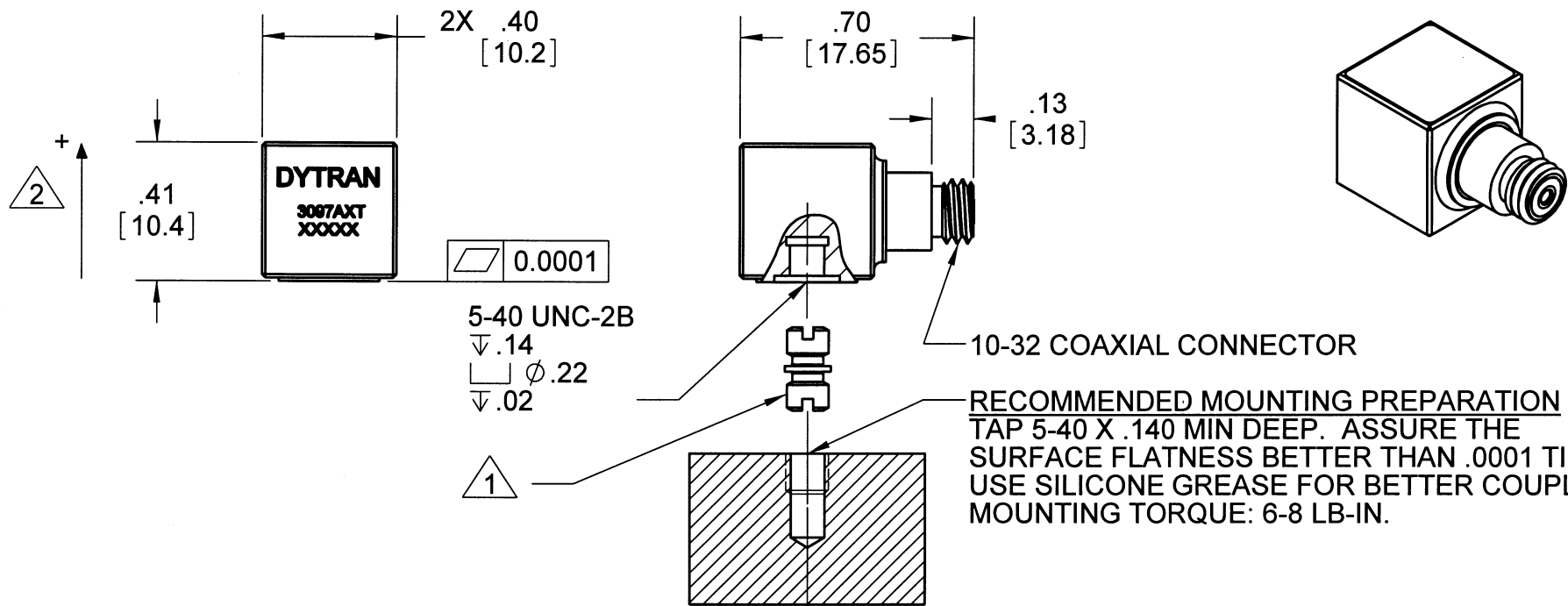


PROPRIETARY AND CONFIDENTIAL

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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>



4. HOUSING/CONNECTOR MATERIAL: TITANIUM

3. WEIGHT: 4.3 GRAMS

ARROW DESIGNATES UNIT'S POLARITY

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

NOTES: UNLESS OTHERWISE SPECIFIED

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

3097AT SERIES	USED ON	NEXT ASSY
APPLICATION		
THIRD ANGLE PROJECTION 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.	08/20/09
CHK	<i>ep</i>	8/24/09
APP	<i>SA</i>	8/2/09
APP		

DYTRAN INSTRUMENTS, INC. Chatsworth, CA

MASTER ONLY IF IN RED

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

SIZE	CAGE CODE	DWG. NO.	REV
A	2W033	127-3097AT	A

SCALE: 2:1 SOLIDWORKS SHEET 1 OF 1

Model Number 3097A1T	PERFORMANCE SPECIFICATION	DOC NO PS3097A1T
	SINGLE AXIS IEPE PLANAR SHEAR ACCELEROMETERS	REV D, ECN 13572, 07/21/17



- MINIATURE SIZE
- HERMETICALLY SEALED
- EXCELLENT LINEARITY
- TEDS FEATURE

PHYSICAL

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

Square x Height
Type

Material
Type

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

PERFORMANCE

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

Sensitivity	10 mV/g	Sensitivity	1.02 mV/m/s ²
Range F.S	±500 G's	Range F.S	±4905 m/s ²
Frequency Range	0.3 to 5000 Hz	Frequency Range	0.3 to 5000 Hz
	±15% 0.15 to 10,000 Hz		±15% 0.15 to 10,000 Hz
Resonant Frequency	> 35 kHz	Resonant Frequency	> 35 kHz
Equivalent Electrical Noise Floor	0.001 Grms	Equivalent Electrical Noise Floor	0.010 m/s ² rms
Linearity	± 1% % F.S.	Linearity	± 1% % F.S.
Phase Response	5 to 3000 Hz	Phase Response	5 to 3000 Hz
Maximum Transverse sensitivity	5 %	Maximum Transverse sensitivity	5 %
Strain Sensitivity	0.002 g/μs	Strain Sensitivity	0.02 m/s ² /μs

ENVIRONMENTAL

Maximum Vibration
Maximum Shock
Temperature Range
TEDS Operating Temperature
Seal, Hermetic

Maximum Vibration	±600 Gpeak	Maximum Vibration	±5886 m/s ² peak
Maximum Shock	±5000 Gpeak	Maximum Shock	±49050 m/s ² peak
Temperature Range	-60 to +200 °F	Temperature Range	-51 to +93 °C
TEDS Operating Temperature	-40 to +185 °F	TEDS Operating Temperature	-40 to +85 °C
Seal, Hermetic	Glass-to-metal/Welded	Seal, Hermetic	Glass-to-metal/Welded

ELECTRICAL

Supply Current Range [3]
Compliance Voltage Range
Output Impedance, Typ
Bias Voltage
Discharge Time Constant, Nom
Output Signal Polarity for Acceleration Towards Top
Electrical Isolation
TEDS Feature

Supply Current Range	2 to 20 mA	Supply Current Range	2 to 20 mA
Compliance Voltage Range	+ 18 to +30 Volts	Compliance Voltage Range	+18 to +30 Volts
Output Impedance	100 Ω	Output Impedance	100 Ω
Bias Voltage	+11 to +13 VDC	Bias Voltage	+11 to +13 VDC
Discharge Time Constant	1.5 to 2.5 Sec	Discharge Time Constant	1.5 to 2.5 Sec
Output Signal Polarity	Positive	Output Signal Polarity	Positive
Electrical Isolation	Case Grounded	Electrical Isolation	Case Grounded
TEDS Feature	IEEE 1451.4	TEDS Feature	IEEE 1451.4

This family also includes:

Model	Sensitivity (mV/g)	Range F.S ± 5 Volts (G's)	Max Vibration/Shock(± Gpeak)	Resonant Frequency (kHz)
3097A2T	100	±50	400/5000	> 35
3237A3T	500	±10	200/5000	> 35

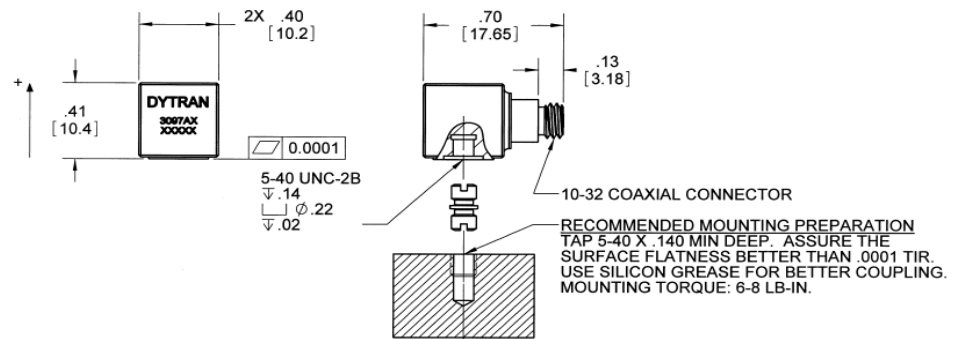
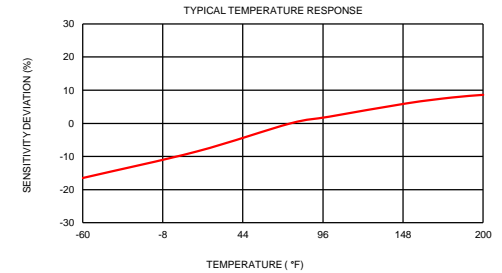
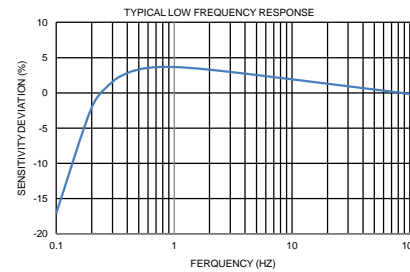
Refer to the performance specifications of the products in this family for detailed description

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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