

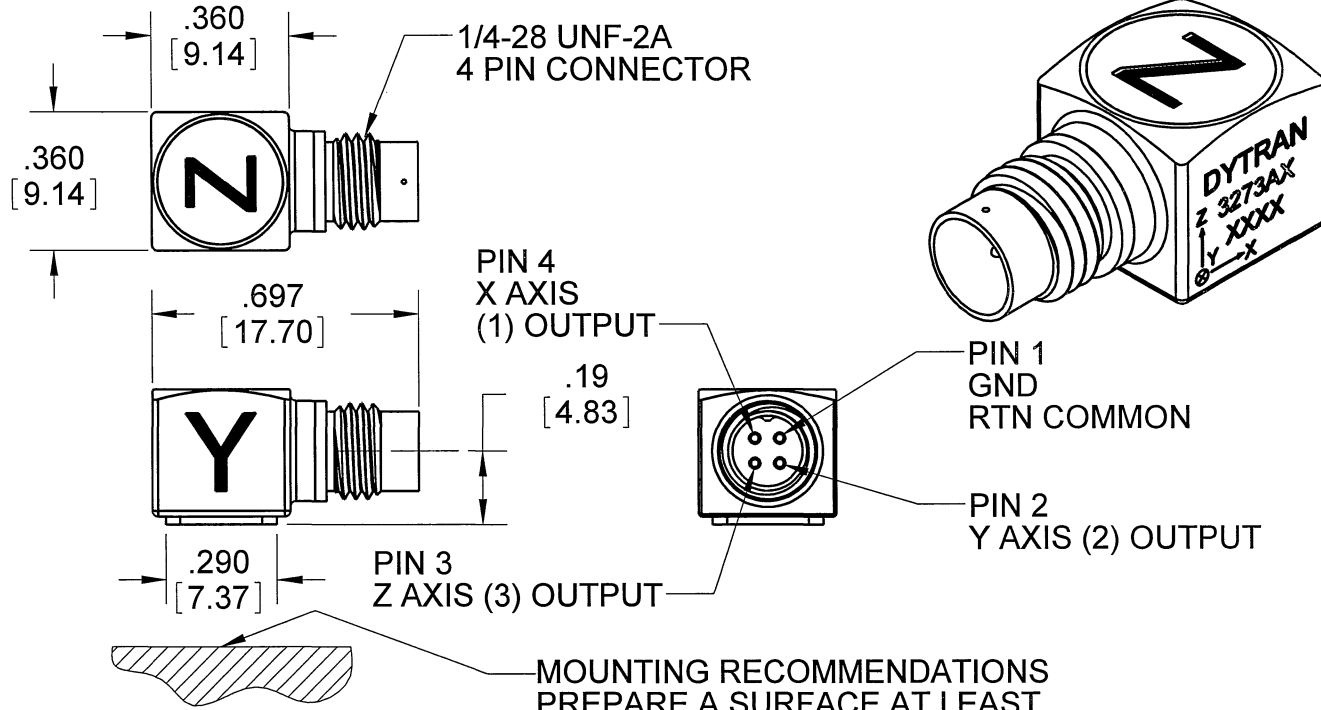
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**REVISIONS**

| REV | ECN  | DESCRIPTION  | BY/DATE     | CHK | APPR |
|-----|------|--------------|-------------|-----|------|
| D   | 7027 | ADDED NOTE 4 | JS 08/18/10 | RA  | JS   |

| MODEL  | SENSITIVITY |
|--------|-------------|
| 3273A1 | 10mV/G      |
| 3273A2 | 100mV/G     |
| 3273A4 | 50mV/G      |



4. TO MATE CABLE TO CONNECTOR INSERT PLUG AND ENGAGE KEYWAY BEFORE TURNING COUPLING NUT.
  3. HOUSING/CONNECTOR MATERIAL: TITANIUM
  2. ARROWS INDICATE DIRECTIONS OF ACCELERATION FOR POSITIVE OUTPUT.
  1. WEIGHT: 3.0 GRAMS
- NOTES: UNLESS OTHERWISE SPECIFIED.

MOUNTING RECOMMENDATIONS  
 PREPARE A SURFACE AT LEAST  
 .300 BY .300. SURFACE FLATNESS MUST  
 BE EQUAL OR BETTER THAN .0001 TIR.  
 USE ONE DROP OF CYANOACRYLATE  
 TO MOUNT THE ACCELEROMETER.

|   |           |  |
|---|-----------|--|
| SERIES  |           | UNLESS OTHERWISE SPECIFIED:<br>INTERPRET DIM & TOL PER<br>ASME Y14.5M - 1994.<br>REMOVE BURRS.<br>COUNTERSINK INTERNAL THDS<br>90° TO MAJOR DIA.<br>CHAM EXT THDS 45° TO MINOR DIA.<br>THD LENGTHS AND DEPTHS ARE FOR<br>MIN FULL THDS.<br>THDS PER MIL-S-7742.<br>DIMENSIONS APPLY AFTER FINISHING. |
| USED ON   | NEXT ASSY |  |
| APPLICATION   |           | UNLESS OTHERWISE SPECIFIED:<br>DIMENSIONS ARE IN INCHES.<br>DIMENSIONS IN BRACKETS [ ]<br>ARE IN MILLIMETERS<br>TOLERANCES ARE:<br>INCHES    METRIC    ANGLES<br>.XX ± .03    .X ± 0.8    ± 1°<br>.XXX ± 0.10    .XX ± 0.25  |
| THIRD ANGLE PROJECTION<br>USA   |           |  |
|   |           | MATERIAL<br>FINISH<br>DO NOT SCALE DRAWING   |
| ALL MACHINED SURFACES. <sup>63</sup><br>TOTAL RUNOUT WITHIN .005.<br>BREAK SHARP EDGES .005 TO .010.<br>MACHINED FILLET RADII .005 TO .015.<br>WELDING SYMBOLS PER AWS A2.4.<br>ABBREVIATIONS PER MIL-STD-12. |           |  |

|              |          |
|--------------|----------|
| CONTRACT NO. |          |
| APPROVALS    |          |
| ORIG         | DATE     |
| CHK          | 9/30/08  |
| APP          | DV       |
| APP          | ANS      |
| APP          | 10/17/08 |

|  |              |  |              |
|--|--------------|--|--------------|
|  |              | <b>MASTER ONLY IF IN RED</b><br>Chatsworth, CA |              |
| TITLE:   |              |  |              |
| <b>OUTLINE/INSTALLATION<br/>         DRAWING, 3273A SERIES</b> |              |  |              |
| SIZE   | CAGE CODE    | DWG. NO.                                       | REV          |
| <b>A</b>   | <b>2W033</b> | <b>127-3273A</b>                               | <b>D</b>     |
| SCALE: 4:1   |              | SOLIDWORKS                                     | SHEET 1 OF 1 |

3273A1

PERFORMANCE SPECIFICATION

REV M, ECN 15711, 04/21/20

Accelerometer, Triaxial, IEPE



- ULTRA LOW FREQUENCY RESPONSE
- ULTRA LOW NOISE LEVEL
- WEIGHT ONLY 2.7 GRAMS

| ENGLISH         |                        | SI          |       |
|-----------------|------------------------|-------------|-------|
| Weight          | 0.096 oz               | 2.7         | grams |
| Mounting        | Adhesive               | Adhesive    |       |
| Connector [1]   | Type: 4-pin            | 4-pin       |       |
|                 | Material: Ti-6 AL-4V   | Ti-6 AL-4V  |       |
| Housing         | Material: Ti-6 AL-4V   | Ti-6 AL-4V  |       |
|                 | Isolation: Case ground | Case ground |       |
| Sensing Element | Material: Ceramic      | Ceramic     |       |
|                 | Mode: Shear            | Shear       |       |

PERFORMANCE

|                            |             |               |             |                               |
|----------------------------|-------------|---------------|-------------|-------------------------------|
| Sensitivity, ±10% [2]      | 10          | mV/g          | 1.02        | mV/m/s <sup>2</sup>           |
| Acceleration Range         | +/-500      | Gpeak         | +/- 4905    | m/s <sup>2</sup> peak         |
| Frequency Range, ±15%      | .3-10,000   | Hz            | .3-10,000   | Hz                            |
| Frequency Range, ± 5%      | .5 - 3000   | Hz            | .5 - 3000   | Hz                            |
| Resonance Frequency        | >24         | kHz           | >24         | kHz                           |
| Linearity [3]              | 1           | %F.S.         | 1           | %F.S.                         |
| Phase Response, ± 5°       | 2.3 to 3000 | Hz            | 2.3 to 3000 | Hz                            |
| Transverse Sensitivity Max | 6           | %             | 5           | %                             |
| Noise floor, Max           | 0.003       | Grms          | 0.029       | m/s <sup>2</sup> rms          |
| Spectral Noise             |             |               |             |                               |
| 1Hz                        | 629         | µGrms/sqr(Hz) | 6166        | µm/s <sup>2</sup> rms/sqr(Hz) |
| 10Hz                       | 110         | µGrms/sqr(Hz) | 1074        | µm/s <sup>2</sup> rms/sqr(Hz) |
| 100Hz                      | 67          | µGrms/sqr(Hz) | 657         | µm/s <sup>2</sup> rms/sqr(Hz) |
| 1000Hz                     | 31          | µGrms/sqr(Hz) | 304         | µm/s <sup>2</sup> rms/sqr(Hz) |
| 10000Hz                    | 16          | µGrms/sqr(Hz) | 157         | µm/s <sup>2</sup> rms/sqr(Hz) |

ELECTRICAL

|                          |            |     |            |     |
|--------------------------|------------|-----|------------|-----|
| Supply Current Range [4] | 2 to 20    | mA  | 2 to 20    | mA  |
| Compliance Voltage Range | +18 to +30 | VDC | +18 to +30 | VDC |
| Output Impedance, Typ.   | 100        | Ω   | 100        | Ω   |
| Output Bias Voltage      | 11 to 13   | VDC | 11 to 13   | VDC |
| Discharge Time Constant  | 0.5 to 1.5 | sec | 0.5 to 1.5 | sec |

ENVIRONMENTAL

|                                   |             |         |             |                         |
|-----------------------------------|-------------|---------|-------------|-------------------------|
| Shock Max                         | 5000        | g pk    | 49050       | m/s <sup>2</sup>        |
| Vibration Max                     | 3000        | g pk    | 29430       | m/s <sup>2</sup>        |
| Operating Temperature             | -60 to +225 | °F      | -51 to +107 | °C                      |
| Seal                              | Hermetic    |         | Hermetic    |                         |
| Magnetic Sensitivity at 100 Gauss | 0.00007     | g/Gauss | 0.00069     | m/s <sup>2</sup> /Gauss |
| Base Strain Sensitivity           | 0.02        | g/µε    | 0.1962      | m/s <sup>2</sup> /µε    |

This family also includes:

| Model  | Sensitivity (mV/g) | Range (Gpeak) | Resolution (Grms) | Oper. Temp(°F) | TC        |
|--------|--------------------|---------------|-------------------|----------------|-----------|
| 3273A2 | 100                | 50            | 0.00095           | -60 to +165    | 0.5 - 1.5 |
| 3273A4 | 50                 | 100           | 0.002             | -60 to +185    | 0.5 - 1.5 |

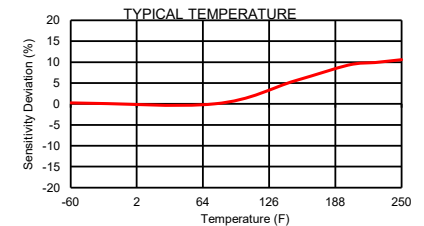
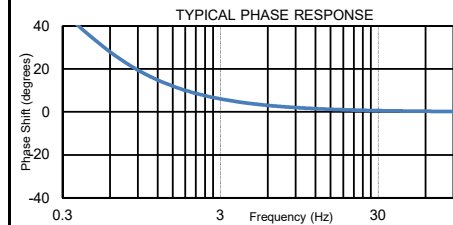
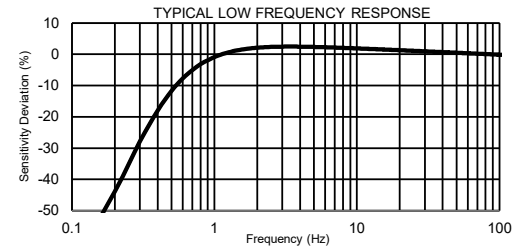
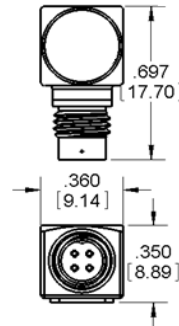
Please, refer to the performance specifications of the products in this family for detailed description

Supplied Accessories:

- 1) Accredited calibration certificate (ISO 17025)

Notes:

- [1] Glass to metal Seal connector. Mates with Dytran cable model 6811AXX or 6824AXX (XX =length in feet)
- [2] Measured at 100 Hz, 1 Grms per ISA RP 37.2
- [3] Linearity is % of specified full scale (or any less full-scale range), zero-based best fit straight line method.
- [4] Do not apply power to this device without current limiting, 20mA 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. 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 127-3273A for more information.



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