

# AC194 Series

Compact Multipurpose Accelerometer, Side Exit 2 Pin Connector,  
100 mV/g, ±10%



VIBRATION ANALYSIS HARDWARE



## Product Features

High Performance in an Affordable, Side Exit, Compact Sensor

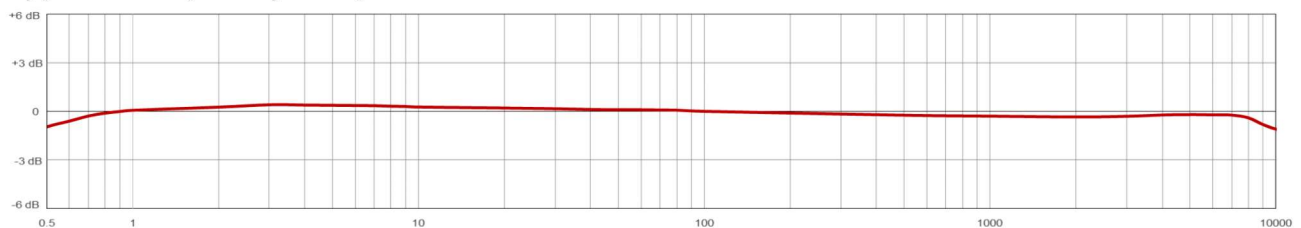
Very Low Noise and Superior RF Immunity

- ▶ 100 mV/g Sensitivity, ± 10%
- ▶ ± 80g Dynamic Range
- ▶ Standard 2 Pin MIL Connection on Non-Integral Option

| AC194-1D<br>2 Pin Connector  | AC194-2D<br>CB103 Integral Cable | AC194-3D<br>CB206 Armored Integral Cable | AC194-6D<br>CB611 Heavy Duty Armored Integral Cable |                  |   |            |   |           |          |     |                  |       |            |        |                  |   |           |          |     |                  |       |            |        |                  |   |           |          |     |                  |       |            |        |                  |
|--|----------------------------------|--|---|------------------|---|------------|---|-----------|----------|-----|------------------|-------|------------|--------|------------------|---|-----------|----------|-----|------------------|-------|------------|--------|------------------|---|-----------|----------|-----|------------------|-------|------------|--------|------------------|
| <table border="1"> <tr><th>Connector Pin</th><th>Polarity</th></tr> <tr><td>A</td><td>(+) Signal/Power</td></tr> <tr><td>B</td><td>(-) Common</td></tr> </table> <p><b>Stock Product</b></p> | Connector Pin                    | Polarity                                 | A   | (+) Signal/Power | B | (-) Common | <table border="1"> <tr><th>Conductor</th><th>Polarity</th></tr> <tr><td>Red</td><td>(+) Signal/Power</td></tr> <tr><td>Black</td><td>(-) Common</td></tr> <tr><td>Shield</td><td>Cable Drain Wire</td></tr> </table> <p><b>Built To Order</b></p> | Conductor | Polarity | Red | (+) Signal/Power | Black | (-) Common | Shield | Cable Drain Wire | <table border="1"> <tr><th>Conductor</th><th>Polarity</th></tr> <tr><td>Red</td><td>(+) Power/Signal</td></tr> <tr><td>Black</td><td>(-) Common</td></tr> <tr><td>Shield</td><td>Cable Drain Wire</td></tr> </table> <p><b>Built To Order</b></p> | Conductor | Polarity | Red | (+) Power/Signal | Black | (-) Common | Shield | Cable Drain Wire | <table border="1"> <tr><th>Conductor</th><th>Polarity</th></tr> <tr><td>Red</td><td>(+) Power/Signal</td></tr> <tr><td>Black</td><td>(-) Common</td></tr> <tr><td>Shield</td><td>Cable Drain Wire</td></tr> </table> <p><b>Built To Order</b></p> | Conductor | Polarity | Red | (+) Power/Signal | Black | (-) Common | Shield | Cable Drain Wire |
| Connector Pin  | Polarity                         |  |   |                  |   |            |   |           |          |     |                  |       |            |        |                  |   |           |          |     |                  |       |            |        |                  |   |           |          |     |                  |       |            |        |                  |
| A  | (+) Signal/Power                 |  |   |                  |   |            |   |           |          |     |                  |       |            |        |                  |   |           |          |     |                  |       |            |        |                  |   |           |          |     |                  |       |            |        |                  |
| B  | (-) Common                       |  |   |                  |   |            |   |           |          |     |                  |       |            |        |                  |   |           |          |     |                  |       |            |        |                  |   |           |          |     |                  |       |            |        |                  |
| Conductor  | Polarity                         |  |   |                  |   |            |   |           |          |     |                  |       |            |        |                  |   |           |          |     |                  |       |            |        |                  |   |           |          |     |                  |       |            |        |                  |
| Red  | (+) Signal/Power                 |  |   |                  |   |            |   |           |          |     |                  |       |            |        |                  |   |           |          |     |                  |       |            |        |                  |   |           |          |     |                  |       |            |        |                  |
| Black  | (-) Common                       |  |   |                  |   |            |   |           |          |     |                  |       |            |        |                  |   |           |          |     |                  |       |            |        |                  |   |           |          |     |                  |       |            |        |                  |
| Shield   | Cable Drain Wire                 |  |   |                  |   |            |   |           |          |     |                  |       |            |        |                  |   |           |          |     |                  |       |            |        |                  |   |           |          |     |                  |       |            |        |                  |
| Conductor  | Polarity                         |  |   |                  |   |            |   |           |          |     |                  |       |            |        |                  |   |           |          |     |                  |       |            |        |                  |   |           |          |     |                  |       |            |        |                  |
| Red  | (+) Power/Signal                 |  |   |                  |   |            |   |           |          |     |                  |       |            |        |                  |   |           |          |     |                  |       |            |        |                  |   |           |          |     |                  |       |            |        |                  |
| Black  | (-) Common                       |  |   |                  |   |            |   |           |          |     |                  |       |            |        |                  |   |           |          |     |                  |       |            |        |                  |   |           |          |     |                  |       |            |        |                  |
| Shield   | Cable Drain Wire                 |  |   |                  |   |            |   |           |          |     |                  |       |            |        |                  |   |           |          |     |                  |       |            |        |                  |   |           |          |     |                  |       |            |        |                  |
| Conductor  | Polarity                         |  |   |                  |   |            |   |           |          |     |                  |       |            |        |                  |   |           |          |     |                  |       |            |        |                  |   |           |          |     |                  |       |            |        |                  |
| Red  | (+) Power/Signal                 |  |   |                  |   |            |   |           |          |     |                  |       |            |        |                  |   |           |          |     |                  |       |            |        |                  |   |           |          |     |                  |       |            |        |                  |
| Black  | (-) Common                       |  |   |                  |   |            |   |           |          |     |                  |       |            |        |                  |   |           |          |     |                  |       |            |        |                  |   |           |          |     |                  |       |            |        |                  |
| Shield   | Cable Drain Wire                 |  |   |                  |   |            |   |           |          |     |                  |       |            |        |                  |   |           |          |     |                  |       |            |        |                  |   |           |          |     |                  |       |            |        |                  |

| Specifications              | Standard             | Metric       | Specifications              | Standard             | Metric            |
|-----------------------------|----------------------|--------------|-----------------------------|----------------------|-------------------|
| Part Number                 | AC194                | M/AC194      | <b>Environmental</b>        |                      |                   |
| Sensitivity (±10%)          | 100 mV/g             |              | Temperature Range           | -58 to 250°F         | -50 to 121°C      |
| Frequency Response (±3dB)   | 30-600,000 CPM       | 0.5-10000 Hz | Maximum Shock Protection    | 5,000 g, peak        |                   |
| Dynamic Range               | ± 80 g, peak         |              | Electromagnetic Sensitivity | CE                   |                   |
| <b>Electrical</b>           |                      |              | Sealing                     | Welded, Hermetic     |                   |
| Settling Time               | <2 Seconds           |              | Submersible Depth           | 200 ft.              | 60 m              |
| Voltage Source (IEPE)       | 18-30 VDC            |              | <b>Physical</b>             |                      |                   |
| Constant Current Excitation | 2-10 mA              |              | Sensing Element             | PZT Ceramic          |                   |
| Spectral Noise @ 10 Hz      | 8 µg/√Hz             |              | Sensing Structure           | Shear Mode           |                   |
| Spectral Noise @ 100 Hz     | 4 µg/√Hz             |              | Weight                      | 3.3 oz               | 93 grams          |
| Spectral Noise @ 1000 Hz    | 2 µg/√Hz             |              | Case Material               | 316L Stainless Steel |                   |
| Output Impedance            | <100 ohm             |              | Mounting                    | Captive Bolt         |                   |
| Bias Output Voltage         | 10-14 VDC            |              | Connector (Non-Integral)    | 2 Pin MIL-C-5015     |                   |
| Case Isolation              | >10 <sup>8</sup> ohm |              | Resonant Frequency          | 1,380,000 CPM        | 23000 Hz          |
|                             |                      |              | Mounting Torque             | 2 to 5 ft. lbs.      | 2,7 to 6,8 Nm     |
|                             |                      |              | Mounting Hardware           | 1/4-28 Captive Bolt  | M6x1 Captive Bolt |
|                             |                      |              | Calibration Certificate     | CA10                 |                   |

## Typical Frequency Response



Backed by our Unconditional Lifetime Warranty

www.ctconline.com | sales@ctconline.com | 585-924-5900