

# AIS 84C2

## Piezoresistive Accelerometer Triaxial, screw mount



### Features

The Model AIS 84C2 Accelerometer is designed for high performance applications. The accelerometer incorporates a gas-damped piezoresistive MEMS sensing element providing outstanding long-term stability. Ranges from  $\pm 200\text{g}$  to  $2000\text{g}$  with high frequency response, this sensor also meets the specification SAE J211. The model **84C2** provides a millivolt output signal and features mechanical overload stops that provide shock protection to loads greater than  $10,000\text{g}$ . Signal amplified versions are optional.

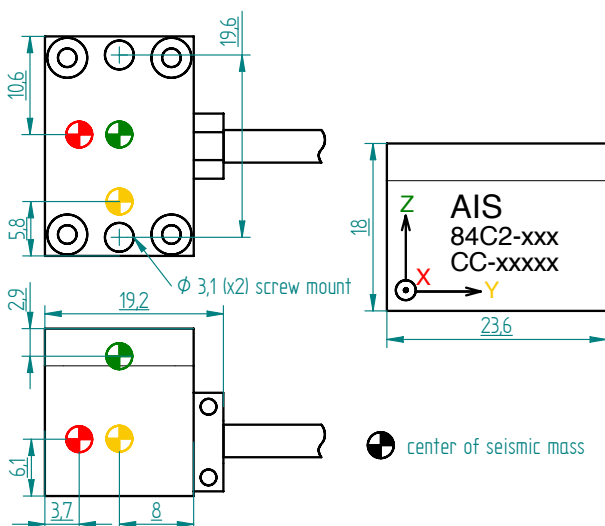
- Piezoresistive MEMS Technology
- Wheatstone Bridge
- Specification SAE J211
- Ranges  $\pm 200\text{g}$  to  $\pm 2000\text{g}$
- $\pm 25\text{mV}$  Zero Measurement Output typ.
- 2–10 VDC Excitation
- Gas Damping
- Mechanical Overload Stops
- Screw Mount

### Applications

- Crash Testing
- Vibration & Shock Monitoring
- Impact Testing
- Automotive Comfort Testing
- Truck Testing

### Service

- Sinusoidal Calibration
- Pendulum Calibration
- Connector Options
- Signal Conditioning
- Repair Options
- ID-Module Options



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## Individual Technical Data All values are typical at +24°C and 5VDC excitation

AIS 84C2				
Range (g)	Sensitivity <sup>1</sup> (mV/g)	Frequency Response (±5%) (Hz)	Damping Ratio <sup>3</sup>	Shock Limit <sup>2</sup> (g)
±200	0.4	0 – 1000	0.20 – 0.6	10,000
±500	0.2	0 – 1200	0.20 – 0.6	10,000
±2000	0.08	0 – 2500	0.05 – 0.3	10,000

- 1) Output is ratiometric to excitation voltage, signal conditioning optional
- 2) 10,000g shock limit in normal axis, 5,000g in transverse axes
- 3) Damping behavior varies with cable, mounting or gluing

## General Technical Data

AIS 84C2 Performance		
Supply Voltage	(VDC)	2 to 10
Ranges	(g)	200 to 2000
Non-Linearity typ.	(%)	±1% FSO
Transverse Sensitivity	(%)	<3
Zero Acceleration Output (differential) typ.	(mV)	±25
Input and Output Resistance	(Ω)	2400 – 6500
Thermal Zero Shift typ.	(%FSO/°C)	-0.09
Thermal Sensitivity Shift typ.	(%/°C)	-0.15
Operating Temperature	(°C)	-20 to 90
Storage Temperature	(°C)	-40 to 100
Weight Housing	(g)	16
Cable	(g/m)	nom. 30, 88 Shore A, Polyurethane
Material Housing		Aluminium, hard anodized

Order Information	
AIS 84C2-XXX-XXX	1 2 3
1 Model	
2 Range	
3 Cable Length and Pinout	

Cable Code			
	X-Axis	Y-Axis	Z-Axis
Supply +	Red/O	Red/BL	Red
Supply -	Black/O	Black/BL	Black
Output +	Green/O	Green/BL	Green
Output -	White/O	White/BL	White

