

AC153 Series

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



Product Features

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

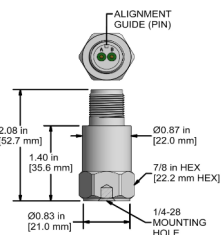
Low-Cost Accelerometer

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

AC153-1D

2 Pin Connector

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

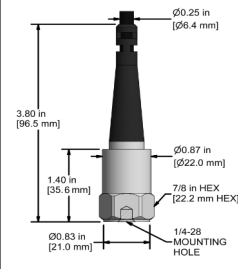


Stock Product

AC153-2D & -7A

2D = CB103 Integral Cable
7A = CB124 Integral Cable

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

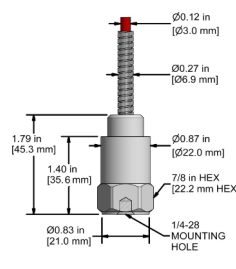


Built To Order

AC153-3D

CB206 Armored Integral Cable

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

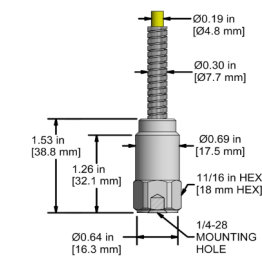


Built To Order

AC153-6D

CB611 Heavy Duty Armored Integral Cable

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

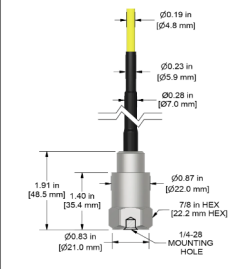


Built To Order

AC153-6N

CB111 FEP Jacketed Integral Cable

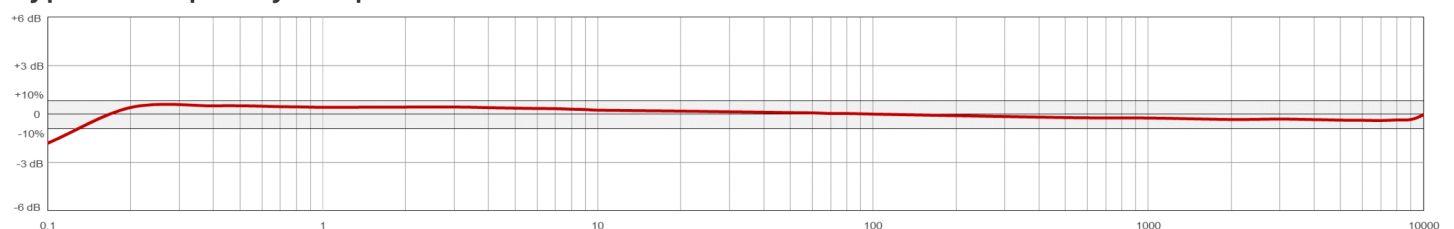
Conductor	Polarity
Red	(+) Signal/Power
Black	(-) Common
Shield	Cable Drain Wire



Built To Order

Specifications	Standard	Metric	Specifications	Standard	Metric
Part Number	AC153	M/ or M8/AC153	<u>Environmental</u>		
Sensitivity ($\pm 15\%$)	500 mV/g		Operating Temperature Range	-58 to 250 °F	-50 to 121 °C
Frequency Response ($\pm 3\text{dB}$)	6-600,000 CPM	0,1-100000 Hz	Maximum Shock Protection	5,000 g, peak	
Dynamic Range	$\pm 16\text{g}$, 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	1.7 $\mu\text{g}/\sqrt{\text{Hz}}$		Sensing Structure	Shear Mode	
Spectral Noise @ 100 Hz	0.2 $\mu\text{g}/\sqrt{\text{Hz}}$		Weight	3.2 oz	92 grams
Spectral Noise @ 1000 Hz	0.12 $\mu\text{g}/\sqrt{\text{Hz}}$		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	1,080,000 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



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