

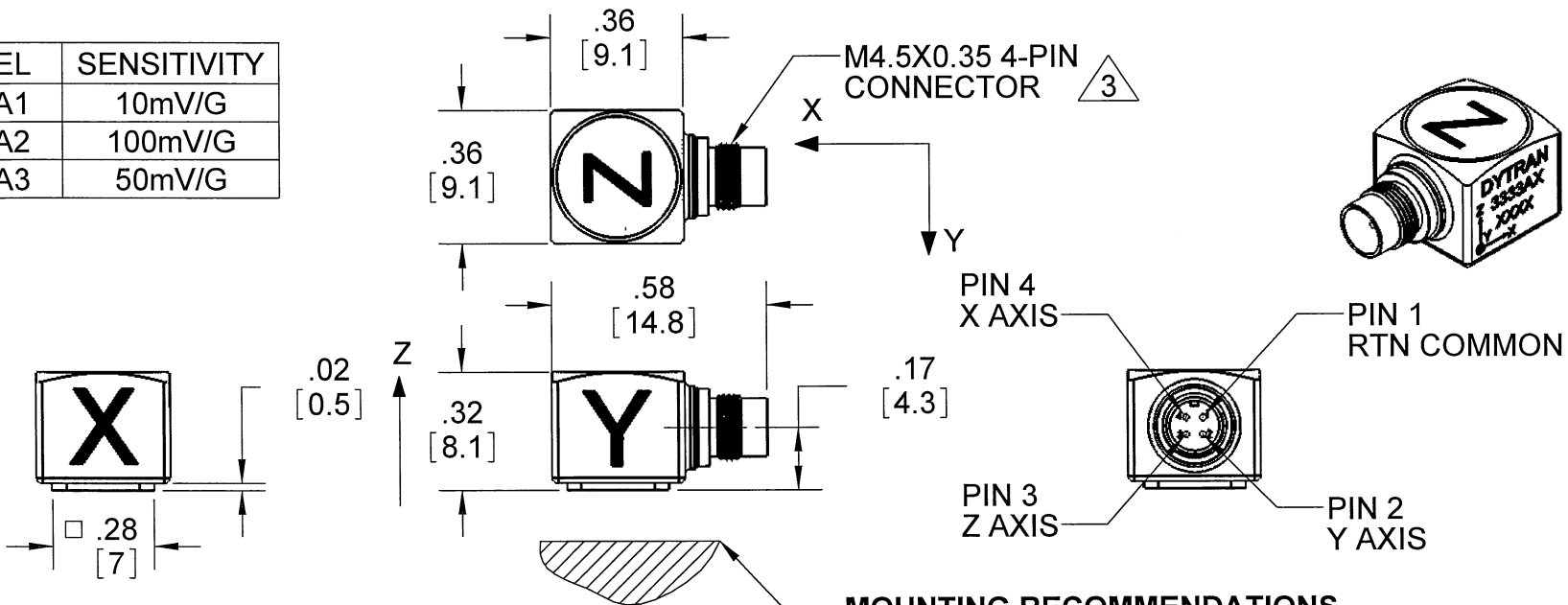
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REVISIONS

REV	ECN	DESCRIPTION	BY/DATE	CHK	APPR
A	6289	INITIAL RELEASE	DV 09/28/09	<i>sv</i>	<i>DV</i>

MODEL	SENSITIVITY
3333A1	10mV/G
3333A2	100mV/G
3333A3	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. HOUSING/CONNECTOR MATERIAL: TITANIUM

3 MATES WITH 6893AXX CABLE

2. ARROWS INDICATE DIRECTIONS OF ACCELERATION FOR POSITIVE OUTPUT

1. WEIGHT: 2.8 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.	
3333A USED ON	NEXT ASSY
APPLICATION THIRD ANGLE PROJECTION USA	
ALL MACHINED SURFACES. <sup>63</sup> 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	
ORIG	DV
CHK	<i>sv</i>
APP	<i>DV</i>
DATE	09/28/09
DATE	10/26/09

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

**MASTER ONLY IF IN RED**

TITLE: **OUTLINE/INSTALLATION DRAWING, 3333A SERIES**

SIZE	CAGE CODE	DWG. NO.	REV
<b>A</b>	<b>2W033</b>	<b>127-3333A</b>	<b>A</b>

SCALE: 2:1      SOLIDWORKS      SHEET 1 OF 1

<b>MODEL NUMBER</b> 3333A1	<b>PERFORMANCE SPECIFICATION</b>	<b>DOC NO</b> PS3333A1
	Accelerometer, Triaxial, IEPE	REV A, ECN 6530, 01/26/10



Actual Size

- **ULTRA LOW FREQUENCY RESPONSE**
- **ULTRA LOW NOISE LEVEL**
- **WEIGHT ONLY 2.3 GRAMS**

	ENGLISH		SI	
Weight	0.08	oz	2.3	grams
Mounting Adhesive	4-pin		Adhesive	
Connector [1]	Ti-6 AL-4V	Type	4-pin	
Housing Material	Ti-6 AL-4V	Material	Ti-6 AL-4V	
Isolation	Case ground	Material	Case ground	
Sensing Element	Ceramic	Material	Ceramic	
Mode	Shear	Mode	Shear	

**PERFORMANCE**

	ENGLISH		SI		
Sensitivity, +15-10% [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/-10%	.31-10,000	Hz	.31-10,000	Hz	
Resonance Frequency	>24	kHz	>24	kHz	
Linearity [3]	1	%F.S.	1	%F.S.	
Transverse Sensitivity Max	6	%	6	%	
Noise floor	0.0012	Grms	0.012	m/s <sup>2</sup> rms	
Spectral Noise	1Hz	335	μGrms/sqr(Hz)	3286	μm/s <sup>2</sup> rms/sqr(Hz)
	10Hz	58	μGrms/sqr(Hz)	566	μm/s <sup>2</sup> rms/sqr(Hz)
	100Hz	36	μGrms/sqr(Hz)	348	μm/s <sup>2</sup> rms/sqr(Hz)
	1000Hz	17	μGrms/sqr(Hz)	164	μm/s <sup>2</sup> rms/sqr(Hz)
	10000Hz	9	μGrms/sqr(Hz)	83	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 to 13	VDC	11 to 13	VDC
Discharge Time Constant	0.8 - 1.2	sec	0.8 - 1.2	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 +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	0.20	m/s <sup>2</sup> /με

**This family also includes:**

Model	Sensitivity (mV/g)	Range (Gpeak)	Resolution (Grms)	Oper. Temp(°F)	TC
3133A2	100	50	0.0007	-60 to +180	0.8 - 1.2
3133A3	50	100	0.0009	-60 to +200	0.8 - 1.2

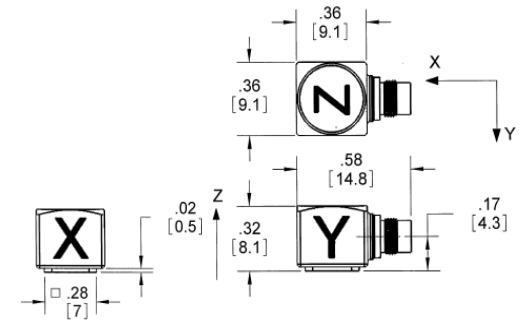
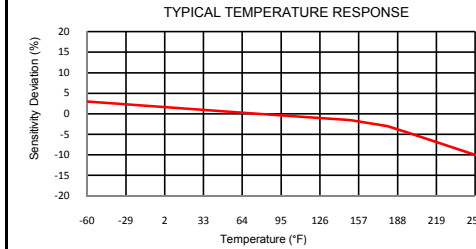
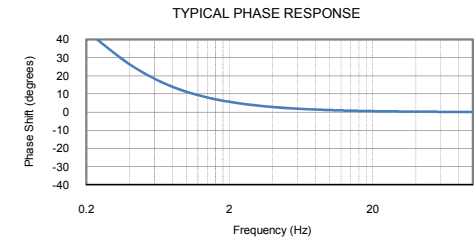
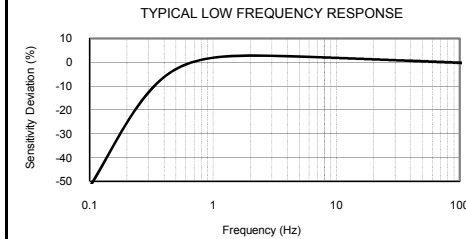
Refer to the performance specifications of the products in this family for detailed description

**Supplied Accessories:**

- 1) Accredited calibration certificate (ISO 17025)

**Notes:**

- [1] Coaxial, M4.5 X 0.35 Connector. Mates with Dytran cable Model 6893AXX
- [2] Measured at 100Hz, 5 Grms per ISA RP 37.2.
- [3] Measure using zero-based straight line method, % of F.S. or any lesser range.
- [4] Do not apply power to this system without current limiting, 20 mA MAX. To do so will destroy the IC charge 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 127-3333A for more information.



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