

AC254 Series

Low Cost, Low Frequency Accelerometer, Top Exit 2 Pin 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

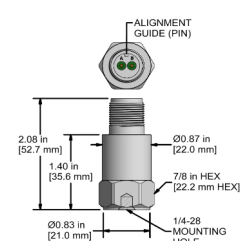
May be Used with Any Application That Requires Low and High Frequency Measurements

- ▶ 1000 mV/g Sensitivity
 - ▶ 0.1 Hz to 10 kHz Frequency Response ($\pm 3\text{dB}$)
 - ▶ Standard 2 Pin MIL Connection or Integral Cable
- Note: Integral Cable Options are Only for Permanent Monitoring Applications .
- 6N Integral Cable Option Features Food Safe FDA Compliant 21 CFR 177.1330 Polyolefin Heat Shrink

AC254-1D

2 Pin Connector

Connector Pin	Polarity
A	(+) Signal/Power
B	(-) Common

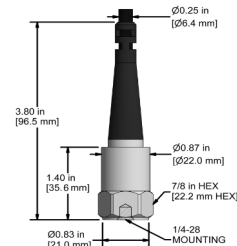


Stock Product

AC254-2D

CB103 Integral Cable

Conductor	Polarity
Red	(+) Signal/Power
Black	(-) Common
Shield	Cable Drain Wire

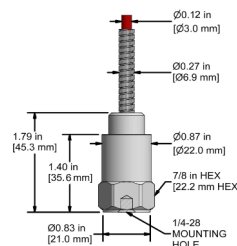


Built To Order

AC254-3D

CB206 Armored Integral Cable

Conductor	Polarity
Red	(+) Signal/Power
Black	(-) Common
Shield	Cable Drain Wire

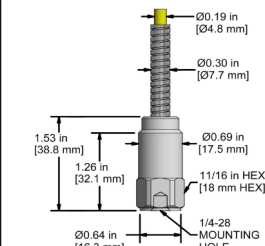


Built To Order

AC254-6D

CB611 Heavy Duty Armored Integral Cable

Conductor	Polarity
Red	(+) Signal/Power
Black	(-) Common
Shield	Cable Drain Wire

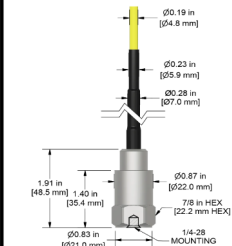


Built To Order

AC254-6N

CB111 FEP Jacketed Integral Cable

Conductor	Polarity
Red	(+) Signal/Power
Black	(-) Common
Shield	Cable Drain Wire



Built To Order

Specifications	Standard	Metric	Specifications	Standard	Metric
Part Number	AC254	M/ or M8/AC254	<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>			Submersible Depth	200 ft.	60 m
Settling Time	< 2 seconds		SIL Rating	SIL 2	
Voltage Source	18-30 VDC		<u>Physical</u>		
Constant Current Excitation	2-10 mA		Sensing Element	PZT Ceramic	
Spectral Noise @ 10 Hz	1.3 $\mu\text{g}/\sqrt{\text{Hz}}$		Sensing Structure	Shear Mode	
Spectral Noise @ 100 Hz	0.2 $\mu\text{g}/\sqrt{\text{Hz}}$		Weight	3.25 oz	92 g
Spectral Noise @ 1000 Hz	0.1 $\mu\text{g}/\sqrt{\text{Hz}}$		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	1,020,000 CPM	17000 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

