

AC137-M12A Series

Low Cost, High G and High Frequency Measurement Accelerometer, Top Exit
4 Pin M12 Connector, 10 mV/g, $\pm 15\%$



VIBRATION ANALYSIS HARDWARE



Product Features

Very High 500 g Accelerometer

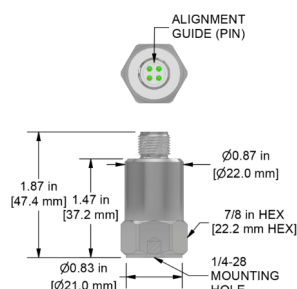
High Amplitude

- ▶ 1-13500 Hz (60-810,000 CPM) Frequency Response when Stud Mounted

AC137-M12A

4 Pin M12 Connector

Connector Pin	Polarity
1	(+) Signal/Power
2	(-) Common
3	Not Used
4	Not Used



Stock Product

Specifications	Standard	Metric	Specifications	Standard	Metric
Part Number	AC137-M12A	M/ or M8/AC137-M12A	Environmental		
Sensitivity ($\pm 10\%$)	10 mV/g		Operating Temperature Range	-58 to 250 °F	-50 to 121 °C
Frequency Response ($\pm 3\text{dB}$)	60-810,000 CPM	1,0-13500 Hz	Maximum Shock Protection	5,000 g, peak	
Dynamic Range	± 500 g, peak *Vsource $\geq 22\text{V}$, 12Vbias		Electromagnetic Sensitivity	CE	
Transverse Sensitivity	$\leq 5\%$		Sealing	Welded, Hermetic	
Electrical			Submersible Depth	200 ft.	60 m
Settling Time	<2 Seconds		SIL Rating	SIL 2	
Voltage Source	18-30 VDC		Physical		
Constant Current Excitation	2-10 mA		Sensing Element	PZT Ceramic	
Spectral Noise @ 10 Hz	300 $\mu\text{g}/\sqrt{\text{Hz}}$		Sensing Structure	Shear Mode	
Spectral Noise @ 100 Hz	30 $\mu\text{g}/\sqrt{\text{Hz}}$		Weight	3.2 oz.	90 grams
Spectral Noise @ 1000 Hz	6 $\mu\text{g}/\sqrt{\text{Hz}}$		Case Material	316L Stainless Steel	
Output Impedance	<100 ohm		Mounting Thread	1/4-28 Blind Tapped Hole	
Bias Output Voltage	10-14 VDC		Connector (Non-Integral)	2 Pin MIL-C-5015	
Case Isolation	>10 ⁸ ohm		Resonant Frequency	1,380,000 CPM	23000 Hz
			Mounting Torque	2 to 5 ft. lbs.	2,7 to 6,8 Nm
			Mounting Hardware Supplied	1/4-28 Stud	M6x1 or M8x1.25 Adapter Stud
			Calibration Certificate	CA10	

Typical Frequency Response

