

## 3 Wire Negative Voltage Side Exit Accelerometer, 100 mV/g

Section I - Vibration Sensors

Actual Product Size Shown



### Product Features

**Comparable to Bently™ 330400**

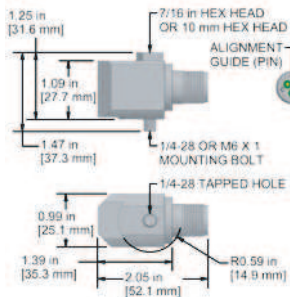
**± 5% Sensitivity Tolerance**

- 3 Wire Negative Voltage Sensor
- ±80 g, Peak Dynamic Range
- 100 mV/g Nominal Sensitivity

#### AC166-1A

3 Pin Connector

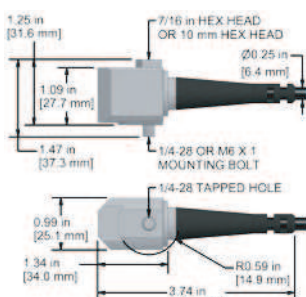
| Connector Pin | Polarity           |
|---------------|--------------------|
| A             | (+) Signal         |
| B             | (-) Power-Negative |
| C             | (-) Common/Power   |



#### AC166-2C

Integral Cable

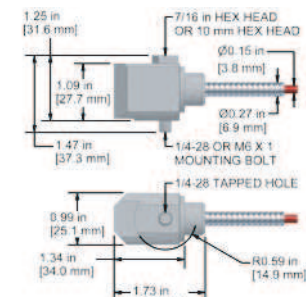
| Conductor | Polarity         |
|-----------|------------------|
| Red       | (+) Signal/Power |
| Black     | (-) Common       |
| White     | (+) Voltage      |
| Shield    | Cable Drain Wire |



#### AC166-3C

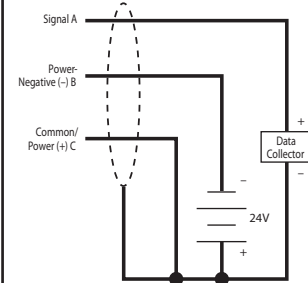
Armored Integral Cable

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



#### AC166

Wiring Diagram



| Specifications                       | Standard         | Metric                |
|--------------------------------------|------------------|-----------------------|
| Part Number                          | AC166            | M/AC166               |
| Sensitivity ( ±5%)                   |                  | 100 mV/g              |
| Frequency Response (±3dB)            | 450-600,000 CPM  | 7.5-10000 Hz          |
| Frequency Response (±10%)            | 1200-180,000 CPM | 20-3000 Hz            |
| Dynamic Range                        |                  | ± 80 g, peak          |
| <b>Electrical</b>                    |                  |                       |
| Settling Time                        |                  | <2 Seconds            |
| Power Supply                         |                  | (-24 ± 4) VDC, <15 mA |
| Constant Current Excitation          |                  | <1 mA                 |
| Broadband Noise Floor (10 to 15k Hz) |                  | .002 g RMS            |
| Output Impedance                     |                  | <5 ohm                |
| Bias Output Voltage                  |                  | -8.5 VDC Nominal      |
| Case Isolation                       |                  | >10 <sup>8</sup> ohm  |

| Specifications           | Standard            | Metric               |
|--------------------------|---------------------|----------------------|
| <b>Environmental</b>     |                     |                      |
| Temperature Range        | -58 to 250°F        | -50 to 121°C         |
| Maximum Shock Protection |                     | 5,000 g, peak        |
| Sealing                  |                     | IP68                 |
| <b>Physical</b>          |                     |                      |
| Sensing Element          |                     | PZT Ceramic          |
| Sensing Structure        |                     | Shear Mode           |
| Weight                   | 5.2 oz              | 147 grams            |
| Case Material            |                     | 316L Stainless Steel |
| Mounting                 |                     | 1/4-28               |
| Connector (non-integral) |                     | 3 Pin MIL            |
| Resonant Frequency       | 1,080,000 CPM       | 18000 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                 |

### Ordering Information

|          |                                   |  |  |
|----------|-----------------------------------|--|--|
| Standard | AC166-1A<br>(1/4-28 Captive Bolt) | AC166-2C - /<br>(length in feet) (termination)     | AC166-3C - /<br>(maximum armor length 100 ft.) (cable length in feet) (termination)  |
| Metric   | M/AC166-1A<br>(M6x1 Captive Bolt) | M/AC166-2C - /<br>(length in meters) (termination) | M/AC166-3C - /<br>(maximum armor length 30 m) (cable length in meters) (termination) |

Cable Termination Options: L Z

Backed by our Unconditional Lifetime Warranty

