

QG series

QG40N-KIXv-090-AI-PT

Inclination sensor

1 axis vertical mounting

Output
4 - 20 mA

Supply voltage
10 - 30 Vdc

Measuring range
 $\pm 90^\circ$



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Housing
Dimensions
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
Offset error
Non linearity
Sensitivity error
Resolution
Temperature coefficient
Max mechanical shock
Output
Output load
Short circuit protection
Output refresh rate

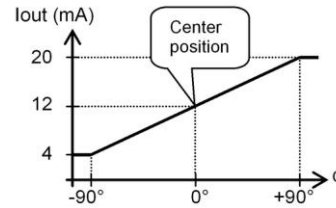
General specifications 11488, v20141002

Plastic injection molded housing (Quadro40, PBTP black)
40x40x25 mm
2x M3x25 mm steel zinc plated pozidrive screws
IP67
0 - 95% non condensing
ca 45 gr (excl cable)
10 - 30 Vdc
Yes
≤ 15 mA (excluding output signal)
-25 .. +85°C
-40 .. +85°C
$\pm 90^\circ$
Yes (12 mA = 0°), range 360°
10 Hz
overall 0,4° typ.
$< \pm 0,2^\circ$ (after centering)
$< \pm 0,4^\circ$
not applicable
0,09°
$\pm 0,04^\circ/\text{K}$ typ.
10.000g
4 - 20 mA
Rload $\leq (50^\circ\text{Vs}-300)$ [Ω] (Eg: Vs = 24 V: Rload $\leq 900 \Omega$)
Yes (max 10 s)
20 ms

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$I_{out} = 12 + 8(\alpha/90)$ [mA]
clipping outside measuring range

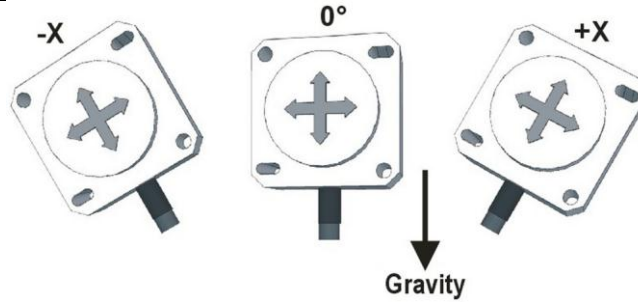
Transfer characteristic



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Rotation in vertical plane.
Lateral tilt sensitivity error:
$\pm 0,03^\circ$ lateral tilt (typ.)
Max. lateral tilt: 45°
Drawn in default 0° position.

Measurement orientation



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Connection

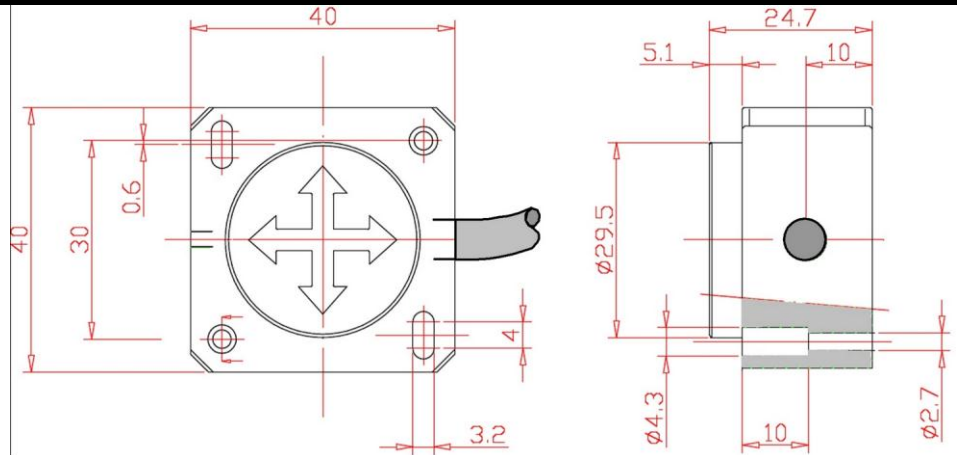
Wire / pin coding

2 m PUR/TPE Li12y11y, black $\varnothing 4,7$ mm, wires: 5x0,34 mm² DIN colors

White	Center
Brown	+ Supply Voltage
Green	GND
Yellow	Output X
Grey	For factory use only

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Mechanical dimensions



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Center function

Centering can be done to eliminate mechanical offsets.
To execute centering connect center input to ground (>0,5sec) within 1 min. after power up.
After centering you have 1 min. left for another centering.
Normally the center input should be left unconnected.