

QG series

QG65-KD-005-020HS-AI-CM-RC500

Inclination sensor

2 axis horizontal mounting

Output
4 - 20 mA

Supply voltage
10 - 30 Vdc

Measuring range
X-axis: $\pm 20^\circ$, Y-axis: $\pm 5^\circ$



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Housing
Dimensions (indicative)
Mounting
Ingress Protection (IEC 60529)
Relative humidity
Weight
Supply voltage
Polarity protection
Current consumption
Operating temperature
Storage temperature
Measuring range
Centering function
Frequency response (-3dB)
Accuracy (2 σ)
Offset error
Non linearity
Sensitivity error
Resolution
Temperature coefficient
Max mechanical shock
Output
Output load
Short circuit protection
Response time

General specifications v20150925, 11906

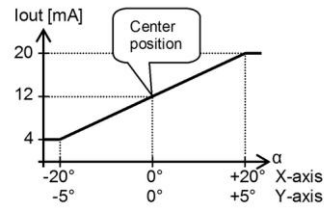
Plastic injection molded housing (Faradex DS, black, EMI shielded by stainless steel fiber in PC)
60x50x27 mm
4x M5x25 mm zinc plated pozidrive screws included
IP67
0 - 100%
ca 110 gr
10 - 30 Vdc
Yes
≤ 25 mA (excluding output signal)
-40 .. +85°C
-40 .. +85°C
X-axis: $\pm 20^\circ$, Y-axis: $\pm 5^\circ$
Yes (12 mA / 0°), range: $\pm 5^\circ$
0,3 Hz
$\pm 0,1^\circ$ (after centering)
$< \pm 0,1^\circ$
not applicable
0,01°
$\pm 0,005^\circ/K$ typ.
20.000g
4 - 20 mA
Rload $\leq (50^\circ V_s - 300) [\Omega]$ (Eg: $V_s = 24$ V: Rload $\leq 900 \Omega$)
Yes (max 10 s)
< 500 ms

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$$I_{outX} = 12 + 8 \cdot (\alpha/20) \text{ [mA]}$$

$$I_{outY} = 12 + 8 \cdot (\alpha/5) \text{ [mA]}$$

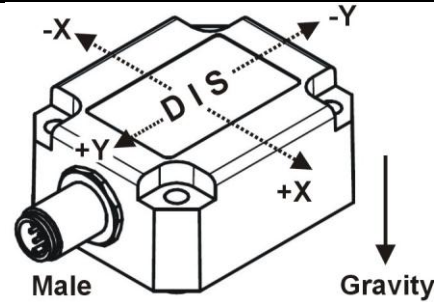
Transfer characteristic



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The 0° position is when the sensor is mounted horizontally and no acceleration is applied.

Measurement orientation



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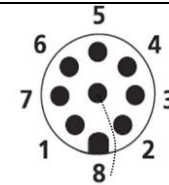
Connection

Wire / pin coding

Connectivity (length ±10%)

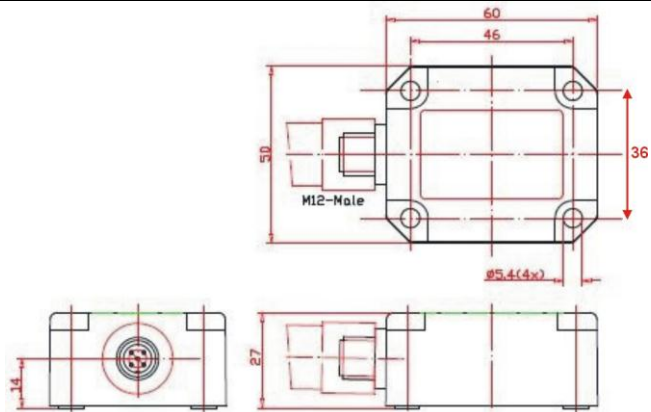
M12 male 8p connector

- Pin 1: Output Y
- Pin 2: Supply voltage
- Pin 3: Programming interface RS232 Rx
- Pin 4: Programming interface RS232 Tx
- Pin 5: Gnd
- Pin 6: Centering input
- Pin 7: Output X
- Pin 8: Shield



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Mechanical dimensions (indicative only)



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Center function

Centering should be done within 1 min. after power up.
 After centering you've 1 min. left for another centering.
 Normally the Center input should be left unconnected.
 Connect Center input to ground for more than 0,5s