

# TCB110 Series

Test and Measurement Accelerometer, Top Exit 10-32 Coaxial Connector,  
10-32 Mounting, 10 mV/g,  $\pm 10\%$



TEST & MEASUREMENT PRODUCTS



## Product Features

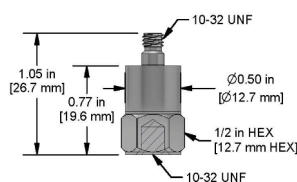
### General Purpose Test & Measurement Accelerometer

- ▶ Lightweight Titanium Case
- ▶ 10kHz ( $\pm 5\%$ ) Frequency Response
- ▶ Packaged in a Complimentary Protective Storage Case

## TCB110

Coaxial Connector

| Connector Pin | Polarity         |
|---------------|------------------|
| Center        | (+) Signal/Power |
| Shell         | (-) Common       |



Stock Product

| Specifications                          | Standard                           | Metric                   | Specifications              | Standard            | Metric             |
|-----------------------------------------|------------------------------------|--------------------------|-----------------------------|---------------------|--------------------|
| Part Number                             | TCB110                             | M/TCB110                 | <u>Environmental</u>        |                     |                    |
| Sensitivity ( $\pm 10\%$ )              |                                    | 10 mV/g                  | Operating Temperature Range | -58 to 250 °F       | -50 to 121 °C      |
| Frequency Response ( $\pm 3\text{dB}$ ) | 30-1,800,000 CPM                   | 0.5 Hz-30 kHz            | Maximum Shock Protection    |                     | 10,000 g, peak     |
| Frequency Response ( $\pm 10\%$ )       | 30-900,000 CPM                     | 0.5 Hz-15 kHz            | Electromagnetic Sensitivity |                     | CE (Pending)       |
| Frequency Response ( $\pm 5\%$ )        | 30-600,000 CPM                     | 0.5 Hz-10 kHz            | Sealing                     |                     | Welded             |
| Dynamic Range                           |                                    | $\pm 500\text{g}$ , peak | <u>Physical</u>             |                     |                    |
| Non-Linearity                           |                                    | $\leq 1\%$               | Sensing Element             |                     | PZT Ceramic        |
| Transverse Sensitivity                  |                                    | $\leq 5\%$               | Sensing Structure           |                     | Shear Mode         |
| <u>Electrical</u>                       |                                    |                          | Weight                      | 0.35 oz             | 10 grams           |
| Settling Time                           | <2 Seconds                         |                          | Case Material               |                     | Titanium           |
| Voltage Source                          | 18-30 VDC                          |                          | Mounting Thread             |                     | 10-32 UNF          |
| Constant Current Excitation             | 2-10 mA                            |                          | Connector (Non-Integral)    |                     | 10-32              |
| Spectral Noise @ 10 Hz                  | 100 $\mu\text{g}/\sqrt{\text{Hz}}$ |                          | Resonant Frequency          | 2,640,000 CPM       | 44 kHz             |
| Spectral Noise @ 100 Hz                 | 19 $\mu\text{g}/\sqrt{\text{Hz}}$  |                          | Mounting Hardware Supplied  | 10-32 Mounting Stud | M5x.8 Adapter Stud |
| Spectral Noise @ 1000 Hz                | 5 $\mu\text{g}/\sqrt{\text{Hz}}$   |                          | Calibration Certificate     |                     | CA12               |
| Output Impedance                        | <100 ohm                           |                          |                             |                     |                    |
| Bias Output Voltage                     | 10-14 VDC                          |                          |                             |                     |                    |
| Case Isolation                          | Case Ground                        |                          |                             |                     |                    |

## Typical Frequency Response

