

PROPRIETARY AND CONFIDENTIAL

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6 4-WIRE CABLE

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

REVISIONS

REV.	ECN	DESCRIPTION	BY/DATE	CHK	APPR
E	13437	ADDED "LOW OUTGASSING" NOTE	JB 5/9/2017	MH	LN
F	13902	INITIAL RELEASE OF D1-17, D2-17, D3-17, D4-01, D5-17	RA, 12/08/17	MH	LN
G	14107	SEE ECN	RA, 03/22/18	MH	<i>[Signature]</i>

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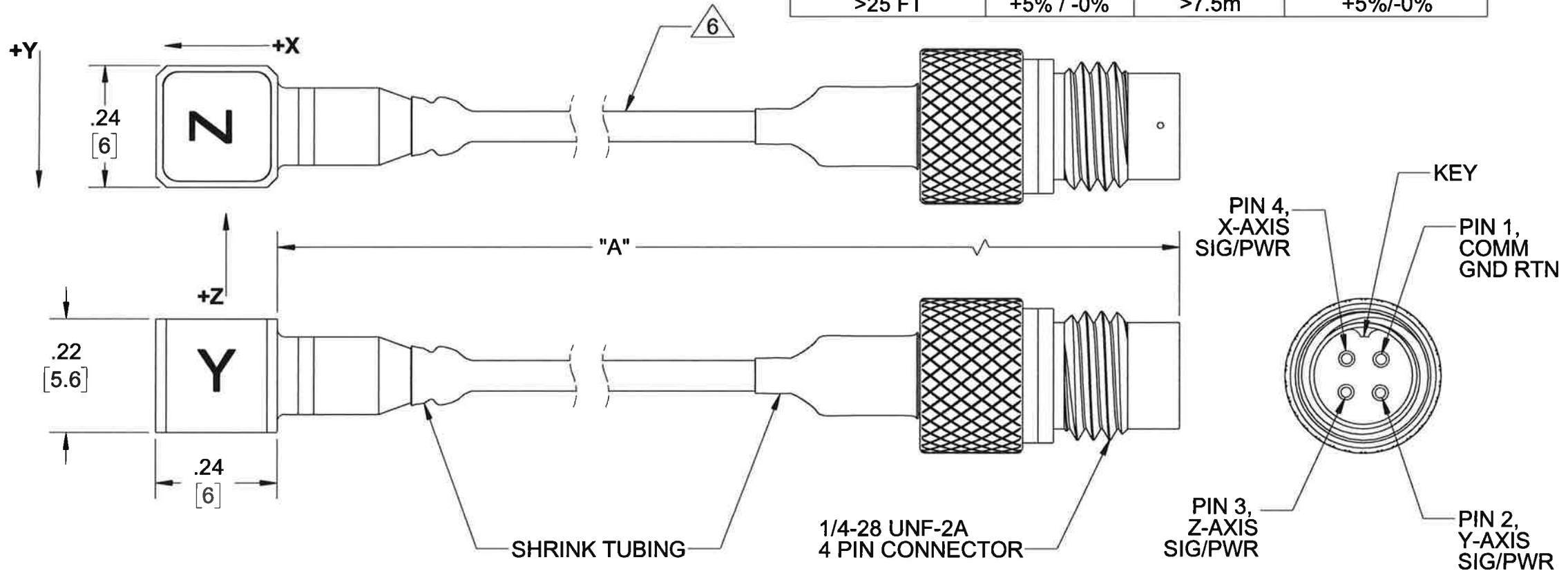
MODEL	SENSITIVITY	DIM "A"
3133D1	10 mV/g	36.00 IN
3133D2	2 mV/g	36.00 IN
3133D3	5 mV/g	36.00 IN
3133D4	0.7 mV/g	36.00 IN
3133D5	0.25 mV/g	36.00 IN
3133D1-17	10 mV/g	17.00 FT
3133D2-17	2 mV/g	17.00 FT
3133D3-17	5 mV/g	17.00 FT
3133D4-17	0.7 mV/g	17.00 FT
3133D5-17	0.25 mV/g	17.00 FT
3133D1-1.7	10 mV/g	1.70 FT
3133D2-1.7	2 mV/g	1.70 FT
3133D3-1.7	5 mV/g	1.70 FT
3133D4-1.7	0.7 mV/g	1.70 FT
3133D5-1.7	0.25 mV/g	1.70 FT

7 CABLE LENGTH TOLERANCE

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

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B

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- 8. LOW OUTGASSING
  - 7 PART NO: 3133DX-XX (WHERE APPLICABLE, -XX DENOTES LENGTH IN FEET). SEE TABLE FOR LENGTH TOLERANCE.
  - 6 SEE TABLE FOR 4 WIRE CABLE SPECIFICATIONS.
  - 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 Ø .39, FLAT TO .0001 TIR. APPLY ONE DROP OF CYANOACRYLATE ADHESIVE TO MOUNT THE ACCELEROMETER.
  - 2. HOUSING MATERIAL: TITANIUM ALLOY.
  - 1. WEIGHT: 0.8 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.

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

DECIMALS	METRIC	ANGLES
.XX ±.03	.X ±.08	±1°
.XXX ±.010	.XX ±0.25	

APPROVALS: ORIG LN 05/26/15, CHK LN 12/22/15, APP AS 12/23/15

DO NOT SCALE DRAWING

THIRD ANGLE PROJECTION USA

DYTRAN INSTRUMENTS, INC. Chatsworth, CA

TITLE: OUTLINE/INSTALLATION DWG, MINIATURE TRIAXIAL ACCEL, 3133D SERIES

SIZE B, CAGE CODE 2W033, DWG NO 127-3133D, REV G

SCALE: 1:1, SHEET 1 OF 1

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Model Number	PERFORMANCE SPECIFICATION		DOC NO
			PS3133D2
3133D2	Accelerometer, Triaxial, IEPE		REV H, ECN 14744, 12/10/18



- ULTRA MINIATURE SIZE
- IDEAL LOW FREQUENCY RESPONSE
- LOW BASE STRAIN SENSITIVITY
- HERMETICALLY SEALED
- 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	Quartz	Quartz	
Mode	Shear	Shear	

#### PHYSICAL

Weight  
Mounting  
Integral Cable Length  
Connector Type  
Housing Material  
Isolation  
Sensing Element Material  
Mode

#### PERFORMANCE

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

#### ENVIRONMENTAL

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

#### ELECTRICAL

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

Sensitivity [1], [2], ± 25%	2.0 mV/g	0.20 mV/m/s <sup>2</sup>
Acceleration Range	2,500 Gpeak	24525 m/s <sup>2</sup> 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 <sup>2</sup> rms
Maximum Shock	4,000 Gpeak	39240 m/s <sup>2</sup>
Maximum Vibration	3,000 Gpeak	29430 m/s <sup>2</sup>
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 <sup>2</sup> /Gauss
Base Strain Sensitivity	0.001 g/με	0.01 m/s <sup>2</sup> /με
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	0.3 to 2.5 seconds	0.3 to 2.5 seconds
Output Impedance	100 Ω	100 Ω

#### This family also includes:

Model	Sensitivity (mV/g)	Range (Gpeak)	Resolution (Grms)	Oper. Temp(°F)	TC
3133D1	10	500	0.02	-67 to 320	1.1 to 2.5
3133D3	5	1,000	0.06	-67 to 320	1.1 to 2.5
3133D4	0.7	5,000	0.3	-67 to 320	0.5 to 2.5
3133D5	0.25	20,000	0.50	-67 to 320	0.5 to 4

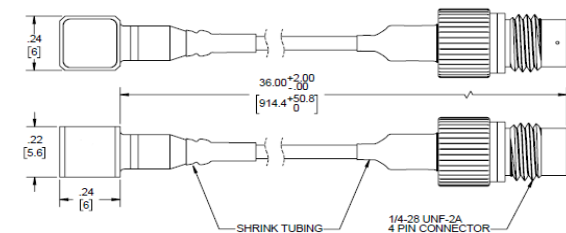
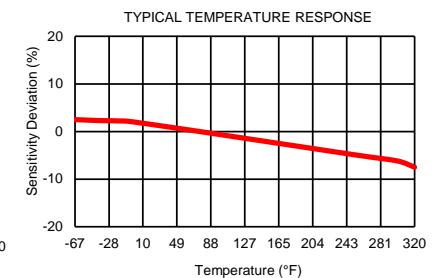
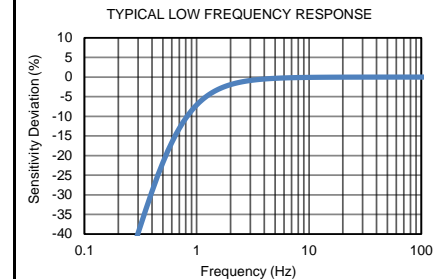
Refer to the performance specifications of the products in this family for detailed description

#### 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



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



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