**REVISIONS** THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY DESCRIPTION **APPR** REV **ECN** BY/DATE CHK OF DYTRAN INSTRUMENTS INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF OX DYTRAN INSTRUMENTS.INC. IS PROHIBITED 7027 ADDED NOTE 4 JS 08/18/10 D MODEL **SENSITIVITY** .360 1/4-28 UNF-2A 3273A1T 10mV/G 9.14 **4 PIN CONNECTOR** 3273A2T 100mV/G 3273A4T 50mV/G .360 9.14 PIN<sub>4</sub> X AXIS .697 (1) OUTPUT 17.70 PIN 1 .19 **GND** 4.83 RTN COMMON .350 8.89 PIN 2 Y AXIS (2) OUTPUT .290 PIN<sub>3</sub> 290 Z AXIS (3) OUTPUT 7.37 7.37 -MOUNTING RECOMMENDATIONS PREPARE A SURFACE AT LEAST .300 BY .300. SURFACE FLATNESS MUST 4. TO MATE CABLE TO CONNECTOR INSERT PLUG AND BE EQUAL OR BETTER THAN .0001 TIR. ENGAGE KEYWAY BEFORE TURNING COUPLING NUT. USE ONE DROP OF CYANOACRYLATE TO MOUNT THE ACCELEROMETER. 3. HOUSING/CONNECTOR MATERIAL: TITANIUM 2. ARROWS INDICATE DIRECTIONS OF ACCELERATION FOR POSITIVE OUTPUT. 1. WEIGHT: 3.0 GRAMS APPROXIMATELY CONTRACT NO. NOTES: UNLESS OTHERWISE SPECIFIED.

3273AT SERIES

USED ON NEXT ASSY

APPLICATION

THIRD ANGLE PROJECTION

THIRD ANGLE PROJECTION

UNLESS OTHERWISE SPECIFIED:
INTERPRET DIM & TOL PER
ASME Y14.5M - 1994.
REMOVE BURRS.
COUNTERSINK INTERNAL THDS
90° TO MAJOR DIA.
CHAM EXT THDS 45° TO MINOR DIA.
THD LENGTHS AND DEPTHS ARE FOR
MIN FULL THDS.
THDS PER MIL-S-7742.
DIMENSIONS APPLY AFTER FINISHING.

ALL MACHINED SURFACES.

TOTAL RUNOUT WITHIN .005.
BREAK SHARP EDGES .005 TO .010.
MACHINED FILLET RADII .005 TO .015.
WELDING SYMBOLS PER AWS A24.
ABBREVIATIONS PER MIL-STD-12.

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES.
DIMENSIONS IN BRACKETS []
ARE IN MILLIMETERS
TOLERANCES ARE:
INCHES METRIC ANGLES
XX ± .03 X ± 0.8 ± 1°

.XXX±.010 .XX ±0.25 **APPROVALS** DATE MATERIAL ORIG 05/05/09 R.A. CHK FINISH EΡ 05/11/09 APP 05/12/09 DV DO NOT SCALE DRAWING APP

INSTRUMENTS, INC.

MASTER CONLY IE IN RED

TITLE:

OUTLINE/INSTALLATION DRAWING, MODEL 3273AT SERIES

SIZE CAGE CODE DWG. NO.

A 2W033 127-3273AT B

SCALE: 4:1 SOLIDWORKS SHEET 1 OF 1

 Model Number
 DOC NO

 3273A2T
 PERFORMANCE SPECIFICATION
 PS3273A2T

 Accelerometer, Triaxial, IEPE
 REV J. ECN 15608, 02/27/20

This family also includes:



- ULTRA LOW FREQUENCY RESPONSE
- ULTRA LOW NOISE LEVEL
- WEIGHT ONLY 3 GRAMS
- TEDS FEATURE

|                                |           | ENGLISH      |               | SI           |                    |
|--------------------------------|-----------|--------------|---------------|--------------|--------------------|
| PHYSICAL                       |           |              |               |              |                    |
| Weight                         |           | 0.1          | oz            | 3.0          | grams              |
| Mounting                       |           | Adhesive     |               | Adhesive     |                    |
| Connector [1]                  | Type      | 4-pin        |               | 4-pin        |                    |
|                                | Material  | Titanium     |               | Titanium     | ]                  |
| Housing                        | Material  | Titanium     |               | Titanium     |                    |
|                                | Isolation | Case ground  |               | Case ground  | ]                  |
| Sensing Element                | Material  | Ceramic      |               | Ceramic      | ]                  |
|                                | Mode      | Shear        | ]             | Shear        | ]                  |
| PERFORMANCE                    |           |              |               |              |                    |
| Sensitivity, ±10% [2]          |           | 100          | mV/g          | 10.19        | mV/m/s^2           |
| Acceleration Range             |           | 50           | Gpeak         | 491          | m/s^2 peak         |
| Frequency Range, ± 5%          |           | .7 - 3000    | Hz            | .7 - 3000    | Hz                 |
| Frequency Range, +15/-10%      |           | .42 - 10,000 | Hz            | .42 - 10,000 | Hz                 |
| Resonance Frequency            |           | >24          | kHz           | >24          | kHz                |
| Phase Response, ± 5°           |           | 4.0 to 3000  | Hz            | 4.0 to 3000  | Hz                 |
| Linearity [3]                  |           | 1            | %F.S.         | 1            | %F.S.              |
| Transverse Sensitivity Max     |           | 6            | %             | 6            | %                  |
| Noise floor, Max               |           | 0.00095      | Grms          | 0.009        | m/s^2 rms          |
| Spectral Noise                 | 1Hz       | 207          | μGrms/sqr(Hz) | 2031         | µm/s^2 rms/sqr(Hz) |
|                                | 10Hz      | 52           | μGrms/sqr(Hz) | 510          | µm/s^2 rms/sqr(Hz) |
|                                | 100Hz     | 32           | μGrms/sqr(Hz) | 314          | µm/s^2 rms/sqr(Hz) |
|                                | 1000Hz    | 11           | μGrms/sqr(Hz) | 108          | µm/s^2 rms/sqr(Hz) |
|                                | 10000Hz   | 8            | μGrms/sqr(Hz) | 78           | µm/s^2 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 - 13      | VDC           | 11 - 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^2              |
| Vibration Max                  |           | 3000         | g pk          | 29430        | m/s^2              |
| Operating Temperature          |           | -60 to +165  | °F            | -51 to +82   | °C                 |
| TEDs Operation Temperature     |           | -40 to +185  | °F            | -40 to +85   | °C                 |
| Seal                           |           | Hermetic     |               | Hermetic     | ]                  |
| Magnetic Sensitivity at 100 Ga | 0.000013  | g/Gauss      | 0.00013       | m/s^2/Gauss  |                    |
| Base Strain Sensitivity        |           | 0.06         | g/με          | 0.59         | m/s^2/με           |
| TED feature                    |           | IEEE 1451.4  |               | IEEE 1451.4  | ]                  |
|                                |           |              |               |              |                    |

| This family also includes. |                    |               |                   |                |           |  |  |  |
|----------------------------|--------------------|---------------|-------------------|----------------|-----------|--|--|--|
| Model                      | Sensitivity (mV/g) | Range (Gpeak) | Resolution (Grms) | Oper. Temp(°F) | TC        |  |  |  |
| 3273A1T                    | 10                 | 500           | 0.003             | -60 to +225    | 0.5 - 1.5 |  |  |  |
| 3273A4T                    | 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 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



