

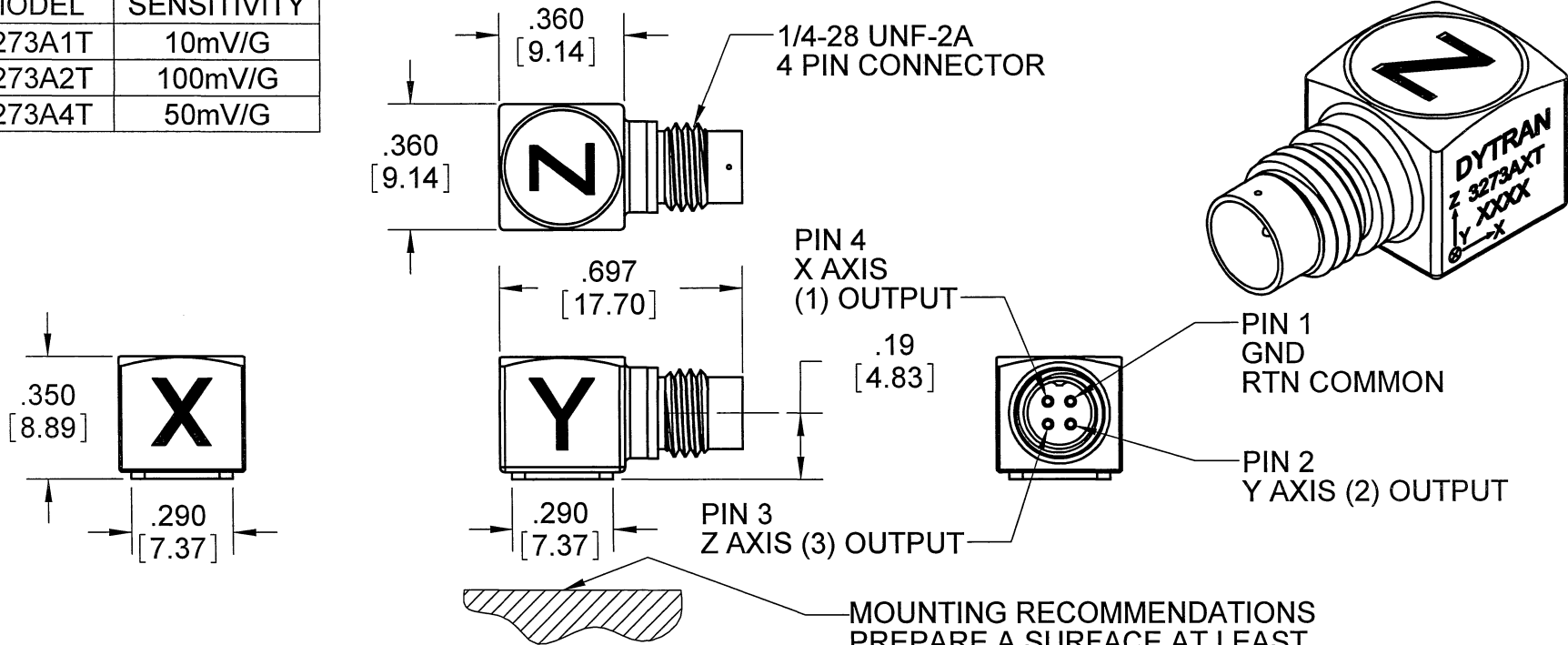
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**REVISIONS**

REV	ECN	DESCRIPTION	BY/DATE	CHK	APPR
B	7027	ADDED NOTE 4	JS 08/18/10		

MODEL	SENSITIVITY
3273A1T	10mV/G
3273A2T	100mV/G
3273A4T	50mV/G



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

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.	05/05/09
CHK	EP	05/11/09
APP	DV	05/12/09
APP		

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

**MASTER ONLY IF IN RED**

TITLE: **OUTLINE/INSTALLATION DRAWING, MODEL 3273AT SERIES**

SIZE	CAGE CODE	DWG. NO.	REV
<b>A</b>	<b>2W033</b>	<b>127-3273AT</b>	<b>B</b>

SCALE: 4:1      SOLIDWORKS      SHEET 1 OF 1

# 3273A1T

# PERFORMANCE SPECIFICATION

REV J, ECN 13591, 07/31/17

Accelerometer, Triaxial, IEPE



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

### PHYSICAL

		ENGLISH		SI	
Weight		0.1	oz	3.0	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

	ENGLISH		SI		
Sensitivity, ±10% [2]	10	mV/g	1.02	mV/m/s <sup>2</sup>	
Acceleration Range	500	G <sub>peak</sub>	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	
Phase Response, ± 5°	2.3 to 3000	Hz	2.3 to 3000	Hz	
Linearity [3]	1	%F.S.	1	%F.S.	
Transverse Sensitivity Max	5	%	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

	ENGLISH		SI	
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

	ENGLISH		SI	
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
TEDS Operation Temperature	-40 to +185	°F	-40 to +85	°C
Seal	Hermetic		Hermetic	
Magnetic Sensitivity at 100 Gauss	0.00013	g/Gauss	0.00013	m/s <sup>2</sup> /Gauss
Base Strain Sensitivity	0.06	g/με	0.59	m/s <sup>2</sup> /με
TEDS feature	IEEE 1451.4		IEEE 1451.4	

### This family also includes:

Model	Sensitivity (mV/g)	Range (Gpeak)	Resolution (Grms)	Oper. Temp(°F)	TC
3273A2T	100	50	0.00095	-60 to +165	0.5 - 1.5
3273A4T	50	100	0.002	-60 to +185	0.5 - 1.5

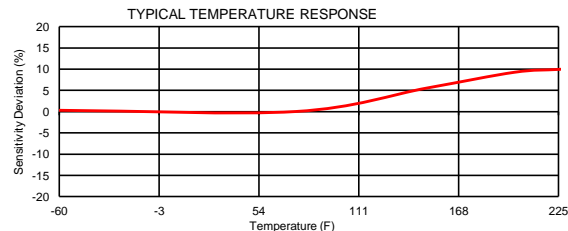
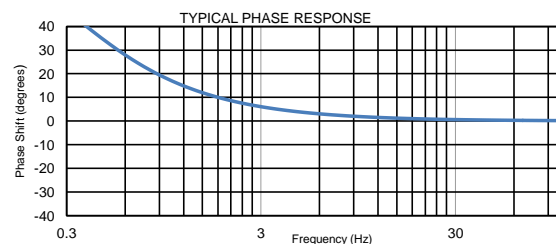
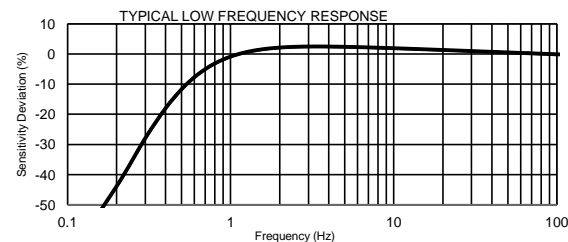
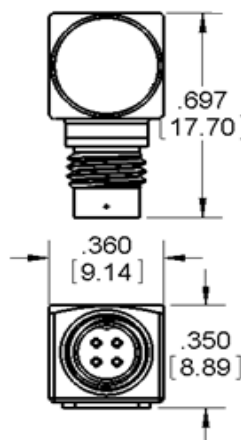
Please, refer to the performance specifications of the products in this family for detailed description

### 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, 5 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.



Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-3273AT for more information.



21592 Marilla Street, Chatsworth, California 91311 Phone: 818.700.7818 Fax: 818.700.7880  
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