



PRODUCT DATASHEET

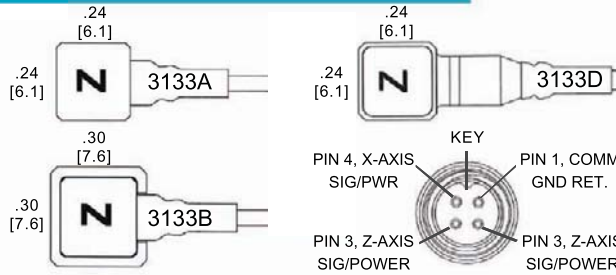
FAMILY 3133 ULTRA MINIATURE ACCELEROMETERS

APPLICATIONS:

- ◆ Board mounted components & other miniature electronics
- ◆ General purpose triaxial vibration measurements
- ◆ Environmental Stress Screening (ESS)
- ◆ Modal & structural analysis
- ◆ Shock & vibration testing
- ◆ Product response testing
- ◆ Space hardware testing
- ◆ Printed circuit boards
- ◆ HALT/HASS



SENSOR SNAPSHOT



Three-axis vibration sensing, IEPE

3-foot integral cable to 1/4-28 4-pin

Lightweight, titanium alloy housing

Adhesive mount, low mass design

WHAT THESE SENSORS DO FOR YOU:

There is a growing need for lightweight, high performance accelerometers with small physical dimensions that can survive in rugged environments and stand up to harsh daily use. The Dytran family 3133A, B, D is a line of ultra-miniature IEPE triaxial accelerometers offered in three different series, each with unique features, to meet various testing needs. Whether you need a case isolated triaxial sensor for electronics testing, or a low outgassing sensor for space applications, this family offers a solution. These models are characterized by their exceptionally small size which allows them to be mounted in spaces that are inaccessible to other types of triaxial accelerometers. The low mass of the accelerometers has minimal impact on the natural frequency behavior and will not mass load the test article. Each series is offered in several sensitivity ranges and can be adhesive mounted. Sensors feature a permanently attached 3 ft. long coaxial cable with a 4-pin connector designed to mate with several models of extension cables for connection to IEPE power source.

DEVICE FEATURES:

SERIES 3133A:



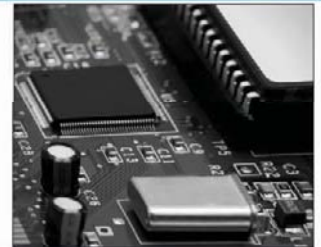
- ◆ .24 L X .24 W x .24 H
- ◆ High sensitivity
- ◆ Ideal low frequency response
- ◆ Available in various ranges



SERIES 3133B:



- ◆ .30 L X .30 W X .26 H
- ◆ High sensitivity
- ◆ Ideal low frequency response
- ◆ Anodized Aluminum isolation cup
- ◆ Case isolated to avoid EMI/ground loop interference



SERIES 3133D:



- ◆ .24 L X .24 W X .22 H
- ◆ Low outgassing
- ◆ Available in various ranges
- ◆ Low base strain sensitivity
- ◆ Ideal low frequency response
- ◆ Hermetically sealed, TEDS options



LEARN
MORE

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Since its founding, Dytran has built a solid 35+ year industry reputation for trusted, field proven experience in the design and manufacture of sensors for dynamic testing.

PRODUCT SPECIFICATIONS



SERIES 3133A

Model	Sensitivity (mV/g)	Range (Gpeak)	Resolution (Grms)	Oper. Temp(°F)	TC
3133A1	10	500	0.02	-67 to 320	1.0 to 1.5
3133A2	2	2500	0.15	-67 to 320	0.3 to 2.5
3133A3	5	1000	0.06	-67 to 320	1.0 to 1.5
3133A4	0.7	5000	0.15	-67 to 320	0.5 to 2.5
3133A5	0.2	20000	0.35	-67 to 320	0.5 to 4.0

- Ceramic shear sensing element: A1, A3
- Quartz shear sensing element: A2, A4, A5
- Frequency Range, ±5% (A1, A3): 0.3 to 6,000Hz
- Frequency Range, ±5% (A2, A4, A5): 0.7 to 6,000Hz



SERIES 3133B

Model	Sensitivity (mV/g)	Range (Gpeak)	Resolution (Grms)	Oper. Temp(°F)	TC
3133B1	10	500	0.02	-60 to 250	1.0 to 1.5
3133B2	2	2500	0.15	-60 to 300	0.3 to 0.5
3133B3	5	1000	0.06	-60 to 250	1.0 to 1.5

- Ceramic shear sensing element: B1, B3
- Quartz shear sensing element: B2
- Frequency Range, ±5% (B1, B3): 0.3 to 6,000Hz
- Frequency Range, ±5% (B2): 0.7 to 6,000Hz



SERIES 3133D, DT

Model	Sensitivity (mV/g)	Range (Gpeak)	Resolution (Grms)	Oper. Temp(°F)	TC
3133D1	10	500	0.02	-67 to 320	1.1 to 1.7
3133D2	2	2500	0.15	-67 to 320	0.3 to 2.5
3133D3	5	1000	0.06	-67 to 320	1.1 to 1.7
3133D4	0.7	5000	0.3	-67 to 320	0.5 to 2.5
3133D5	0.25	20000	0.5	-67 to 320	0.5 to 4.0

- Ceramic shear sensing element: D1, D3
- Quartz shear sensing element: D2, D4, D5
- Frequency Range, ±5% (D1, D3) : 0.3 to 6,000Hz
- Frequency Range, ±5% (D2, D4, D5): 0.7 to 6,000Hz

TEDS Models:

Model	Sensitivity (mV/g)	Range (Gpeak)	Resolution (Grms)	Oper. Temp(°F)	TC
3133D1T	10	500	0.02	-67 to 320	1.1 to 1.7
3133D2T	2	2500	0.15	-67 to 320	0.5 to 2.5
3133D3T	5	1000	0.06	-67 to 320	1.1 to 1.7
3133D4T	0.7	5000	0.3	-67 to 320	0.5 to 2.5
3133D5T	0.25	20000	0.5	-67 to 320	0.5 to 4.0

- Ceramic shear sensing element: D1T, D3T
- Quartz shear sensing element: D2T, D4T, D5T
- Frequency Range, ±5% (D1T, D3T): 0.3 to 6,000Hz
- Frequency Range, ±5% (D2T, D4T, D5T): 0.7 to 6,000Hz