**QG series**

**QG30-KI-090E-AV-K5V**

**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

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<td>Inclination sensor</td>
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<td><strong>Axis</strong></td>
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**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

**Weight**

- Approx. 15 gram (cable excluded)

**Supply voltage**

- 5 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°)

- < ± 1° typ. (< ± 3° max.)

- < ± 0,6° (-45°...+45°)

- < ± 2° typ. (< ± 3,5% max.)

- 0,03° ± 0,02°/K typ

**Polarity protection**

- Yes

**Operating conditions**

- Max mechanical shock 3.500g

**Output**

- 0,5 - 4,5 V Ratiometric

**Output load**

- Rload ≥20kΩ, Cload ≤20 nF

**Short circuit protection**

- Yes (max 10 s)

**Repeatability**

- 0,1°

**Programming options**

- Not applicable
QG series

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Transfer characteristic

\[ U_{\text{out}} = 2.5 + 2\sin(\alpha) \ [V] \]

output clipping outside measuring range at 0.3 V and 4.7 V approximately

Measurement orientation

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

Connectivity (length ±10%)

2 m PVC/PVC Ligy, black Ø 4.6 mm, wires: 3x0.34 mm² Sensor colors (static usage)

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<td>Brown</td>
<td>+ Supply Voltage</td>
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<tr>
<td>Black</td>
<td>Output</td>
</tr>
<tr>
<td>Blue</td>
<td>Gnd</td>
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Mechanical dimensions (indicative only)

Remarks

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