

| Model Number<br>3713A2T                                    | PERFORMANCE SPECIFICATIONS |               |                   |                       |   |   |                             |   | DOC NO<br>PS3713A2T       |  |
|--|----------------------------|---------------|-------------------|-----------------------|---|---|-----------------------------|---|---------------------------|--|
|  |                            |               |                   | Triaxial Acc          | elerometer, IEPE  |   |                             |   | REV A, ECN 15001, 10/08/1 |  |
|  |                            |               |                   |                       | This family also inc  | cludes:   |                             |   |                           |  |
|  |                            |               |                   |                       | Model   | Sensitivity (mV/g)  | Range (Gpeak)               | Time Constant (Sec)   | Operating Temp (°F)       |  |
| HERMETICALLY SEALED     • CASE ISOLATED     • TEDS FEATURE |                            |               |                   | 3713A1T               | 1.0   | 5,000   | 0.8 to 2.0                  | -67 to +302   |                           |  |
|  |                            |               | TED               |                       | 3713A3T   | 5.0   | 1,000                       | 0.5 to 2.0  | -67 to +302               |  |
|  |                            |               |                   | 3713A4T               | 10  | 500   | 0.3 to 2.0                  | -67 to +302   |                           |  |
|  |                            |               |                   |                       | Refer to the perform  | Refer to the performance specifications of the products in this family for detailed description Supplied Accessories: |                             |   |                           |  |
|  |                            |               |                   |                       | Supplied Accessor   |   |                             |   |                           |  |
|  |                            |               |                   |                       | 1) Accredited calibration certificate (ISO 17025)<br>2) Mounting screw, model 6543, 10-32 x .75" long, Qty. 1 |   |                             |   |                           |  |
|  |                            |               |                   |                       |   |   |                             |   |                           |  |
| PHYSICAL   | J                          |               | . I               |                       | Notes:  |   |                             |   |                           |  |
| Weight, Max.   | 1.8                        | oz            | 52                | grams                 |   | air connector 800-006-16-Z1   | 6-4SN. Dytran cable mode    | I 6380AXX   |                           |  |
| Mounting   | Ø.195 Thru Hole            |               | Ø4.95mm Thru Hole |                       | [2] Measured at 100   | Hz, 1 Grms per ISA RP 37.   | 2.                          |   |                           |  |
| Connector [1]  | 4-Pin                      |               | 4-Pin             |                       | [3] Measure using ze  | ero-based straight line meth  | od, % of F.S. or any lesser | range.  |                           |  |
| Material   | 300 Series S.S.            |               | 300 Series S.S.   |                       | [4] Do not apply pow  | ver to this system without cu   | rrent limiting, 20 mA MAX.  | To do so will destroy the IC  | charge amplifier.         |  |
| Sensing Element Material                                   | Quartz                     |               | Quartz            |                       |   | constant product improvem   |                             |   |                           |  |
| Mode   | Shear                      |               | Shear             |                       |   | responsibility to validate that<br>a particular application. Par  |                             |   |                           |  |
| DEDEODMANOE  |                            |               |                   |                       |   | formance may vary overtim   |                             |   |                           |  |
| PERFORMANCE  | 0.5                        |               | 0.05              | mV/m/s <sup>2</sup>   |   | pplication by the customer's  |                             | ,   | ,                         |  |
| Sensitivity [2], ±30%<br>Acceleration Range                | 0.5                        | mV/g<br>Gpeak | 0.05<br>98100     | m/s <sup>2</sup> peak |   | TYPICAL LOW FREQUENCY RESPONS   | 3E                          | TYPICAL TEMPERATURE R   | ESPONSE                   |  |
| Frequency Range, (±5%)                                     | 0.6 to 3,000               | Hz            | 0.6 to 3,000      | Hz                    | 10  |   | 20                          |   |                           |  |
| Frequency Range, (±10%)                                    | 0.4 to 4,000               | Hz            | 0.4 to 4,000      | Hz                    | 5   |   | 15                          |   |                           |  |
| Frequency Range, (±3dB)                                    | 0.2 to 6,000               | Hz            | 0.2 to 6,000      | Hz                    | % 0<br>z  |   | 2 10 -                      |   |                           |  |
| Resonance Frequency  | >30                        | kHz           | >30               | kHz                   | -5  |   |                             |   |                           |  |
| Transverse Sensitivity                                     | <6                         | %             | <6                | %                     | -10   |   |                             |   |                           |  |
| Electrical Noise Floor, Max.                               | 0.04                       | Grms          | 0.4               | m/s <sup>2</sup> rms  | £ -15   |   | É .5 -                      |   |                           |  |
| Linearity [3]  | ± 1%                       | % F.S.        | ± 1%              | % F.S.                | -20   |   | 0                           |   |                           |  |
|  |                            |               |                   |                       | -25   |   | -15                         |   |                           |  |
| ELECTRICAL   |                            |               |                   |                       |   |   |                             |   |                           |  |
| Compliance Voltage   | +18 to +30                 | VDC           | +18 to +30        | VDC                   | 0.1   | 1 10  | 100 -67                     | -30 7 44 81 118   | 154 191 228 265 302       |  |
| Current Range [4]  | 2 to 20                    | mA            | 2 to 20           | mA                    |   | FREQUENCY (HZ)  |                             | TEMPERATURE (*F   | ;)                        |  |
| Output Impedance, Typ.                                     | 100                        | Ω             | 100               | Ω                     |   |   | 1.49<br>[37.8]              |   |                           |  |
| Output Bias Voltage  | 7.0 to 12.0                | VDC           | 7.0 to 12.0       | VDC                   |   |   | .87                         |   |                           |  |
| Discharge Time Constant                                    | 0.8 to 2.0                 | sec           | 0.8 to 2.0        | sec                   |   | [[:   | 22.1]                       |   |                           |  |
| Ground Isolation   | >1                         | GΩ            | >1                | GΩ                    |   | + //  |                             |   |                           |  |
| TEDS   | IEEE 1451.4                |               | IEEE 1451.4       |                       |   |   |                             |   |                           |  |
| Base Strain Sensitivity                                    | 0.003                      | g/µɛ          | 0.03              | m/s²/με               |   | .87<br>[22.1]   |                             |   |                           |  |
| ENVIRONMENTAL  |                            |               |                   |                       |   |   |                             |   |                           |  |
| Maximum Shock  | 15,000                     | Gpeak         | 147,150           | m/s <sup>2</sup>      |   | MOUNTING SCREW,   |                             | CONNECTOR,<br>1-PIN, 3/8-28 UN-2A<br>SLENAIR P/N: 800-013-03Z16-4PN |                           |  |
| Maximum Vibration  | 12,000                     | Gpeak         | 117,720           | m/s <sup>2</sup>      |   | MODEL 6543,<br>10-32 x .75" LONG  | [4.95]                      |   |                           |  |
| Operating Temperature                                      | -67 to +302                | °F            | -55 to +150       | °C                    |   | QTY. 1, SUPPLIED  | Ø.047[1.19] T<br>LOCKWIRE H | DLE   |                           |  |
| TEDS Operating Temperature                                 | -40 to +185                | °F            | -40 to +85        | °C                    |   |   |                             |   |                           |  |
| Seal   | Hermetic                   |               | Hermetic          |                       |   |   |                             | ]   |                           |  |
|  |                            |               |                   |                       |   |   | Ø.82                        |   |                           |  |
|  |                            |               |                   |                       |   | e in inches, units in brackets are in m   | [20.8]                      |   |                           |  |

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