

# AMB/10.200C Biaxial MEMS DC Response Accelerometer

±10g range, 200mV/g sensitivity

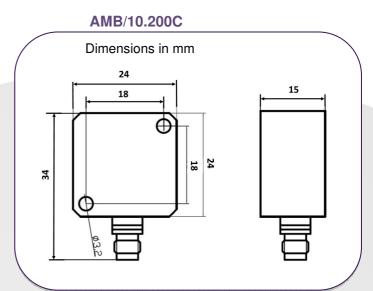


The AMB range of accelerometers are Biaxial MEMS (micro electro mechanical system) DC response voltage output devices for testing at low frequency vibration measurement from DC (0Hz) and above. They are Biaxial (measuring in 2 directions simultaneously) variable capacitance design. The AMB/10.200C has a 4 pin ½-28UNF side entry connector.

Ideally suited to low frequency vibration applications including low level vibration where high sensitivity is required.

Due to their ability to measure DC response they can also be used to measure constant gravity application.

The AMB/10.200C has a range of  $\pm 10g$  and a sensitivity of 200mV/g, we recommend using with DJB's MEMS signal conditioner the DCM-03



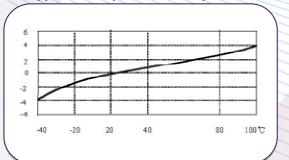
#### Features:

- Operational frequency range DC to 350Hz
- 1/4-28UNF 4 pin connector
- DJB signal conditioner model DCM-03 available as an option
- Differential Capacitance operation
- Compact form and low mass
- Constant gravity measurement

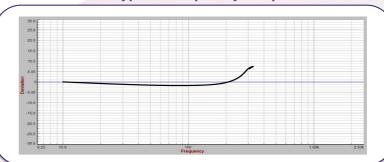
### Applications:

- Auto/Aero structural body surveys
- Constant gravity measurements
- General vibration measurement
- Seismic vibration measurement
- Crash testing

#### **Typical Temperature Response**



#### **Typical Frequency Response**



Please note: For information and reference only. Data should not be used as pass / fail criteria for calibration purposes.

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## AMB/10.200C Biaxial MEMS DC Response Accelerometer ±10g range, 200mV/g sensitivity



|                                | Metric                         | Imperial                 |
|--------------------------------|--------------------------------|--------------------------|
| Sensitivity (20°C)             | 20.4mV/(m/s <sup>2</sup> )±10% | 200mV/g±10%              |
| Measurement Range              | ±98.1m/s <sup>2</sup> pk       | ±10g pk                  |
| Transverse sensitivity         | ≤5%                            |                          |
| Frequency Range (±5%)          | DC to 300 Hz                   |                          |
| Frequency Range (±10%)         | DC to 350Hz                    |                          |
| Mounted Resonance<br>Frequency | 5,000 Hz                       |                          |
| Temperature Range              | -40 to +120°C                  | -40 to +248°F            |
| Temperature Sensitivity        | 0.1 mV/°C                      |                          |
| Shock limit (No Supply)        | 29,420m/s <sup>2</sup>         | ±3,000g                  |
| Power Supply                   | +6 to +30 VDC                  |                          |
| Operating Current              | ≤5mA                           |                          |
| Offset Voltage                 | 2.5±0.1VDC                     |                          |
| Noise(100Hz)                   | < 0.14mVrms                    |                          |
| Resolution                     | 7.5mg (rms)                    |                          |
| Weight                         | 18grams                        | 0.63oz                   |
| Case material                  | Titanium                       |                          |
| Case sealing                   | Hermetic                       |                          |
| Mounting                       | 2 x Ø3.2mm hole                | 2 x Ø0.12inch holes      |
| Connector Exit                 | Side                           |                          |
| Size                           | 24 x 24 x 15mm                 | 0.94x 0.94 x 0.59 inches |
| IP rating                      | IP65                           |                          |

#### **Options:**

- DCM-03 3 channel MEMS signal conditioning
- Pigtail cable terminations

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