

Quadro-G

sensors



QG40-KAXY-1,7-AV-K
Acceleration sensor 2 axis: X and Y
Output 0,5 - 4,5 V
Supply voltage 10 - 30 Vdc
Measuring range $\pm 1,7$ 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	≤ 15 mA
Operating temperature	-25...+85 °C
Storage temperature	-25...+85 °C
Measuring range	X and Y axis: $\pm 1,7$ G
Output signals	0,5 - 4,5 V
Short circuit protection	Yes (max 10 s)
Output load	Rload ≥ 10 kOhm, Cload ≤ 1 nF
Frequency response	0 - 50 Hz (± 30 Hz)
Response time	< 10 ms
Accuracy	
Accuracy (excl. cross axis)	5%
Cross axis sensitivity	3,5%
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

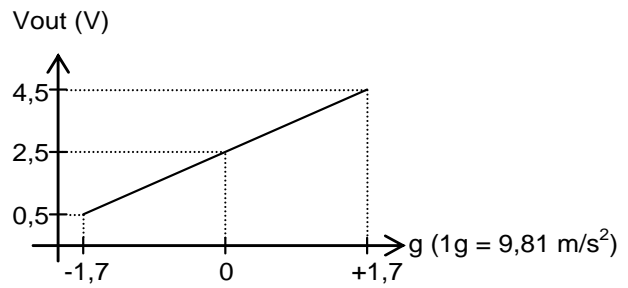
2-axis acceleration monitoring	
Housing	Quadro40, black PBTP
Dimensions	40 x 40 x 25 mm
Mounting	2x stainless M3 x 25 mm screws
Protection	IP67
Humidity	0 - 100%
Weight	ca 45 gram (excl cable)
Supply voltage	10 - 30 Vdc
Polarity protection	Yes
Current consumption	≤ 15 mA
Operating temperature	-25...+85 °C
Storage temperature	-25...+85 °C
Measuring range	X and Y axis: $\pm 1,7$ G
Output signals	0,5 - 4,5 V
Short circuit protection	Yes (max 10 s)
Output load	Rload ≥ 10 kOhm, Cload ≤ 1 nF
Frequency response	0 - 50 Hz (± 30 Hz)
Response time	< 10 ms
Accuracy	
Accuracy (excl. cross axis)	5%
Cross axis sensitivity	3,5%
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

QG40-KAXY-1,7-AV-K

$$V_{out} = 2,5 + g \cdot 1,2 \text{ [V]}$$

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

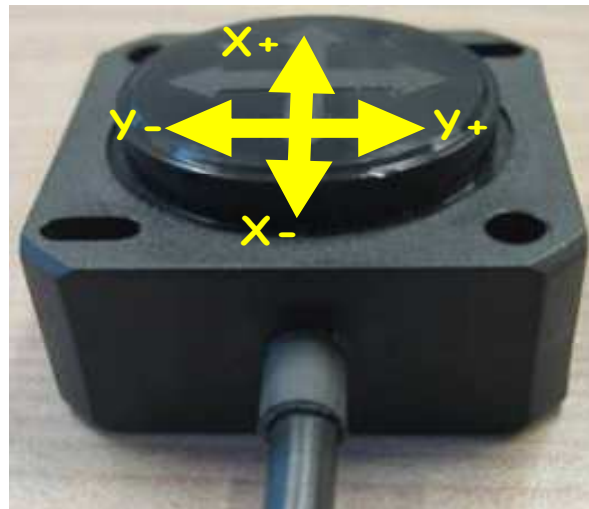
Transfer characteristic for X and Y output



QG40-KAXY-1,7-AV-K

The zero position (X = 2,5 V and Y = 2,5 V) is when the sensor is mounted horizontally and no acceleration is applied.

Measurement orientation



QG40-KAXY-1,7-AV-K

Mechanical dimensions

