

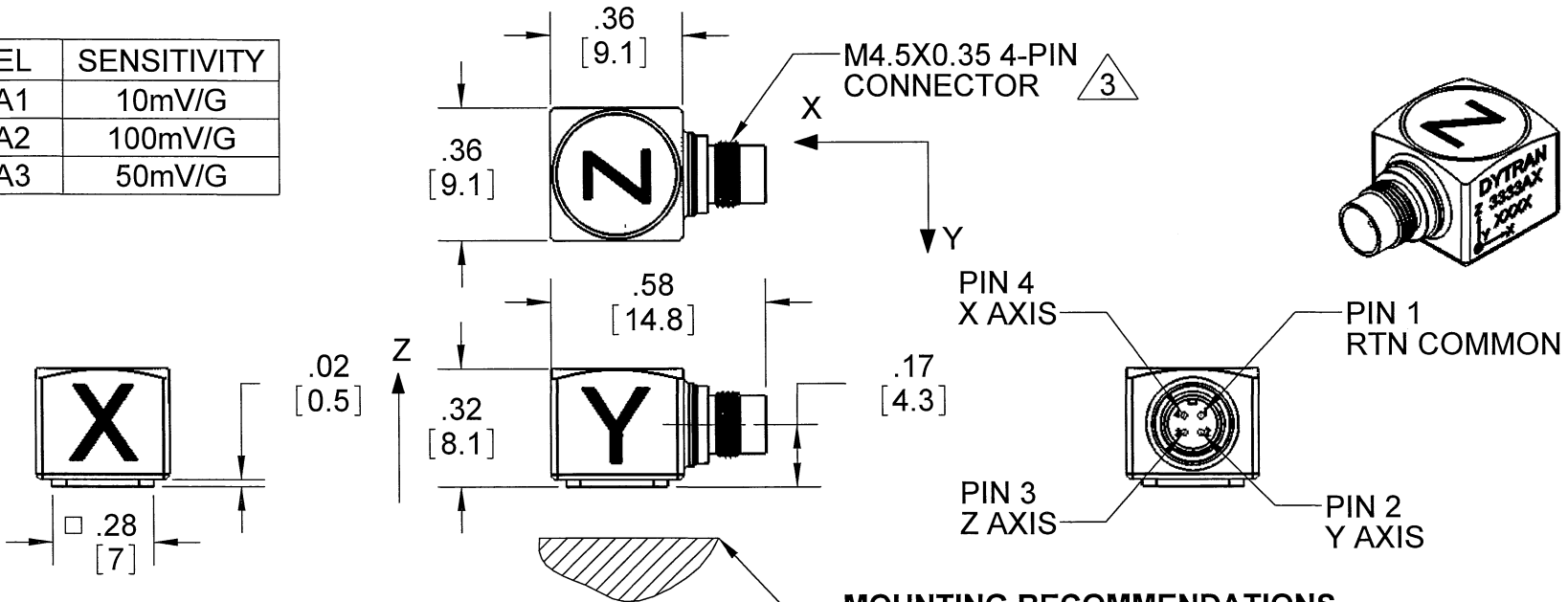
PROPRIETARY AND CONFIDENTIAL

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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.		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	
3333A USED ON	NEXT ASSY	MATERIAL	FINISH
APPLICATION THIRD ANGLE PROJECTION USA		DO NOT SCALE DRAWING	
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.



TITLE: <b>OUTLINE/INSTALLATION DRAWING, 3333A SERIES</b>					
APPROVALS	DATE	SIZE	CAGE CODE	DWG. NO.	REV
ORIG DV	09/28/09	A	2W033	127-3333A	A
CHK <i>sv</i>	10/26/09	SCALE: 2:1		SOLIDWORKS	SHEET 1 OF 1
APP <i>DV</i>	10/26/09				

<b>MODEL NUMBER</b> 3333A1	<b>PERFORMANCE SPECIFICATION</b>	<b>DOC NO</b> PS3333A1
	Accelerometer, Triaxial, IEPE	REV G, ECN 15778, 06/01/20



Actual Size

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

	ENGLISH		SI	
<b>PHYSICAL</b>				
Weight	0.08	oz	2.3	grams
Mounting	Adhesive		Adhesive	
Connector [1]	4-pin		4-pin	
Housing	Ti-6 AL-4V		Ti-6 AL-4V	
	Ti-6 AL-4V		Ti-6 AL-4V	
Sensing Element	Case ground		Case ground	
	Ceramic		Ceramic	
	Mode		Shear	

**PERFORMANCE**

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%	.54-10,000	Hz	.54-10,000	Hz
Resonance Frequency	>24	kHz	>24	kHz
Linearity [3]	1	%F.S.	1	%F.S.
Transverse Sensitivity Max	6	%	6	%
Noise floor	0.004	Grms	0.039	m/s <sup>2</sup> rms
Spectral Noise	1Hz	μGrms/sqr(Hz)	4110	μm/s <sup>2</sup> rms/sqr(Hz)
	10Hz	μGrms/sqr(Hz)	716	μm/s <sup>2</sup> rms/sqr(Hz)
	100Hz	μGrms/sqr(Hz)	441	μm/s <sup>2</sup> rms/sqr(Hz)
	1000Hz	μGrms/sqr(Hz)	206	μm/s <sup>2</sup> rms/sqr(Hz)
	10000Hz	μGrms/sqr(Hz)	108	μm/s <sup>2</sup> 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	0.5 - 1.5	sec	0.5 - 1.5	sec

**ENVIRONMENTAL**

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
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
3333A2	100	50	0.00095	-60 to +180	0.5 - 1.5
3333A3	50	100	0.0009	-60 to +225	0.5 - 1.5

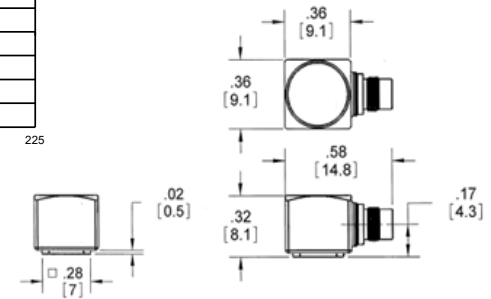
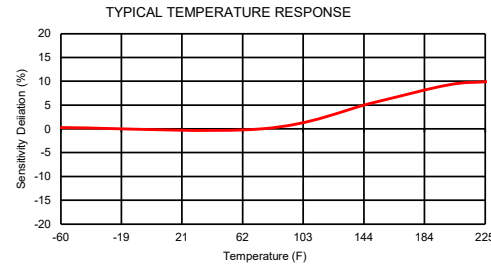
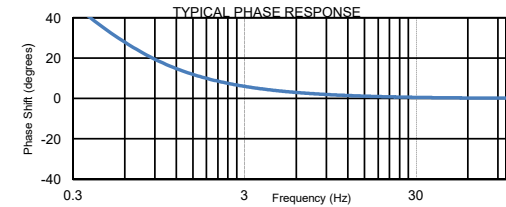
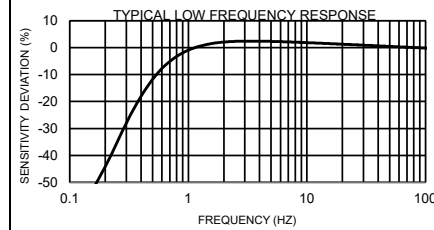
Refer to the performance specifications of the products in this family for detailed description

**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, 1 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.
- It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary overtime. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts.



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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