



motionSENSOR BG2166 Acceleration Sensor ±2g / ±50g

- ratiometric
- Voltage Output
- single Axis
- ±2g / ±50g



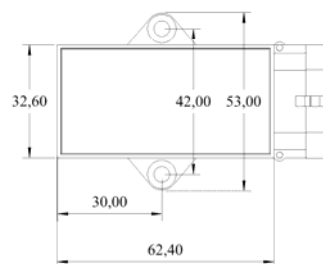
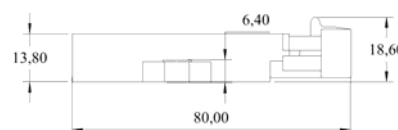
Physical Parameters	min	max	min	max
Type	BG2166 ±2g		BG2166 ±50g	
Range	±2g		±50g	
Sensitivity	1V/g		40mV/g	
Resolution	1mg		10mg	
Transverse Sensitivity	5%		5%	
Hysteresis	0g		0g	
Non-Linearity	±2%		±2%	
Zero Offset	6%		6%	
Frequency Limit (-3dB)	20Hz		100Hz	

Electrical Parameters				
Excitation Voltage	4.5VDC	5.5VDC	4.5VDC	5.5VDC
Quiescent Current	7mA		7mA	
Zero Signal	2.5V		2.5V	
Output Voltage	0.5V	4.5V	0.5V	4.5V

Environmental				
Operating Temperature	-40°C	+85°C	-40°C	+85°C
Range	(-40F) (+185F)		(-40F) (+185F)	
Shock	1000g		1000g	
Case Material	Grivory GV-5H black			
Seal	IP67		IP67	
Plug	AMP Superseal 1.5			

All Specifications at +25°C (+77°F) and 5V_{DC}, unless other defined.

We reserve to make technical alterations without prior notice.



Designation and Ordering Information

BG2166 []
_____ [±2g] / [±50g]

Output ±2g:

$$\alpha = (U_{OUT} - 2.5V) / 1V$$

Output ±50g:

$$\alpha = (U_{OUT} - 2.5V) / 0.04V$$

Options

Cable Set 3-pin [] []
_____ unshielded [] / [shielded]
_____ [1m] / [4m] / [10m] / [20m]

Assembling Set

Case is resistant against

- Fuels
 - Oils
 - Seawater
 - a lot of Chemicals
- (see AppNote 62/02)

Pin	Connection	Cable Set Color / Number
	one axis	one axis
1	n.c.	n.c.
2	X	green / 2
3	GND	brown / 3
4	Power	white / 4

