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**7 CABLE TOLERANCES**

ENGLISH		[METRIC]	
≥ 1 FT	+1/-0 IN	≥ 0.3 m	+25 mm -0 mm
>1 FT - 5 FT	+2/-0 IN	> 0.3 m- 1.5 m	+50 mm -0 mm
>5 FT - 10 FT	+4/-0 IN	>1.5 m -3 m	+100 mm -0 mm
>10 FT - 25 FT	+6/-0 IN	> 3 m -7.5 m	+150 mm -0 mm
>25 FT	+5%/-0%	> 7.5 m	+5%/-0%

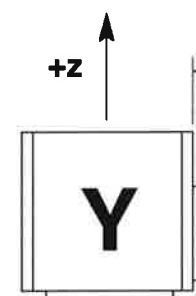
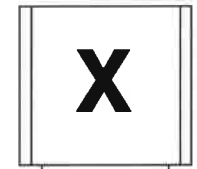
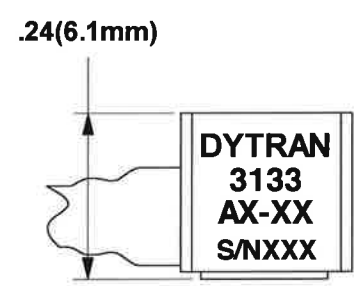
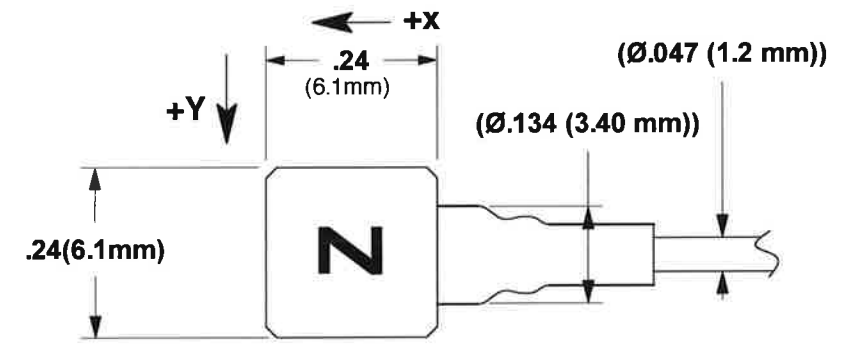
**7 4-WIRE CABLE**

WIRE	36 AWG, 7/44 SILVER PLATED COPPER
WIRE INSULATION	PFA, .006 NOMINAL WALL
SHIELD	44 AWG DILVER PLATED SOFT COPPER BRAID
JACKET	PFA, WHITE, .006 INCH NOMINAL WALL
DIAMETER	Ø.045 NOMINAL
TEMP	-196°C TO +200° C
VOLTAGE	150 VOLTS AC

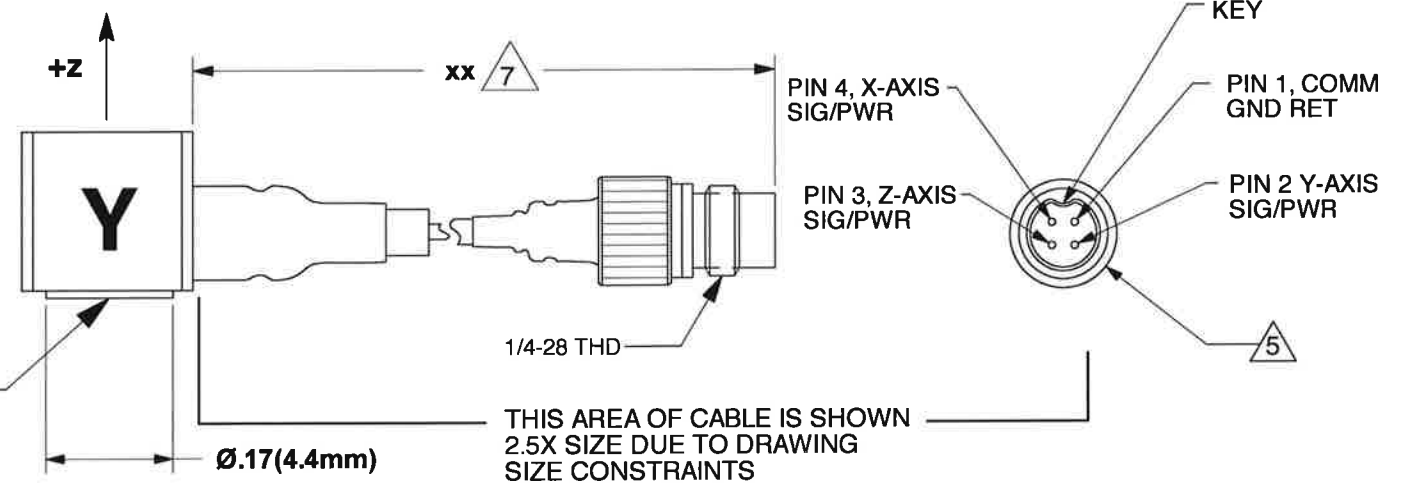
REV	ECN	DESCRIPTION	BY/DATE	CHK	APPR
H	12409	UPDATED VIEW OF CONNECTOR (KNURLING)	JS 12/15/15	LA	LN
J	12992	3133A5 SENSITIVITY WAS: 0.25 Mv/g (+/-25%)	JS 10/07/16	LA	LN
K	13061	REVISED "DYTRAN" TO REFLECT MARKING, AS SHIPPED	JS 10/07/16	RA	LN
L	13832	SEE ECN	RA 11/13/17	Sp	RS

**VARIATION CHART**

MODEL	SENSITIVITY	LENGTH <b>7</b>
3133A1	10 mV/g (±15%)	36 IN
3133A2	2 mV/g (±25%)	36 IN
3133A3	5 mV/g (±20%)	36 IN
3133A4	0.7 mV/g (±25%)	36 IN
3133A5	0.2 mV/g (±25%)	36 IN
3133A1-05	10 mV/g (±15%)	5 FT
3133A2-05	2 mV/g (±25%)	5 FT
3133A3-05	5 mV/g (±20%)	5 FT



MOUNTING SURFACE **2**



**7** LENGTH OF CABLE ASSEMBLY IS DESIGNATED BY XX IN NUMBER (3133AX-XX). XX EQUALS CABLE LENGTH (SEE CHART) (I.E. 3133A1-05 IS A 5 FT LENGTH CABLE ASSEMBLY)

6. MODEL 6298 PETRO MOUNTING WAX IS INCLUDED.

**5** MATING CABLES ARE MODELS 6824AXX (SANTOPRENE), OR 6811AXX, (TEFLON) 4-PIN CONNECTOR TO 3 BNC'S. "XX" IS THE CABLE LENGTH IN FEET. EX. :CABLE MOD. 6811A3 (3 FT. NOM.).

4. HOUSING MATERIAL: TITANIUM.

3. THE LETTERS "X", "Y", & "Z" INDICATE THE DIRECTION OF ACCELERATION OF EACH AXIS FOR POSITIVE GOING OUTPUT VOLTAGE (AS THE MARKED SURFACE ACCELERATES TOWARD THE VIEWER.) SEE DIRECTIONAL ARROWS ON FACE OF DRAWING.

**2** FOR BEST FREQUENCY RESPONSE, PREPARE FLAT MOUNTING SURFACE OF AT LEAST .20 DIAMETER, FLAT TO .0001 TIR. APPLY ONE DROP OF CYANOACRYLATE ADHESIVE TO MOUNT THE ACCELEROMETER.

1. WEIGHT, LESS CABLE: 0.8 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. 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.

APPROVALS		DATE
DRAWN	N.C.	11-10-08
DESIGN	N.C.	11-10-08
CHK	D.V.	05-18-09
APP	ANS	05-26-09

DO NOT SCALE DRAWING

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

Chattsworth, CA

**TITLE:** OUTLINE/INSTALLATION DRAWING, MODEL SERIES 3133A TRIAXIAL ACCELEROMETERS

SIZE	CAGE CODE	DWG NO	REV
B	2W033	127-3133A	L

SCALE: NONE ASHLAR GRAPHITE SHEET 1 OF 1

Model Number	PERFORMANCE SPECIFICATION			DOC NO	
				PS3133A4	
3133A4	Accelerometer, Triaxial, IEPE			REV K, ECN 14713, 11/21/18	



- ULTRA MINIATURE SIZE
- IDEAL LOW FREQUENCY RESPONSE

**PHYSICAL**

		ENGLISH		SI	
Weight		oz	0.03	grams	0.8
Size	Width	inch	0.24	mm	6.1
	Height	inch	0.24	mm	6.1
Mounting			Adhesive		Adhesive
	Integral Cable	Length	ft	3	mm
			Type		TFE
Connector			Type		4-pin
	Housing		Material		Titanium
			Isolation		Case Ground
Sensing Element			Material		Quartz
			Mode		Shear

**PERFORMANCE**

Sensitivity [1], [2], ± 25%		mV/g	0.7	mV/m/s <sup>2</sup>	0.07
Acceleration Range		Gpeak	5000	m/s <sup>2</sup> peak	49050
Frequency Range, ±5%		Hz	0.7 to 6000	Hz	0.7 to 6000
Frequency Range, ±10%		Hz	0.7 to 10000	Hz	0.7 to 10000
Linearity [4]		% F.S.	± 1	% F.S.	± 1
Resonance Frequency		kHz	>35	kHz	>35
Transverse Sensitivity		%	6	%	6
Bias Voltage		VDC	+7 to +9	VDC	+7 to +9
Output Impedance		Ω	100	Ω	100
Noise floor		Grms	0.15	m/s <sup>2</sup> rms	1.47
Discharge Time Constant		seconds	0.5 to 2.5	seconds	0.5 to 2.5
Spectral Noise	1Hz	μGrms/sqr(Hz)	4000	μm/s <sup>2</sup> rms/sqr(Hz)	39240
	10Hz	μGrms/sqr(Hz)	2000	μm/s <sup>2</sup> rms/sqr(Hz)	19620
	100Hz	μGrms/sqr(Hz)	500	μm/s <sup>2</sup> rms/sqr(Hz)	4905
	1000Hz	μGrms/sqr(Hz)	200	μm/s <sup>2</sup> rms/sqr(Hz)	1962
	10000Hz	μGrms/sqr(Hz)	90	μm/s <sup>2</sup> rms/sqr(Hz)	883

**ENVIRONMENTAL**

Shock		Gpeak	7000	m/s <sup>2</sup>	68670
Vibration		Gpeak	6000	m/s <sup>2</sup>	58860
Operating Temperature		°F	-67 to +320	°C	-55 to +160
Seal			Epoxy		Epoxy
Magnetic Sensitivity at 100 Gauss		g/Gauss	0.00004	m/s <sup>2</sup> /Gauss	0.00039
Base Strain Sensitivity		g/με	0.15	m/s <sup>2</sup> /με	1.47

**POWER**

Compliance Voltage		VDC	+18 to +30	VDC	+18 to +30
Current Range		mA	2 to 20	mA	2 to 20

**This family also includes:**

Model	Sensitivity (mV/g)	Range (Gpeak)	Resolution (Grms)	Oper. Temp(°F)	TC
3133A1	10	500	0.02	-67 to 320	1.0 to 2.5
3133A2	2	2500	0.15	-67 to 320	0.3 to 2.5
3133A3	5	1000	0.06	-67 to 320	1.0 to 2.5
3133A5	0.2	20000	0.35	-67 to 320	0.5 to 4.0

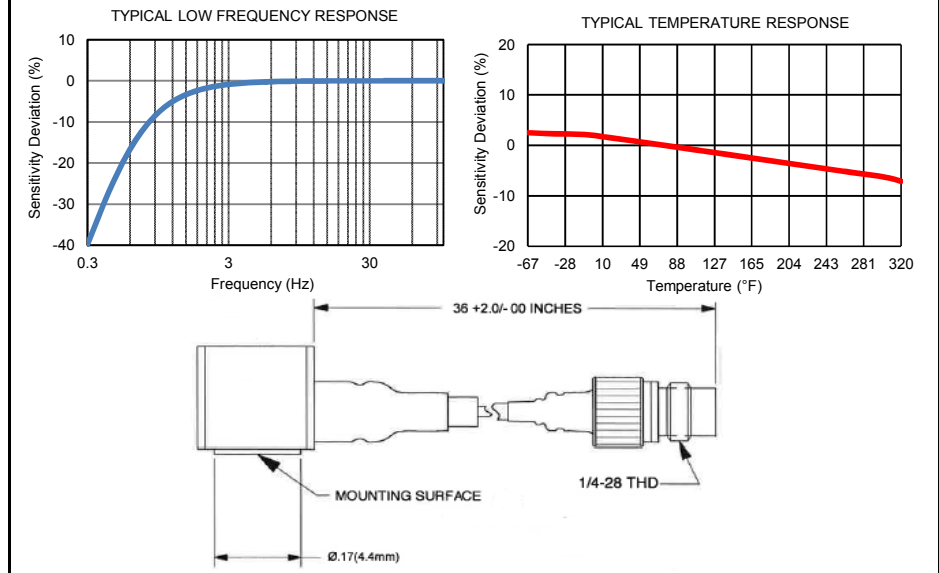
Please, refer to the performance specifications of the products in this family for detailed description

**Supplied Accessories:**

- 1) Model 6298 small petro wax
- 2) Model 6741 removal tool
- 3) Accredited calibration certificate (ISO 17025)

**Notes:**

- [1] Measured at 100 Hz, 10 Grms
- [2] Actual sensitivity is given on a calibration certificate
- [3] Do not apply power to this device without current limiting, 20mA max, to do so will destroy the integral IC amplifier
- [4] Measured using zero-based straight line method, % of F.S. or any lesser range.



Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-3133A for more information.



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