

# QUADRO-G<sup>®</sup>

## Measurement of vibration, acceleration and inclination



The Quadro-G is a capacitor based sensor for measurement of vibration, acceleration or inclination. It has a round sensing head and is mounted in a compact square polycarbonate housing with a well secured cable or connector.

Thanks to its right-angled sides, it has a very high rigidity. The vulnerable electronics is mounted in a flexible filling compound. As a result, the sensor is highly resilient to shock and vibration.

The Quadro-G sensor can be customized to your specific requirements. Options are:

- Acceleration from 0...0,5G to 0...12G
- Inclination single or dual axis,  $\pm 10^\circ$ ,  $30^\circ$  and  $90^\circ$
- Specific output configuration (analog, voltage/ current, digital)
- Specific cable or connector
- Self-test function
- Adjustable switch levels

## APPLICATIONS

- Acceleration measurement
- Inclination measurement
- Motion measurement
- Vibration measurement
- Condition monitoring
- Position control

## FEATURES

- Broad range of application areas
- Simply adjustable to your needs
- Very compact, simple mounting
- Self test function
- Reverse polarity protection
- Resilient to shock and vibration
- Direct connection to PLC's
- Secure cable entry
- IP68

## Technical data

### Functional

Measuring ranges	
Acceleration	$\pm 1,5G$ to $\pm 12G$ FSD
Inclination	Single or dual axis $\pm 10^\circ$ , $\pm 30^\circ$ and $\pm 90^\circ$
Measuring plane	Horizontal (X & Y) and Vertical (Z axis)
Sensitivity error	High Accuracy model $\pm 0,5\%$ FS Standard model $\pm 2,5\%$ FS
	Digital 11 bits
Frequency response	Range 0..0,5G $18 \pm 8$ Hz (inclinometer)
	Range 0..1,0G $18 \pm 8$ Hz
	Range 0..1,0G $400 \pm 150$ Hz (accelerometer)
	Range 0..2,7G $400 \pm 150$ Hz
	Range 0..12 G $400 \pm 150$ Hz

### Electrical

Power supply		10 - 30	Vdc (5 Vdc as option)
Current consumption		Typical	5 mA (excl.LED)
		Max.	7 mA (excl.LED)
Output	single axis	0,5 – 4,5 V	
		1 – 9 V	
dual axis		4 – 20 mA	
		2 x 0,5 – 4,5 V	
		2 x 4 – 20mA	
		2 x SPI (serial interface)	

### Environmental conditions

Temperature range	-25 to 85 °Celsius
Protection	IP68

### Mechanical

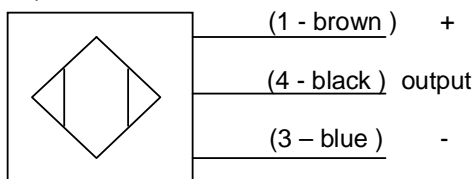
Material housing	polycarbonate black
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### Connection

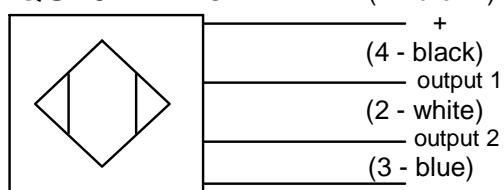
Cable	PVC 3*0,34 mm <sup>2</sup> (3-wire)
	PVC 4*0,34 mm <sup>2</sup> (4-wire)
	Standard length: 2 m
Connector	M8 or M12

## Connection diagrams

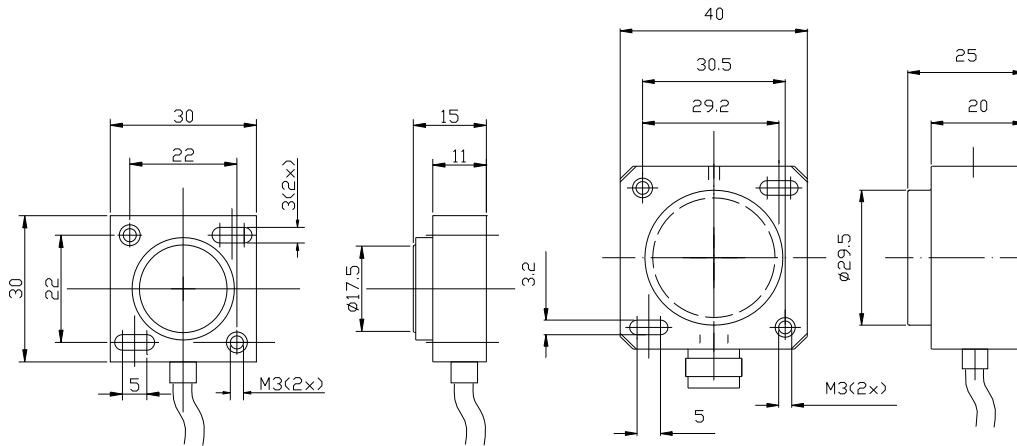
QG30: 3-wire



QG40: 4-wire



## Dimensions



## Ordering info

### Quadro-G identification code

