

AC970 Series

Nonincendive Miniature Industrial, Intrinsically Safe, CSA North America
Class I Div 1, Class II Div 1, Class III and IECEx/ATEX Zone 0,1,2,21,22
Approved Accelerometer, Top Exit 2 Pin Mini-MIL Connector, 100 mV/g,
±10%



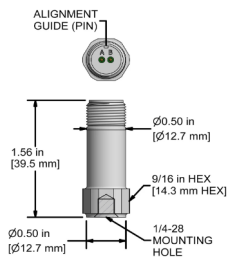
Regulatory Information

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 MNX10134
Ex ib IIIC T135°C...T156°C Db	
CL I, ZN 0, AEx ia IIC T3-T4 Ga	
ZN 21, AEx ib IIIC T135°C...T156°C Db	
T3: Ta = -40°C to +121°C	Sira 15ATEX2152X
T4: Ta = -40°C to +80°C	Ex ia IIC T3 -T4 Ga
T156°C: Ta = -40°C to +121°C	T3: Ta @ -40°C to +121°C
T135°C: Ta = -40°C to +80°C	T4: Ta @ -40°C to +80°C
Install per drawing INS10187	Ex ib IIIC T135°C ... T156°C Db
Refer to product manual MNX10127	T156°C: Ta @ -40°C to +121°C
	T135°C: Ta @ -40°C to +80°C
200 ft (61 m) Maximum Allowable Integral Cable Length	Ex ia I Ma
Approved Cabling: CB102, CB103*, CB111, CB190*, CB193*, CB206, CB296 (*Approved for Use in T4 Applications Only)	Ta @ -40°C to +121°C
Requires One IS111-1B Intrinsic Safety Barrier	Install per drawing INS10211
	Refer to product manual MNX10135
IECEx SIR 15.0060X	Connector Exit Entity Parameters:
Ex ia IIC T3-T4 Ga	Ui = 28 Vdc, li = 120 mA, Pi = 1W, Ci = 28nF, Li = 0µH
Ex ib IIIC T135°C ... T156°C Db	
Ex ia I Ma	Integral Cable Entity Parameters
T3: Ta @ -40°C to +121°C	Ui = 28 Vdc, li = 120 mA, Pi = 1W, Ci = 40nF, Li = 40.2µH
T4: Ta @ -40°C to +80°C	

AC970-1D

2 Pin Connector

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

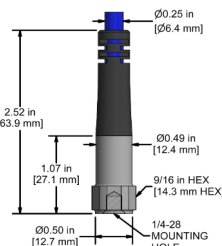


Stock Product

AC970-2D

CB193 Molded Integral Cable

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

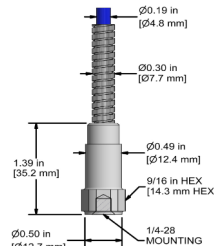


Built To Order

AC970-3D

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	AC970	M/ or M8/AC970	Environmental		
Sensitivity (±10%)	100 mV/g		Operating Temperature Range	-58 to 250 °F	-50 to 121 °C
Frequency Response (±3dB)	36-1,200,000 CPM	0.6-20000 Hz	Maximum Shock Protection	5,000 g, peak	
Frequency Response (±10%)	60-420,000	1.0-7000 Hz	Electromagnetic Sensitivity	CE	
Dynamic Range	± 50 g, peak		Sealing	Welded, Hermetic	
Transverse Sensitivity	≤5%		Physical		
Electrical			Sensing Element	PZT Ceramic	
Settling Time	< 2.5 Seconds		Sensing Structure	Shear Mode	
Voltage Source	18-28 VDC		Weight	0.7 oz	20 grams
Constant Current Excitation	2-10 mA		Case Material	316L Stainless Steel	
Spectral Noise @ 10 Hz	30 µg/√Hz		Mounting Thread	1/4-28 Blind Tapped Hole	
Spectral Noise @ 100 Hz	4 µg/√Hz		Connector (Non-Integral)	2 Pin mini-MIL	
Spectral Noise @ 1000 Hz	2 µg/√Hz		Resonant Frequency	2,040,000	34000 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

