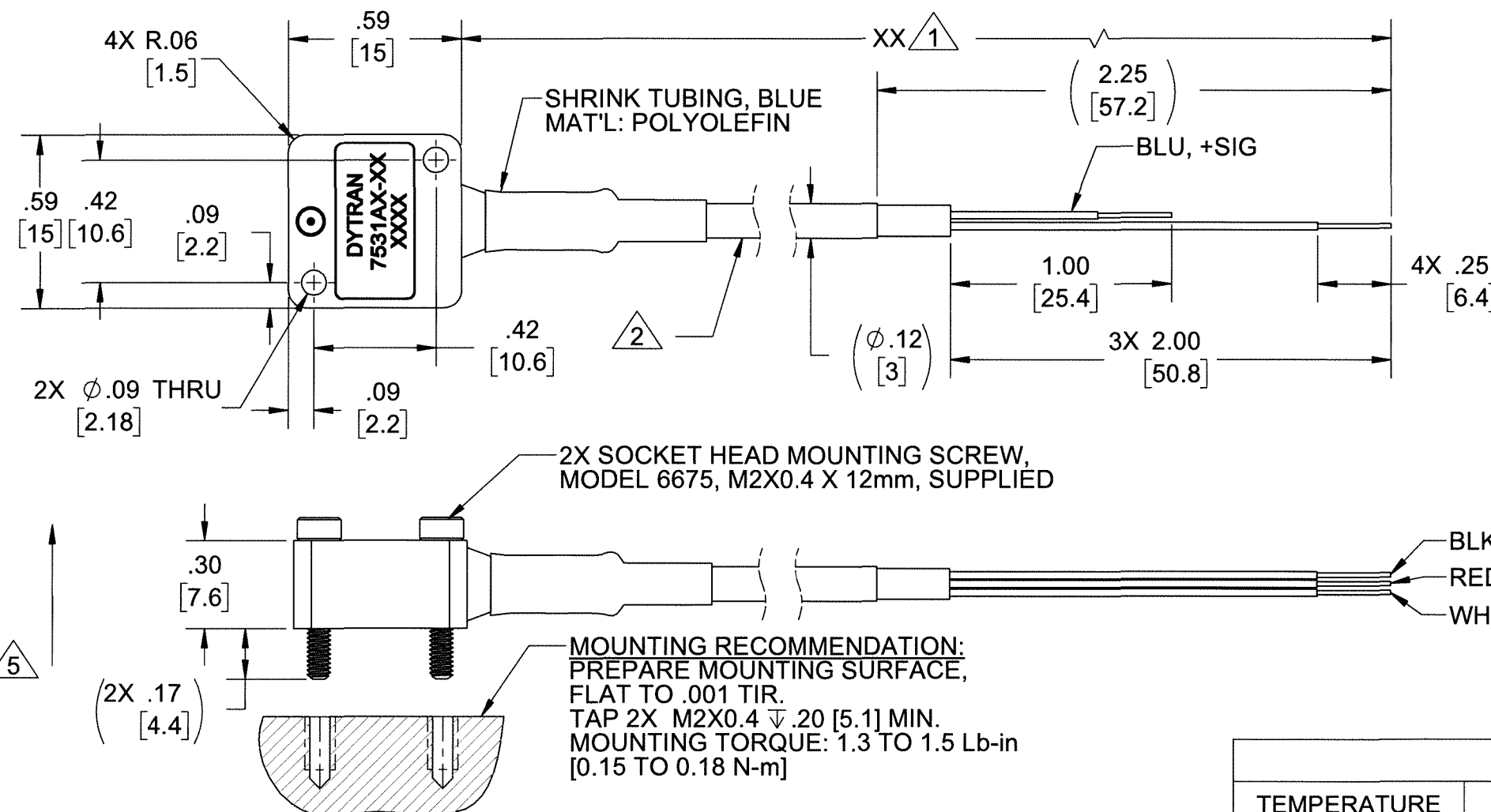


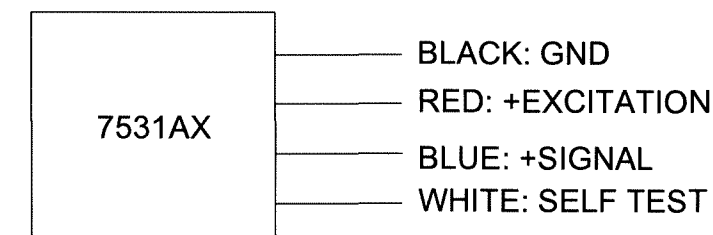
DWG NO	127-7531A1-XX	SH 1	REV E
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PROPRIETARY AND CONFIDENTIAL	MODEL	INPUT RANGE	SENSITIVITY ($\pm 10\%$)
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DYTRAN INSTRUMENTS INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF DYTRAN INSTRUMENTS INC. IS PROHIBITED	7531A1-XX	$\pm 2g$	420 mV/g
	7531A2-XX	$\pm 3g$	300 mV/g
	7531A3-XX	$\pm 5g$	174 mV/g
	7531A4-XX	$\pm 16g$	57 mV/g
	7531A5-XX	$\pm 200g$	6.5 mV/g

REVISIONS					
REV.	ECN	DESCRIPTION	BY/DATE	CHK	APPR
C	13226	ADDED SENSING LOCATIONS, NOTE 7	RA, 01/17/17	MH	LN
D	13702	ADDED WIRING DIAGRAM	RA, 08/25/17	MH	LN
E	15400	REVISED CABLE ASSY	KG 11/11/19	AM	WJ







1 CABLE LENGTH TOLERANCE			
ENGLISH		[METRIC]	
≤1FT	+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%




WIRING DIAGRAM

2 CABLE SPECIFICATIONS	
TEMPERATURE	-55 °C TO 120 °C
CONDUCTORS	AWG 30 - 7/38 TIN PLATED COPPER, SANTOPRENE .007 WALL
BRAID	40 AWG TIN PLATED COPPER BRAID, 90% COVERAGE
JACKET	BLACK, SANTOPRENE, .013 NOM. WALL, Ø .118 MAX

-  SYMBOL DENOTES REFERENCE LOCATION OF SENSING ELEMENT (UNIT NOT MARKED).
 6. OPERATING TEMPERATURE: -40°F TO +185°F. (-40°C TO +85°C)
 ARROW INDICATES DIRECTION OF ACCELERATION FOR POSITIVE OUTPUT
 4. WEIGHT: 6.0 GRAMS, MAX. (LESS CABLE)
 3. MATERIAL: ALUMINUM ALLOY, ANODIZED, COLOR: BLACK
 CABLE, 6-CONDUCTORS, 30AWG, SHIELDED, SANTOPRENE JACKET, COLOR: BLACK. SEE TABLE FOR SPECIFICATIONS.
 MODEL NUMBER: 7531AX-XX. "XX" DENOTES CABLE LENGTH IN FEET (MAXIMUM CABLE LENGTH 50 FT.). SEE TABLE FOR CABLE LENGTH TOLERANCE.

NOTES: UNLESS OTHERWISE SPECIFIED

<p>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.</p> <p>63/✓ 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.</p>	<p>UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES. DIMENSIONS IN BRACKETS [] ARE IN MILLIMETERS TOLERANCES ARE:</p> <table><tr><td>DECIMALS</td><td>METRIC</td><td></td></tr><tr><td>.XX ± .03</td><td>X ± .08</td><td>ANGLES</td></tr><tr><td>.XXX ± .010</td><td>.XX ± 0.25</td><td>± 1°</td></tr></table>			DECIMALS	METRIC		.XX ± .03	X ± .08	ANGLES	.XXX ± .010	.XX ± 0.25	± 1°	 <p>Chatsworth, CA</p>	<p>MASTER</p> <p>ONLY IF IN RED</p>	
	DECIMALS	METRIC													
	.XX ± .03	X ± .08	ANGLES												
	.XXX ± .010	.XX ± 0.25	± 1°												
	APPROVALS		DATE	TITLE: OUTLINE/INSTALLATION DWG, 7531AX SERIES											
ORIG	LN	07/03/13													
CHK	EP	02/19/16													
APP	LN	02/18/16													
DO NOT SCALE DRAWING		THIRD ANGLE PROJECTION USA	SIZE B	CAGE CODE 2W033	DWG NO 127-7531A1-XX	REV E									
			SCALE: 2:1		SHEET 1 OF 2										

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C

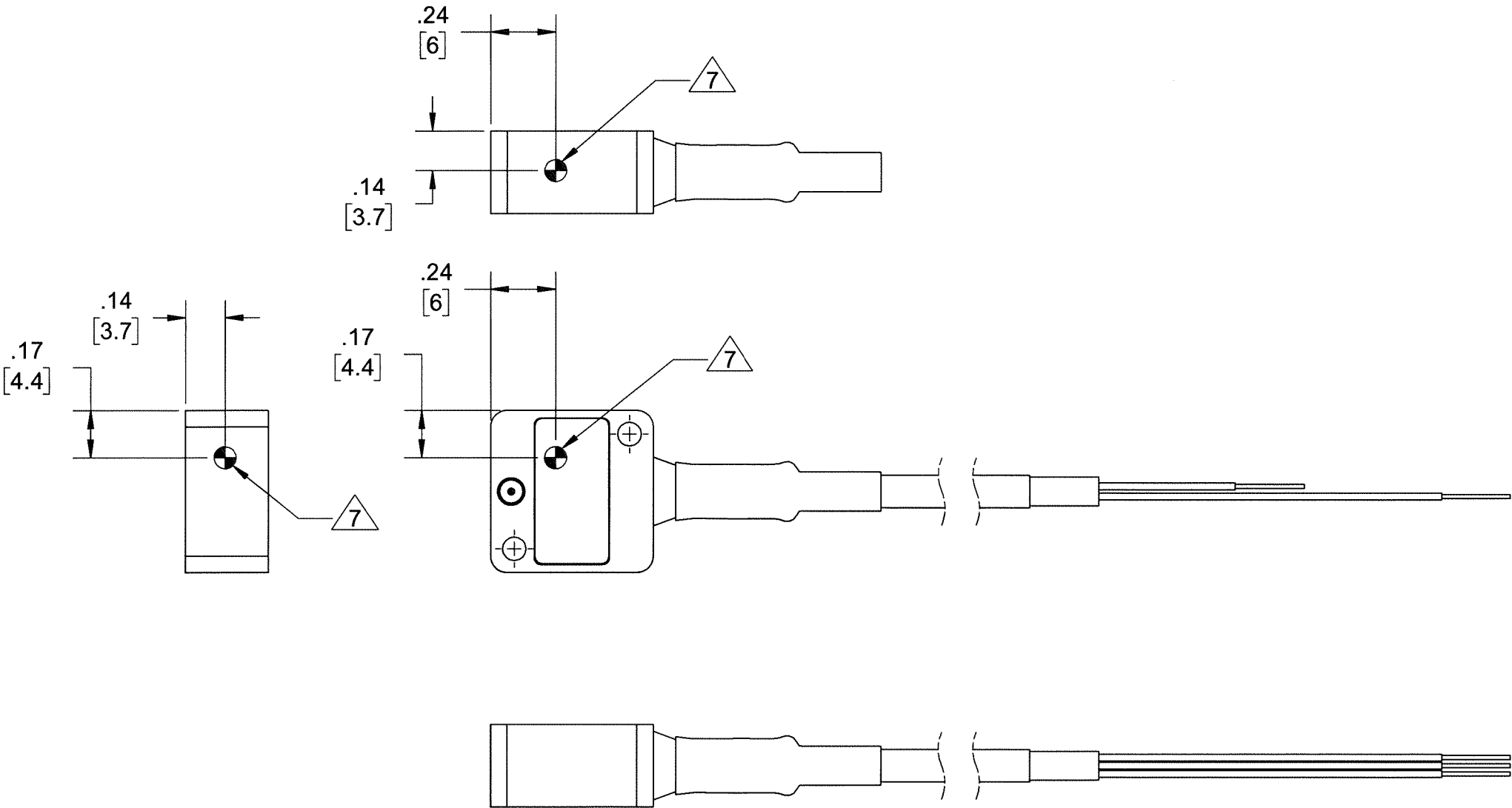
C

B

B

A

A



SENSOR LOCATIONS 7


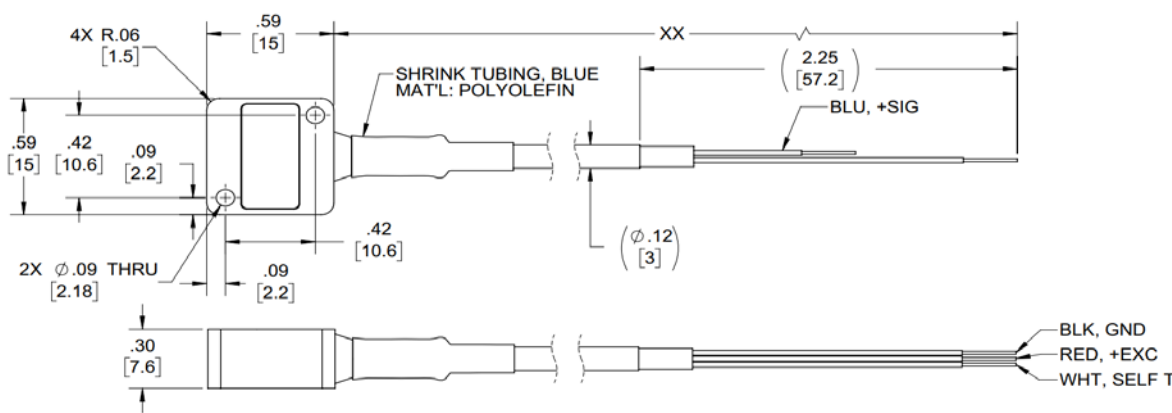

 MASTER ONLY IF IN RED			
Chatsworth, CA			
TITLE: OUTLINE/INSTALLATION DWG, 7531AX SERIES			
SIZE B	CAGE CODE 2W033	DWG NO 127-7531A1-XX	REV E
SCALE: 2:1	PART NO: 7531AX		SHEET 2 OF 2

4

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MODEL NUMBER 7531A1	PERFORMANCE SPECIFICATIONS				DOC NO. PS7531A1
	SINGLE AXIS, DC ACCELEROMETER				REV G, ECN 17146, 05/15/23
	<ul style="list-style-type: none"> • LOW COST • WIDE SUPPLY VOLTAGE RANGE • LOW CURRENT CONSUMPTION 				
	ENGLISH		SI		
	PHYSICAL				
	Weight, Max. (less cable)	0.21 oz	6.0 grams		
Mounting	2X M2 Screws		2X M2 Screws		
Cable	Type 6-conductor		6-conductor		
	Material Santoprene		Santoprene		
Housing	Material Aluminum, Anodized		Aluminum, Anodized		
	Isolation Case Isolated		Case Isolated		
PERFORMANCE	Sensitivity, +/-10% [1]	420 mV/g	42.8 mV/m/s ²		
	Acceleration Range	±2 g pk	±19.6 m/s ² pk		
	Frequency Range, -3dB	0 to 1600 Hz	0 to 1600 Hz		
	Resonance Frequency	>5.5 kHz	>5.5 kHz		
	Spectral Noise	250 µg RMS/√Hz	2453 µm/s ² RMS/√Hz		
	Linearity	±0.21 %F.S.	±0.21 %F.S.		
	Transverse Sensitivity Max	5 %	5 %		
	Sensitivity Change Due to Temperature	±0.006 %/°F	±0.01 %/°C		
ELECTRICAL	Supply Current	350 µA	350 µA		
	Supply Voltage Range	4 to 28 VDC	4 to 28 VDC		
	Output Impedance, Typ.	32 kΩ	32 kΩ		
	Output Bias Voltage	1.3 to 1.7 VDC	1.3 to 1.7 VDC		
	Output Range	±0.95 VDC	±0.95 VDC		
	Self-Test Output [2]	-210 to +850 mV	-210 to +850 mV		
	Turn-On Time	1 ms	1 ms		
	Electrical Isolation (Case)	> 100 MΩ	> 100 MΩ		
ENVIRONMENTAL	Maximum Shock	10,000 g pk	98100 m/s ² pk		
	Operating Temperature	-40 to +185 °F	-40 to +85 °C		
	Seal	Epoxy	Epoxy		
<p>Please, refer to the performance specifications of the products in this family for detailed description</p> <p>Supplied Accessories:</p> <p>1) Accredited calibration certificate (ISO 17025)</p> <p>2) Mounting Screw, Model 6675, M2x0.4 x 12mm, qty. 2</p> <p>Notes:</p> <p>[1] All specifications are at room temperature unless otherwise specified.</p> <p>[2] Measure using zero-based straight line method, % of F.S. or any lesser range.</p> <p>[3] In the interest of constant product improvement, we reserve the rights to change specifications without notice.</p> <p>It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts.</p>					
					
Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-7531A1-XX for more information.					
 <p>21592 Marilla Street, Chatsworth, California 91311 Phone: 818.700.7818 Fax: 818.698.0362 www.dytran.com</p> <p>For permission to reprint this content, please contact info@dytran.com</p>					