

89C2

Piezoresistive Accelerometer Triaxial, glue mount



Features

The model 89C2 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 $\pm 6000g$ with high frequency response, this sensor also meets the specification SAE J211. The model 89C2 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.

A new injection part for cable split into the axes X, Y and Z is integrated for better performance.

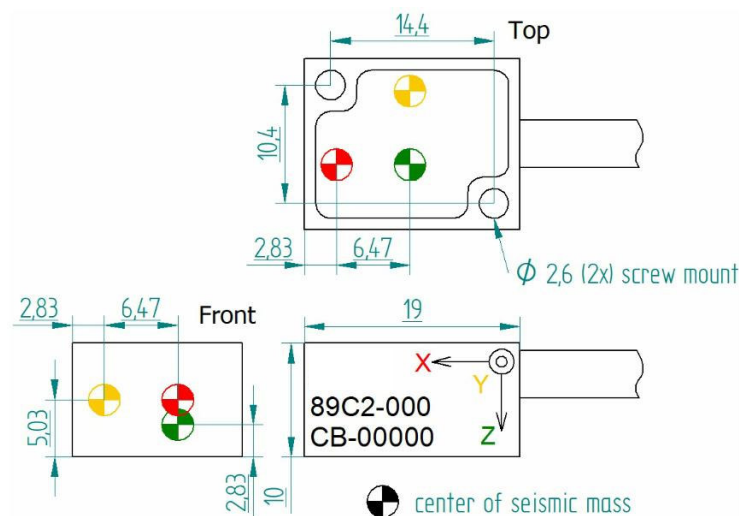
- ☐ Piezoresistive MEMS Technology
- ☐ Wheatstone Bridge
- ☐ Spezifikation SAE J211
- ☐ Ranges $\pm 50g$ to $\pm 6000g$
- ☐ $\pm 25mV$ Zero Measurement Output typ
- ☐ 2-10 VDC Excitation
- ☐ Gas Damping
- ☐ Mechanical Overload Stops
- ☐ Screw Mount

Applications

- ☐ Harsh Environments
- ☐ Vibration & Shock Monitoring
- ☐ Impact Testing
- ☐ Automotive Comfort Testing
- ☐ Machinery Testing

Service

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



89C2

Piezoresistive Accelerometer / Triaxial, screw mount

Individual Technical Data

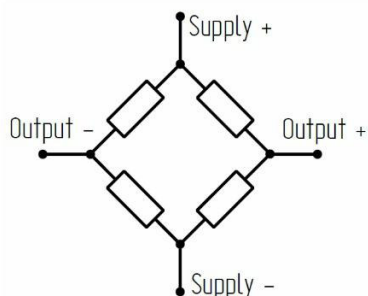
All values are typical at +24°C and 10.0 VDC excitation

89C2				
Range (g)	Sensitivity ¹ (mV/g)	Frequency Response (±5%) (Hz)	Damping Ratio ³	Shock Limit ² (g)
±50	2.0	0 - 800	0.40 - 0.9	10,000
±100	1.0	0 - 1000	0.40 - 0.9	10,000
±200	0.9	0 - 1400	0.20 - 0.6	10,000
±500	0.4	0 - 2000	0.20 - 0.6	10,000
±2000 ⁴	0.15	0 - 3000	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
 4) Measuring range ±6000g available

General Technical Data

89C2 Performance		
Supply Voltage	(VDC)	2 to 10
Ranges	(g)	50 to 2000
Non-Linearity typ.	(%)	±1% FSO / ±2% FSO for ±6000g
Transverse Sensitivity typ.	(%)	<1
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)	6,4
Cable	(g/m)	nom. 30, 88 Shore A, Polyurethane
Material Housing		Aluminium, hard anodized



Order Information			
89C2-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