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REVISIONS

REV.	ECN	DESCRIPTION	BY/DATE	CHK	APPR
C	13002	ZONE 4B .22 [5.6] WAS" .23 [5.8], ZONE 3B .24 [6] WAS: ϕ .18 [4.6], NOTE 3 ϕ .39 WAS: ϕ .20	JS 10/02/16	LA	LN

MODEL	SENSITIVITY
3133D1T	10 mV/g ($\pm 15\%$)
3133D2T	2 mV/g ($\pm 25\%$)
3133D3T	5 mV/g ($\pm 20\%$)
3133D4T	0.7 mV/g ($\pm 25\%$)
3133D5T	0.25 mV/g ($\pm 25\%$)

D

D

C

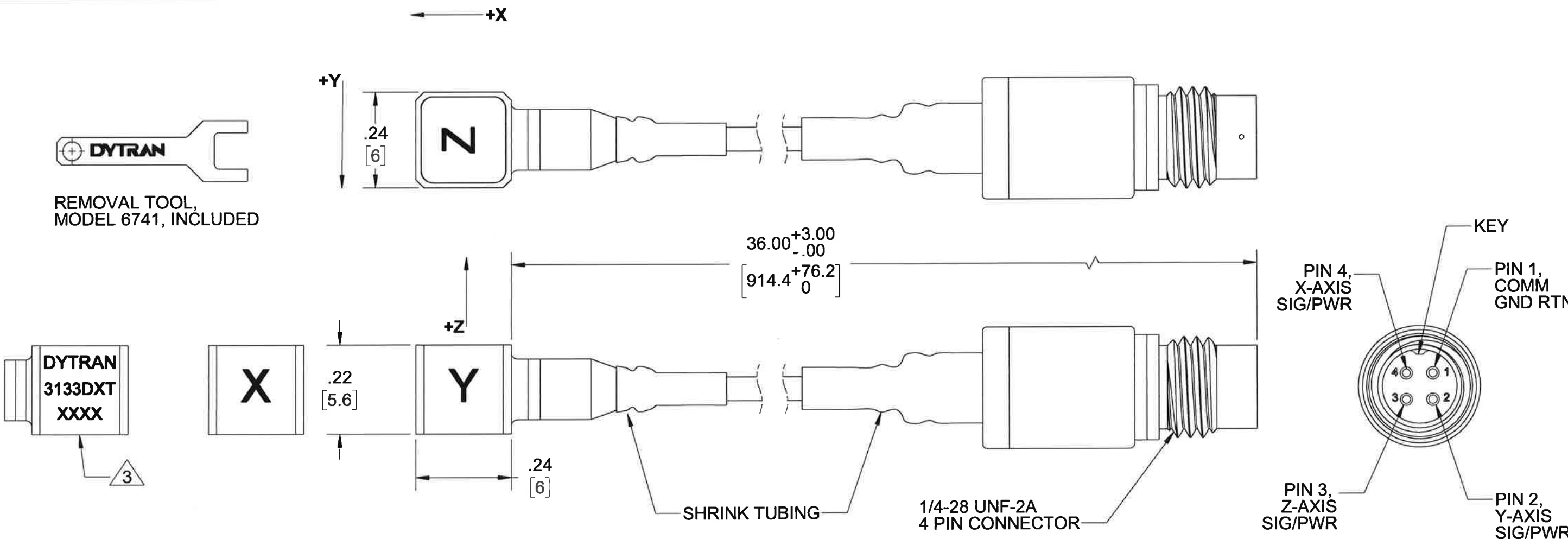
C

B

B

A

A



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

4. ARROWS INDICATE DIRECTION OF ACCELERATION FOR POSITIVE OUTPUT.

3. FOR BEST FREQUENCY RESPONSE, PREPARE A FLAT MOUNTING SURFACE OF AT LEAST ϕ .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

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.

UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN INCHES
 DIMENSIONS IN BRACKETS [] ARE IN
 MILLIMETERS TOLERANCES ARE:

DECIMALS	METRIC	ANGLES
.XX \pm .03	.X \pm 0.8	$\pm 1^\circ$
.XXX \pm .010	.XX \pm 0.25	

APPROVALS		DATE
ORIG	AB	11/15/13
CHK	LN	12/22/15
APP	AS	12/23/15

DO NOT SCALE DRAWING

THIRD ANGLE PROJECTION
 USA

DYTRAN INSTRUMENTS, INC.
 Chatsworth, CA

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TITLE: **OUTLINE/INSTALLATION DWG,
 TRIAXIAL ACCEL WITH TEDS,
 3133DT SERIES**

SIZE	CAGE CODE	DWG NO	REV
B	2W033	127-3133DT	C

SCALE: 1:1

SHEET 1 OF 1

Model Number	PERFORMANCE SPECIFICATION			DOC NO PS3133D2T
3133D2T	Accelerometer, Triaxial, IEPE			REV E, ECN 13002, 10/05/16



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

PHYSICAL

Weight
Mounting
Integral Cable
Connector
Housing
Isolation
Sensing Element
Mode

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	Quartz	Quartz	
Mode	Shear	Shear	

PERFORMANCE

Sensitivity [1], [2], ± 25%
Acceleration Range
Frequency Range, ±5%
Frequency Range, ±10%
Linearity [4]
Resonance Frequency
Transverse Sensitivity
Output Impedance
Noise floor, Max.

Sensitivity [1], [2], ± 25%	2.0 mV/g	0.20	mV/m/s ²
Acceleration Range	2,500 Gpeak	24525	m/s ² peak
Frequency Range, ±5%	0.7 to 6000 Hz	0.7 to 6000	Hz
Frequency Range, ±10%	0.7 to 10000 Hz	0.7 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.	0.15 Grms	1.47	m/s ² rms

ENVIRONMENTAL

Maximum Shock
Maximum Vibration
Operating Temperature
Seal
Magnetic Sensitivity at 100 Gauss
Base Strain Sensitivity

Maximum Shock	4,000 Gpeak	39240	m/s ²
Maximum Vibration	3,000 Gpeak	29430	m/s ²
Operating Temperature	-67 to +320 °F	-55 to 160	°C
Seal	Hermetic	Hermetic	
Magnetic Sensitivity at 100 Gauss	0.0002 g/Gauss	0.002	m/s ² /Gauss
Base Strain Sensitivity	0.001 g/με	0.01	m/s ² /με

ELECTRICAL

Compliance Voltage
Current Range [4]
Bias Voltage
Discharge Time Constant
Output Impedance
TEDS Feature [5]

Compliance Voltage	+18 to +30 VDC	+18 to +30	VDC
Current Range [4]	2 to 20 mA	2 to 20	mA
Bias Voltage	+7 to +9 VDC	+7 to +9	VDC
Discharge Time Constant	0.5 to 2.5 seconds	0.5 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
3133D1T	10	500	0.02	-67 to 320	1.1 to 1.7
3133D3T	5	1,000	0.06	-67 to 320	1.1 to 1.7
3133D4T	0.7	5,000	0.3	-67 to 320	0.5 to 2.5
3133D5T	0.25	20,000	0.50	-67 to 320	0.5 to 4

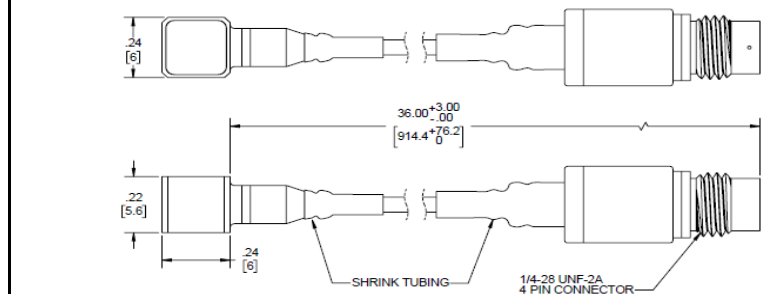
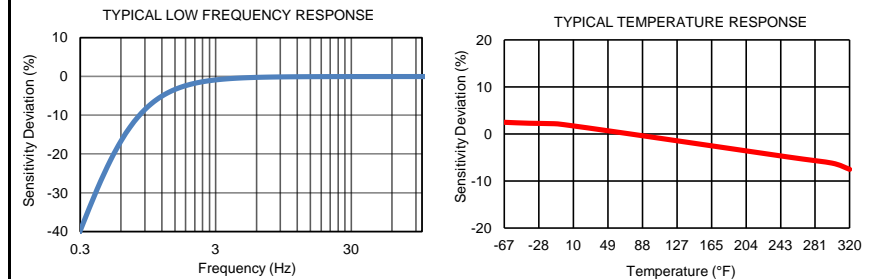
Refer to the performance specifications of the products in this family for detailed description

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] Measured using zero-based straight line method, % of F.S. or any lesser range.
- [4] Do not apply power to this device without current limiting, 20mA max, to do so will destroy the integral IC amplifier
- [5] TEDS operational temperature: -40° F to +185° F [-40° C to +85° C]



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



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