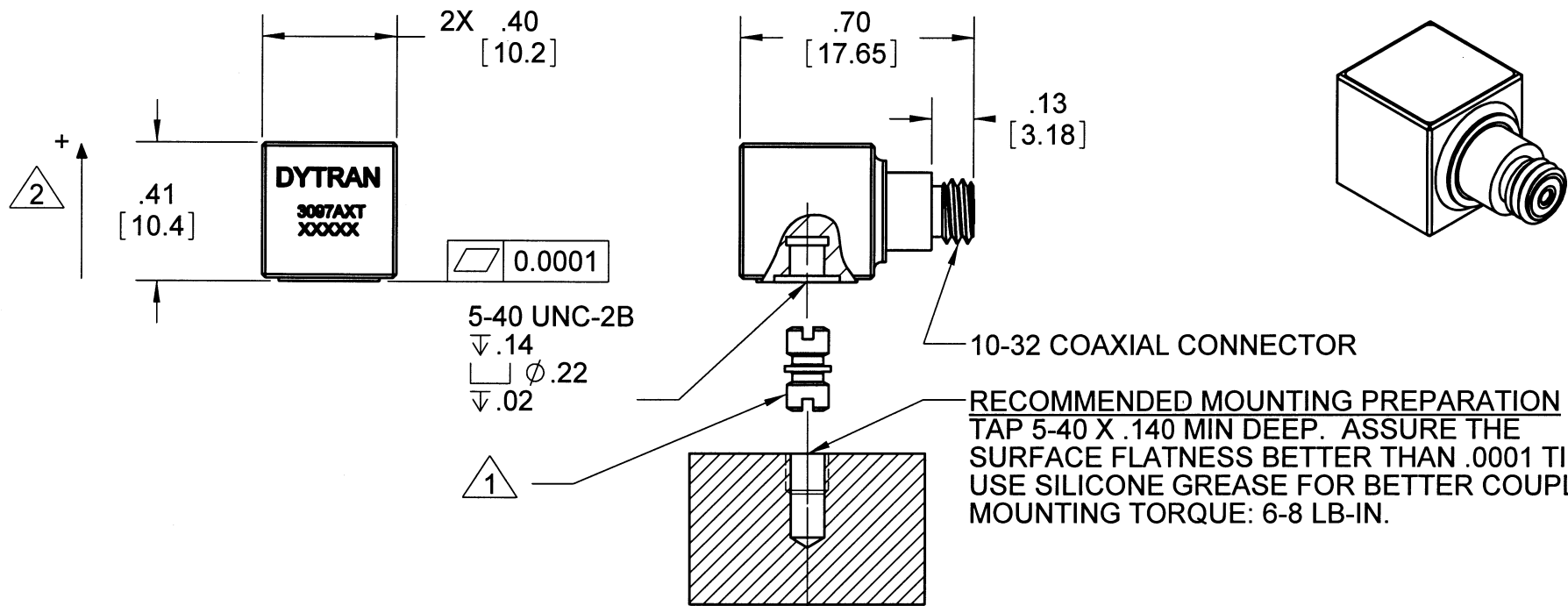


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REVISIONS

| REV | ECN  | DESCRIPTION     | BY/DATE      | CHK       | APPR      |
|-----|------|-----------------|--------------|-----------|-----------|
| A   | 6192 | INITIAL RELEASE | RA, 08/20/09 | <i>ep</i> | <i>SA</i> |



RECOMMENDED MOUNTING PREPARATION  
 TAP 5-40 X .140 MIN DEEP. ASSURE THE SURFACE FLATNESS BETTER THAN .0001 TIR. USE SILICONE GREASE FOR BETTER COUPLING. MOUNTING TORQUE: 6-8 LB-IN.

4. HOUSING/CONNECTOR MATERIAL: TITANIUM

3. WEIGHT: 4.3 GRAMS

2 ARROW DESIGNATES UNIT'S POLARITY

1 MOUNTING STUD 6580 (5-40 TO 5-40) SUPPLIED

| MODEL   | SENSITIVITY |
|---------|-------------|
| 3097A3T | 500mV/g     |
| 3097A2T | 100mV/g     |
| 3097A1T | 10mV/g      |

NOTES: UNLESS OTHERWISE SPECIFIED

|                               |         |           |
|-------------------------------|---------|-----------|
| 3097AT SERIES                 | USED ON | NEXT ASSY |
| APPLICATION                   |         |           |
| THIRD ANGLE PROJECTION<br>USA |         |           |

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 A2.4. 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

MATERIAL

FINISH

DO NOT SCALE DRAWING

|              |          |
|--------------|----------|
| CONTRACT NO. |          |
| APPROVALS    | DATE     |
| ORIG         | R.A.     |
| CHK          | 08/20/09 |
| APP          | 08/24/09 |
| APP          | 08/24/09 |

**DYTRAN INSTRUMENTS, INC.** Chatsworth, CA

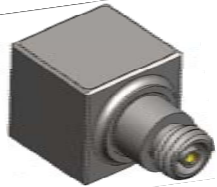
**MASTER ONLY IF IN RED**

TITLE:  
**OUTLINE/INSTALLATION DRAWING,  
 3097AT TEDS SERIES**

|          |              |                   |          |
|----------|--------------|-------------------|----------|
| SIZE     | CAGE CODE    | DWG. NO.          | REV      |
| <b>A</b> | <b>2W033</b> | <b>127-3097AT</b> | <b>A</b> |

SCALE: 2:1      SOLIDWORKS      SHEET 1 OF 1

|                                |   |  |                            |
|--------------------------------|---|--|----------------------------|
| <b>Model Number</b><br>3097A2T | <b>PERFORMANCE SPECIFICATION</b>                    |  | <b>DOC NO</b><br>PS3097A2T |
|                                | <b>SINGLE AXIS IEPE PLANAR SHEAR ACCELEROMETERS</b> |  | REV B, ECN 7213, 11/16/10  |



- MINIATURE SIZE
- HERMETICALLY SEALED
- EXCELLENT LINEARITY

**PHYSICAL**

Weight  
Size  
Connector  
Mounting Provision : Tapped Hole  
Material : Base, Cap and Connector  
Element Style

|                    | ENGLISH         |        | SI                    |       |
|--------------------|-----------------|--------|-----------------------|-------|
| Weight             | 0.15            | oz     | 4.3                   | grams |
| Size               | .40 x .40 x .41 | Inches | 10.16 x 10.16 x 10.41 | mm    |
| Connector Type     | 10-32 Coaxial   |        | 10-32 Coaxial         |       |
| Mounting Provision | 5-40 UNC-2B     |        | 5-40 UNC-2B           |       |
| Material           | Titanium        |        | Titanium              |       |
| Element Style      | Ceramic         |        | Ceramic               |       |
|                    | Planar Shear    |        | Planar Shear          |       |

**PERFORMANCE**

Sensitivity, ±5% [1]  
Range F.S for ± 5 Volts Output  
Frequency Range, ±5%  
Resonant Frequency  
Equivalent Electrical Noise Floor  
Linearity [2]  
Phase Response (±5°)  
Maximum Transverse sensitivity  
Strain Sensitivity

|                                   |                |        |                |                      |
|-----------------------------------|----------------|--------|----------------|----------------------|
| Sensitivity                       | 100            | mV/g   | 10.20          | mV/m/s <sup>2</sup>  |
| Range F.S                         | ±50            | G's    | ±490           | m/s <sup>2</sup>     |
| Frequency Range                   | 0.3 to 5,000   | Hz     | 0.3 to 5,000   | Hz                   |
| Resonant Frequency                | 0.15 to 10,000 | Hz     | 0.15 to 10,000 | Hz                   |
| Equivalent Electrical Noise Floor | >35            | kHz    | >35            | kHz                  |
| Linearity                         | 0.0004         | Grms   | 0.004          | m/s <sup>2</sup> rms |
| Phase Response                    | ± 1%           | % F.S. | ± 1%           | % F.S.               |
| Maximum Transverse sensitivity    | 5 to 3000      | Hz     | 5 to 3000      | Hz                   |
| Strain Sensitivity                | 5              | %      | 5              | %                    |
|                                   | 0.002          | g/μσ   | 0.02           | m/s <sup>2</sup> /μσ |

**ENVIRONMENTAL**

Maximum Vibration  
Maximum Shock  
Temperature Range  
Seal, Hermetic

|                   |                       |       |                       |                       |
|-------------------|-----------------------|-------|-----------------------|-----------------------|
| Maximum Vibration | ±400                  | Gpeak | ±3924                 | m/s <sup>2</sup> peak |
| Maximum Shock     | ±5000                 | Gpeak | ±49050                | m/s <sup>2</sup> peak |
| Temperature Range | -60 to +180           | °F    | -51 to +82            | °C                    |
| Seal, Hermetic    | Glass-to-metal/Welded |       | Glass-to-metal/Welded |                       |

**ELECTRICAL**

Supply Current Range [3]  
Compliance Voltage Range  
Output Impedence, Typ  
Bias Voltage  
Discharge Time Constant, Nom  
Output Signal Polarity for Acceleration Towards Top

|                          |            |       |            |       |
|--------------------------|------------|-------|------------|-------|
| Supply Current Range     | 2 to 20    | mA    | 2 to 20    | mA    |
| Compliance Voltage Range | +18 to +30 | Volts | +18 to +30 | Volts |
| Output Impedence         | 100        | Ω     | 100        | Ω     |
| Bias Voltage             | +11 to +13 | VDC   | +11 to +13 | VDC   |
| Discharge Time Constant  | 1.5 to 2.5 | Sec   | 1.5 to 2.5 | Sec   |
| Output Signal Polarity   | Positive   |       | Positive   |       |

**This family also includes:**

| Model   | Sensitivity (mV/g) | Range F.S ± 5 Volts (G's) | Max Vibration/Shock(± Gpeak) | Resonant Frequency (kHz) |
|---------|--------------------|---------------------------|------------------------------|--------------------------|
| 3097A1T | 10                 | ±500                      | 600/5000                     | >35                      |
| 3237A3T | 500                | ±10                       | 200/5000                     | >35                      |

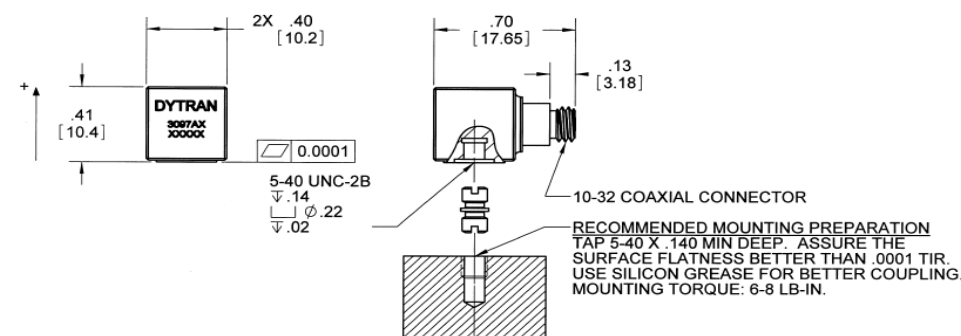
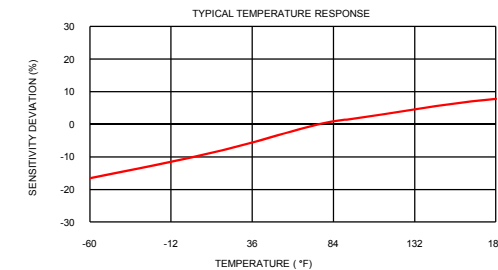
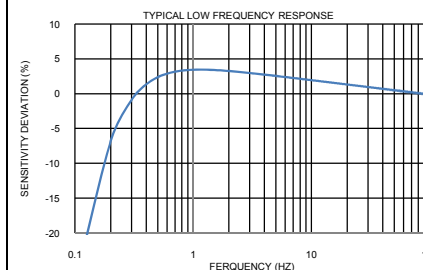
Refer to the performance specifications of the products in this family for detailed description

**Supplied Accessories:**

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

**Notes:**

- [1] Measure at 100Hz, 1 Grms per ISA RP 37.2
- [2] Measure using zero-based straight line method, % of F.S. or any lesser range
- [3] Do not apply power to this system without current limiting, 20 mA MAX. To do so will destroy the IC charge amplifier



Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-3097A for more information.



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