

AC971 Series

Premium Nonincendive Miniature Industrial, Intrinsically Safe, CSA North America Class 1 Div 1, Class II Div 1, Class III and IECEx/ATEX Zone 0,1 Approved Accelerometer, Top Exit 2 Pin Mini-MIL Connector, 100 mV/g, ±5%



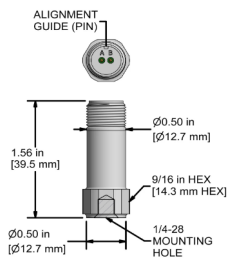
Regulatory Information

CSA 221421	Mining Group I: Ta @-40°C to +121°C
CSA 26CA80263367X	T156°C: Ta @ -40°C to +121°C
CL I, DIV 1, GRP A, B, C and D	T135°C: Ta @ -40°C to +80°C
CL II, DIV 1, GRP E, F and G; CL III	Install per drawing INS10210
Ex ia IIC T3-T4 Ga	Refer to product manual
Ex ib IIC T135°C...T156°C Db	Refer to product manual
CL I, ZN 0, AEx ia IIC T3-T4 Ga	Refer to product manual
ZN 21, AEx ib IIC T135°C...T156°C Db	Refer to product manual
T3: Ta = -40°C to +121°C	Refer to product manual
T4: Ta = -40°C to +80°C	Refer to product manual
T156°C: Ta = -40°C to +121°C	Refer to product manual
T135°C: Ta = -40°C to +80°C	Refer to product manual
Install per drawing INS10187	Refer to product manual
Refer to product manual MNX10127	Refer to product manual
200 ft (61 m) Maximum Allowable Integral Cable Length	Refer to product manual
Approved Cabling: CB102, CB103*, CB111, CB190*, CB193*, CB206, CB296 (*Approved for Use in T4 Applications Only)	Refer to product manual
Requires One IS111-1B Intrinsic Safety Barrier Per Sensor	Refer to product manual
IECEx SIR 15.0060X	Refer to product manual
Ex ia IIC T3-T4 Ga	Refer to product manual
Ex ib IIC T135°C ... T156°C Db	Refer to product manual
Ex ia I Ma	Refer to product manual
T3: Ta @ -40°C to +121°C	Refer to product manual
T4: Ta @ -40°C to +80°C	Refer to product manual

AC971-1A

2 Pin Connector

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

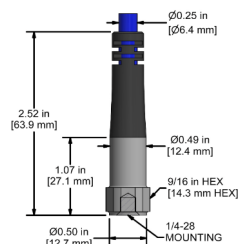


Stock Product

AC971-2A

CB193 Molded Integral Cable

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

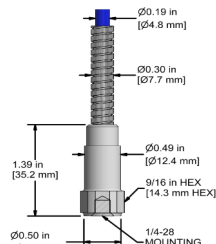


Built To Order

AC971-3A

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	AC971	M/ or M8/AC971	Operating Temperature Range	-58 to 250 °F	-50 to 121 °C
Sensitivity (±5%)	100 mV/g		Maximum Shock Protection	5,000 g, peak	
Frequency Response (±3dB)	36-1,200,000 CPM	0.6-20000 Hz	Electromagnetic Sensitivity	CE	
Frequency Response (±10%)	60-420,000	1.0-7000 Hz	Sealing	Welded, Hermetic	
Dynamic Range	± 50 g, peak		Physical		
Transverse Sensitivity	≤5%		Sensing Element	PZT Ceramic	
Electrical			Sensing Structure	Shear Mode	
Settling Time	< 2.5 Seconds		Weight	0.7 oz	20 grams
Voltage Source	18-28 VDC		Case Material	316L Stainless Steel	
Constant Current Excitation	2-10 mA		Mounting Thread	1/4-28 Blind Tapped Hole	
Spectral Noise @ 10 Hz	30 µg/√Hz		Connector (Non-Integral)	2 Pin mini-MIL	
Spectral Noise @ 100 Hz	4 µg/√Hz		Resonant Frequency	2,040,000	34000 Hz
Spectral Noise @ 1000 Hz	2 µg/√Hz		Mounting Torque	2 to 5 ft. lbs.	2.7 to 6.8 Nm
Output Impedance	<100 ohm		Mounting Hardware Supplied	1/4-28 Stud	M6x1 or M8x1.25 Adapter Stud
Bias Output Voltage	10-14 VDC		Calibration Certificate	CA10	
Case Isolation	>10 ⁹ ohm				

Typical Frequency Response

