

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>

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%

D

D

C

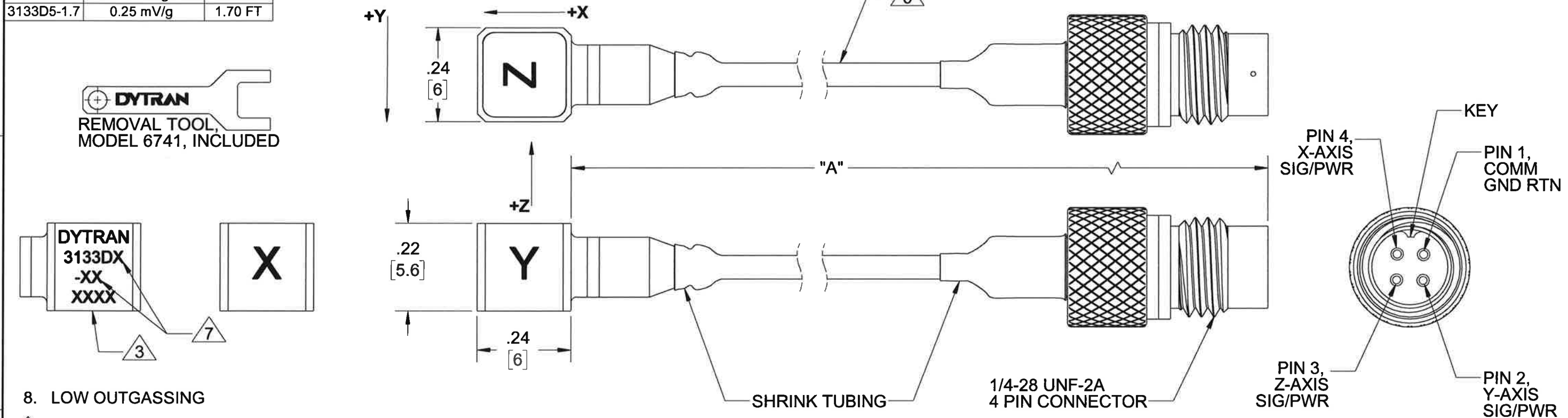
C

B

B

A

A



- 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:		DYTRAN INSTRUMENTS, INC. Chatsworth, CA	
DECIMALS	METRIC	ANGLES		TITLE: OUTLINE/INSTALLATION DWG, MINIATURE TRIAXIAL ACCEL, 3133D SERIES	
.XX ± .03	.X ± 0.8	± 1°		SIZE B	CAGE CODE 2W033
.XXX ± .010	.XX ± 0.25			DWG NO 127-3133D	REV G
APPROVALS		DATE		SCALE: 1:1	SHEET 1 OF 1
ORIG LN	05/26/15				
CHK LN	12/22/15				
APP AS	12/23/15				
DO NOT SCALE DRAWING		THIRD ANGLE PROJECTION USA			

Model Number 3133D1	PERFORMANCE SPECIFICATION			DOC NO PS3133D1
	Accelerometer, Triaxial, IEPE			REV J, ECN 14895, 02/12/19



- **ULTRA MINIATURE SIZE**
- **IDEAL LOW FREQUENCY RESPONSE**
- **LOW BASE STRAIN SENSITIVITY**
- **HERMETICALLY SEALED**
- **LOW OUTGASSING**

PHYSICAL

Weight
Mounting
Integral Cable
Connector Type
Housing Material
Isolation
Sensing Element Material
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	Ceramic	Ceramic	
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.
Spectral Noise

Sensitivity [1], [2], ± 25%	10 mV/g	1.0	mV/m/s ²
Acceleration Range	500 Gpeak	4905	m/s ² 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 ² rms
Spectral Noise	1Hz	4000 μGrms/sqr(Hz)	39240 μm/s ² rms/sqr(Hz)
	10Hz	2000 μGrms/sqr(Hz)	19620 μm/s ² rms/sqr(Hz)
	100Hz	500 μGrms/sqr(Hz)	4905 μm/s ² rms/sqr(Hz)
	1000Hz	200 μGrms/sqr(Hz)	1962 μm/s ² rms/sqr(Hz)
	10000Hz	90 μGrms/sqr(Hz)	883 μm/s ² rms/sqr(Hz)

ENVIRONMENTAL

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

Maximum Shock	3,000 Gpeak	29430	m/s ²
Maximum Vibration	900 Gpeak	8829	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

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

This family also includes:

Model	Sensitivity (mV/g)	Range (Gpeak)	Resolution (Grms)	Oper. Temp(°F)	TC
3133D2	2	2,500	0.15	-67 to 320	0.3 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	0.5	-67 to 320	0.5 to 4.0

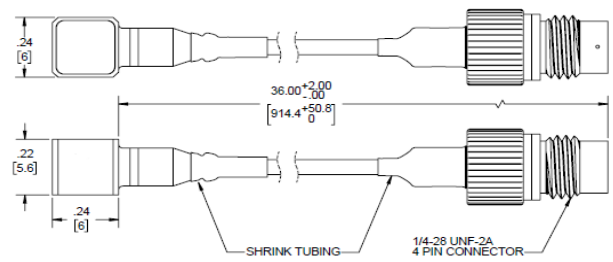
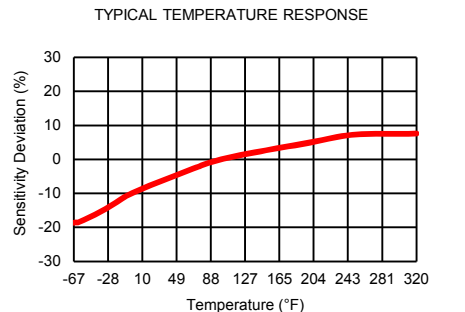
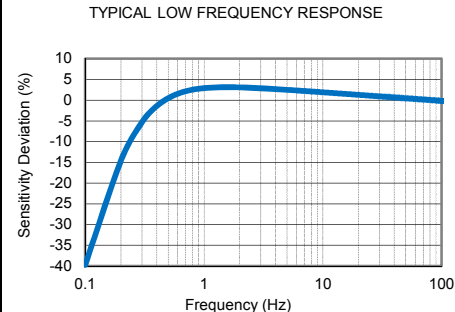
Refer to the performance specifications of the products in this family for detailed description

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 127-3133D for more information.



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