

AC971 Series



VIBRATION ANALYSIS HARDWARE

Premium Nonincendive Miniature Industrial, Intrinsically Safe, CSA North America Class 1, Division 1 and IECEX/ATEX Zone 0,1 Approved Accelerometer, Top Exit 2 Pin Mini-MIL Connector, 100 mV/g, ±5%



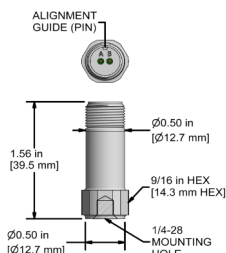
Regulatory Information

| | |
|------------------------------------------|--------------------|
| Ex ia IIC T3/T4 Ga | CSA 22 UKEX 1408X |
| AEx ia IIC T3/T4 Ga | Ex ia IIC T3/T4 Ga |
| CLI Groups A, B, C, D | Ex ia I Ma |
| CLII Groups E, F, G; CLIII | |
| CLI, Zone 0 | Sira 15ATEX2152X |
| | Ex ia IIC T3 Ga |
| | Ex ia I Ma |
| Operating Temperature Code: T4 | |
| Ambient Temperature Range = -40 to 80°C | |
| Operating Temperature Code: T3 | IECEX SIR 15.0060X |
| Ambient Temperature Range = -40 to 121°C | Ex ia IIC T3 Ga |
| Control Drawing INS10012 | Ex ia I Ma |
| Ui = 28 Vdc Ii = 112 mA | |
| Pj = 1W, Ci = 63.036nF, Li = 0µH | |
| CSA 221421 | |

AC971-1A

2 Pin Connector

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

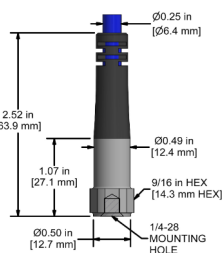


Stock Product

AC971-2A

CB193 Integral Cable

| Conductor | Polarity |
|-----------|------------------|
| White | (+) Signal/Power |
| Black | (-) Common |

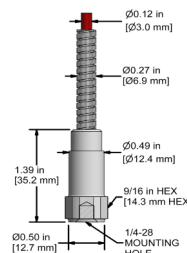


Built To Order

AC971-3A

CB296 Armored Integral Cable

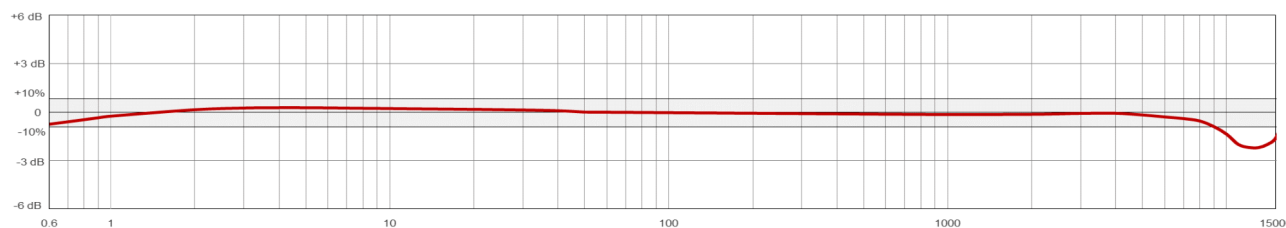
| Conductor | Polarity |
|-----------|------------------|
| White | (+) Signal/Power |
| Black | (-) Common |



Built To Order

| Specifications | Standard | Metric | Specifications | Standard | Metric |
|-----------------------------|----------------------|----------------|-----------------------------|--------------------------|------------------------------|
| Part Number | AC971 | M/ or M8/AC971 | Environmental | | |
| Sensitivity (±5%) | | 100 mV/g | Operating Temperature Range | -58 to 250 °F | -50 to 121 °C |
| Frequency Response (±3dB) | 36-1,200,000 CPM | 0.6-20000 Hz | Maximum Shock Protection | 5,000 g, peak | |
| Frequency Response (±10%) | 60-420,000 | 1.0-7000 Hz | Electromagnetic Sensitivity | CE | |
| Dynamic Range | | ± 50 g, peak | Sealing | Welded, Hermetic | |
| Electrical | | | Physical | | |
| Settling Time | < 2.5 Seconds | | Sensing Element | PZT Ceramic | |
| Voltage Source (IEPE) | 18-28 VDC | | Sensing Structure | Shear Mode | |
| Constant Current Excitation | 2-10 mA | | Weight | 0.7 oz | 20 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 Blind Tapped Hole | |
| Spectral Noise @ 1000 Hz | 2 µg/√Hz | | Connector (Non-Integral) | 2 Pin mini-MIL | |
| Output Impedance | <100 ohm | | Resonant Frequency | 2,040,000 | 34000 Hz |
| Bias Output Voltage | 10-14 VDC | | Mounting Torque | 2 to 5 ft. lbs. | 2.7 to 6.8 Nm |
| Case Isolation | >10 ⁸ ohm | | Mounting Hardware Supplied | 1/4-28 Stud | M6x1 or M8x1.25 Adapter Stud |
| | | | Calibration Certificate | CA10 | |

Typical Frequency Response



Backed by our Unconditional Lifetime Warranty & Free Annual Recalibration Service

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