

# AC979 Series

**Intrinsically Safe Accelerometer, Biaxial Accelerometer, Connector/Cable, 100 mV/g**



**CSA/ATEX/IECEx Approved**

Actual Product Size Shown



## REGULATORY INFORMATION

Ex ia IIC T3/T4 Ga  
 AEx ia IIC T3/T4 Ga  
 CLI Groups A, B, C, D  
 CLII Groups E, F, G; CLIII  
 CLI, Zone 0

Control Drawing INS10012  
 Ui = 28 Vdc li = 112 mA  
 Pi = 1W, Ci = 63.036nF, Li = 0μH  
 CSA 221421  
 Sira 15ATEX2152X  
 Ex ia IIC T3 Ga  
 IECEx SIR 15.0060X  
 Ex ia IIC T3 Ga

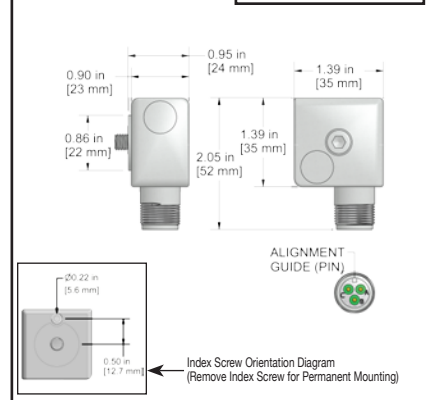
Operating Temperature Code: T4  
 Ambient Temperature Range = -40°C to +80°C  
 Operating Temperature Code: T3  
 Ambient Temperature Range = -40°C to +121°C

Requires **Intrinsically Safe Barrier IS111**

### AC979-1D

3 Pin Connector

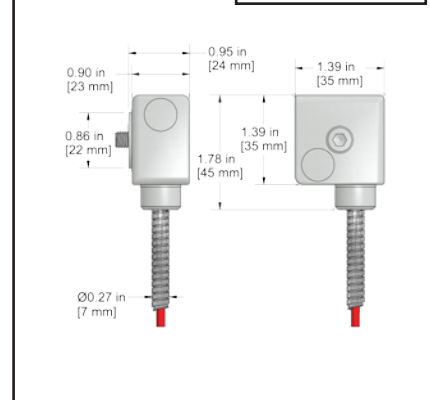
Connector Pin	Polarity
A	Axis X (+) Signal / Power
B	Axis Z (+) Signal / Power
C	(-) Common



### AC979-3D

Integral Cable

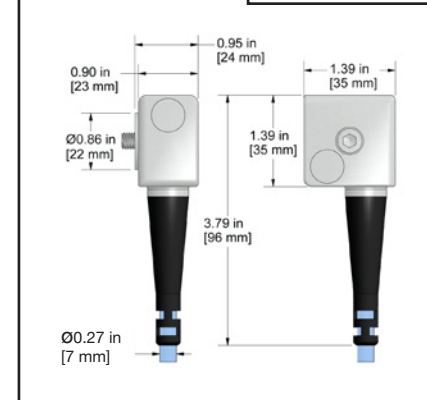
Conductor	Polarity
Green	Axis X (+) Signal / Power
White	Axis Z (+) Signal / Power
Black	(-) Common



### AC979-9D

Armored Integral Cable

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



Specifications	Standard	Metric
Part Number	AC979	M/AC979
<b>Vibration</b>		
Sensitivity (±10%)	100 mV/g	
Frequency Response (±3dB)	60-390,000 CPM	1,0-6500 Hz
Dynamic Range	± 50 g, peak	
<b>Electrical</b>		
Settling Time	<2.5 seconds	
Voltage Source (IEPE)	18-28 VDC	
Constant Current Excitation	2-10 mA	
Spectral Noise @ 10 Hz	27 μg./√Hz	
Spectral Noise @ 100 Hz	6.5 μg./√Hz	
Spectral Noise @ 1000 Hz	2.5 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	-58 to 250°F	-50 to 121°C
Electromagnetic Sensitivity	CE	
Sealing	Welded, Hermetic	
<b>Physical</b>		
Sensing Element	PZT Ceramic	
Sensing Structure	Shear Mode	
Weight	6.9 oz	195 grams
Case Material	316L Stainless Steel	
Mounting	1/4-28	
Connector (AC979-1D)	3 Pin MIL-C-5015	
Armored Cable (AC979-3D)	Armor Jacketed Cable	
Integral Cable (AC979-9D)	Blue TPE Cable	
Mounting Torque	1 to 2 ft. lbs.	1,4 to 2,7 Nm
Mounting Hardware	1/4-28 Captive Bolt	M6x1 Captive Bolt
Indexing Screw	Provided for consistent axis orientation, may be removed in permanent installations	
Calibration Certificate	CA10	

## Ordering Information

Standard	AC979-1D	AC979-3D /	AC979-9D /
	(1/4-28 Captive Bolt)	(1/4-28 Captive Bolt)	(1/4-28 Captive Bolt)
	Stock Product	Build To Order	Build To Order
		(maximum armor length 100 ft.) / (cable length in feet)	(length in feet) / (termination)
Metric	M/AC979-1D	M/AC979-3D /	M/AC979-9D /
	(M6x1 Captive Bolt)	(M6x1 Captive Bolt)	(M6x1 Captive Bolt)
	Stock Product	Build To Order	Build To Order
		(maximum armor length 30 m) / (cable length in meters)	(length in meters) / (termination)

**CTC multi-conductor cable**

Green = X axis  
 White = Z axis  
 Black = Common



CTC tuotteet kilpailukykyiseen hintaan nome.fi

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

**Cable Terminations:** L Z



VIBRATION ANALYSIS HARDWARE

**Backed by our Unconditional Lifetime Warranty**

SECTION 1 - VIBRATION SENSORS  
Intrinsically Safe Accelerometers