# AC944 Series

**Nonincendive, Miniature Industrial Class I, Division 2 and ATEX/IECEx Zone 2 Approved Accelerometer, Side Exit 2 Pin Mini-MIL Connector, 100 mV/g, ±10%**

VIBRATION ANALYSIS HARDWARE

## Regulatory Information

CSA 221421
Ex nA IIC T3 Gc
Cl, Z2, AEx nA IIC T3 Gc
Cl, D2, Gr A -D, Cll, D1, CLll T3
-40°C ≤ Ta ≤ +121°C
Control Drawing INS10035
Ui = 28VDC, Ii = 100mA, Pi = 100mW, Ci = 0nF, Li = 51µH

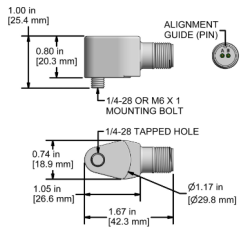
Approved Cabling: CB102, CB103*, CB111, CB190*, CB193*, CB296 (*Approved for Use in T4 Applications Only)

CSACa 24ATEX1004X
IECEx CSA 240015X
Ex ec IIC T* °C Gc
Ex tc IIIC T135 °C Dc
Temperature code for gas for ambient range:
T4 for ambient range of -40 °C to +80 °C
T3 for ambient range of -40 °C to +121 °C
V = 28VDC I = 10mA

### AC944-1D

2 Pin Mini-MIL Connector

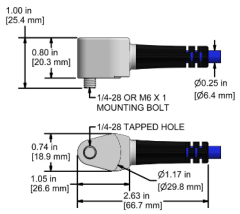
| Connector Pin | Polarity |
|---|---|
| A | (+) Signal/Power |
| B | (-) Common |




### AC944-2D

CB190 Integral Cable

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

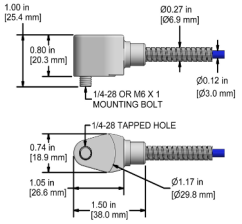



Built To Order

### AC944-3D

CB296 Armored Integral Cable

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




Built To Order

| Specifications | Standard | Metric |
|---|---|---|
| Part Number | AC944 | M/AC944 |
| 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 | 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** | | |
| Operating Temperature Range | -58 to 250 °F | -50 to 121 °C |
| Maximum Shock Protection | 5,000 g, peak | |
| Electromagnetic Sensitivity | CE | |
| Sealing | Welded, Hermetic | |
| SIL Rating | SIL 2 | |
| **Physical** | | |
| Sensing Element | PZT Ceramic | |
| Sensing Structure | Shear Mode | |
| Weight | 2.1 oz | 60 grams |
| Case Material | 316L Stainless Steel | |
| Mounting Thread | 1/4-28 | |
| Connector (Non-Integral) | 2 Pin mini-MIL (J Series) | |
| Resonant Frequency | 1,920,000 CPM | 32000 Hz |
| 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