

# AC963 Series

Low Capacitance, IEC Certified (IECEX/ANZEx), Intrinsically Safe Accelerometer, Top Exit Connector/Cable, 50 mV/g

SECTION 1 - VIBRATION SENSORS  
Low Capacitance Accelerometers

Actual Product Size Shown

IECEX  
ANZEx



**Must Use "Class I, Division 2" CB190 or CB206 Cable and D2Q Connector**

### REGULATORY INFORMATION

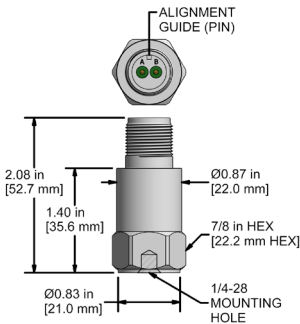
Ex ia IIC T3/T4  
AEx ia IIC T3/T4  
CLI Groups A, B, C, D  
CLII Groups F, G  
CLIII

Operating Temperature Code: T3 or T4  
Ambient Temperature Range =  
-40°C to +125°C (T3) or -40°C to +80°C (T4)  
U<sub>i</sub> = 28 Vdc I<sub>i</sub> = 100 mA  
CSA 221421

IECEX CSA 07.0001  
Ex ia IIC T3 or T4  
ANZEx 18.4160

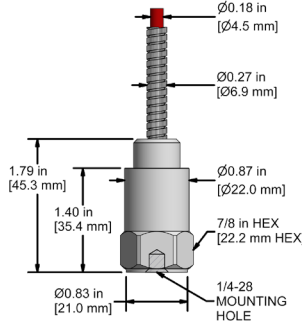
**AC963-1A**  
2 Pin Connector

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



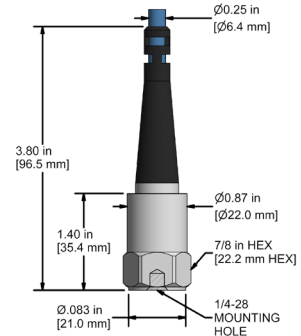
**AC963-3C**  
Armored Integral Cable

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



**AC963-9C**  
Integral Cable

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



Specifications	Standard	Metric
Part Number	AC963	M/AC963
<b>Vibration</b>		
Sensitivity (±10%)		50 mV/g
Frequency Response (±3dB)	48-900,000 CPM	0.8-15000 Hz
Frequency Response (±10%)	90-390,000 CPM	1.5-6500 Hz
Dynamic Range		± 160 g, peak
<b>Electrical</b>		
Settling Time		<3 Seconds
Voltage Source (IEPE)		18-28 VDC
Constant Current Excitation		2-10 mA
Spectral Noise @ 10 Hz		30 µg/√Hz
Spectral Noise @ 100 Hz		25 µg/√Hz
Spectral Noise @ 1000 Hz		25 µg/√Hz
Output Impedance		<100 ohm
Bias Output Voltage		10-14 VDC
Case Isolation		>10 <sup>8</sup> ohm

Specifications	Standard	Metric
<b>Environmental</b>		
Temperature Range	-40 to 250°F	-40 to 121°C
Maximum Shock Protection		5,000 g, peak
Electromagnetic Sensitivity		CE
Sealing		Welded, Hermetic
<b>Physical</b>		
Sensing Element		PZT Ceramic
Sensing Structure		Shear Mode
Weight	3.2 oz	91 grams
Case Material		316L Stainless Steel
Mounting		1/4-28
Connector (AC963-1A)		2 Pin MIL-C-5015
Armored Cable (AC963-3C)		Armor Jacketed Cable
Integral Cable (AC963-9C)		RAL 5015 Blue Polyurethane Cable
Resonant Frequency	1,380,000 CPM	23000 Hz
Mounting Torque	2 to 5 ft. lbs.	2,7 to 6,8 Nm
Mounting Hardware	1/4-28 Stud	M6x1 Adapter Stud
Calibration Certificate		CA10

## Ordering Information

Standard	AC963-1A (1/4-28 Stud)	AC963-3C / (1/4-28 Stud)	AC963-9C / (1/4-28 Stud)
	Stock	Build To Order	Build To Order
		(maximum armor length 100 ft.)	(cable length in feet)
		(termination)	(termination)
Metric	M/AC963-1A (M6x1 Adapter Stud)	M/AC963-3C / (M6x1 Adapter Stud)	M/AC963-9C / (M6x1 Adapter Stud)
	Stock	Build To Order	Build To Order
		(maximum armor length 30 m)	(cable length in meters)
		(termination)	(termination)

Cable



**Read Before Purchasing**  
Important information on  
**Regulatory Approvals and Requirements**  
on Page 87

Backed by our Unconditional Lifetime Warranty

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