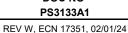


Model Number 3133A1

PERFORMANCE SPECIFICATION

DOC NO PS3133A1

Accelerometer, Triaxial, IEPE





- ULTRA MINIATURE SIZE
- HIGH SENSITIVITY

ENGLISH

IDEAL LOW FREQUENCY RESPONSE

SI

| | | ENG | LIOH | 51 | |
|----------------------------|-----------|--------------|---------------|-----------------|---------------|
| PHYSICAL | | | | | |
| Weight | | oz | 0.03 | grams | 0.8 |
| Size | Width | inch | 0.24 | mm | 6.1 |
| | Height | inch | 0.24 | mm | 6.1 |
| Mounting | | | Adhesive | | Adhesive |
| Integral Cable | Length | ft | 3 | mm | 914.4 |
| | Type | | TFE | | TFE |
| Connector | Type | | 4-pin | | 4-pin |
| Housing | Material | | Titanium | | Titanium |
| | Isolation | | Case Ground | | Case Ground |
| Sensing Element | Material | | Ceramic | | Ceramic |
| | Mode | | Shear | | Shear |
| | | | | | |
| PERFORMANCE | | | | | |
| Sensitivity [2], [3], ±15% | | mV/g | 10 | mV / m/s2 | 1.02 |
| Acceleration Range | | g pk | 500 | m/s2 pk | 4905 |
| Frequency Range, ±5% | | Hz | 0.34 to 6000 | Hz | 0.34 to 6000 |
| Frequency Range, ±10% | | Hz | 0.27 to 10000 | Hz | 0.27 to 10000 |
| Linearity [5] | | % F.S. | ± 1 | % F.S. | ± 1 |
| Resonance Frequency | | kHz | >35 | kHz | >35 |
| Transverse Sensitivity | | % | 6 | % | 6 |
| Bias Voltage | | VDC | +7 to +13 | VDC | +7 to +13 |
| Output Impedance | | Ω | 100 | Ω | 100 |
| Noise floor | | g RMS | 0.02 | m/s2 RMS | 0.20 |
| Discharge Time Constant | | seconds | 1.0 to 2.5 | seconds | 1.0 to 2.5 |
| Spectral Noise | 1Hz | μg RMS/√(Hz) | 4000 | μm/s2 RMS/√(Hz) | 39240 |
| | 10Hz | μg RMS/√(Hz) | 2000 | μm/s2 RMS/√(Hz) | 19620 |
| | 100Hz | μg RMS/√(Hz) | 500 | μm/s2 RMS/√(Hz) | 4905 |
| | 1000Hz | μg RMS/√(Hz) | 200 | μm/s2 RMS/√(Hz) | 1962 |
| | 10000Hz | μg RMS/√(Hz) | 90 | μm/s2 RMS/√(Hz) | 883 |
| ENVIRONMENTAL | | | | | |
| Shock | | a pk | 3000 | m/s2 pk | 29430 |
| Operating Temperature | | g pk °F | -67 to +320 | °C | -55 to +160 |
| Seal | | | | O | |
| Jeai | | | Epoxy | | Ероху |

0.00004

0.15

+18 to +30

2 to 20

g/Gauss

g/με

VDC

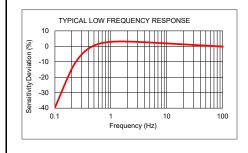
mΑ

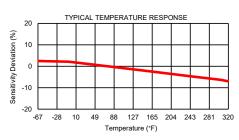
| This family also includes: | | | | | | | | | |
|----------------------------|--------------------|--------------|--------------------|-----------------|------------|--|--|--|--|
| Model | Sensitivity (mV/g) | Range (g pk) | Resolution (g RMS) | Oper. Temp (°F) | TC | | | | |
| 3133A2 | 2 | 2500 | 0.15 | -67 to 320 | 0.3 to 2.5 | | | | |
| 3133A3 | 5 | 1000 | 0.06 | -67 to 320 | 1.0 to 2.5 | | | | |
| 3133A4 | 1 | 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 | | | | |

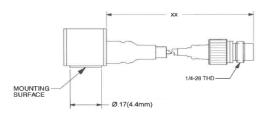
Please, refer to the performance specifications of the products in this family for detailed description Supplied Accessories:

- 1) Model 6298 small petro wax
- 2) Model 6741 removal tool
- 3) Accredited calibration certificate (ISO 17025)

- [1] All specifications are at room temperature unless otherwise specified.
- [2] Measured at 100 Hz, 1 g RMS
- [3] Actual sensitivity is given on a calibration certificate
- [4] Do not apply power to this device without current limiting, 20mA max, to do so will destroy the integral IC amplifier
- [5] Measured using zero-based straight line method, % of F.S. or any lesser range.
- [6] In the interest of constant product improvement, we reserve the right to change specifications without notice It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary overtime. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts.







Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-3133A for more information.



Magnetic Sensitivity at 100 Gauss

Base Strain Sensitivity

Compliance Voltage

Current Range

POWER

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0.00039

1.47

+18 to +30

2 to 20

m/s2 / Gauss

m/s2/uε

VDC

mΑ