

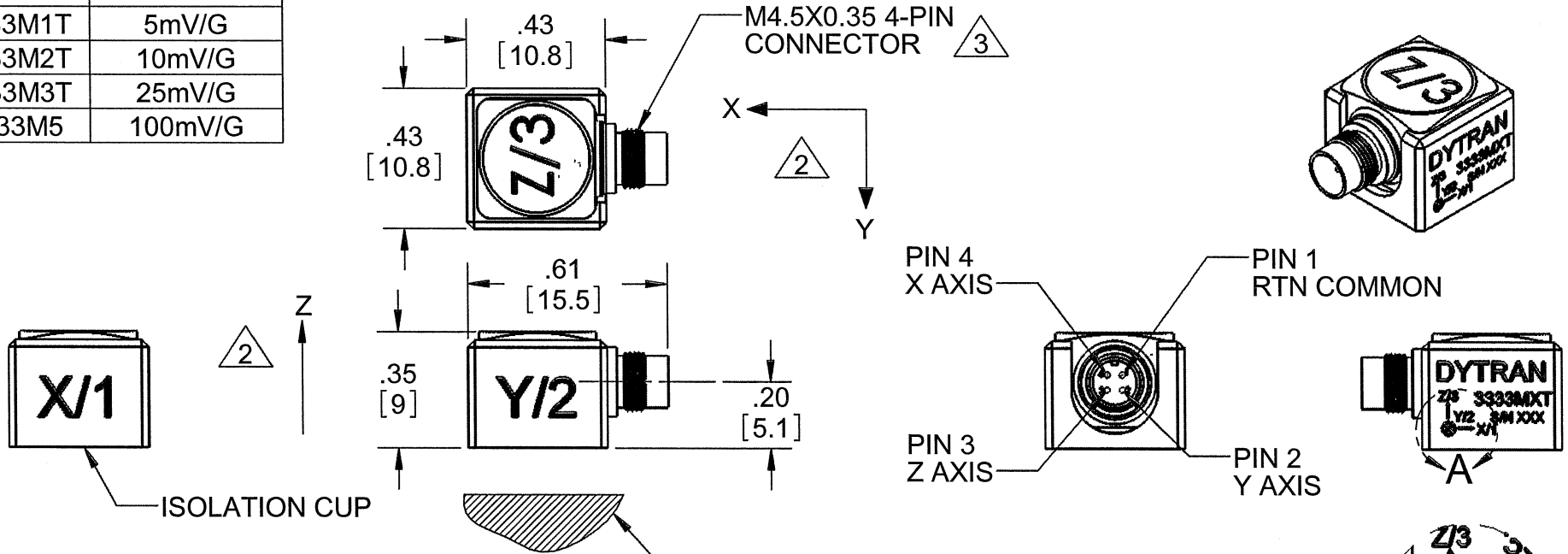
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**REVISIONS**

REV	ECN	DESCRIPTION	BY/DATE	CHK	APPR
C	9198	INITIAL RELEASE OF 3333M5	AB 09/25/12	41	A5

MODEL	SENSITIVITY
3333M1T	5mV/G
3333M2T	10mV/G
3333M3T	25mV/G
3333M5	100mV/G



**MOUNTING RECOMMENDATIONS**

PREPARE A SURFACE AT LEAST .50 BY .50. SURFACE FLATNESS MUST BE EQUAL OR BETTER THAN .001 TIR. USE ONE DROP OF CYANOACRYLATE TO MOUNT THE ACCELEROMETER.

4. HOUSING/CONNECTOR MATERIAL: TITANIUM  
ISOLATION CUP: ALUMINUM ALLOY 6061-T6, BLACK ANODIZED

3 MATES WITH 6893AXX CABLE

2 ARROWS INDICATE DIRECTIONS OF ACCELERATION FOR POSITIVE OUTPUT

1. WEIGHT: 2.8 GRAMS

NOTES: UNLESS OTHERWISE SPECIFIED

USED ON	NEXT ASSY
APPLICATION	
THIRD ANGLE PROJECTION USA	
<p>UNLESS OTHERWISE SPECIFIED: INTERPRET DIM &amp; 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.</p> <p>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.</p>	

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	RA
CHK	JS
APP	DV
APP	
DATE	
03/30/11	
06/01/11	
06/16/11	

**DYTRAN INSTRUMENTS, INC.** MASTER ONLY IF IN RED  
Chatsworth, CA

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

SIZE	CAGE CODE	DWG. NO.	REV
<b>A</b>	<b>2W033</b>	<b>127-3333MT</b>	<b>C</b>
SCALE: 2:1	SOLIDWORKS	SHEET 1 OF 1	

<b>MODEL NUMBER</b> 3333M5	<b>PERFORMANCE SPECIFICATION</b>	<b>DOC NO</b> PS3333M5
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	Accelerometer, Triaxial, IEPE	REV C, ECN 13537, 07/05/2017
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- **ULTRA LOW FREQUENCY RESPONSE**
- **ULTRA LOW NOISE LEVEL**
- **CASE ISOLATED**
- **TEDS FEATURE**

**PHYSICAL**

Weight, Max  
Mounting  
Connector [1]  
  
Housing  
Isolation Cup  
Sensing Element

Type  
Material  
Material  
Material  
Material  
Mode

	ENGLISH		SI	
Weight, Max	0.14	oz	4.0	grams
Mounting	Adhesive		Adhesive	
Connector [1]	4-pin		4-pin	
Housing	Ti-6 AL-4V		Ti-6 AL-4V	
Isolation Cup	Ti-6 AL-4V		Ti-6 AL-4V	
Sensing Element	Anodized Aluminum		Anodized Aluminum	
	Ceramic		Ceramic	
	Shear		Shear	

**PERFORMANCE**

Sensitivity, +15-10% [2]  
Acceleration Range,  
Frequency Range, +15/-10%  
Resonance Frequency  
Linearity [3]  
Transverse Sensitivity Max  
Noise floor, Max  
Spectral Noise

	ENGLISH		SI	
Sensitivity, +15-10% [2]	100	mV/g	10.19	mV/m/s <sup>2</sup>
Acceleration Range,	+/-50	Gpeak	+/- 4905	m/s <sup>2</sup> peak
Frequency Range, +15/-10%	.6-10,000	Hz	.6-10,000	Hz
Resonance Frequency	>24	kHz	>24	kHz
Linearity [3]	1	%F.S.	1	%F.S.
Transverse Sensitivity Max	6	%	6	%
Noise floor, Max	0.00095	Grms	0.009	m/s <sup>2</sup> rms
Spectral Noise	1Hz	μGrms/sqr(Hz)	2031	μm/s <sup>2</sup> rms/sqr(Hz)
	10Hz	μGrms/sqr(Hz)	510	μm/s <sup>2</sup> rms/sqr(Hz)
	100Hz	μGrms/sqr(Hz)	314	μm/s <sup>2</sup> rms/sqr(Hz)
	1000Hz	μGrms/sqr(Hz)	108	μm/s <sup>2</sup> rms/sqr(Hz)
	10000Hz	μGrms/sqr(Hz)	177	μm/s <sup>2</sup> rms/sqr(Hz)

**ENVIRONMENTAL**

Shock Max  
Vibration Max  
Operating Temperature  
TEDs Operating Temperature  
Seal  
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 +180	°F	-51 to +82	°C
TEDs Operating Temperature	-40 to +185	°F	-40 to +85	°C
Seal	Hermetic		Hermetic	
Base Strain Sensitivity	0.02	g/με	0.20	m/s <sup>2</sup> /με

**ELECTRICAL**

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

	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	0.5 - 1.5	sec	0.5 - 1.5	sec
TEDS Feature	IEEE 1451.4		IEEE 1451.4	
Case Isolation	10	GΩ	10	GΩ

**This family also includes:**

Model	Sensitivity (mV/g)	Range (Gpeak)	Resolution (Grms)	Oper. Temp(°F)	Time Constant (sec)
3333M1T	5	1000	0.0072	-60 to +225	0.5 to 1.5
3333M2T	10	500	0.0072	-60 to +225	0.5 to 1.5
3333M3T	25	200	0.0024	-60 to +225	0.5 to 1.5

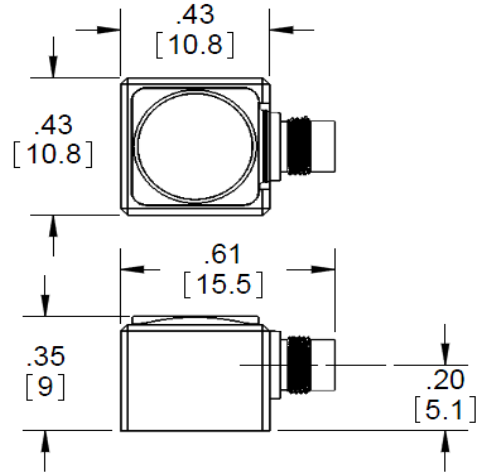
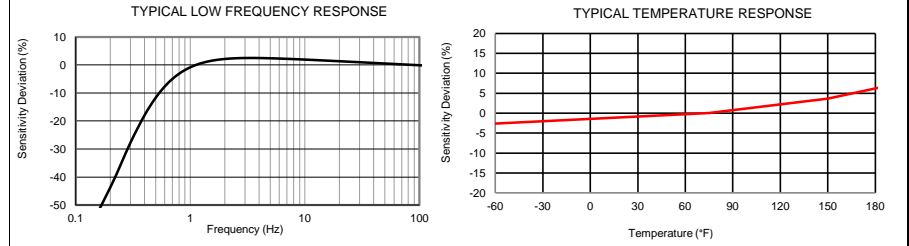
Refer to the performance specifications of the products in this family for detailed description.

**Supplied Accessories:**

1) Accredited calibration certificate (ISO 17025)

**Notes:**

- [1] 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.



Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-3333MT for more information.



21592 Marilla Street, Chatsworth, California 91311 Phone: 818.700.7818 Fax:818.700.7880  
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