

AC979 Series



Nonincendive Intrinsically Safe, CSA North America Class 1 Div 1, Class II Div 1, Class III and IECEx/ATEX Zone 0,1 Approved Biaxial Accelerometer, Side Exit 3 Pin Connector, with X and Z Axis, 100 mV/g, $\pm 10\%$



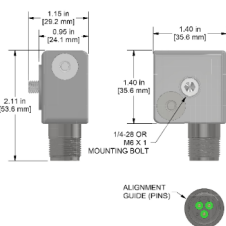
Regulatory Information

CSA 221421	Mining Group I: Ta @ -40°C to +121°C
CSA 26CA80263367X	T147°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...T147°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...T147°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
T147°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: CB192*, CB218, CB298	Refer to product manual
(*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	Connector Exit Entity Parameters:
Ex ia IIC T3-T4 Ga	Ui = 28 Vdc, li = 120 mA, Pi = 1W, Ci = 28nF, Li = 0μH
Ex ib IIC T135°C ... T147°C Db	Integral Cable Entity Parameters
Ex ia I Ma	Ui = 28 Vdc, li = 120 mA, Pi = 1W, Ci = 40nF, Li = 40.2μH
T3: Ta @ -40°C to +121°C	
T4: Ta @ -40°C to +80°C	

AC979-1D

3 Pin Connector

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

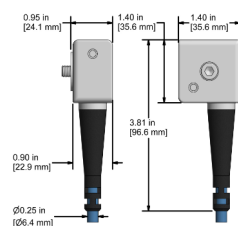


Stock Product

AC979-2D

CB192 Molded Integral Cable

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

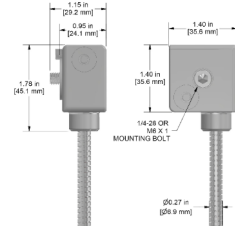


Built To Order

AC979-3D

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	AC979	M/AC979	Environmental		
Sensitivity ($\pm 10\%$)		100 mV/g	Operating Temperature Range	-58 to 250°F	-50 to 121°C
Frequency Response ($\pm 3\text{dB}$)	60-390,000 CPM	1,0-6500 Hz	Electromagnetic Sensitivity	CE	
Dynamic Range		± 50 g, peak	Sealing	Welded, Hermetic	
Transverse Sensitivity		$\leq 5\%$	Physical		
Electrical			Sensing Element	PZT Ceramic	
Settling Time	<2.5 Seconds		Sensing Structure	Shear Mode	
Voltage Source	18-28 VDC		Weight	6.9 oz	195 grams
Constant Current Excitation	2-10 mA		Case Material	316L Stainless Steel	
Spectral Noise @ 10 Hz	27 $\mu\text{g}/\sqrt{\text{Hz}}$		Mounting Thread	1/4-28	
Spectral Noise @ 100 Hz	6.5 $\mu\text{g}/\sqrt{\text{Hz}}$		Connector (Non-Integral)	3 Pin MIL-C-5015	
Spectral Noise @ 1000 Hz	2.5 $\mu\text{g}/\sqrt{\text{Hz}}$		Mounting Torque	1 to 2 ft. lbs.	1,4 to 2,7 Nm
Output Impedance	<100 ohm		Mounting Hardware Supplied	1/4-28 Captive Bolt	M6x1 Captive Bolt
Bias Output Voltage	10-14 VDC		Calibration Certificate	CA10	
Case Isolation	>10 ⁸ ohm				

Typical Frequency Response

