

AC254-M12A Series

Low Cost, Low Frequency Accelerometer, Top Exit 4 Pin M12 Connector,
1,000 mV/g, $\pm 15\%$



VIBRATION ANALYSIS HARDWARE



Product Features

Designed for Low-Speed Rotors, Wind Turbine Main Bearings, Gear Box Inputs, and May Also Be Used for High Frequency Detection

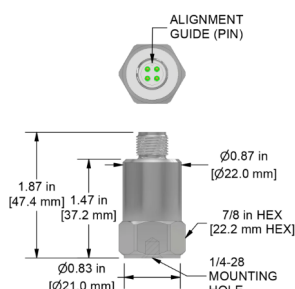
May be Used with Any Application That Requires Low and High Frequency Measurements

- ▶ 1000 mV/g Sensitivity
- ▶ 0.1 Hz to 10 kHz Frequency Response ($\pm 3\text{dB}$)

AC254-M12A

4 Pin Connector

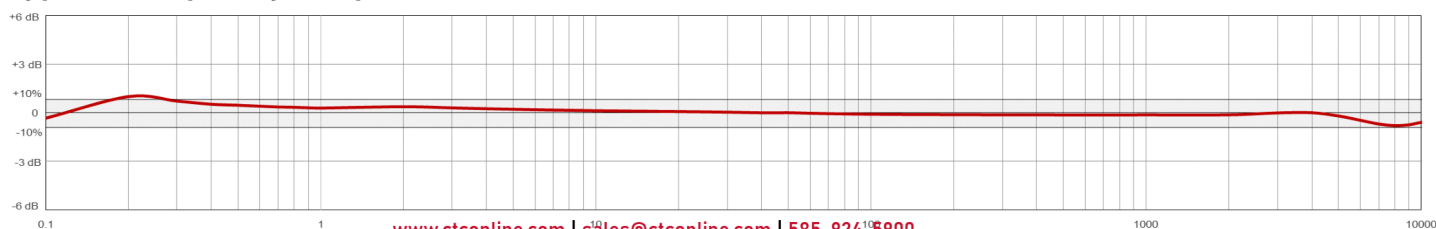
Connector Pin	Polarity
1	(+) Signal/Power
2	(-) Common
3	Not Used
4	Not Used



Stock Product

Specifications	Standard	Metric	Specifications	Standard	Metric
Part Number	AC254-M12A	M/ or M8/AC254-M12A	<u>Environmental</u>		
Sensitivity ($\pm 15\%$)	1000 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	5000 g, peak	
Dynamic Range	± 7 g, peak *Vsource $\geq 22\text{V}$, 12Vbias		Electromagnetic Sensitivity	CE	
Transverse Sensitivity	$\leq 5\%$		Sealing	Welded, Hermetic	
<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	1.3 $\mu\text{g}/\sqrt{\text{Hz}}$		Weight	3.25 oz	92 g
Spectral Noise @ 100 Hz	0.2 $\mu\text{g}/\sqrt{\text{Hz}}$		Case Material	316L Stainless Steel	
Spectral Noise @ 1000 Hz	0.1 $\mu\text{g}/\sqrt{\text{Hz}}$		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	1,020,000 CPM	17000 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



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