

# AC102 Series

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



## Product Features

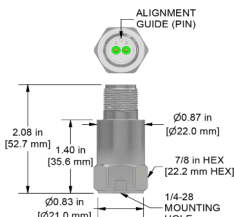
CTC's Best Selling, Multi-Purpose Sensor

- ▶ Wide frequency response range and ±80 g dynamic range enables the user to identify bearing faults at both slower and higher speeds
- ▶ -6N Integral Cable Option Features Food Safe FDA Compliant 21 CFR 177.1330 Polyolefin Heat Shrink

### AC102-1A

2 Pin Connector

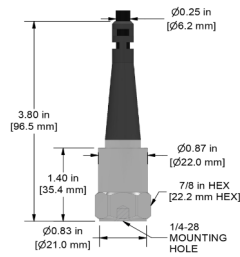
| Connector | Polarity     |
|-----------|--------------|
| Pin       | (+)          |
| A         | Signal/Power |
| B         | (-) Common   |



### AC102-2C

CB103 Integral Cable

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

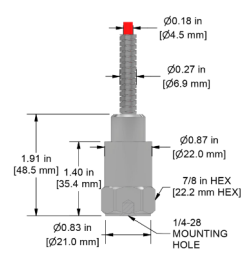


Built To Order

### AC102-3C

CB206 Armored Integral Cable

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

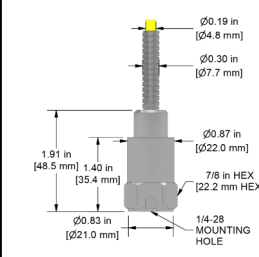


Built To Order

### AC102-6C

CB611 Heavy Duty Armored Integral Cable

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

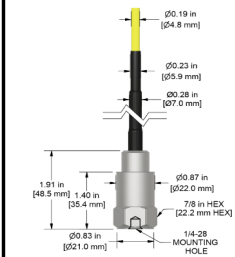


Built To Order

### AC102-6N

CB111 FEP Jacketed Integral Cable

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



Built To Order

| Specifications              | Standard                                 | Metric         | Specifications              | Standard                 | Metric                       |
|-----------------------------|------------------------------------------|----------------|-----------------------------|--------------------------|------------------------------|
| Part Number                 | AC102                                    | M/ or M8/AC102 | <b>Environmental</b>        |                          |                              |
| Sensitivity (±10%)          | 100 mV/g                                 |                | Operating Temperature Range | -58 to 250 °F            | -50 to 121 °C                |
| Frequency Response (±3dB)   | 30-810,000 CPM                           | 0.5-13500 Hz   | Maximum Shock Protection    | 5,000 g, peak            |                              |
| Dynamic Range               | ± 80 g, peak<br>*Vsource ≥ 22V, 12V Bias |                | Electromagnetic Sensitivity | CE                       |                              |
| <b>Electrical</b>           |                                          |                | Sealing                     | Welded, Hermetic         |                              |
| Settling Time               | <2.5 seconds                             |                | Submersible Depth           | 200 ft.                  | 60 m                         |
| Voltage Source              | 18-30 VDC                                |                | SIL Rating                  | SIL 2                    |                              |
| Constant Current Excitation | 2-10 mA                                  |                | <b>Physical</b>             |                          |                              |
| Spectral Noise @ 10 Hz      | 14 µg/√Hz                                |                | Sensing Element             | PZT Ceramic              |                              |
| Spectral Noise @ 100 Hz     | 2.3 µg/√Hz                               |                | Sensing Structure           | Shear Mode               |                              |
| Spectral Noise @ 1000 Hz    | 2 µg/√Hz                                 |                | Weight                      | 3.2 oz                   | 90 grams                     |
| Output Impedance            | <100 ohm                                 |                | Case Material               | 316L Stainless Steel     |                              |
| Bias Output Voltage         | 10-14 VDC                                |                | Mounting Thread             | 1/4-28 Blind Tapped Hole |                              |
| Case Isolation              | >10 <sup>8</sup> ohm                     |                | Connector (Non-Integral)    | 2 Pin MIL-C-5015         |                              |
|                             |                                          |                | Resonant Frequency          | 1,380,000 CPM            | 23000 Hz                     |
|                             |                                          |                | Mounting Torque             | 2 to 5 ft. lbs.          | 2,7 to 6,8 Nm                |
|                             |                                          |                | Mounting Hardware Supplied  | 1/4-28 Stud              | M6x1 or M8x1.25 Adapter Stud |
|                             |                                          |                | Calibration Certificate     | CA10                     |                              |

## Typical Frequency Response

