**QG series**

**QG30-KI-090E-AI-K**

**Inclination sensor**
1 axis

Non-programmable device

Output: 4 - 20 mA

horizontal/vertical mounting

For standard applications

Measuring range
± 90°

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**E-series**

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### General specifications 11460, v20180111

Plastic injection molded housing (Arnite T06 202 PBT black)

<table>
<thead>
<tr>
<th>Dimension (indicative)</th>
<th>30x30x15 mm</th>
</tr>
</thead>
</table>

Included: 2x M3x16 mm zinc plated steel pozidrive pan head screws, self-tapping (PZ DIN 7500C)

- **IP67**
- **0 - 100%**
- approx. 15 gram (cable excluded)

**Supply voltage**
10 - 30 V dc

**Current consumption**
≤ 10 mA (excluding output signal)

**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°

**Resolution**
± 0.02°/K typ

**Temperature coefficient**
± 0.02°/K typ

**Max mechanical shock**
3,500g

**Output**
4 - 20 mA

**Output load**
Rload ≤ (50*Vs-300) [Ω] (Eg: Vs = 24 V: Rload ≤ 900 Ω)

**Short circuit protection**
Yes (max 10 s)

**Repeatability**
0.1°

**Programming options**
not applicable

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Transfer characteristic

\[ I_{out} = 12 + 8\sin(\alpha) \ [mA] \]
Outside measuring range sensor transfer formula is valid until clip level of approximately 2.5mA & 22.5mA

Measurement orientation

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

Connectivity (length ±10%)

<table>
<thead>
<tr>
<th>Brown</th>
<th>+ Supply Voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>Output</td>
</tr>
<tr>
<td>Blue</td>
<td>Gnd</td>
</tr>
</tbody>
</table>

Wire / pin coding

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

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.