

AC949 Series

Nonincendive, CSA North America Class I, Division 2, ATEX/IECEx Zone 2
Approved Biaxial Accelerometer, Side Exit 3 Pin Connector, with X and Z
Axis, 100 mV/g, ±10%



Regulatory Information

CSA 221421	CSA Ca 24ATEX1004X
Ex nA IIC T3 Gc	IECEx CSA 240015X
Cl, Z2, AEx nA IIC T3 Gc	Ex ec IIC T* °C Gc
Cl, D2, Gr A -D, ClI, D1, ClII T3	Ex tc IIIC T135 °C Dc
-40°C = Ta = +121°C	Temperature code for gas for ambient range:
Control Drawing INS10035	T4 for ambient range of -40 °C to +80 °C
Ui = 28VDC, Ii = 100mA, Pi = 100mW, Ci = 0nF, Li = 51µH	T3 for ambient range of -40 °C to +121 °C
Approved Cabling: CB192* and CB298 (*Approved for Use in T4 Applications Only)	V = 28VDC I = 10mA

AC949-1D

3 Pin Connector

Connector Pin	Polarity
A (Axis X)	(+) Signal/Power
B (Axis Z)	(+) Signal/Power
C	(-) Common

AC949-2D

CB192 Integral Cable

Conductor	Polarity
Green (Axis X)	(+) Signal/Power
White (Axis Z)	(+) Signal/Power
Black	(-) Common

Built To Order

AC949-3D

CB298 Armored Integral Cable

Conductor	Polarity
Green (Axis X)	(+) Signal/Power
White (Axis Z)	(+) Signal/Power
Black	(-) Common

Built To Order

Specifications	Standard	Metric	Specifications	Standard	Metric
Part Number	AC949	M/AC949	Environmental		
Sensitivity (±10%)	100 mV/g		Operating Temperature Range	-58 to 250 °F	-50 to 121 °C
Frequency Response (±3dB)	60-390,000 CPM	1,0-6500 Hz	Maximum Shock Protection	CE	
Dynamic Range	± 50 g, peak		Sealing	Welded, Hermetic	
Electrical			Physical		
Settling Time	<2.5 seconds		Sensing Element	PZT Ceramic	
Voltage Source	18-28 VDC		Sensing Structure	Shear Mode	
Constant Current Excitation	2-10 mA		Weight	6.9 oz	195 grams
Spectral Noise @ 10 Hz	27 µg/√Hz		Case Material	316L Stainless Steel	
Spectral Noise @ 100 Hz	6.5 µg/√Hz		Mounting Thread	1/4-28	
Spectral Noise @ 1000 Hz	2.5 µg/√Hz		Connector (Non-Integral)	3 Pin MIL-C-5015	
Output Impedance	<100 ohm		Mounting Torque	1 to 2 ft. lbs.	1,4 to 2,7 Nm
Bias Output Voltage	10-14 VDC		Mounting Hardware Supplied	1/4-28 Captive Bolt	M6x1 Captive Bolt
Case Isolation	>10 ⁸ ohm		Calibration Certificate	CA10	

Typical Frequency Response

