

AC233-M12A Series

Premium, Low Frequency Accelerometer, Top Exit 4 Pin M12 Connector, 500 mV/g, $\pm 5\%$



VIBRATION ANALYSIS HARDWARE



Product Features

Designed for Low-Speed Rotors, Main Bearings, and Gear Box Inputs, but Can Also be Used for High Frequency Detection

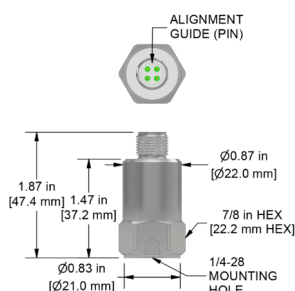
Can be Used with Any Application That Requires Low and High Frequency Measurements

- ▶ 500 mV/g Sensitivity, $\pm 5\%$ Sensitivity
- ▶ 0.1 Hz for Low Frequency Measurements
- ▶ 10,000 Hz for High Frequency Detection

AC233-M12A

4 Pin 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	AC233-M12A	M/ or M8/AC233-M12A	<u>Environmental</u>		
Sensitivity ($\pm 10\%$)	500 mV/g		Operating Temperature Range	-58 to 250 °F	-50 to 121 °C
Frequency Response ($\pm 3\text{dB}$)	6-600,000 CPM	0.1-10000 Hz	Maximum Shock Protection	5,000 g, peak	
Frequency Response ($\pm 10\%$)	36-180,000 CPM	0.6-3000 Hz	Electromagnetic Sensitivity	CE	
Dynamic Range	± 16 g, peak *Vsource $\geq 22\text{V}$, 12Vbias		Sealing	Welded, Hermetic	
Transverse Sensitivity	$\leq 5\%$		Submersible Depth	200 ft.	60 m
<u>Electrical</u>			SIL Rating	SIL 2	
Settling Time	<2 Seconds		<u>Physical</u>		
Voltage Source	18-30 VDC		Sensing Element	PZT Ceramic	
Constant Current Excitation	2-10 mA		Sensing Structure	Shear Mode	
Spectral Noise @ 10 Hz	1.7 $\mu\text{g}/\sqrt{\text{Hz}}$		Weight	3.4 oz	92 grams
Spectral Noise @ 100 Hz	0.2 $\mu\text{g}/\sqrt{\text{Hz}}$		Case Material	316L Stainless Steel	
Spectral Noise @ 1000 Hz	0.12 $\mu\text{g}/\sqrt{\text{Hz}}$		Mounting Thread	1/4-28 Blind Tapped Hole	
Output Impedance	<100 ohm		Connector (Non-Integral)	4 Pin M12	
Bias Output Voltage	10-14 VDC		Resonant Frequency	1,080,000 CPM	18000 Hz
Case Isolation	>10 ⁸ ohm		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

