Supply voltage	10 - 30 V dc
Polarity protection	Yes
Current consumption	≤ 30 mA
Operating temperature	-25 .. +80 °C
Storage temperature	-25 .. +80 °C
Measuring range	$\pm 30^\circ$
Centering function	No
Frequency response (-3dB)	0 - 18 Hz (± 10 Hz)
Accuracy (typ. and/or 2σ)	overall $0,6^\circ$ typ. (offset excluded)
Offset error	$< \pm 1^\circ$ typ. ($< \pm 3^\circ$ max.)
Non linearity	$< \pm 0,4^\circ$
Sensitivity error	$< \pm 2\%$ typ. ($< \pm 3,5\%$ max.)
Resolution	$0,01^\circ$
Temperature coefficient	$\pm 0,01^\circ/\text{K}$ typ
Max mechanical shock	20.000g
Output	0,5 - 4,5 V
Output load	Rload $\geq 20\text{k}\Omega$, Cload ≤ 20 nF
Short circuit protection	Yes (max 10 s)
Repeatability	$0,1^\circ$
Programming options	not applicable

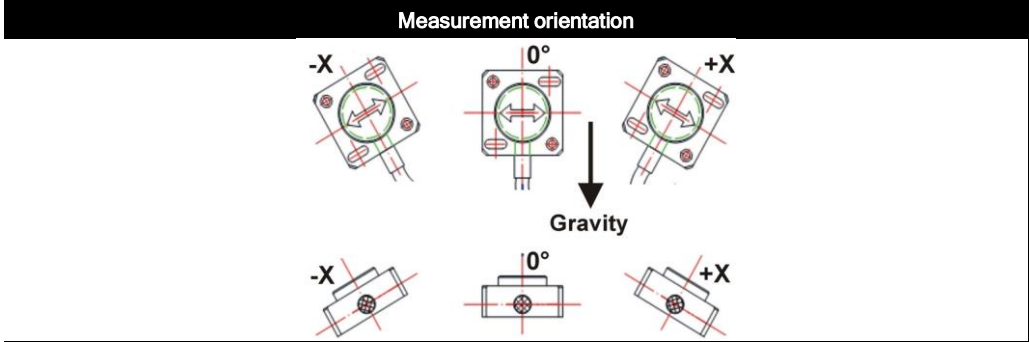
QG series

QG30-KI-030H-AV-K

$U_{out} = 2,5 + 2 \cdot \sin(\alpha) / \sin(30)$ [V]
 output clipping outside measuring range at 0,3 V and 4,7 V approximately

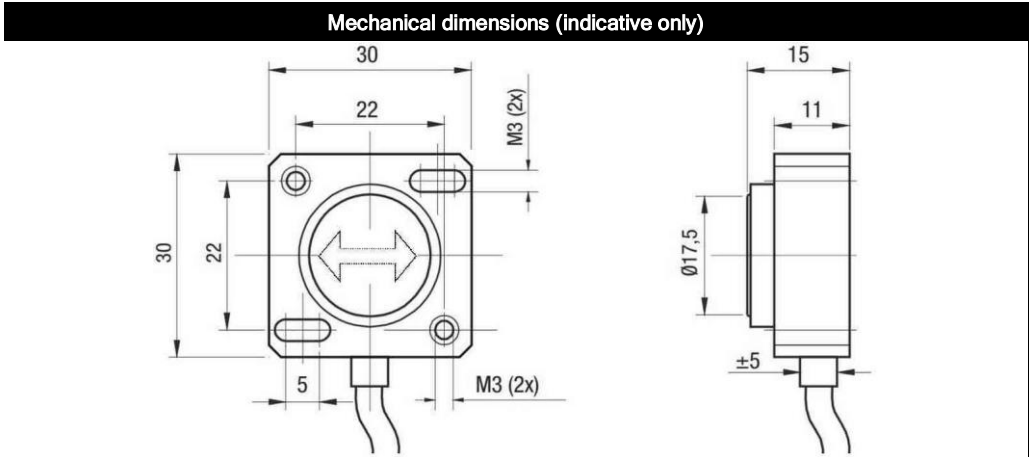


The QG30 can be used in both vertical and horizontal mounting position.



Connection
 Wire / pin coding

Connectivity (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.