

AC102-M12A Series

Multipurpose Accelerometer, Top Exit 4 Pin M12 Connector, 100 mV/g, $\pm 10\%$



VIBRATION ANALYSIS HARDWARE



Product Features

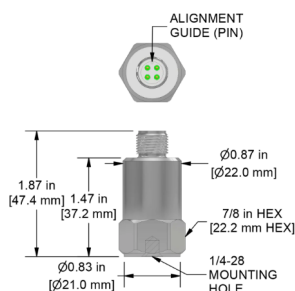
Affordably Priced, Hermetically Sealed Sensors

- ▶ 100 mV/g Sensitivity
- ▶ ± 80 g, peak Dynamic Range
- ▶ Common M12 Connection

AC102-M12A

4 Pin Connector

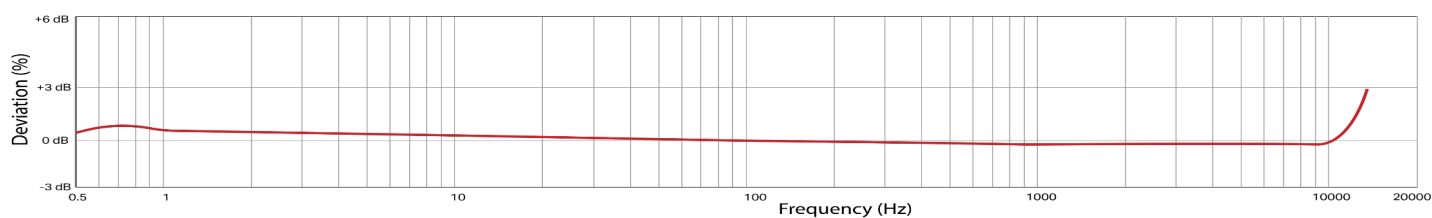
Connector Pin	Polarity
1	(+) Signal/Power
2	(-) Common
3	Not Used
4	Not Used



Stock Product

Specifications	Standard	Metric	Specifications	Standard	Metric
Part Number	AC102-M12A	M/ or M8/AC102-M12A	<u>Environmental</u>		
Sensitivity ($\pm 10\%$)	100 mV/g		Operating Temperature Range	-58 to 250 °F	-50 to 121 °C
Frequency Response ($\pm 3\text{dB}$)	30-810,000 CPM	0.5-13500 Hz	Maximum Shock Protection	5,000 g, peak	
Dynamic Range	± 80 g, peak		Electromagnetic Sensitivity	CE	
Transverse Sensitivity	$\leq 5\%$		Sealing	Welded, Hermetic	
<u>Electrical</u>			SIL Rating	SIL 2	
Settling Time	<2.5 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	14 $\mu\text{g}/\sqrt{\text{Hz}}$		Weight	3.2 oz	90 grams
Spectral Noise @ 100 Hz	2.3 $\mu\text{g}/\sqrt{\text{Hz}}$		Case Material	316L Stainless Steel	
Spectral Noise @ 1000 Hz	2 $\mu\text{g}/\sqrt{\text{Hz}}$		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	1,380,000 CPM	23000 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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