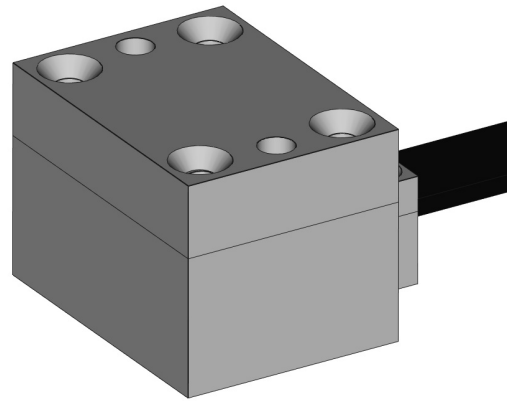


AIS 83C2

Piezoresistive Accelerometer Triaxial, screw mount



Features

The model AIS 83C2 Accelerometer is designed for high performance applications. The accelerometer incorporates a gas-damped piezoresistive MEMS sensing element providing outstanding long-term stability. Ranges from $\pm 50g$ to $\pm 2000g$ with high frequency response, this sensor also meets the specification SAE J211. The model 83C2 provides a millivolt output signal and features mechanical overload stops that provide shock protection to loads greater than 10,000g. Signal amplified versions are optional.

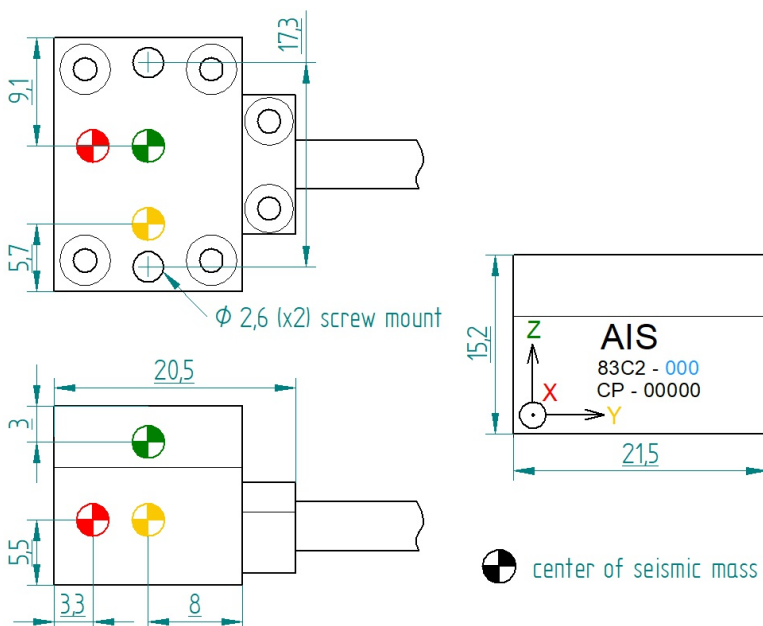
- ☐ Piezoresistive MEMS Technology
- ☐ Wheatstone Bridge
- ☐ Specification SAE J211
- ☐ Ranges $\pm 50g$ to $\pm 2000g$
- ☐ $\pm 25mV$ Zero Measurement Output typ.
- ☐ 2-10 VDC Excitation
- ☐ Amplified Output
- ☐ Mechanical Overload Stops
- ☐ Screw Mount Multiple
- ☐ Aluminium Housing

Applications

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

Service

- ☐ Sinusoidal Calibration
- ☐ Pendulum Calibration
- ☐ Signal Conditioning
- ☐ Connector Options
- ☐ Signal Conditioning
- ☐ Repair Options
- ☐ ID-Module Options, for all axes
- ☐ Equipment Exchange (EQX)



AIS 83C2

Piezoresistive Accelerometer / triaxial, screw mount, multiple

Individual Technical Data

All values are typical at +24°C and 10.0 VDC excitation

AIS 83C2				
Range (g)	Sensitivity ¹ (mV/g)	Frequency Response (±5%) (Hz)	Damping Ratio ³	Shock Limit ² (g)
±50	2.0	0 - 600	0.40 - 0.9	10,000
±100	1.0	0 - 800	0.40 - 0.9	10,000
±200	0.9	0 - 1000	0.20 - 0.6	10,000
±500	0.4	0 - 1200	0.20 - 0.6	10,000
±2000	0.15	0 - 2500	0.05 - 0.3	10,000

1) Output is ratiometric to excitation voltage, signal conditioning optional

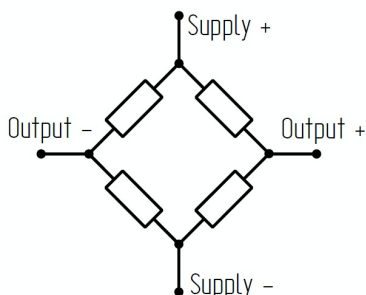
Calibration data incl.: sensitivity at 80 Hz / 5VDC, offset, bridge resistance

2) 10,000g shock limit in normal axis, 5,000g in transverse axes

3) Damping behavior varies with cable, screw mounting or gluing

General Technical Data

AIS 83C2 Performance		
Supply Voltage	(VDC)	2 to 10
Ranges	(g)	50 to 2000
Non-Linearity typ.	(%)	±1% FSO
Transverse Sensitivity typ.	(%)	<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 uncompensated	(°C)	-20 to +90
Storage Temperature	(°C)	-55 to +125
Weight Housing	(g)	14
Cable	(g/m)	nom. 30, 88 Shore A, Polyurethane
Material Housing		Aluminium, hard anodized



Order Information			
AIS 83C2-XXX-XXX			
	1	2	3
1 Model			
2 Range			
3 Cable length & 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

red - X-axis
yellow - Y-axis
green - Z-axis

