

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, ±10%



Regulatory Information

CSA 221421
CSA 26CA80263367X
CLI, DIV 1, GRP A, B, C and D
CLII, DIV 1, GRP E, F and G; CLIII
Ex ia IIC T3-T4 Ga
Ex ib IIIC T135°C...T147°C Db
CLI, ZN 0, AEx ia IIC T3-T4 Ga
ZN 21, AEx ib IIIC T135°C...T147°C Db
T3: Ta = -40°C to +121°C
T4: Ta = -40°C to +80°C
T147°C: Ta = -40°C to +121°C
T135°C: Ta = -40°C to +80°C
Install per drawing INS10187
Refer to product manual MNX10127

Mining Group I: Ta @ -40°C to +121°C
T147°C: Ta @ -40°C to +121°C
T135°C: Ta @ -40°C to +80°C
Install per drawing INS10210
Refer to product manual MNX10134

Sira 15ATEX2152X
Ex ia IIC T3 -T4 Ga
T3: Ta @ -40°C to +121°C
T4: Ta @ -40°C to +80°C
Ex ib IIIC T135°C ... T147°C Db
T147°C: Ta @ -40°C to +121°C
T135°C: Ta @ -40°C to +80°C
Ex ia I Ma
Ta @ -40°C to +121°C
Install per drawing INS10211
Refer to product manual MNX10135

200 ft (61 m) Maximum Allowable Integral Cable Length
Approved Cabling: CB192*, CB218, CB298
(*Approved for Use in T4 Applications Only)
Requires One IS111-1B Intrinsic Safety Barrier Per Sensor

IECEx SIR 15.0060X
Ex ia IIC T3-T4 Ga
Ex ib IIIC T135°C ... T147°C Db
Ex ia I Ma
T3: Ta @ -40°C to +121°C
T4: Ta @ -40°C to +80°C

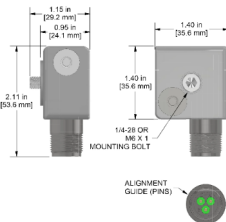
Connector Exit Entity Parameters:
Ui = 28 Vdc, li = 120 mA, Pi = 1W, Ci = 28nF, Li = 0μH

Integral Cable Entity Parameters
Ui = 28 Vdc, li = 120 mA, Pi = 1W, Ci = 40nF, Li = 40.2μH

AC979-1D

3 Pin Connector

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

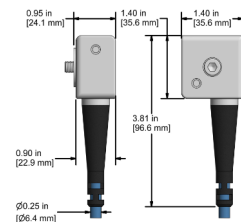


Stock Product

AC979-2D

CB192 Molded Integral Cable

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

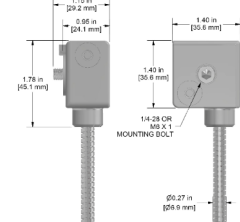


Built To Order

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 (±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	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	6.9 oz	195 grams
Constant Current Excitation	2-10 mA		Case Material	316L Stainless Steel	
Spectral Noise @ 10 Hz	27 μg/√Hz		Mounting Thread	1/4-28	
Spectral Noise @ 100 Hz	6.5 μg/√Hz		Connector (Non-Integral)	3 Pin MIL-C-5015	
Spectral Noise @ 1000 Hz	2.5 μg/√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

