

AC974 Series

Intrinsically Safe mini-MIL Accelerometer, Side Exit 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

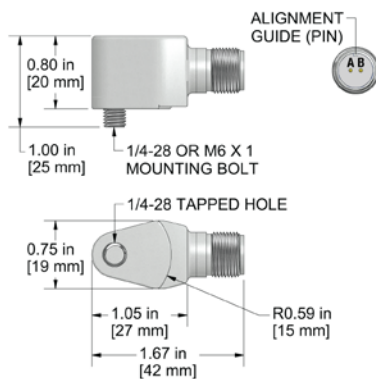
Operating Temperature Code: T4
 Ambient Temperature Range = -40°C to +80°C
 Operating Temperature Code: T3
 Ambient Temperature Range = -40°C to +121°C

Requires **Intrinsically Safe Barrier IS111**

AC974-1D

2 Pin Connector

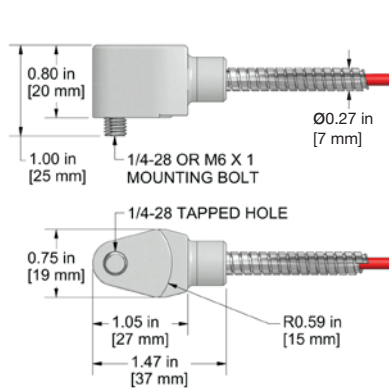
Connector Pin	Polarity
A	(+) Signal/Power
B	(-) Common



AC974-3D

Armored Integral Cable

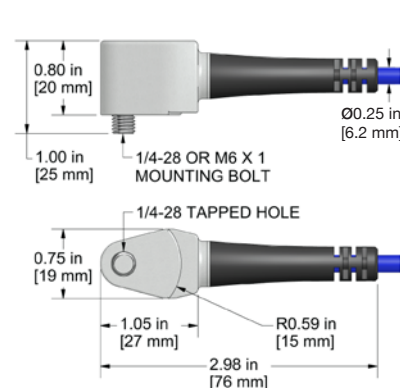
Conductor	Polarity
Red	(+) Signal/Power
Black	(-) Common
Shield	Cable Drain Wire



AC974-9D

Integral Cable

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



Specifications	Standard	Metric
Part Number	AC974	M/AC974
Vibration		
Sensitivity (±10%)	100 mV/g	
Frequency Response (±3dB)	36-600,000 CPM	0,6-10000 Hz
Dynamic Range	± 50 g, peak	
Electrical		
Settling Time	<2.5 seconds	
Voltage Source (IEPE)	18-28 VDC	
Constant Current Excitation	2-10 mA	
Spectral Noise @ 10 Hz	30 µg/√Hz	
Spectral Noise @ 100 Hz	4 µg/√Hz	
Spectral Noise @ 1000 Hz	2 µg/√Hz	
Output Impedance	<100 ohm	
Bias Output Voltage	10-14 VDC	
Case Isolation	>10 ⁸ ohm	

Specifications	Standard	Metric
Environmental		
Temperature Range	-58 to 250°F	-50 to 121°C
Maximum Shock Protection	5,000 g, peak	
Electromagnetic Sensitivity	CE	
Sealing	Welded, Hermetic	
Physical		
Sensing Element	PZT Ceramic	
Sensing Structure	Shear Mode	
Weight	2.1 oz	60 grams
Case Material	316L Stainless Steel	
Mounting	1/4-28	
Connector (AC974-1D)	2 Pin mini-MIL, J Series Connector	
Armored Cable (AC974-3D)	Armor Jacketed Cable	
Integral Cable (AC974-9D)	Blue TPE Cable	
Resonant Frequency	1,920,000 CPM	32000 Hz
Mounting Torque	2 to 5 ft. lbs.	2,7 to 6,8 Nm
Mounting Hardware	1/4-28 Captive Bolt	M6x1 Captive Bolt
Calibration Certificate	CA10	

Ordering Information

Standard	AC974-1D	AC974-3D /	AC974-9D /
	(1/4-28 Captive Bolt)	(1/4-28 Captive Bolt)	(1/4-28 Captive Bolt)
		(maximum armor length 100 ft.) / (cable length in feet) - (termination)	(length in feet) - (termination)
Metric	M/AC974-1D	M/AC974-3D /	M/AC974-9D /
	(M6x1 Captive Bolt)	(M6x1 Captive Bolt)	(M6x1 Captive Bolt)
		(maximum armor length 30 m) / (cable length in meters) - (termination)	(length in meters) - (termination)
		(M) / (M) - (termination)	(M) - (termination)

Read Before Purchasing
 Important information on
 Regulatory Approvals and
 Requirements
 on Page 97

Cable Terminations: L Z



VIBRATION ANALYSIS HARDWARE

Backed by our Unconditional Lifetime Warranty