

AC255 Series

Low Cost, Low Frequency Accelerometer, Side 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 8 kHz Frequency Response ($\pm 3\text{dB}$)

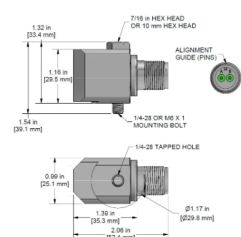
▶ Standard 2 Pin MIL Connection or Integral Cable
Note: Integral Cable Options are Only for Permanent Monitoring Applications

-6N Integral Cable Option Features Food Safe FDA Compliant 21 CFR 177.1330 Polyolefin Heat Shrink

AC255-1D

2 Pin Connector

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

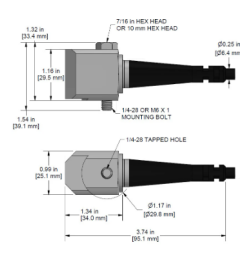


Stock Product

AC255-2D

CB103 Integral Cable

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

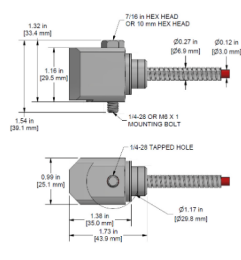


Built To Order

AC255-3D

CB206 Armored Integral Cable

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

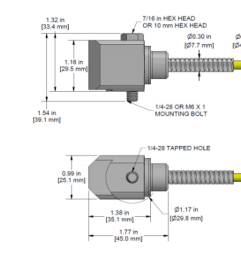


Built To Order

AC255-6D

CB611 Heavy Duty Armored Integral Cable

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

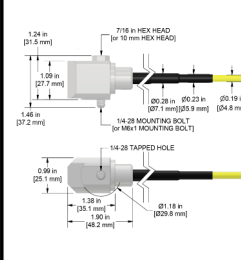


Built To Order

AC255-6N

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	AC255	M/AC255	<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	± 7 g, peak		Electromagnetic Sensitivity	CE	
Transverse Sensitivity	*V _{source} $\geq$ 22V, 12Vbias		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 Pin MIL-C-5015	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

