

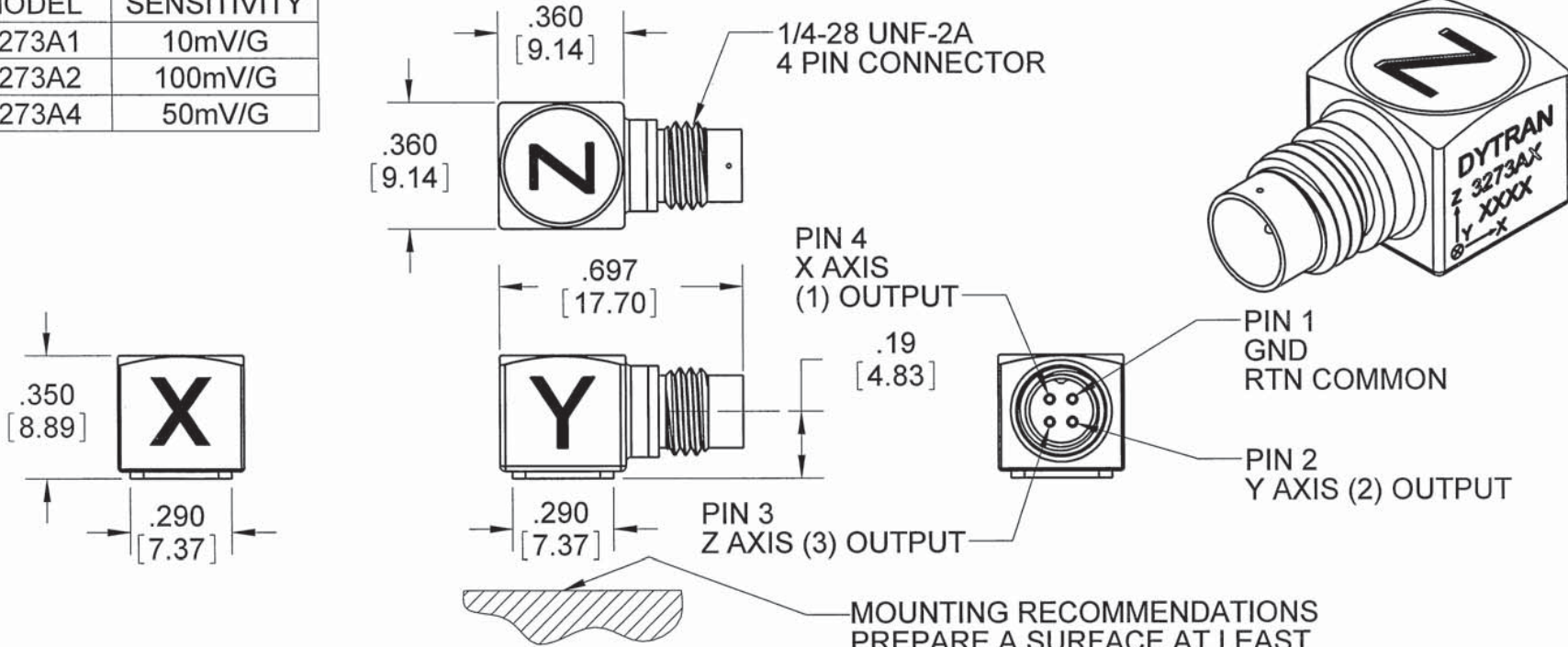
**PROPRIETARY AND CONFIDENTIAL**

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DYTRAN INSTRUMENTS INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF DYTRAN INSTRUMENTS, INC. IS PROHIBITED

**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



**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.

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.

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.		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	
SERIES	USED ON	NEXT ASSY	APPLICATION
THIRD ANGLE PROJECTION USA			
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.			

CONTRACT NO.	
APPROVALS	
ORIG	R.A.
CHK	DV
APP	ANS
DATE	9/30/08
DATE	10/17/08
DATE	10/17/08
DO NOT SCALE DRAWING	

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

**MASTER ONLY IF IN RED**

TITLE: **OUTLINE/INSTALLATION DRAWING, 3273A SERIES**

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 H, ECN 7336, 1/26/11

Accelerometer, Triaxial, IEPE



Actual Size

- **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]	4-pin		4-pin	
Housing	Material		Ti-6 AL-4V	
	Material		Ti-6 AL-4V	
Sensing Element	Isolation		Case ground	
	Material		Ceramic	
	Mode		Shear	

### PHYSICAL

Weight  
Mounting  
Connector [1]  
Housing  
Sensing Element

### PERFORMANCE

Sensitivity, ±10% [2]  
Acceleration Range  
Frequency Range, ±15%  
Frequency Range, ± 5%  
Resonance Frequency  
Linearity [3]  
Phase Response, ± 5°  
Transverse Sensitivity Max  
Noise floor, Max  
Spectral Noise

	ENGLISH		SI		
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	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

Supply Current Range [4]  
Compliance Voltage Range  
Output Impedance, Typ.  
Output Bias Voltage  
Discharge Time Constant

	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 to 13	VDC	11 to 13	VDC
Discharge Time Constant	0.8 to 1.2	sec	0.8 to 1.2	sec

### ENVIRONMENTAL

Shock Max  
Vibration Max  
Operating Temperature  
Seal  
Magnetic Sensitivity at 100 Gauss  
Base Strain Sensitivity

	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 +250	°F	-51 to +121	°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 +200	0.8 - 1.2

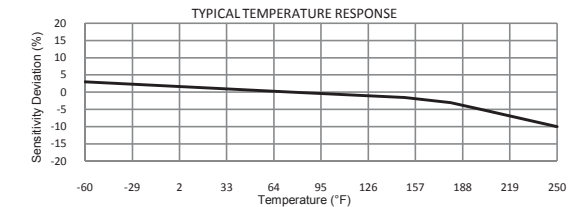
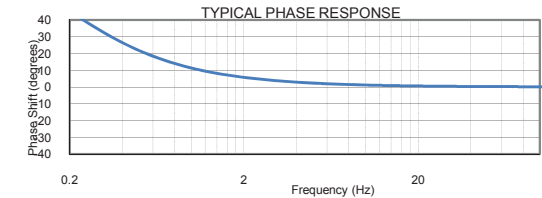
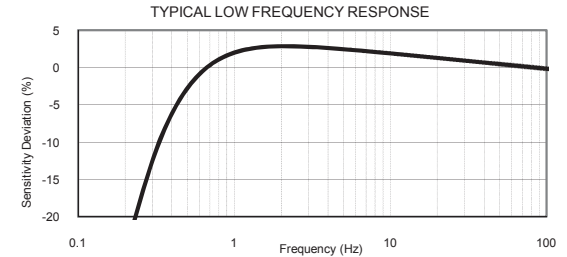
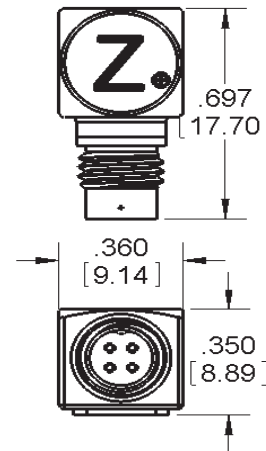
Please, refer to the performance specifications of the products in this family for detailed description

### 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 127-3273A for more information.



**A-Tech Instruments Ltd.**

sales@a-tech.ca; www.a-tech.ca Toronto: 416 754 7008, Montreal: 514 695 5147, Toll Free: 1888 754 7008