

MODEL NUMBER
3263A2

PERFORMANCE SPECIFICATION
PS3263A2

TRIAXIAL ACCELEROMETER, IEPE

DOC NO.
PS3263A2

REV G, ECN 13018 10/17/16



- TRIAXIAL ACCELEROMETER
- HIGH SENSITIVITY
- MINATURE SIZE

**ACTUAL SIZE** 

| 100Hz 10 $\mu Grms/\sqrt{(Hz)}$ 98 $\mu m/s^2 rms/\sqrt{(Hz)}$   | ACTUAL SIZE                       |          |              |             |              |   |
|--|-----------------------------------|----------|--------------|-------------|--------------|---|
| Weight, Max  |                                   | Г        | ENGLISH      |             | SI           |   |
| Mounting, Integral Thread   Connector [1]   Type   A PIN   A PIN   Titanium   Titanium   Titanium   Titanium   Titanium   Ceramic   Shear  | PHYSICAL                          | -        |              |             |              |   |
| Connector [1]   Type   A PIN   Material Body   Mode   Shear   Mode   Shear   | Weight, Max.                      |          | 0.2          | oz          | 5.6          | grams   |
| Material Body   Material Sensing Element   Material Mode   Material Mode   Shear   Ceramic Shear   | Mounting, Integral Thread         |          | 4-40 UNC-2B  |             | 4-40 UNC-2B  |   |
| Sensing Element   Material   Mode   Shear   Shear   Shear  | Connector [1]                     | Type     | 4 PIN        |             | 4 PIN        |   |
| PERFORMANCE   Sensitivity +/- 10% [2]   100   mV/g   10.2   mV/m/s²   m/s²    | Material Body                     | Material | Titanium     |             | Titanium     |   |
| PERFORMANCE   Sensitivity +/- 10% [2]   100   mV/g   10.2   mV/m/s²   m/s²   Frequency Response, -10%/+15%   0.3 to 10000   Hz   0.3 to 100000   Hz   Hz   0.3 to 100000   Hz   KHz   Sensitivity, Max   Si   11%   Sensitivity, Max   Si   11%   Sensitivity, Max   Si   100   1  | Sensing Element                   | Material | Ceramic      |             | Ceramic      |   |
| Sensitivity +/- 10% [2]  |                                   | Mode     | Shear        |             | Shear        | ]   |
| Range F.S. For ± 5 Volts Output  | PERFORMANCE                       |          |              |             |              |   |
| Frequency Response, -10%/+15%   Resonant Frequency   S40   KHz   S40   | Sensitivity +/- 10% [2]           |          | 100          | mV/g        | 10.2         | mV/ m/s <sup>2</sup>                              |
| Resonant Frequency   | Range F.S. For ± 5 Volts Output   |          | ± 50         | g           | ± 490        | m/s <sup>2</sup>                                  |
| Phase Response, ± 5°   | Frequency Response, -10%/+15%     |          | 0.3 to 10000 | Hz          | 0.3 to 10000 | Hz  |
| Linearity, Max [3]   | Resonant Frequency                |          | >40          | KHz         | >40          | KHz   |
| Transverse Sensitivity, Max.   6%   6%   6%   6%   6%   6%   6%   6  | Phase Response, ± 5°              |          | 2 to 3000    | Hz          | 2 to 3000    | Hz  |
| Equivalent Electrical Noise         0.0006         g rms         0.006         m/s² rms           Spectral Noise         1Hz         100         μGrms/\(Hz)         981         μm/s² rms/\(Hz)           10Hz         50         μGrms/\(Hz)         491         μm/s² rms/\(Hz)           100Hz         10         μGrms/\(Hz)         98         μm/s² rms/\(Hz)           1000Hz         10         μGrms/\(Hz)         98         μm/s² rms/\(Hz)           μGrms/\(Hz)         98         μm/s² rms/\(Hz)         μm/s² rms/\(Hz)           μGrms/\(Hz)         98         μm/s² rms/\(Hz)           μGrms/\(   | Linearity, Max [3]                |          | ± 1%         | %F.S        | ± 1%         | %F.S  |
| Spectral Noise   | Transverse Sensitivity, Max.      |          | 6%           |             | 6%           |   |
| 10Hz 10Hz 10 μGrms/√(Hz) 491 μm/s² rms/√(Hz) 100Hz 110 μGrms/√(Hz) 98 μm/s² rms/√(Hz) 1000Hz 10 μGrms/√(Hz) 98 μm/s² rms/√(Hz) μGrms/√(Hz) 49 μm/s² rms/√(Hz) μμm/s² rms/√(Hz) | Equivalent Electrical Noise Floor |          | 0.0006       | g rms       | 0.006        | m/s² rms  |
| 100Hz 100 μg/ms/√(Hz) 98 μm/s² rms/√(Hz) 1000Hz 5 μG/ms/√(Hz) 98 μm/s² rms/√(Hz) μg/ms/√(Hz) 49 μm/s² rms/√(Hz) μm/s² rms/√( | Spectral Noise                    | 1Hz      | 100          | μGrms/√(Hz) | 981          | μm/s² rms/√(Hz)                                   |
| 1000Hz   |                                   | 10Hz     | 50           | μGrms/√(Hz) | 491          | μm/s² rms/√(Hz)                                   |
| ENVIRONMENTAL   Maximum Vibration   600   ±gpk   5886   ± m/s² pk   49050   ± m/s² pk   600 to ±225   °F   −51 to 107   °C   600 to ±225   Hermetic   Hermetic   Hermetic   Hermetic   Hermetic   Hermetic   Hermetic   Hermetic   Maximum Vibration   V   |                                   | 100Hz    | 10           | μGrms/√(Hz) | 98           | μm/s² rms/√(Hz)                                   |
| ENVIRONMENTAL           Maximum Vibration         600         ±gpk         5886         ±m/s² pk           Maximum Shock         5000         ±gpk         49050         ±m/s² pk           Temperature Range         -60 to +225         °F         -51 to 107         °C           Seal         Hermetic         Hermetic         Hermetic    ELECTRICAL  Supply Current [4]  Compliance Voltage Range  +18 to +30  V  +18 to +30  V  Dupty Impedance TYP  150  Ω  150  Ω  150  Ω  H11 to +13  VDC  +11 to +13  VDC  Time Page Age  -10 to -  |                                   | 1000Hz   | 10           | μGrms/√(Hz) | 98           | $\mu \text{m/s}^2 \text{ rms/}\sqrt{(\text{Hz})}$ |
| Maximum Vibration         600         ±gpk         5886         ±m/s² pk           Maximum Shock         5000         ±gpk         49050         ±m/s² pk           Temperature Range         -60 to +225         °F         -51 to 107         °C           Seal         Hermetic         Hermetic         The medic         Hermetic           ELECTRICAL         Supply Current [4]         2 to 20         mA         2 to 20         mA           Compliance Voltage Range         +18 to +30         V         +18 to +30         V           Output Impedance TYP         150         Ω         150         Ω           Bias Voltage         +11 to +13         VDC         +11 to +13         VDC  |                                   | 10000Hz  | 5            | μGrms/√(Hz) | 49           | μm/s² rms/√(Hz)                                   |
| Maximum Shock         5000         ±gpk         49050         ± m/s² pk           Temperature Range         -60 to +225         °F         -51 to 107         °C           Seal         Hermetic         Hermetic         Hermetic    ELECTRICAL  Supply Current [4]  Compliance Voltage Range   | ENVIRONMENTAL                     |          |              |             |              |   |
| Temperature Range  | Maximum Vibration                 |          | 600          | ±gpk        | 5886         | ± m/s² pk   |
| Seal         Hermetic         Hermetic           ELECTRICAL         Supply Current [4]         2 to 20         mA         2 to 20         mA           Compliance Voltage Range         +18 to +30         V         +18 to +30         V           Output Impedance TYP         150         Ω         150         Ω           Bias Voltage         +11 to +13         VDC         +11 to +13         VDC  | Maximum Shock                     |          | 5000         | ±gpk        | 49050        | ± m/s² pk   |
| ELECTRICAL           Supply Current [4]         2 to 20         mA         2 to 20         mA           Compliance Voltage Range         +18 to +30         V         +18 to +30         V           Output Impedance TYP         150         Ω         150         Ω           Bias Voltage         +11 to +13         VDC         +11 to +13         VDC   | Temperature Range                 |          | -60 to +225  | °F          | -51 to 107   | °C  |
| Supply Current [4]         2 to 20         mA         2 to 20         mA           Compliance Voltage Range         +18 to +30         V         +18 to +30         V           Output Impedance TYP         150         Ω         150         Ω           Bias Voltage         +11 to +13         VDC         +11 to +13         VDC  | Seal                              |          | Hermetic     | _           | Hermetic     |   |
| Compliance Voltage Range         +18 to +30         V         +18 to +30         V           Output Impedance TYP         150         Ω         150         Ω           Bias Voltage         +11 to +13         VDC         +11 to +13         VDC   | ELECTRICAL                        |          |              |             |              |   |
| Output Impedance TYP         150         Ω         150         Ω           Bias Voltage         +11 to +13         VDC         +11 to +13         VDC  | Supply Current [4]                |          | 2 to 20      | mA          | 2 to 20      | mA  |
| Bias Voltage +11 to +13 VDC +11 to +13 VDC   | Compliance Voltage Range          | Ī        | +18 to +30   | V           | +18 to +30   | V   |
|  | Output Impedance TYP              | Ī        | 150          | Ω           | 150          | Ω   |
| Discharge Time Constant 1.2 to 2.2 sec 1.2 to 2.2 sec  | Bias Voltage                      | Ī        | +11 to +13   | VDC         | +11 to +13   | VDC   |
|  | Discharge Time Constant           | Ţ        | 1.2 to 2.2   | sec         | 1.2 to 2.2   | sec   |

## This family also includes:

| Model  | Sensitivity (mV/g) | Range (Gpeak) | Resolution (Grms) | Oper. Temp(°F) | TC         |
|--------|--------------------|---------------|-------------------|----------------|------------|
| 3263A1 | 10                 | 500           | 0.0008            | -60 to +250    | 1.0 to 2.0 |
| 3263A3 | 50                 | 100           | 0.0008            | -60 to +225    | 1.0 to 2.0 |
|        |                    |               |                   |                |            |

Please, refer to the performance specifications of the products in this family for detailed description.

## SUPPLIED ACCESSORIES

a) Model 6721 mounted stud 4-40 to 4-40.

## Notes

- [1] Connector mates with Dytran cable assembly Model 6811AXX (XX= length in feet)
- [2] Measured at 100 Hz, 1 grms per ISA RP 37.2.
- [3] Measured using zero-based best straight-line method, % of F.S. or any lesser range.
- [4] Do not apply power to this device without current limiting, 20 mA MAX.

To do so will destroy the integral IC amplifier.

[5] In the interest of constant product improvement, we reserve the right to change specifications without notice.





