

NEW PRODUCTS FOR FLIGHT TEST AND GVT APPLICATIONS



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GET CONNECTED to LEARN, SHARE, AND ADVANCE.





The Dytran Story

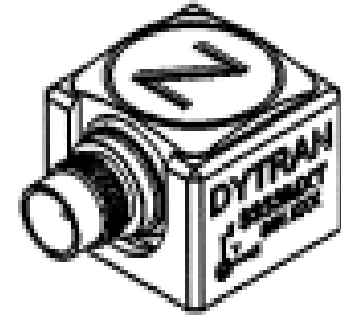
- Celebrating 30+ years making world class piezoelectric sensors
- President – Nick Change
 - Worked at Kistler NY throughout the 1960s
 - Helped Start PCB in the early 1970s
 - Went back to Kistler as President in 1979
 - Started Dytran in 1980
- Dytran moved to Chatsworth, California in 1982
- +145 people
- +16M in sales
- Mission:
 - We learn from our customers*
 - We educate our customers*
 - We provide solutions to our customers*
 - We build lasting relationships with our customers*





Isolated Triax – flutter test

- 3333MT
 - Flight Test Triax
 - Ultra miniature – 2.8 grams
 - Very low noise
 - High accuracy
 - Housed in an isolated enclosure
 - 4 pin hermetic design
 - 5,10, 25 mv sensitivities





Isolated Triax – General Vibration

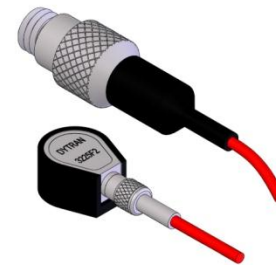
- 3343M1
 - Flight test triax
 - High temperature – 250 F
 - Miniature – 4.0 Grams
 - Hermetically sealed
 - 4 pin connector
 - Housed in an isolated enclosure
 - 10 mv/G sensitivity





Isolated Tear drop – General Vibe

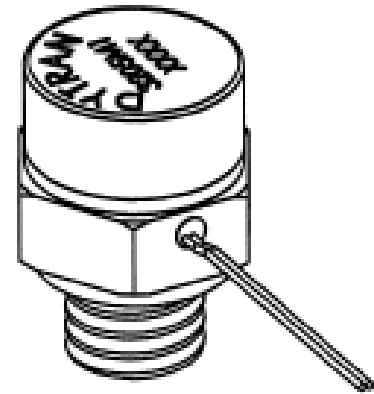
- 3225M38
 - Ultra miniature – 1.5 grams
 - Removable cable assembly
 - Rated to 250 F
 - Housed in an isolated enclosure
 - Adhesive mounted
 - 10 mv/G sensitivity





Miniature single axis accelerometer

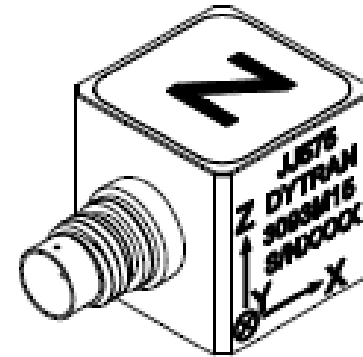
- 3205M1
 - High temperature - +347F
 - Low bias voltage
 - Flying leads
 - Excellent linearity
 - Miniature – 2 grams
 - 0.33 mv/G sensitivity





Isolated Triax – lightning protected

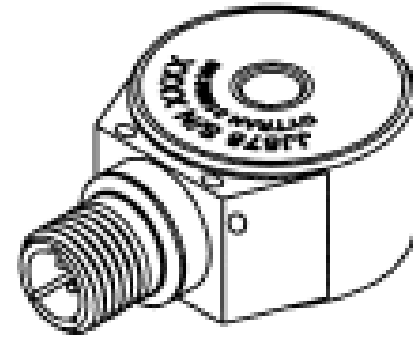
- 3093M15
 - Ground Isolated
 - Voltage spike protection
 - High Temperature – 256 F
 - Hermetically sealed
 - TEDS capability available
 - 5 and 50 mv/G sensitivity





Miniature Thru Hole – single axis

- 3168M100
 - Miniature thru hole
 - 25 grams mass
 - Charge Mode – 10 pc/G
 - 3 pin connector
 - Lockwire holes provided





High temperature tear drop

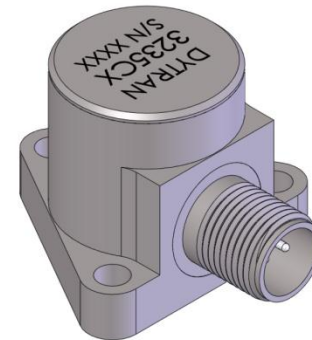
- 3310A
 - Miniature size – 1.2 grams
 - Ultra high temperature – 500 F
 - Removable cable
 - Isolated
 - 1.2 pc/G
 - Hermetically sealed





Differential Accelerometer

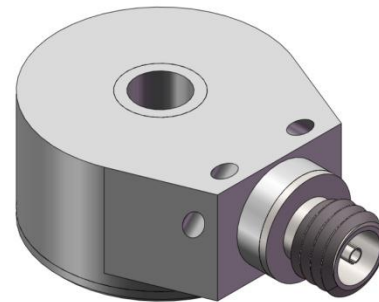
- 3235C
 - High temperature – 500 F
 - High output – 50, 100, 200 pc/G
 - 3 Bolt pattern mount
 - 55 grams
 - Inconel construction
 - 2 pin connector





Thru Hole Charge Mode Accel

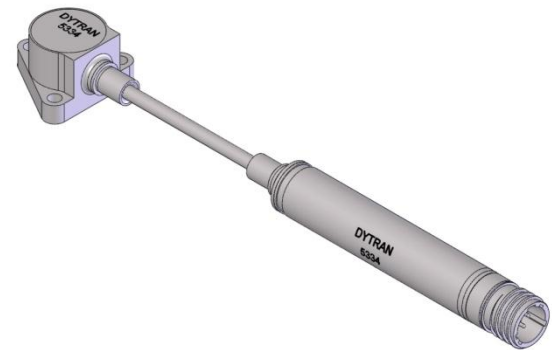
- 3221C
 - High temperature – 500 F
 - High output – 10 pc/G
 - Miniature – 11 grams
 - Hermetically sealed
 - 10-32 connector
 - Base isolated





Engine Vibration Sensor

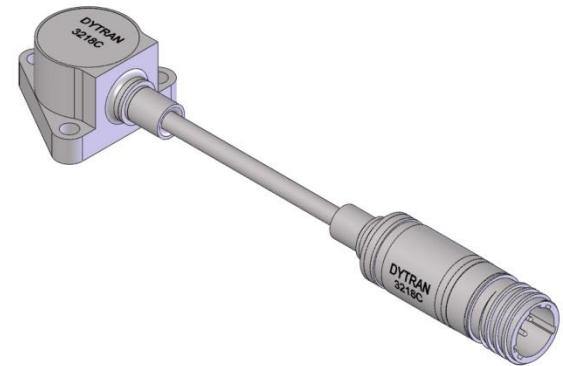
- 5334
 - Super high temperature – 900 F
 - Hard line cable terminating to charge amp
 - 10 mv/G sensitivity from charge amp
 - 3 Bolt pattern
 - Case isolated
 - Stainless steel construction





Engine Vibration Sensors

- 3218C
 - Super high temperature – 900 F
 - Hard line cable terminating to connector
 - 1.6 pc/G sensitivity
 - 3 Bolt pattern
 - Case isolated
 - Stainless steel construction





Piezoelectric Accelerometers

Airborne

3232A Series

- Biaxial
- 3232A1: 10 mV/g sensitivity, 3232A2: 100 mV/g sensitivity
- 3232A1: 500g range, 3232A2: 50g range
- 45 grams
- Integral bracket
- 3-pin "Mighty Mouse" connector
- Hermetically sealed
- Stainless steel
- Isolated
- IEPE



3237A2

- High frequency
- 25 mV/g sensitivity
- 200g range
- 37 grams
- 1/4-28 stud mount
- 3-pin connector
- Hermetically sealed
- Stainless steel
- Isolated
- IEPE





Modal and GVT sensors

Miniature

3225M23 & 3225M24

- Ultra miniature design
- TEDS available
- 3225M23: 50 mV/g sensitivity,
3225M24: 100 mV/g sensitivity
- 3225M23: 100g range,
3225M24: 50g range
- 1 gram
- Adhesive mount
- Removable cable
- Hermetically sealed
- Titanium
- IEPE



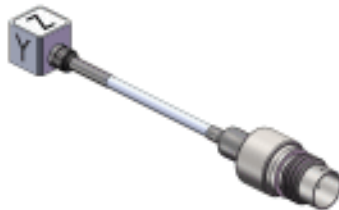


Modal and GVT sensors (cont)

Triaxial

3133A Series

- Ultra miniature design
- 3133A1: 10 mV/g sensitivity,
3133A2: 2 mV/g sensitivity,
3133A3: 5 mV/g sensitivity
- 3133A1: 500g range,
3133A2: 2500g range,
3133A3: 1000g range
- 0.8 grams
- Adhesive mount
- Integral cable
- Epoxy sealed
- Titanium
- IEPE



3273A Series

- Ultra low noise operation
- TEDS available
- 3273A1: 10 mV/g sensitivity,
3273A2: 100 mV/g sensitivity,
3273A3: 50 mV/g sensitivity
- 3273A1: 500g range,
3273A2: 50g range,
3273A3: 100g range
- 2.7 grams
- Adhesive mount
- 4-pin connector
- Hermetically sealed
- Titanium
- IEPE





Modal and GVT sensors (cont)

Triaxial

3293A

- Ultra low noise operation
- High sensitivity
- 500 mV/g sensitivity
- 7g range
- 8.8 grams
- 5-40 stud mount
- 4-pin connector
- Hermetically sealed
- Titanium
- IEPE



3333A Series

- Ultra low noise operation
- Miniature 4-pin connector
- 3333A1: 10 mV/g sensitivity,
3333A2: 100 mV/g sensitivity,
3333A3: 50 mV/g sensitivity
- 3333A1: 500g range,
3333A2: 50g range,
3333A3: 100g range
- 2.3 grams
- Adhesive mount
- 4-pin connector
- Hermetically sealed
- Titanium
- IEPE



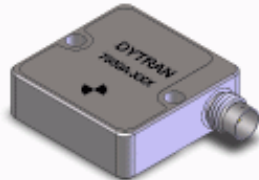


DC Flight Test Sensors

DC Response

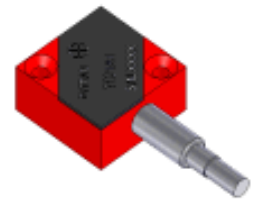
7500 DC Triax

- Micro machined MEMS technology
- Available in sensitivities between 10 mV/g to 1000 mV/g
- Available in ranges between 2g to 200g
- 13 grams
- Two #4 or M3 screws for mounting
- 1/4-28 connector
- Hermetically sealed
- Titanium
- Variable Capacitance



7521A Series

- Small footprint
- Available in sensitivities between 8 mV/g to 550 mV/g
- Available in ranges between 2g to 225g
- 3.7 grams
- Two M2 screws for mounting
- Integral cable
- Hermetically sealed
- Aluminum
- Variable Capacitance



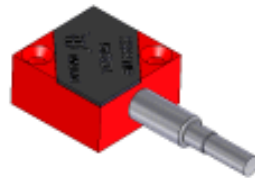


DC Flight Test Sensors (cont)

DC Response

7523A Series

- Small footprint
- Triaxial configuration
- Available in sensitivities between 36 mV/g to 550 mV/g
- Available in ranges between 1g to 50g 10 grams
- Two M2 screws for mounting
- Integral cable
- Hermetically sealed
- Aluminum
- Variable Capacitance



7600B Series

- Differential output
- Available in sensitivities between 10 mV/g to 1000 mV/g
- Available in ranges between 5g to 200g
- 11 grams
- Two #4 screws for mounting
- 1/4-28 connector
- Hermetically sealed
- Titanium
- Variable Capacitance





Flight Test Cables

6894A

- Hardline cable assembly
- High temperature operation
- Maximum Temperature: +900° F
- Connector A: 10-32 plug
- Connector B: 10-32 plug
- Jacket Material: stainless steel



Custom Cable Bundles

- Custom designs





Flight Test IEPE power supply

Current Source Power

4139

- Powers up to 6 IEPE constant current type accelerometers
- Operates from +28 VDC aircraft power
- Small and lightweight
+2.5 VDC output bias to adapt to telemetry transmitter modulators
- Electronics including filtering, output biasing, and output limiting to prevent signal overdriving
- D-subminiature power input / signal output connector
- Simple to mount to airframe using four #10 bolts or screws
- Includes mating power / signal out connector, DA-15S with hold and cable clamp

