

Model Number DOC NO PERFORMANCE SPECIFICATIONS 3097A1 PS3097A1 IEPE ACCELEROMETER REV D, ECN 7642 , 06/29/11



Broad Band Resolution

Maximum Transverse sensitivity Strain Sensitivity @ 250με

Spectral Noise

Linearity [2]

Phase Response ±5°

Output Impedence,Typ

Bias Voltage Discharge Time Constant

- MINIATURE SIZE
- HERMETICALLY SEALED
- EXCELLENT LINEARITY

| | ENGLISH | | SI | |
|---|---|--------|--|---------------------|
| PHYSICAL Weight Connector [1] Type Mounting Provision Tapped Hole Material, Housing/Connector Sensing Element Element Style | 0.15 10-32 5-40 UNC-2B TITANIUM CERAMIC PLANAR SHEAR | oz | 4.3 10-32 5-40 UNC-2B TITANIUM CERAMIC PLANAR SHEAR | grams |
| PERFORMANCE | | | | |
| Sensitivity, ±5% [2] | 10 | mV/G | 1 | mV/m/s ² |
| Range for ± 5 Volts Output | 500 | G peak | 4905 | m/s ² |
| Frequency Response, ±5% | 0.3 to 5000 | Hz | 0.3 to 5000 | Hz |
| ±15% | 0.15 to 10,000 | Hz | 0.15 to 10,000 | Hz |
| Resonant Frequency | > 35 | kHz | > 35 | kHz |

| | 500 | G peak | 4905 | m/s ² |
|---------|----------------|------------|----------------|----------------------------|
| | 0.3 to 5000 | Hz | 0.3 to 5000 | Hz |
| | 0.15 to 10,000 | Hz | 0.15 to 10,000 | Hz |
| | > 35 | kHz | > 35 | kHz |
| | 0.001 | G rms | 0.010 | m/s ² rms |
| 1Hz | 0.0004 | Grms/v(Hz) | 0.004 | m/s ² rms/v(Hz) |
| 10Hz | 0.00005 | Grms/v(Hz) | 0.0005 | m/s ² rms/v(Hz) |
| 100Hz | 0.00002 | Grms/√(Hz) | 0.00020 | m/s ² rms/v(Hz) |
| 1000Hz | 0.000010 | Grms/v(Hz) | 0.00010 | m/s ² rms/v(Hz) |
| 10000HZ | 0.000007 | Grms/v(Hz) | 0.00007 | m/s ² rms/v(Hz) |
| | ±1 | % F.S. | ±1 | % F.S. |
| | 5 | % | 5 | % |
| | 0.002 | G/με | 0.02 | m/s²/με |
| | 5 to 3000 | Hz | 5 to 3000 | Hz |
| | · | | | |

| ENVIRONMENTAL | | |
|--|-----------------------|-------------|
| Maximum Vibration | 600 | G peak |
| Maximum Shock | 5000 | G peak |
| Temperature Range | -60 to 200 | °F |
| Seal | HERMETIC | |
| ELECTRICAL Supply Current Range [3] Compliance Voltage Range | 2 to 20 +18 to +30 | mA Volts |

| +18 to +30 | Volts |
|------------|-------|
| | |
| 100 | Ω |
| +11 to +13 | VDC |
| 1.5 to 2.5 | Sec |

| 49050 | m/s- peak |
|------------|------------|
| -51 to 93 | °C |
| HERMETIC | |
| | <u>-</u> ' |
| | |
| 2 to 20 | mA |
| ±10 to ±30 | Volte |

5886

1.5 to 2.5

| 2 to 20 | mA |
|------------|-------|
| +18 to +30 | Volts |
| 100 | Ω |
| +11 to +13 | VDC |

This family also includes:

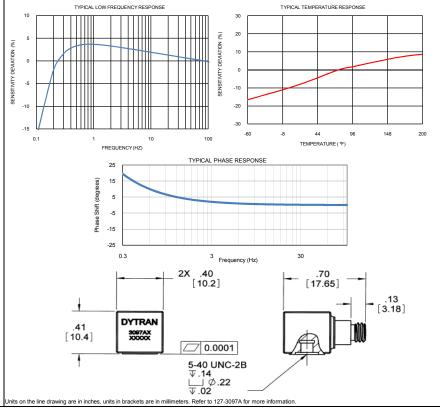
| Model | Sensitivity (mV/g) | Frequency Response ±5%, (Hz) | Time Constant (Sec) | Operating Temp (°F) |
|--------|--------------------|------------------------------|---------------------|---------------------|
| 3097A2 | 100 | 0.3 to 5,000 | 1.5 to 2.5 | -60 to 180 |
| 3097A3 | 500 | 0.3 to 5,000 | 1.5 to 2.5 | -60 to 150 |
| | | | | |

Refer to the performance specifications of the products in this family for detailed description

Supplied Accessories:

- 1) Accredited calibration certificate (ISO 17025)
- 2) Model 6580 mounting stud (5-40 to 5-40), qty 1

- [1] Coaxial, 10-32 connector, Mates with Dytran cable Model 6010AXX or 6011AXX
- [2] Measured at 100Hz, 1 Grms per ISA RP 37.2.
 [3] Measure using zero-based straight line method, % of F.S. or any lesser range.
- [5] Do not apply power to this system without current limiting, 20 mA MAX. To do so will destroy the IC charge amplifier.
- [6] In the interest of constant product improvement, we reserve the right to change specifications without notice.





m/s2 peak