

# AC119 Series

Low Cost, Biaxial Accelerometer, Side Exit 3 Pin Connector, 100 mV/g, with X and Z Axis,  $\pm 15\%$



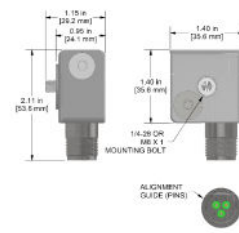
## Product Features

### Low-Cost Biaxial Sensor

- ▶ 100 mV/g/axis ( $\pm 15\%$ )
- ▶ Monitor Two Channels of Data Simultaneously
- ▶ Compatible with C509 and A3AB Connectors

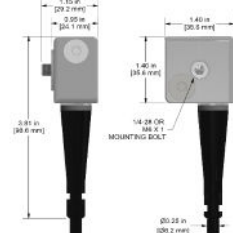
### AC119-1D 3 Pin Connector

| Connector Pin | Polarity         |
|---------------|------------------|
| A (Axis X)    | (+) Signal/Power |
| B (Axis Z)    | (+) Signal/Power |
| C             | (-) Common/Grid  |



### AC119-2D CB105 Integral Cable

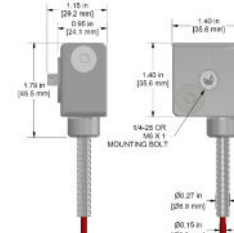
| Conductor      | Polarity         |
|----------------|------------------|
| Green (Axis X) | (+) Signal/Power |
| White (Axis Z) | (+) Signal/Power |
| Black          | (-) Common/Grid  |



Built To Order

### AC119-3D CB218 Armored Integral Cable

| Conductor      | Polarity         |
|----------------|------------------|
| Green (Axis X) | (+) Signal/Power |
| White (Axis Z) | (+) Signal/Power |
| Black          | (-) Common/Grid  |



Built To Order

| Specifications                          | Standard                                                 | Metric      | Specifications              | Standard             | Metric            |
|-----------------------------------------|----------------------------------------------------------|-------------|-----------------------------|----------------------|-------------------|
| Part Number                             | AC119                                                    | M/AC119     | <b>Environmental</b>        |                      |                   |
| Sensitivity ( $\pm 15\%$ )              | 100 mV/g                                                 |             | Operating Temperature Range | -58 to 250 °F        | -50 to 121 °C     |
| Frequency Response ( $\pm 3\text{dB}$ ) | 60-390,000 CPM                                           | 1.0-6500 Hz | Electromagnetic Sensitivity | CE                   |                   |
| Dynamic Range                           | $\pm 50$ g, peak<br>*Vsource $\geq 22\text{V}$ , 12Vbias |             | Sealing                     | Welded, Hermetic     |                   |
| <b>Electrical</b>                       |                                                          |             | Submersible Depth           | 200 ft.              | 60 m              |
| Settling Time                           | <2.5 seconds                                             |             | SIL Rating                  | SIL 2                |                   |
| Voltage Source                          | 18-30 VDC                                                |             | <b>Physical</b>             |                      |                   |
| Constant Current Excitation             | 2-10 mA                                                  |             | Sensing Element             | PZT Ceramic          |                   |
| Spectral Noise @ 10 Hz                  | 27 $\mu\text{g}/\sqrt{\text{Hz}}$                        |             | Sensing Structure           | Shear Mode           |                   |
| Spectral Noise @ 100 Hz                 | 6.5 $\mu\text{g}/\sqrt{\text{Hz}}$                       |             | Weight                      | 6.9 oz               | 195 grams         |
| Spectral Noise @ 1000 Hz                | 2.5 $\mu\text{g}/\sqrt{\text{Hz}}$                       |             | Case Material               | 316L Stainless Steel |                   |
| Output Impedance                        | <100 ohm                                                 |             | Connector (Non-Integral)    | C509, C519           |                   |
| Bias Output Voltage                     | 10-14 VDC                                                |             | Mounting Torque             | 1 to 2 ft. lbs.      | 1.4 to 2.7 Nm     |
| Case Isolation                          | >10 <sup>8</sup> ohm                                     |             | Mounting Hardware Supplied  | 1/4-28 Captive Bolt  | M6x1 Captive Bolt |
|                                         |                                                          |             | Calibration Certificate     | CA10                 |                   |

## Typical Frequency Response

