Quadro-G
sensors

Preliminary

QG40N-KDXYh-090-AI-K

Inclination sensor
2 axis horizontal

Output
4 - 20 mA

Supply voltage
10 - 30 Vdc

Measuring range
± 090°

QG40N-KDXYh-090-AI-K	General specifications v20120530
Housing	Quadro40: PBTP black
Dimensions	40x40x25 mm
Mounting	2x steel zinc plated M3x25 mm screws
Protection	IP67
Humidity	0 - 100% RH
Weight	ca 45 gr (excl cable)
Supply voltage	10 - 30 Vdc
Polarity protection	Yes
Current consumption	≤ 30 mA (excluding output signal)
Operating temperature	-25 .. +85°C
Storage temperature	-25 .. +85°C
Measuring range	± 090°
Center position	Yes, center input to ground
Frequency response (-3dB)	0 - 10 Hz
Accuracy	
Max offset error	0,2° (after centering)
Non linearity	< ± 0,5° over full range
Sensitivity error	< 0,1%
Resolution at zero	0,1°
Offset temperature dependency	± 0,03°/°C
Max mechanical shock	10.000g
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)
Response time	< 16 ms

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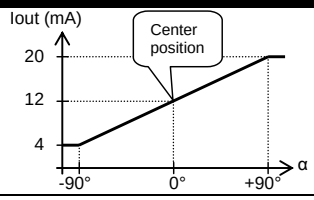
Iout = 12 + 8(α/90) [mA]

Transfer characteristic



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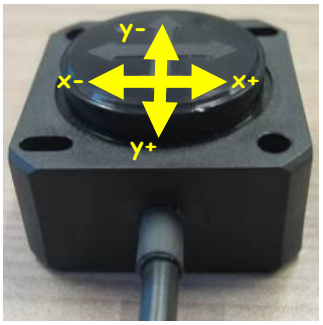
The default 0° position is when the sensor is mounted horizontally and no acceleration is applied.

Measurement orientation



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Connection	2 m PVC, black Ø 6,1 mm, wires: 8x0,25 mm² (static usage)
Wire / pin coding	
Brown	+ Supply Voltage
Blue	Gnd
Grey	Output X
White	Center
Red	nc
Green	nc
Yellow	Output Y
Pink	nc

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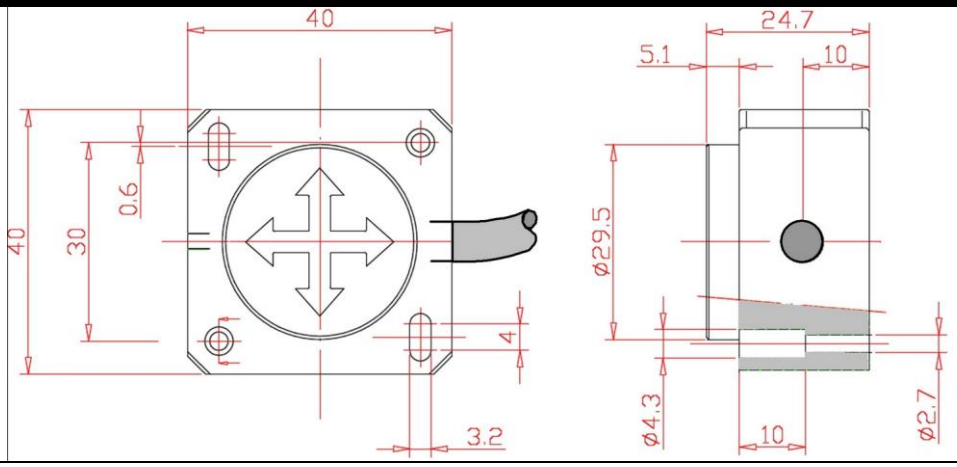
Mechanical dimensions



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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