

# AC980 Series

## Intrinsically Safe Accelerometer, Triaxial 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

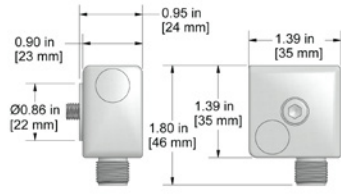
Operating Temperature Code: T4  
 Ambient Temperature Range = -40°C to +80°C  
 Operating Temperature Code: T3  
 Ambient Temperature Range = -40°C to +121°C

Requires **Intrinsically Safe Barrier IS111**

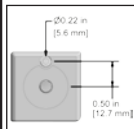
### AC980-1D

4 Pin Connector

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



ALIGNMENT GUIDE (PIN)

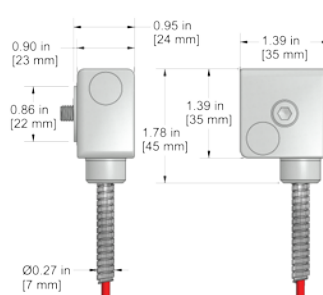


Index Screw Orientation Diagram (Remove Index Screw for Permanent Mounting)

### AC980-3D

Integral Cable

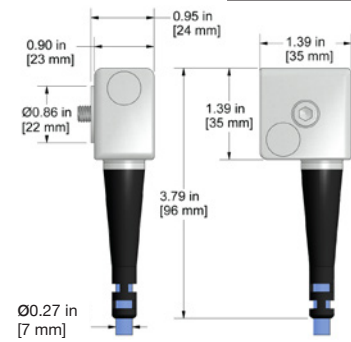
Conductor	Polarity
Red	Axis Y (+) Signal/Power
Green	Axis X (+) Signal/Power
White	Axis Z (+) Signal/Power
Black	(-) Common



### AC980-9D

Armored Integral Cable

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



Specifications	Standard	Metric
Part Number	AC980	M/AC980
<b>Vibration</b>		
Sensitivity (±10%)	100 mV/g	
Frequency Response (±3dB)	36-600,000 CPM	0,6-10000 Hz
Frequency Response (±10%)	60-390,000 CPM	1,0-6500 Hz
Frequency Response (±5%)	480-330,000 CPM	8,0-5500 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	-65 to 250°F	-54 to 121°C
Electromagnetic Sensitivity	CE	
Sealing	Welded, Hermetic	
<b>Physical</b>		
Sensing Element	PZT Ceramic	
Sensing Structure	Shear Mode	
Weight	7.1 oz	200 grams
Case Material	316L Stainless Steel	
Mounting	1/4-28	
Connector (AC980-1D)	4 Pin, J Series Connector	
Armored Cable (AC980-3D)	Armor Jacketed Cable	
Integral Cable (AC980-9D)	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	AC980-1D	AC980-3D /	AC980-9D /
	(1/4-28 Captive Bolt) <b>Stock Product</b>	(1/4-28 Captive Bolt) <b>Build To Order</b>	(1/4-28 Captive Bolt) <b>Build To Order</b>
		(maximum armor length 100 ft.) (cable length in feet) (termination)	(length in feet) (termination)
Metric	M/AC980-1D	M/AC980-3D /	M/AC980-9D /
	(M6x1 Captive Bolt) <b>Stock Product</b>	(M6x1 Captive Bolt) <b>Build To Order</b>	(M6x1 Captive Bolt) <b>Build To Order</b>
		(maximum armor length 30 m) (cable length in meters) (termination)	(length in meters) (termination)

**CTC multi-conductor cable**  
 Red = Y axis  
 Green = X axis  
 White = Z axis  
 Black = Common

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

**Cable Terminations:** L Z

