QG series

E-series (for standard applications)

QG30-KI-010E-AV-K

Inclination sensor

1 axis horizontal/vertical mounting

Output
0,5 - 4,5 V

Supply voltage
10 - 30 V dc

Measuring range
± 10°



CE

	General specifications 11505, v20140901
Housing	Plastic injection molded housing (Quadro30, PBTP black)
Dimensions (indicative)	30x30x15 mm
Mounting	2x M3x16 mm zinc plated steel pozidrive screws included
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	≤ 10 mA
Operating temperature	-25 .. +80 °C
Storage temperature	-25 .. +80 °C
Measuring range	± 10°
Centering function	No
Frequency response (-3dB)	0 - 10 Hz (±2,5 Hz)
Accuracy (2σ)	overall 0,3° typ. (offset excluded)
Offset error	< ± 1° typ. (< ± 3° max.)
Non linearity	< ± 0,2°
Sensitivity error	< ± 2% typ. (< ± 3.5% max.)
Resolution	0,03°
Temperature coefficient	± 0,01°/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°

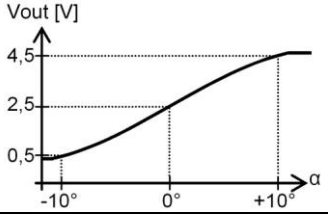
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Uout = 2,5 + 11,52*sin(α) [V]

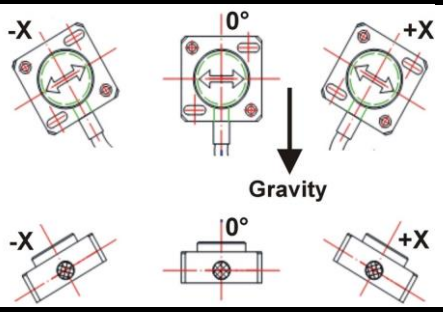
output clipping outside measuring range at 0,3 V and 4,7 V approximately

Transfer characteristic



The QG30 can be used in both vertical and horizontal (round nose upwards) mounting position.

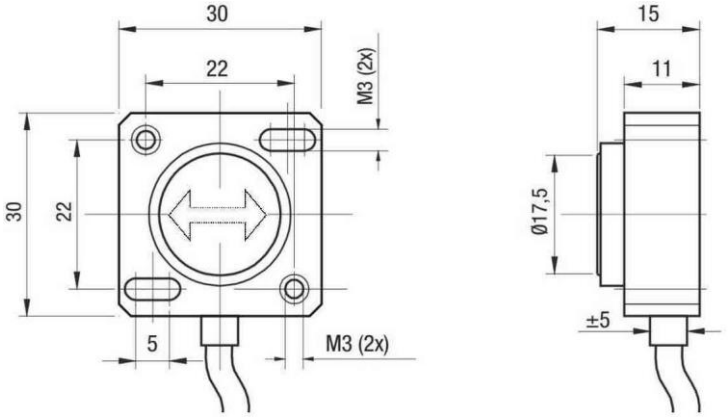
Measurement orientation



Connectivity (length ±10%)

Connection	2 m PVC/PVC Liyy, black Ø 4,6 mm, wires: 3x0,34 mm² Sensor colors (static usage)
Wire / pin coding	
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 fulfil your requirements.