

Quadro-G

sensors



QG40-KAXY-12.0-AI-K
Acceleration sensor 2 axis: X and Y
Output 4 - 20 mA
Supply voltage 10 - 30 Vdc
Measuring range ±12 G



Application	
Housing	Quadro40, black PBTP
Dimensions	40 x 40 x 25 mm
Mounting	2x stainless M3 x 25 mm screws
Protection	IP67
Humidity	0 - 100%
Weight	ca 45 gram (excl cable)
Supply voltage	10 - 30 Vdc
Polarity protection	Yes
Current consumption	≤ 60 mA
Operating temperature	-25...+85 °C
Storage temperature	-25...+85 °C
Measuring range	X and Y axis: ± 12 G
Output signals	4 - 20 mA
Short circuit protection	Yes (max 10 s)
Output load resistor	Rload ≤ 50*Vop - 125 (Ω) (Eg: Vsupply = 24V: Rload ≤ 1075 Ω)
Frequency response	0 - 400 Hz (± 150 Hz)
Response time	< 10 ms
Accuracy	
Accuracy (excl. cross axis)	3%
Cross axis sensitivity	4%
Resolution	11 bit
Max mechanical shock	20.000 g
Status LED	Optional
Cable	Standard: 2 m, black, PVC, 4x0,25mm ²
Cable wires	Brown : Vcc Blue : Gnd Black : X axis output White : Y axis output
Connector	Optional

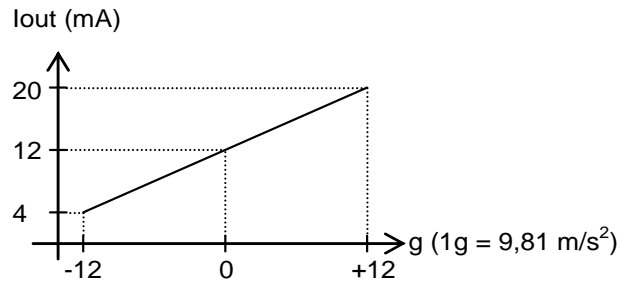
2-axis acceleration monitoring	
Housing	Quadro40, black PBTP
Dimensions	40 x 40 x 25 mm
Mounting	2x stainless M3 x 25 mm screws
Protection	IP67
Humidity	0 - 100%
Weight	ca 45 gram (excl cable)
Supply voltage	10 - 30 Vdc
Polarity protection	Yes
Current consumption	≤ 60 mA
Operating temperature	-25...+85 °C
Storage temperature	-25...+85 °C
Measuring range	X and Y axis: ± 12 G
Output signals	4 - 20 mA
Short circuit protection	Yes (max 10 s)
Output load resistor	Rload ≤ 50*Vop - 125 (Ω) (Eg: Vsupply = 24V: Rload ≤ 1075 Ω)
Frequency response	0 - 400 Hz (± 150 Hz)
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$$I_{out} = 12 + g \cdot 0,67 \text{ [mA]}$$

I_{out} has a linear relation to the g-force (acceleration).

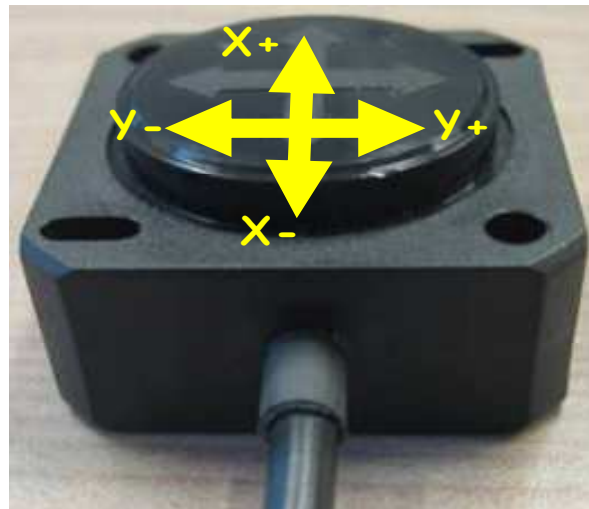
Transfer characteristic for X and Y output



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The zero position ($X = 12 \text{ mA}$ and $Y = 12 \text{ mA}$) is when the sensor is mounted horizontally and no acceleration is applied.

Measurement orientation



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Mechanical dimensions

