

AC974 Series

Nonincendive Miniature Industrial, Intrinsically Safe, CSA North America
Class 1 Div 1, Class II Div 1, Class III and IECEx/ATEX Zone 0,1 Approved
Accelerometer, Side Exit 2 Pin Mini-MIL Connector, 100 mV/g, ±10%



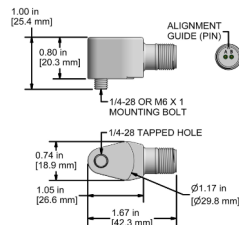
Regulatory Information

CSA 221421	Mining Group I: Ta @ -40°C to +121°C
CSA 26CA80263367X	T147°C: Ta @ -40°C to +121°C
CLI, DIV 1, GRP A, B, C and D	T135°C: Ta @ -40°C to +80°C
CLII, DIV 1, GRP E, F and G; CLIII	Install per drawing INS10210
Ex ia IIC T3-T4 Ga	Refer to product manual MNX10134
Ex ib IIIC T135°C...T147°C Db	
CLI, ZN 0, AEx ia IIC T3-T4 Ga	Sira 15ATEX2152X
ZN 21, AEx ib IIIC T135°C...T147°C Db	Ex ia IIC T3 -T4 Ga
T3: Ta = -40°C to +121°C	T3: Ta @ -40°C to +121°C
T4: Ta = -40°C to +80°C	T4: Ta @ -40°C to +80°C
T147°C: Ta = -40°C to +121°C	Ex ib IIIC T135°C ... T147°C Db
T135°C: Ta = -40°C to +80°C	T147°C: Ta @ -40°C to +121°C
Install per drawing INS10187	T135°C: Ta @ -40°C to +80°C
Refer to product manual MNX10127	Ex ia I Ma
	Ta @ -40°C to +121°C
200 ft (61 m) Maximum Allowable Integral Cable Length	Install per drawing INS10211
Approved Cabling: CB102, CB103*, CB111, CB190*, CB193*, CB206, CB296 (*Approved for Use in T4 Applications Only)	Refer to product manual MNX10135
Requires One IS111-1B Intrinsic Safety Barrier	Connector Exit Entity Parameters: Ui = 28 Vdc, li = 120 mA, Pi = 1W, Ci = 28nF, Li = 0μH
IECEx SIR 15.0060X	Integral Cable Entity Parameters Ui = 28 Vdc, li = 120 mA, Pi = 1W, Ci = 40nF, Li = 40.2μH
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	

AC974-1D

2 Pin Connector

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

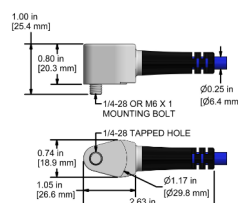


Stock Product

AC974-2D

CB193 Molded Integral Cable

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

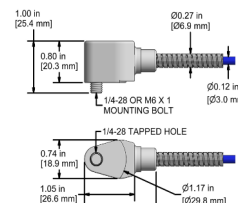


Built To Order

AC974-3D

CB296 Armored Integral Cable

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



Built To Order

Specifications	Standard	Metric	Specifications	Standard	Metric
Part Number	AC974	M/AC974	<u>Environmental</u>		
Sensitivity (±10%)	100 mV/g		Operating Temperature Range	-58 to 250°F	-50 to 121°C
Frequency Response (±3dB)	36-600,000 CPM	0.6-10000 Hz	Maximum Shock Protection	5,000 g, peak	
Dynamic Range	± 50 g, peak		Electromagnetic Sensitivity	CE	
Transverse Sensitivity	≤5%		Sealing	Welded, Hermetic	
<u>Electrical</u>			<u>Physical</u>		
Settling Time	<2.5 Seconds		Sensing Element	PZT Ceramic	
Voltage Source	18-28 VDC		Sensing Structure	Shear Mode	
Constant Current Excitation	2-10 mA		Weight	2.1 oz	60 grams
Spectral Noise @ 10 Hz	30 µg/√Hz		Case Material	316L Stainless Steel	
Spectral Noise @ 100 Hz	4 µg/√Hz		Mounting Thread	1/4-28	
Spectral Noise @ 1000 Hz	2 µg/√Hz		Connector (Non-Integral)	2 Pin mini-MIL	
Output Impedance	< 100 ohm		Resonant Frequency	1,920,000 CPM	32000 Hz
Case Isolation	>10 ⁸ ohm		Mounting Torque	2 to 5 ft. lbs.	2.7 to 6.8 Nm
			Mounting Hardware Supplied	1/4-28 Captive Bolt	M6x1 Captive Bolt
			Calibration Certificate	CA10	

Typical Frequency Response

