

# AC153 Series

Low Cost, Low Frequency Accelerometer, Top Exit 2 Pin Connector,  
500 mV/g,  $\pm 15\%$



VIBRATION ANALYSIS HARDWARE



## Product Features

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

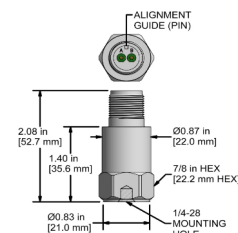
### Low-Cost Accelerometer

- ▶ 500 mV/g Sensitivity
- ▶ 0.1 Hz for Low-Frequency Measurements
- ▶ 10 kHz for High-Frequency Detection

### AC153-1D

2 Pin Connector

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

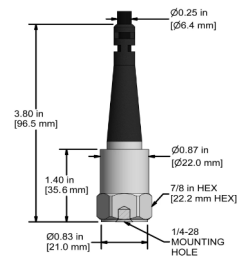


Stock Product

### AC153-2D

CB103 Integral Cable

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

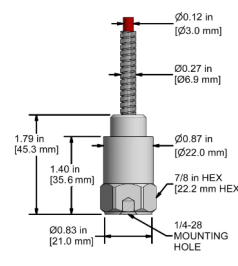


Built To Order

### AC153-3D

CB206 Armored Integral Cable

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

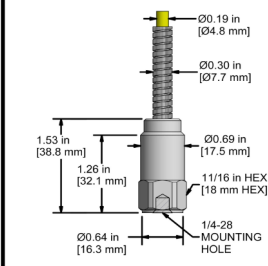


Built To Order

### AC153-6D

CB611 Heavy Duty Armored Integral Cable

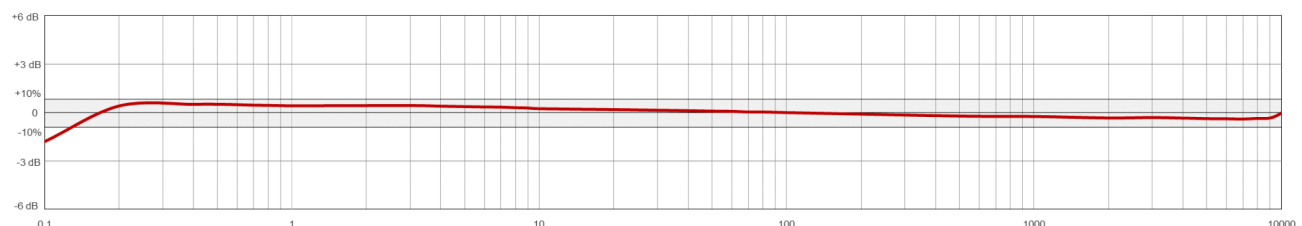
Conductor	Polarity
Red	(+) Signal/Power
Black	(-) Common
Shield	Cable Drain Wire



Built To Order

Specifications	Standard	Metric	Specifications	Standard	Metric
Part Number	AC153	M/ or M8/AC153	Environmental		
Sensitivity ( $\pm 15\%$ )	500 mV/g		Operating Temperature Range	-58 to 250 °F	-50 to 121 °C
Frequency Response ( $\pm 3dB$ )	6-600,000 CPM	0.1-10000 Hz	Maximum Shock Protection	5,000 g, peak	
Dynamic Range	$\pm 16g$ , peak *Vsource $\geq 22V$ , 12Vbias		Electromagnetic Sensitivity	CE	
Electrical			Sealing	Welded, Hermetic	
Settling Time	<2 Seconds		Submersible Depth	200 ft.	60 m
Voltage Source	18-30 VDC		SIL Rating	SIL 2	
Constant Current Excitation	2-10 mA		Physical		
Spectral Noise @ 10 Hz	1.7 $\mu g/\sqrt{Hz}$		Sensing Element	PZT Ceramic	
Spectral Noise @ 100 Hz	0.2 $\mu g/\sqrt{Hz}$		Sensing Structure	Shear Mode	
Spectral Noise @ 1000 Hz	0.12 $\mu g/\sqrt{Hz}$		Weight	3.2 oz	92 grams
Output Impedance	<100 ohm		Case Material	316L Stainless Steel	
Bias Output Voltage	10-14 VDC		Mounting Thread	1/4-28 Blind Tapped Hole	
Case Isolation	>10 <sup>8</sup> ohm		Connector (Non-Integral)	2 Pin MIL-C-5015	
			Resonant Frequency	1,080,000 CPM	18000 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



Free Annual Recalibration Service  
[www.ctconline.com](http://www.ctconline.com) | [sales@ctconline.com](mailto:sales@ctconline.com) | 585-924-5900