

AC916 Series

Nonincendive, Intrinsically Safe Accelerometer, CSA North America Class 1, Division 1 and IECEx/ATEX Zone 0,1 Approved Accelerometer, Side Exit 2 Pin Connector, 100 mV/g, ±10%



VIBRATION ANALYSIS HARDWARE



Regulatory Information

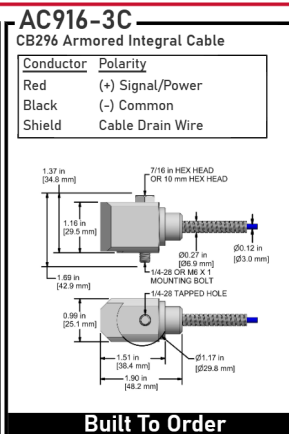
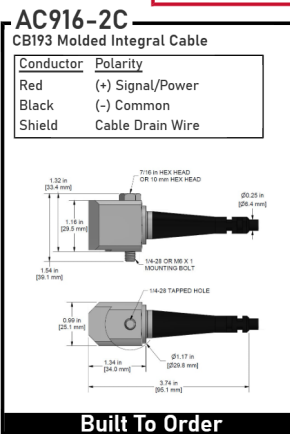
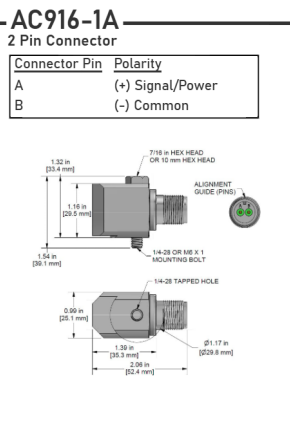
CSA 221421
 Ex ia IIC T3/T4 Ga
 Ex ia I Ma
 AEx ia IIC T3/T4
 CLI Groups A, B, C, D
 CLII Groups E, F, G; CLIII
 CLI, Zone 0
 Operating Temp Code: T3
 Ambient Temp Range = -40 to 121°C
 Operating Temp Code: T4
 Ambient Temp Range = -40 to 80°C
 Control Drawing INS10012
 Ex ia IIC T3 -40°C < Ta < +121°C
 Ex ia IIC T4 -40°C < Ta < +80°C

Sira 15ATEX2152X
 IECEx SIR 15.0060X
 Ex ia IIC T3/T4 Ga
 Ex ib IIIC T135°C...T143°C Db
 Operating Temp Code: T143°C Db
 Ambient Temp Range = -40 to 121°C
 Operating Temp Code: T135°C
 Ambient Temp Range = -40°C to +80°C
 Ex ia I Ma

Connector Exit Entity Parameters:
 Ui = 28 Vdc, li = 120 mA, Pi = 1W, Ci = 0nF, Li = 0µH

Integral Cable Length
 Approved Cabling: CB102, CB103*, CB111, CB190*, CB193*, CB296 (*Approved for Use in T4 Applications Only)
 Requires one IS111-IB Intrinsic Safety Barrier

Integral Cable Entity Parameters
 Ui = 28 Vdc, li = 120 mA, Pi = 1W, Ci = 80.4nF, Li = 336µH



| Specifications | Standard | Metric | Specifications | Standard | Metric |
|-----------------------------|----------------|----------------------|-----------------------------|---------------------|----------------------|
| Part Number | AC916 | M/AC916 | Environmental | | |
| Sensitivity (±10%) | | 100 mV/g | Operating Temperature Range | -65 to 257 °F | -54 to 125 °C |
| Frequency Response (±3dB) | 30-600,000 CPM | 0.5-10,000 Hz | Maximum Shock Protection | | 5,000 g, peak |
| Dynamic Range | | ± 80 g, peak | Electromagnetic Sensitivity | | CE |
| Electrical | | | Sealing | | Welded, Hermetic |
| Settling Time | | <3 Seconds | Submersible Depth | 200 ft. | 61 m |
| Voltage Source | | 18-28 VDC | SIL Rating | | SIL 2 |
| Constant Current Excitation | | 2-4 mA | Physical | | |
| Spectral Noise @ 10 Hz | | 6.5 µg/√Hz | Sensing Element | | PZT Ceramic |
| Spectral Noise @ 100 Hz | | 2 µg/√Hz | Sensing Structure | | Shear Mode |
| Spectral Noise @ 1000 Hz | | 1.8 µg/√Hz | Weight | 5.3 oz | 150 grams |
| Output Impedance | | <100 ohm | Case Material | | 316L Stainless Steel |
| Bias Output Voltage | | 10-14 VDC | Mounting Thread | | 1/4-28 |
| Case Isolation | | >10 ⁸ ohm | Connector (Non-Integral) | | 2 Pin MIL-C-5015 |
| | | | Resonant Frequency | 1,320,000 CPM | 22000 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

