

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, $\pm 10\%$

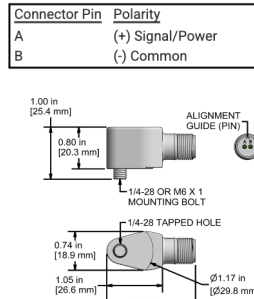


Regulatory Information

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
Ex ib IIIC T135°C...T147°C Db	Refer to product manual
CLI, ZN 0, AEx ia IIC T3-T4 Ga	Refer to product manual
ZN 21, AEx ib IIIC T135°C...T147°C Db	Refer to product manual
T3: Ta = -40°C to +121°C	Refer to product manual
T4: Ta = -40°C to +80°C	Refer to product manual
T147°C: Ta = -40°C to +121°C	Refer to product manual
T135°C: Ta = -40°C to +80°C	Refer to product manual
Install per drawing INS10187	Refer to product manual
Refer to product manual MNX10127	Refer to product manual
200 ft (61 m) Maximum Allowable Integral Cable Length	Refer to product manual
Approved Cabling: CB102, CB103*, CB111, CB190*, CB193*, CB206, CB296 (*Approved for Use in T4 Applications Only)	Refer to product manual
Requires One IS111-1B Intrinsic Safety Barrier	Refer to product manual
IECEx SIR 15.0060X	Refer to product manual
Ex ia IIC T3-T4 Ga	Refer to product manual
Ex ib IIIC T135°C ... T147°C Db	Refer to product manual
Ex ia I Ma	Refer to product manual
T3: Ta @ -40°C to +121°C	Refer to product manual
T4: Ta @ -40°C to +80°C	Refer to product manual

AC974-1D

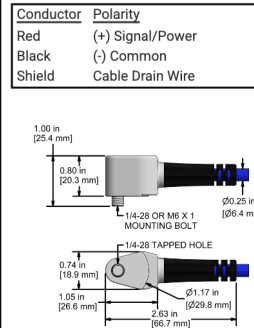
2 Pin Connector



Stock Product

AC974-2D

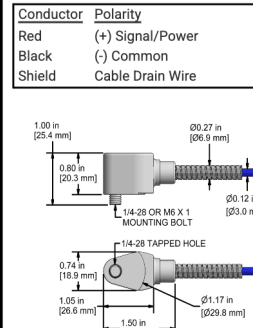
CB193 Molded Integral Cable



Built To Order

AC974-3D

CB296 Armored Integral Cable



Built To Order

Specifications	Standard	Metric	Specifications	Standard	Metric
Part Number	AC974	M/AC974	Environmental		
Sensitivity ($\pm 10\%$)	100 mV/g		Operating Temperature Range	-58 to 250°F	-50 to 121°C
Frequency Response ($\pm 3\text{dB}$)	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	$\leq 5\%$		Sealing	Welded, Hermetic	
Electrical			Physical		
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 $\mu\text{g}/\sqrt{\text{Hz}}$		Case Material	316L Stainless Steel	
Spectral Noise @ 100 Hz	4 $\mu\text{g}/\sqrt{\text{Hz}}$		Mounting Thread	1/4-28	
Spectral Noise @ 1000 Hz	2 $\mu\text{g}/\sqrt{\text{Hz}}$		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

