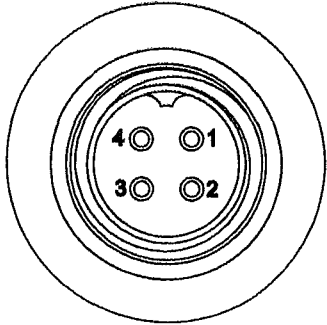


**PROPRIETARY AND CONFIDENTIAL**

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
B	9338	.97[24.5] WAS: .97[24.54] .29[7.3] WAS: .29[7.4]	RA 11/13/12	EM 11/28/12	AS



**DETAIL A**

**CONNECTOR PINOUT**

- PIN 1 GND RETURN, COMMON
- PIN 2 SIG/PWR AXIS 2 (Y)
- PIN 3 SIG/PWR AXIS 3 (Z)
- PIN 4 SIG/PWR AXIS 1 (X)

6. DIELECTRIC WITHSTAND, SIGNAL GROUND TO HOUSING ISOLATION:  
1mA MAX AT 1000 VDC FOR 1 MINUTE WITH 20 SECONDS RAMP

5. MATES WITH DYTRAN CABLE  
6811AXX (XX=LENGTH IN FEET)

4. ARROWS INDICATE ACCELERATION  
DIRECTION FOR POSITIVE OUTPUT.

3. HOUSING AND CONNECTOR MATERIAL:  
TITANIUM

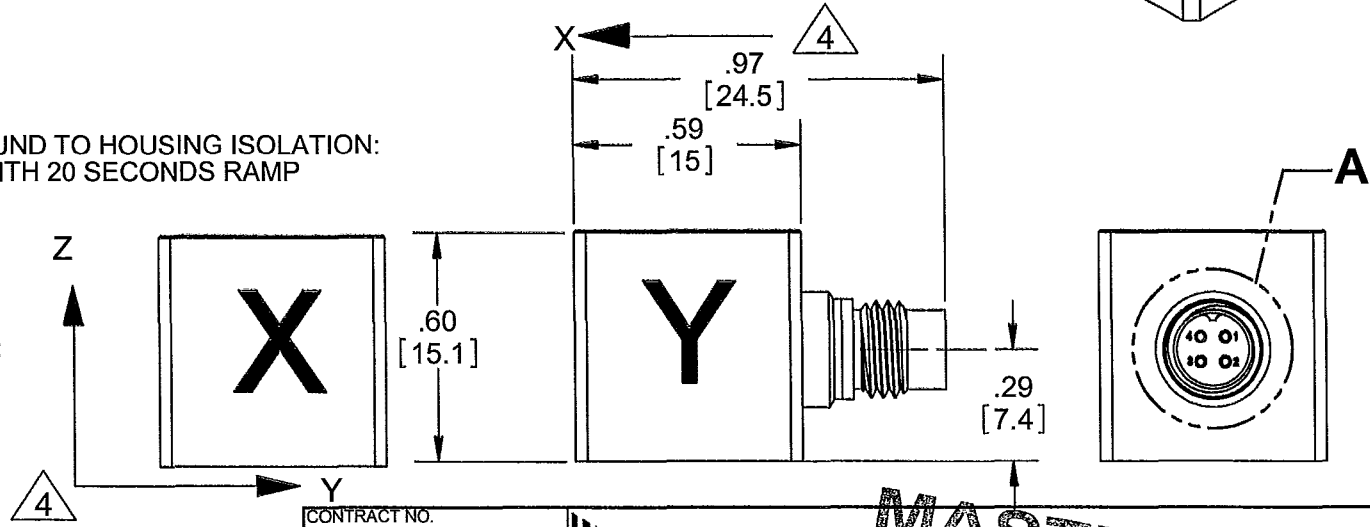
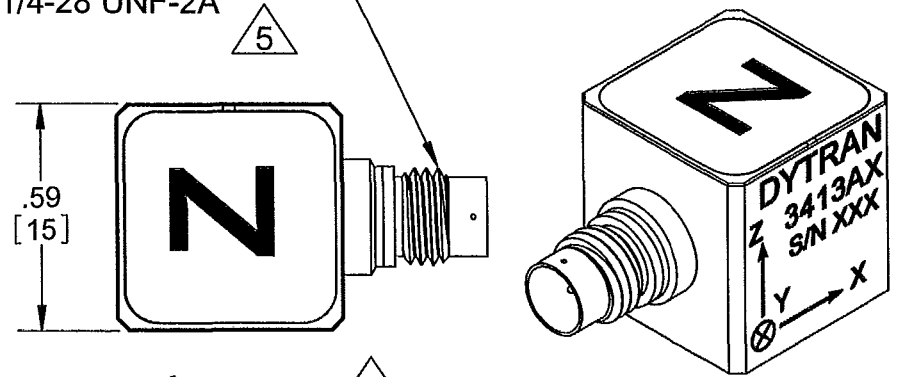
2. WEIGHT: 13 GRAMS MAX.

1. ENVIRONMENTAL SEAL: HERMETIC

NOTES: UNLESS OTHERWISE SPECIFIED

MODEL NUMBER	NOMINAL SENSITIVITY
3413A1	5 mV/G
3413A2	50mV/G

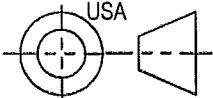
4 PIN CONNECTOR  
1/4-28 UNF-2A



USED ON	NEXT ASSY

**APPLICATION**

**THIRD ANGLE PROJECTION**



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	JS	05/01/12
CHK	LN	05/09/12
APP	DV	05/19/12
APP		



TITLE:  
**OUTLINE/INSTALLATION DRAWING**  
**3413A1 & 3413A2**

SIZE	CAGE CODE	DWG. NO.	REV
<b>A</b>	<b>2W033</b>	<b>127-3413A</b>	<b>B</b>

SCALE: 2:1      SOLIDWORKS      SHEET 1 OF 1

3413A1

PERFORMANCE SPECIFICATION

DOC NO  
PS3413A1

Accelerometer, Triaxial, IEPE

REV B, ECN 11872, 04/01/15



- GROUND ISOLATED
- HERMETICALLY SEALED
- TEDS FUNCTION

	ENGLISH		SI	
Weight	0.5	oz	13	grams
Size	0.97	inch	24.6	mm
Length	0.59	inch	15.0	mm
Width	0.60	inch	15.2	mm
Height	Adhesive		Adhesive	
Mounting	4-pin		4-pin	
Connector [1]	Ti-6 AL-4V		Ti-6 AL-4V	
Material	Ti-6 AL-4V		Ti-6 AL-4V	
Housing	Case Isolated		Case Isolated	
Material	PiezoElectric		PiezoElectric	
Sensing Element	Shear		Shear	
Mode				

PHYSICAL

Weight	0.5	oz	13	grams
Size	0.97	inch	24.6	mm
Length	0.59	inch	15.0	mm
Width	0.60	inch	15.2	mm
Height	Adhesive		Adhesive	
Mounting	4-pin		4-pin	
Connector [1]	Ti-6 AL-4V		Ti-6 AL-4V	
Material	Ti-6 AL-4V		Ti-6 AL-4V	
Housing	Case Isolated		Case Isolated	
Material	PiezoElectric		PiezoElectric	
Sensing Element	Shear		Shear	
Mode				

PERFORMANCE

Sensitivity, +/-5% [2]	5	mV/g	0.51	mV/m/s^2
Acceleration Range, ±	1000	Gpeak	9810	m/s^2 peak
Frequency Range, ±5%	3.3-3000	Hz	3.3-3000	Hz
Frequency Range, ±10%	2.2-5000	Hz	2.2-5000	Hz
Frequency Range, ±3dB	1.1-10000	Hz	1.1-10000	Hz
Resonance Frequency	>20	kHz	>20	kHz
Linearity [3]	1	%F.S.	1	%F.S.
Transverse Sensitivity, Max	6	%	6	%
Noise floor	0.007	Grms	0.069	m/s^2 rms
Spectral Noise	1000	μGrms/sqr(Hz)	9810	μm/s^2 rms/sqr(Hz)
1Hz	500	μGrms/sqr(Hz)	4905	μm/s^2 rms/sqr(Hz)
10Hz	100	μGrms/sqr(Hz)	981	μm/s^2 rms/sqr(Hz)
100Hz	60	μGrms/sqr(Hz)	589	μm/s^2 rms/sqr(Hz)
1000Hz	50	μGrms/sqr(Hz)	491	μm/s^2 rms/sqr(Hz)
10000Hz				

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	+7.5 to +9.5	VDC	+7.5 to +9.5	VDC
Discharge Time Constant	0.15 to 0.25	sec	0.15 to 0.25	sec

ENVIRONMENTAL

Shock Max	5000	g pk	49050	m/s^2
Vibration Max	1500	g pk	14715	m/s^2
Operating Temperature	-60 to +320	°F	-51 to +160	°C
Seal	Hermetic		Hermetic	
Magnetic Sensitivity at 100 Gauss	0.0001	g/Gauss	0.000981	m/s^2/Gauss
Base Strain Sensitivity	0.002	g/με	0.01962	m/s^2/με

This family also includes:

Model	Sensitivity (mV/g)	Range (Gpeak)	Resolution (Grms)	Oper. Temp(°F)	TC
3413A2	50	100	0.002	-60 to +320	0.15 to 0.25

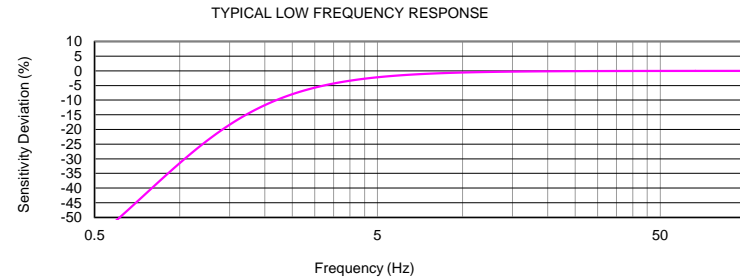
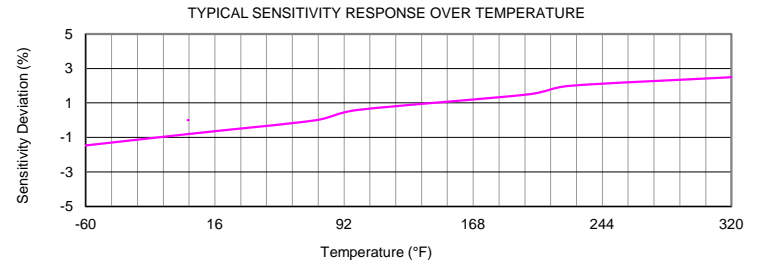
Please refer to the performance specifications of the products in this family for detailed description.

Supplied Accessories:

- 1) Accredited Calibration Certificate (ISO 17025).

Notes:

- [1] Glass to Metal Seal connector. Mates with Dytran cable Model 6811AXX (XX=length in feet).
- [2] Measured At 100 Hz, 1 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.



Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-3413A for more information.



21592 Marilla Street, Chatsworth, California 91311 Phone: 818.700.7818 Fax:818.700.7880  
www.dytran.com For permission to reprint this content, please contact info@dytran.com