

PROPRIETARY AND CONFIDENTIAL

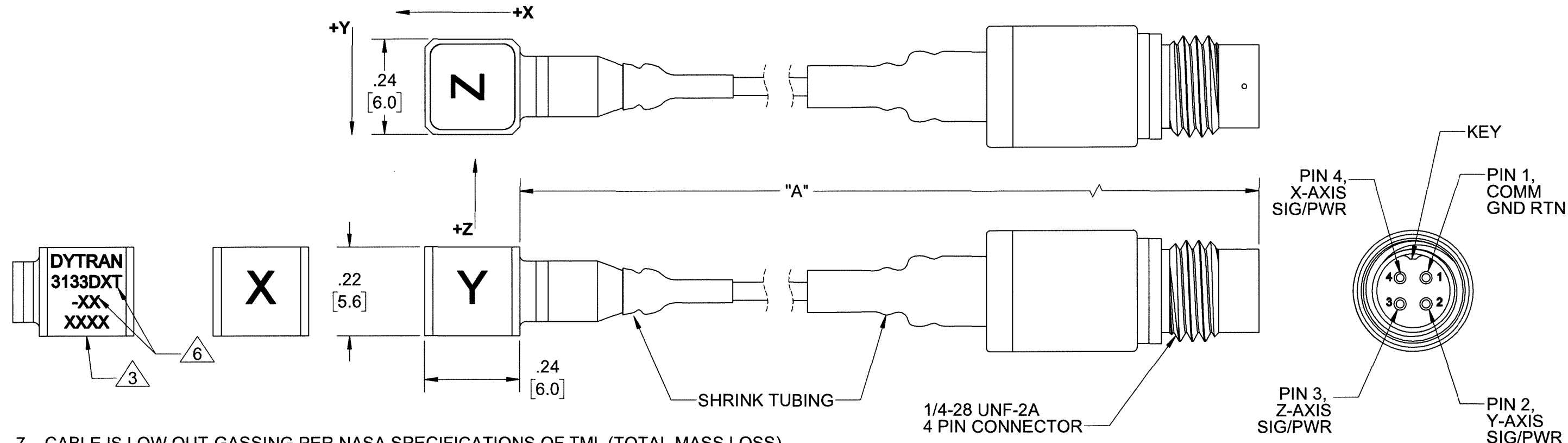
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MODEL	SENSITIVITY	DIM "A" <sup>6</sup>
3133D1T	10 mV/g	36.00 IN +3.00/-0.00 IN
3133D2T	2 mV/g	36.00 IN +3.00/-0.00 IN
3133D3T	5 mV/g	36.00 IN +3.00/-0.00 IN
3133D4T	0.7 mV/g	36.00 IN +3.00/-0.00 IN
3133D5T	0.25 mV/g	36.00 IN +3.00/-0.00 IN
3133D1T-17	10 mV/g	17.00 FT +6.00/-0.00 IN
3133D2T-17	2 mV/g	17.00 FT +6.00/-0.00 IN
3133D3T-17	5 mV/g	17.00 FT +6.00/-0.00 IN
3133D4T-17	0.7 mV/g	17.00 FT +6.00/-0.00 IN
3133D5T-17	0.25 mV/g	17.00 FT +6.00/-0.00 IN



REMOVAL TOOL, MODEL 6741, INCLUDED

REVISIONS					
REV.	ECN	DESCRIPTION	BY/DATE	CHK	APPR
D	13003	ADDED 3133D1T-17	JS 11/09/16	EP	AS
E	13437	ADDED "LOW OUTGASSING" NOTE	JB 5/9/2017	MH	LN
F	13902	INITIAL RELEASE 3133D2T-17, 3133D2T-17, 3133D3T-17, 3133D4T-17, 3133D5T-17	RA, 12/08/17	EM	LN
G	15342	UPDATED NOTE 7 (LOW OUTGASSING NOTE)	KG 09/26/19		



7. CABLE IS LOW OUT-GASSING PER NASA SPECIFICATIONS OF TML (TOTAL MASS LOSS) LESS THAN 1%; AND CVCM (COLLECTED VOLATILE CONDENSABLE MASS) LESS THAN 0.1%.

<sup>6</sup> PART NO: 3133DXT-XX (WHERE APPLICABLE, -XX DENOTES LENGTH IN FEET). SEE TABLE FOR LENGTH TOLERANCE.

5. DYTRAN MODEL 6298 PETRO MOUNTING WAX AND MODEL 6741 REMOVAL TOOL, SUPPLIED.

4. ARROWS INDICATE DIRECTION OF ACCELERATION FOR POSITIVE OUTPUT.

<sup>3</sup> FOR BEST FREQUENCY RESPONSE, PREPARE A FLAT MOUNTING SURFACE OF AT LEAST  $\phi .39$ , FLAT TO .0001 TIR. APPLY ONE DROP OF CYANOACRYLATE ADHESIVE TO MOUNT THE ACCELEROMETER.

2. HOUSING MATERIAL: TITANIUM ALLOY.

1. WEIGHT: 1.3 GRAMS MAX, LESS CABLE.

NOTES: UNLESS OTHERWISE SPECIFIED

<small>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. DIMENSIONS APPLY AFTER FINISHING.</small>	<small>UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES. DIMENSIONS IN BRACKETS [ ] ARE IN MILLIMETERS TOLERANCES ARE:</small>				<b>MASTER</b> ONLY IF IN RED	
	<small>DECIMALS .XX ±.03 .XXX ±.010</small>	<small>METRIC .X ± 0.8 .XX ±0.25</small>				
	<b>APPROVALS</b>		<b>DATE</b>		<b>TITLE:</b> OUTLINE/INSTALLATION DWG, TRIAXIAL ACCEL WITH TEDS, 3133DT SERIES	
	<small>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.</small>	<small>DO NOT SCALE DRAWING</small>		<b>SIZE</b> B	<b>CAGE CODE</b> 2W033	<b>DWG NO</b> 127-3133DT

Model Number 3133D1T	<b>PERFORMANCE SPECIFICATION</b>		DOC NO PS3133D1T
	Accelerometer, Triaxial, IEPE		REV H, ECN 14743, 12/13/18



- ULTRA MINIATURE SIZE
- IDEAL LOW FREQUENCY RESPONSE
- LOW BASE STRAIN SENSITIVITY
- TEDS FEATURE
- LOW OUTGASSING

	ENGLISH		SI	
Weight	0.03	oz	0.8	grams
Mounting	Adhesive		Adhesive	
Integral Cable Length	3	ft	914	mm
Connector Type	4-pin		4-pin	
Housing Material	Titanium		Titanium	
Isolation	Case Ground		Case Ground	
Sensing Element Material Mode	Ceramic Shear		Ceramic Shear	

	ENGLISH		SI	
<b>PERFORMANCE</b>				
Sensitivity [1], [2], ± 25%	10	mV/g	1.0	mV/m/s <sup>2</sup>
Acceleration Range	500	Gpeak	4905	m/s <sup>2</sup> peak
Frequency Range, ±5%	0.3 to 6000	Hz	0.3 to 6000	Hz
Frequency Range, ±10%	0.25 to 10000	Hz	0.25 to 10000	Hz
Linearity [4]	± 1	% F.S.	± 1	% F.S.
Resonance Frequency	>27	kHz	>27	kHz
Transverse Sensitivity	6	%	6	%
Output Impedance	100	Ω	100	Ω
Noise floor, Max.	0.02	Grms	0.20	m/s <sup>2</sup> rms

	ENGLISH		SI	
<b>ENVIRONMENTAL</b>				
Maximum Shock	3,000	Gpeak	29430	m/s <sup>2</sup>
Maximum Vibration	900	Gpeak	8829	m/s <sup>2</sup>
Operating Temperature	-67 to +320	°F	-55 to 160	°C
TEDS Operating Temperature	-40 to +185	°F	-40 to +85	°C
Seal	Hermetic		Hermetic	
Magnetic Sensitivity at 100 Gauss	0.0002	g/Gauss	0.002	m/s <sup>2</sup> /Gauss
Base Strain Sensitivity	0.001	g/με	0.01	m/s <sup>2</sup> /με

	ENGLISH		SI	
<b>ELECTRICAL</b>				
Compliance Voltage	+18 to +30	VDC	+18 to +30	VDC
Current Range [4]	2 to 20	mA	2 to 20	mA
Bias Voltage	+8 to +10	VDC	+8 to +10	VDC
Discharge Time Constant	1.1 to 2.5	seconds	1.1 to 2.5	seconds
Output Impedance	100	Ω	100	Ω
TEDS Feature [5]	IEEE 1451.4		IEEE 1451.4	

**This family also includes:**

Model	Sensitivity (mV/g)	Range (Gpeak)	Resolution (Grms)	Oper. Temp(°F)	TC
3133D2T	2	2,500	0.15	-67 to 320	0.5 to 2.5
3133D3T	5	1,000	0.06	-67 to 320	1.1 to 2.5
3133D4T	0.7	5,000	0.3	-67 to 320	0.5 to 2.5
3133D5T	0.25	20,000	0.5	-67 to 320	0.5 to 4.0

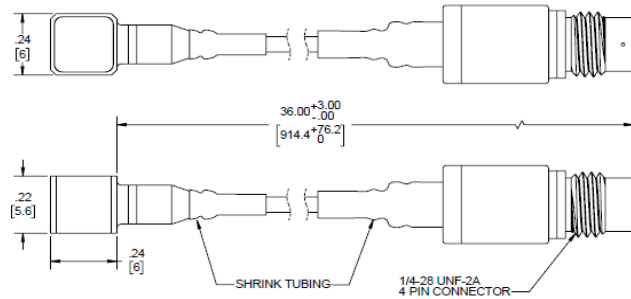
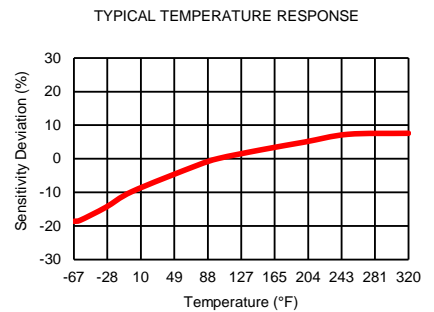
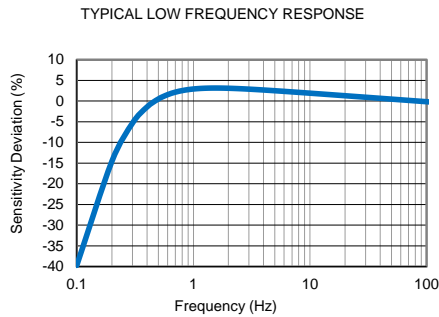
Refer to the performance specifications of the products in this family for detailed description

**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 127-3133DT for more information.

