PROPRIETARY AND CONFIDENTIAL

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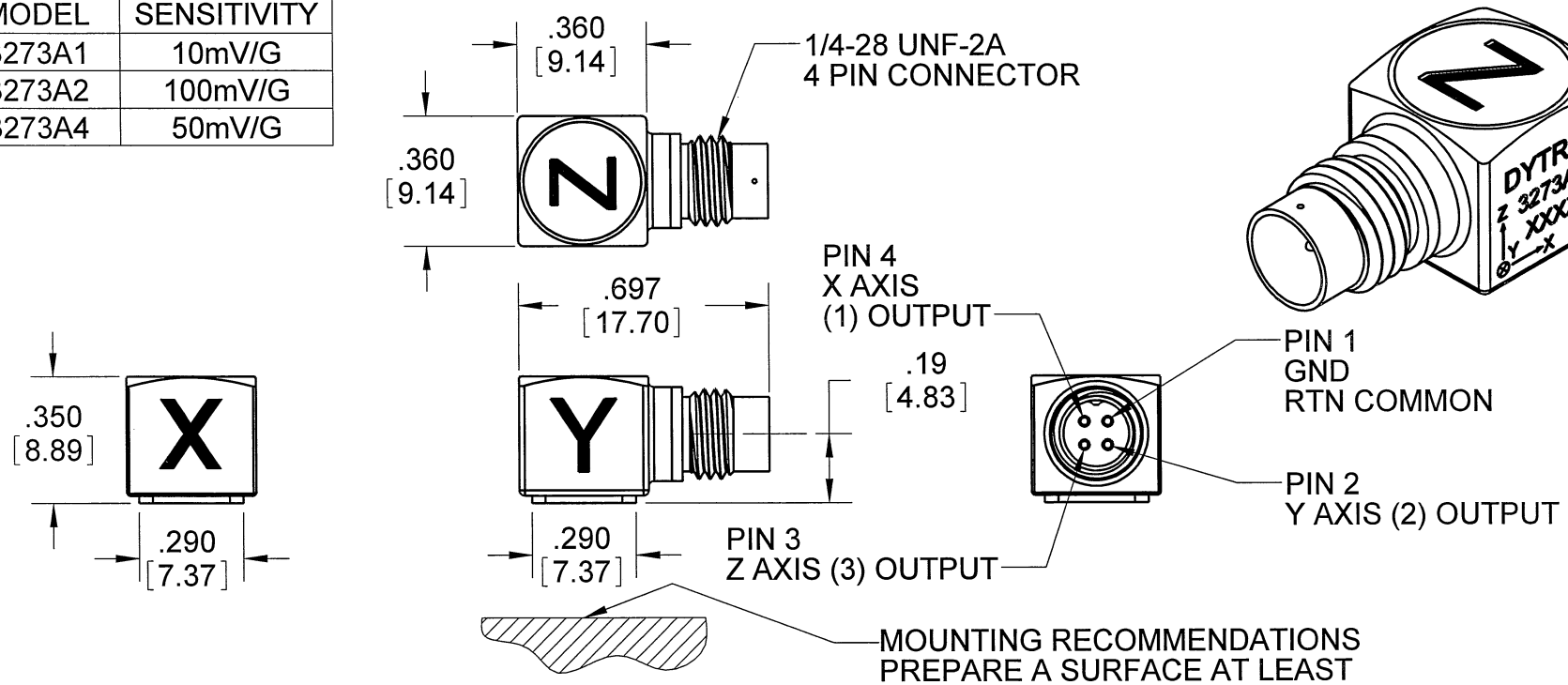
REVISIONS

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

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.

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.

63
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.	9/30/08
CHK	DV	10/17/08
APP	ANS	10/17/08
APP		

DYTRAN INSTRUMENTS, INC. Chatsworth, CA

MASTER ONLY IF IN RED

TITLE:

OUTLINE/INSTALLATION DRAWING, 3273A SERIES

SIZE	CAGE CODE	DWG. NO.	REV
A	2W033	127-3273A	D

SCALE: 4:1 | SOLIDWORKS | SHEET 1 OF 1

172-0081, REV C

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	
PHYSICAL					
Weight		0.096	oz	2.7	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					
Sensitivity, ±10% [2]		10	mV/g	1.02	mV/m/s^2
Acceleration Range		+/-500	Gpeak	+/- 4905	m/s^2 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^2 rms
Spectral Noise	1Hz	629	µGrms/sqr(Hz)	6166	µm/s^2 rms/sqr(Hz)
	10Hz	110	µGrms/sqr(Hz)	1074	µm/s^2 rms/sqr(Hz)
	100Hz	67	µGrms/sqr(Hz)	657	µm/s^2 rms/sqr(Hz)
	1000Hz	31	µGrms/sqr(Hz)	304	µm/s^2 rms/sqr(Hz)
	10000Hz	16	µGrms/sqr(Hz)	157	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 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		5000	g pk	49050	m/s^2
Vibration Max		3000	g pk	29430	m/s^2
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^2/Gauss
Base Strain Sensitivity		0.02	g/με	0.1962	m/s^2/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:

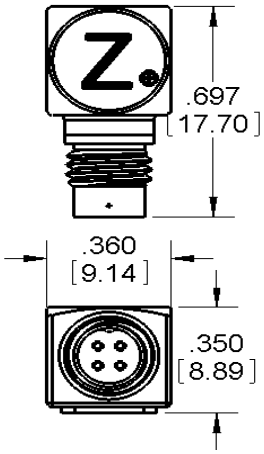
[1] Glass to metal Seal connector. Mates with Dytran cable model 6811AXX or 6824AXX (XX =length in feet)

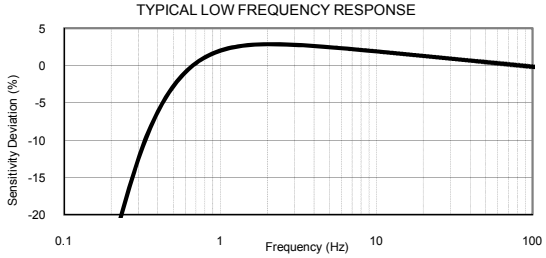
[2] Measured at 100 Hz, 5 Grms per ISA RP 37.2

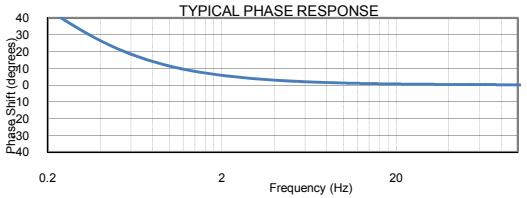
[3] Linearity is % of specified full scale (or any less full-scale range), zero-based best fit straight line method.

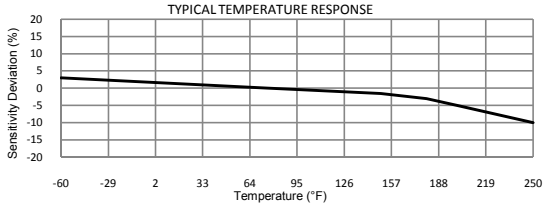
[4] Do not apply power to this device without current limiting, 20mA Max, to do so will destroy the integral IC amplifier

[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.

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