

AC990 Series

Nonincendive, Intrinsically Safe, ANZEx Zone 0,1, 2 Approved Accelerometer,
Top Exit 2 Pin Connector, 100 mV/g, $\pm 10\%$



VIBRATION ANALYSIS HARDWARE



Regulatory Information

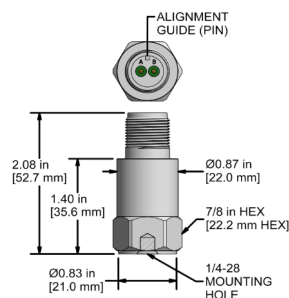
ANZEx 18.4160
Ex ia I Ma $(-40^{\circ}\text{C} \leq T_a \leq +80^{\circ}\text{C})$
Ex ia IIC T3 Ga $(-40^{\circ}\text{C} \leq T_a \leq +125^{\circ}\text{C})$
Ex ia IIC T4 Ga $(-40^{\circ}\text{C} \leq T_a \leq +80^{\circ}\text{C})$

Control Drawing INS10172
 $V_{\text{max}}/U_i = 28\text{V}$ $I_{\text{max}}/I_i = 100\text{mA}$

AC990-1A

2 Pin Connector

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

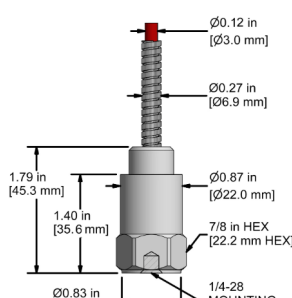


Stock Product

AC990-3A

CB296 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	AC990	M/ or M8/AC990	<u>Environmental</u>		
Sensitivity ($\pm 10\%$)	100 mV/g		Operating Temperature Range	-40 to 250 °F	-40 to 121 °C
Frequency Response ($\pm 3\text{dB}$)	30-900,000 CPM	0.5-15000 Hz	Maximum Shock Protection	5,000 g, peak	
Frequency Response ($\pm 10\%$)	60-600,000 CPM	1.0-10000 Hz	Electromagnetic Sensitivity	CE	
Dynamic Range	± 50 g, peak		Sealing	Welded, Hermetic	
Transverse Sensitivity	$\leq 5\%$		<u>Physical</u>		
<u>Electrical</u>			Sensing Element	PZT Ceramic	
Settling Time	<3 Seconds		Sensing Structure	Shear Mode	
Voltage Source	18-28 VDC		Weight	3.2 oz	91 grams
Constant Current Excitation	2-10 mA		Case Material	316L Stainless Steel	
Spectral Noise @ 10 Hz	30 $\mu\text{g}/\sqrt{\text{Hz}}$		Mounting Thread	1/4-28 Blind Tapped Hole	
Spectral Noise @ 100 Hz	19 $\mu\text{g}/\sqrt{\text{Hz}}$		Connector (Non-Integral)	2 Pin MIL-C-5015	
Spectral Noise @ 1000 Hz	15 $\mu\text{g}/\sqrt{\text{Hz}}$		Resonant Frequency	1,380,000 CPM	23000 Hz
Output Impedance	<100 ohm		Mounting Torque	2 to 5 ft. lbs.	2.7 to 6.8 Nm
Bias Output Voltage	10-14 VDC		Mounting Hardware Supplied	1/4-28 Stud	M6x1 or M8x1.25 Adapter Stud
Case Isolation	$>10^8$ ohm		Calibration Certificate	CA10	

Typical Frequency Response

