MEMS DC RESPONSE ACCELEROMETERS

Series 3711F, 3713F, 3741F & 3743F

Six measurement ranges from ±2 to ±200 g
Improved frequency response
Reduced spectral noise
Improved broadband resolution
Single-ended or differential output signal
Lightweight titanium or aluminum housings

LOW FREQUENCY MEASUREMENTS WITH GAS-DAMPED, SILICON MEMS TECHNOLOGY

PCB® Series 3711 (single axis), 3713 (triaxial), and 3741 (single axis, differential output), 3743 (triaxial, differential output) MEMS DC response accelerometers are designed to measure low-frequency vibration and motion and are offered in full-scale ranges from ±2 to ±200 g to accommodate a variety of testing requirements. The units feature gas-damped, silicon MEMS sensing elements for uniform, repeatable performance and offer high frequency overload protection.

Electrically, the units offer a single-ended or differential output signal with power, signal, and ground leads for each channel. Supply voltage regulation permits operation from +5 up to +28 VDC and the low-noise, low-impedance output signal may be transmitted over long cable lengths without degradation.

As with all PCB instrumentation, these sensors are complemented with toll-free applications assistance, 24-hour customer service, and are backed by a no-risk policy that guarantees total customer satisfaction.
Rugged and Durable Series 3711 & 3713 MEMS DC Response sensors are hermetically sealed in a robust titanium housing allowing for a very stable and accurate measurement in the most severe operating environments. In addition, this series is inherently insensitive to base strain and transverse acceleration effects. Supply voltage regulation permits operation from +5 to +28 VDC and the single-ended, low-noise, low-impedance output signal may be transmitted over long cable lengths without degradation. The series is available in single axis and triaxial versions with a 10 ft (3 m) integral cable or a multi-pin, threaded, electrical connector for easy installation and setup.

Precision Series 3741 and 3743 MEMS DC Response sensors offer a differential output signal for common-mode noise rejection and incorporate many advanced features. This includes supply voltage regulation and a temperature compensation circuit for stable performance over the entire operational temperature range. The 3741 features a low profile and lightweight hard-anodized aluminum housing with an integral, 4-conductor 10 ft (3 m) shielded cable. An optional mounting adaptor, 080A208, facilitates biaxial or triaxial configurations. The 3743 features a rugged, hermetic Titanium package with an integral 9-pin connector and stable performance in extreme measurement environments.
## Model Numbering System

1) **Series**
   - 3711F: Single axis, MEMS DC response accelerometer
   - 3713F: Triaxial, MEMS DC response accelerometer
   - 3741F: Single axis, MEMS DC response accelerometer, differential
   - 3743F: Triaxial, MEMS DC response accelerometer, differential

2) **Cable**
   - 11: Multi-pin, threaded, electrical connector (3711, 3713 & 3743 only)
   - 12: Standard, 10 ft (3.0 m) integral cable and pigtail termination

3) **Measurement Range**
   - 2G: ± 2 g measurement range
   - 10G: ± 10 g measurement range
   - 30G: ± 30 g measurement range
   - 50G: ± 50 g measurement range
   - 100G: ± 100 g measurement range
   - 200G: ± 200 g measurement range

4) **Integral Cable Length (add only if selecting other than standard 10 ft (3 m) length)**
   - Specify XXX as desired cable length in feet (specify MXXX for desired cable length in meters)

5) **Cable Termination**
   - AY: 4-pin plug (Series 3711 & 3741 only)
   - DZ: Pigtail, stripped and tinned ends (Series 3711 & 3713 only)
   - JJ: Pigtail, stripped and tinned ends (Series 3741 only)
   - LN: 8-pin mini DIN for mating to Models 482C27 or 483C28 signal conditioners (Series 3741 only)
   - LT: 8-pin mini DIN for mating to Models 482C27 or 483C28 signal conditioners (Series 3711 only)
   - SL: BNC plugs for X/Y/Z axis and pigtails leads for Power+, Power-, Sensor Case Ground (Series 3713 only)

**Example**

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3713F 12 10G /005 DZ Triaxial MEMS DC response accelerometer, ± 10 g measurement range, 5 ft (1.5 m) integral cable pigtail
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RECOMMENDED ACCESSORIES & SIGNAL CONDITIONERS FOR SERIES 3711, 3713, 3741 AND 3743 MEMS DC RESPONSE ACCELEROMETERS

STOCK CABLE DESCRIPTIONS

<table>
<thead>
<tr>
<th>English</th>
<th>Metric</th>
<th>English</th>
<th>Metric</th>
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</thead>
<tbody>
<tr>
<td>Cabling for Single Axis Sensors</td>
<td>Cabling for Triaxial Sensors</td>
<td>4-Socket Plug to 4-Socket Plug</td>
<td>9-Socket Plug to Pigtails (3713 only)</td>
</tr>
<tr>
<td>010D05</td>
<td>034D05</td>
<td>5 ft</td>
<td>1.5 m</td>
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<tr>
<td>010D10</td>
<td>034D10</td>
<td>10 ft</td>
<td>3.0 m</td>
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<tr>
<td>010D20</td>
<td>034D20</td>
<td>20 ft</td>
<td>6.1 m</td>
</tr>
<tr>
<td>010D30</td>
<td>034D30</td>
<td>30 ft</td>
<td>9.1 m</td>
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</table>

<table>
<thead>
<tr>
<th>4-Socket Plug to Pigtails</th>
<th>9-Socket Plug to Three 4-Socket Plugs</th>
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</thead>
<tbody>
<tr>
<td>010P05</td>
<td>5 ft</td>
</tr>
<tr>
<td>010P10</td>
<td>034A10</td>
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<td>010P20</td>
<td>034A20</td>
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<tr>
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<tr>
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