

AC255-M12A Series

Low Cost, Low Frequency Accelerometer, Side 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

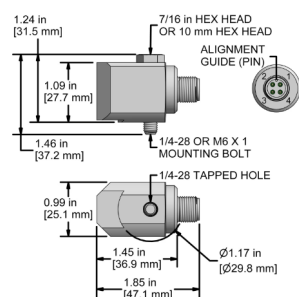
May be Used with Any Application That Requires Low and High Frequency Measurements

- ▶ 1000 mV/g Sensitivity
- ▶ 0.1 Hz to 8 kHz Frequency Response ($\pm 3\text{dB}$)

AC255-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	AC255-M12A	M/AC255-M12A	<u>Environmental</u>		
Sensitivity ($\pm 15\%$)	1000 mV/g		Operating Temperature Range	-58 to 250 °F	-50 to 121 °C
Frequency Response ($\pm 3\text{dB}$)	6-480,000 CPM	0.1-8000 Hz	Maximum Shock Protection	5000 g, peak	
Dynamic Range	$\pm 7\text{ g, peak}$ *Vsource $\geq 22\text{V, } 12\text{Vbias}$		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	5.7 oz	162 g
Spectral Noise @ 100 Hz	0.2 $\mu\text{g}/\sqrt{\text{Hz}}$		Case Material	316L Stainless Steel	
Spectral Noise @ 1000 Hz	0.1 $\mu\text{g}/\sqrt{\text{Hz}}$		Connector (Non-Integral)	4 Pin M12	
Output Impedance	< 100 ohm		Resonant Frequency	1,020,000 CPM	18000 Hz
Bias Output Voltage	10-14 VDC		Mounting Torque	2 to 5 ft. lbs.	2.7 to 6.8 Nm
Case Isolation	> 10^8 ohm		Mounting Hardware Supplied	1/4-28 Captive Bolt	M6x1 Captive Bolt
			Calibration Certificate	CA10	

Typical Frequency Response

