

AIS 85C2

Piezoresistive Accelerometer Triaxial, Multiple Screw Mount



Features

The model AIS 85C2 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 85C2 provides a millivolt output signal and features mechanical overload stops that provide shock protection to loads greater than 10,000g. All three axes meet their positive direction in the centre of the sensor housing. With the cube form there are more possibilities for mounting.

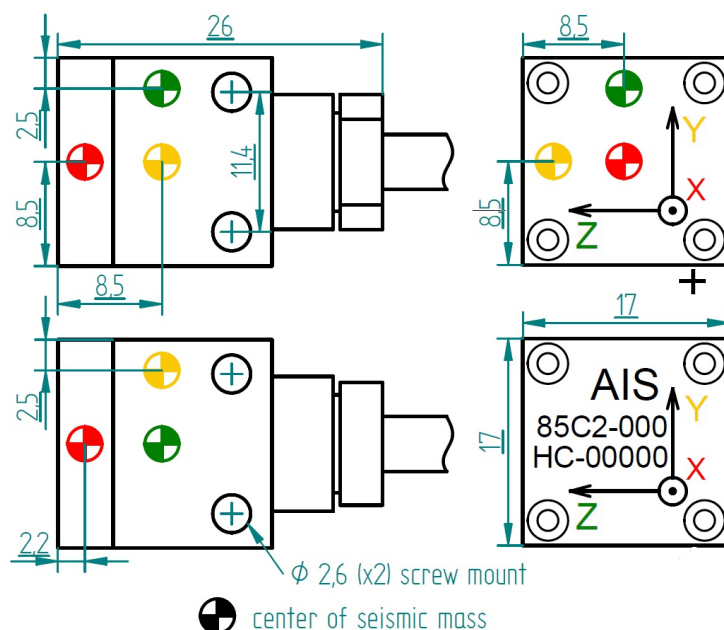
- ☐ Piezoresistive MEMS Technology
- ☐ Wheatstone Bridge
- ☐ Specification SAE J211
- ☐ Ranges $\pm 50g$ to $\pm 2000g$
- ☐ $\pm 25mV$ Zero Measurement Output typ.
- ☐ 2-10 VDC Excitation
- ☐ Amplified Output
- ☐ Mechanical Overload Stops
- ☐ Screw Mount Multiple use
- ☐ Aluminium Housing

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



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

AIS 85C2				
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

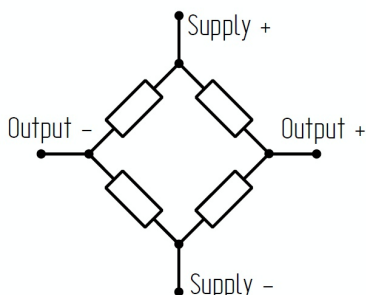
Calibration data incl.: sensitivity at 80 Hz / 5VDC, offset, bridge resistance

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 85C2 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)	10
Cable	(g/m)	nom. 30, 88 Shore A, Polyurethane
Material Housing		Aluminium, hard anodized



Order Information			
AIS 85C2-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

