

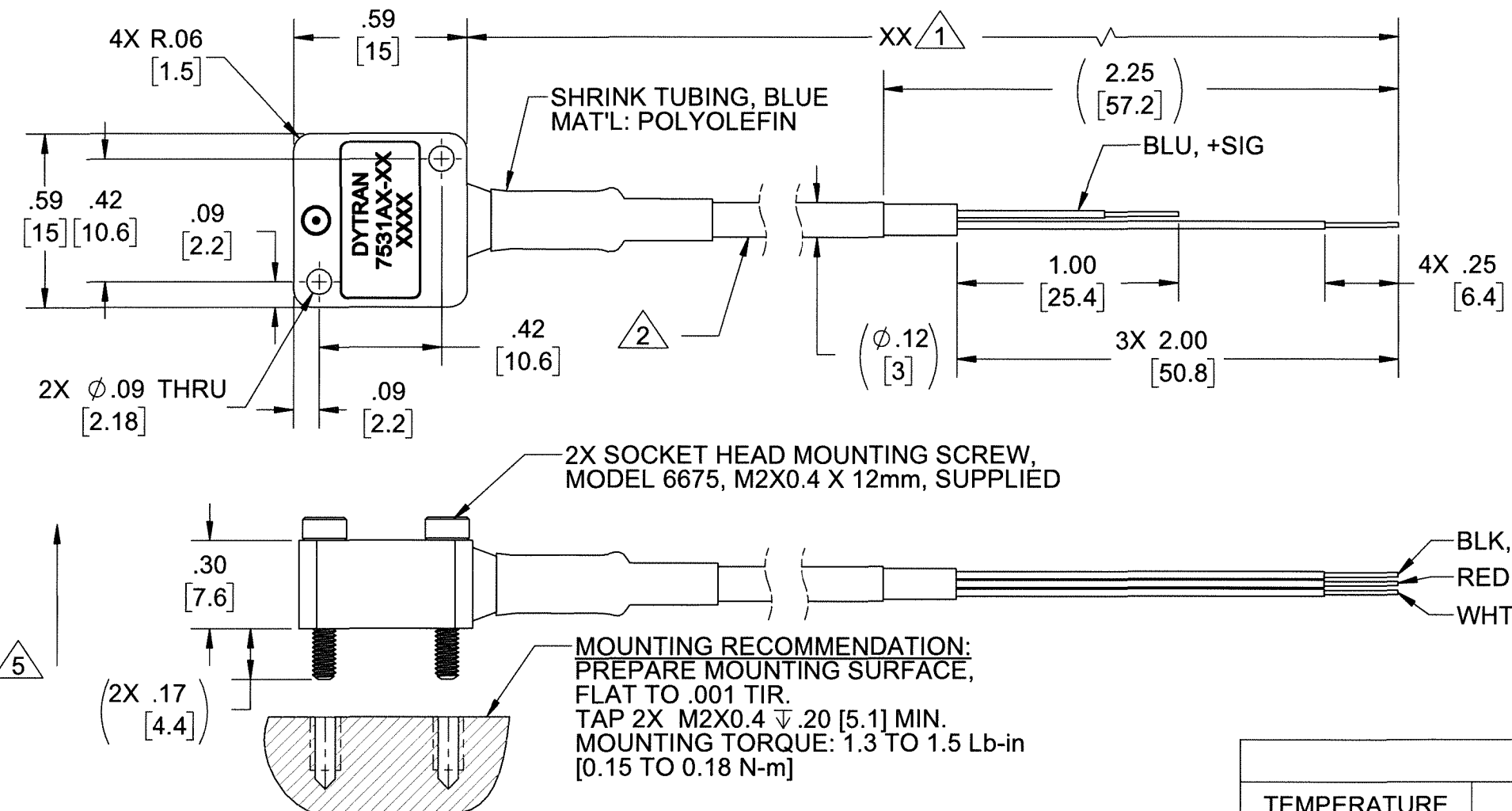
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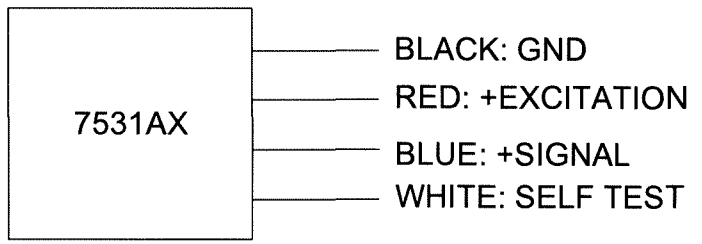
MODEL	INPUT RANGE	SENSITIVITY ( $\pm 10\%$ )
7531A1-XX	$\pm 2g$	420 mV/g
7531A2-XX	$\pm 3g$	300 mV/g
7531A3-XX	$\pm 5g$	174 mV/g
7531A4-XX	$\pm 16g$	57 mV/g
7531A5-XX	$\pm 200g$	6.5 mV/g

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	W



CABLE LENGTH TOLERANCE			
ENGLISH		[METRIC]	
$\leq 1$ FT	+1/ -0 IN	$\leq 0.3$ m	+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%



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, $\phi$ .118 MAX

- 7 SYMBOL DENOTES REFERENCE LOCATION OF SENSING ELEMENT (UNIT NOT MARKED).
  - 6. OPERATING TEMPERATURE: -40°F TO +185°F. (-40°C TO +85°C)
  - 5 ARROW INDICATES DIRECTION OF ACCELERATION FOR POSITIVE OUTPUT
  - 4. WEGHT: 6.0 GRAMS, MAX. (LESS CABLE)
  - 3. MATERIAL: ALUMINUM ALLOY, ANODIZED, COLOR: BLACK
  - 2 CABLE, 6-CONDUCTORS, 30AWG, SHIELDED, SANTOPRENE JACKET, COLOR: BLACK. SEE TABLE FOR SPECIFICATIONS.
  - 1 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

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:		<p>Chatsworth, CA</p> <p><b>MASTER ONLY IF IN RED</b></p>
	DECIMALS .XX $\pm$ .03 .XXX $\pm$ .010	METRIC .X $\pm$ 0.8 .XX $\pm$ 0.25	
APPROVALS		DATE	TITLE:
ORIG LN	CHK EP	07/03/13	<b>OUTLINE/INSTALLATION DWG, 7531AX SERIES</b>
APP LN		02/19/16	
DO NOT SCALE DRAWING		THIRD ANGLE PROJECTION	SIZE B
			CAGE CODE 2W033
			DWG NO 127-7531A1-XX
			REV E
			SCALE: 2:1
			SHEET 1 OF 2

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D

D

C

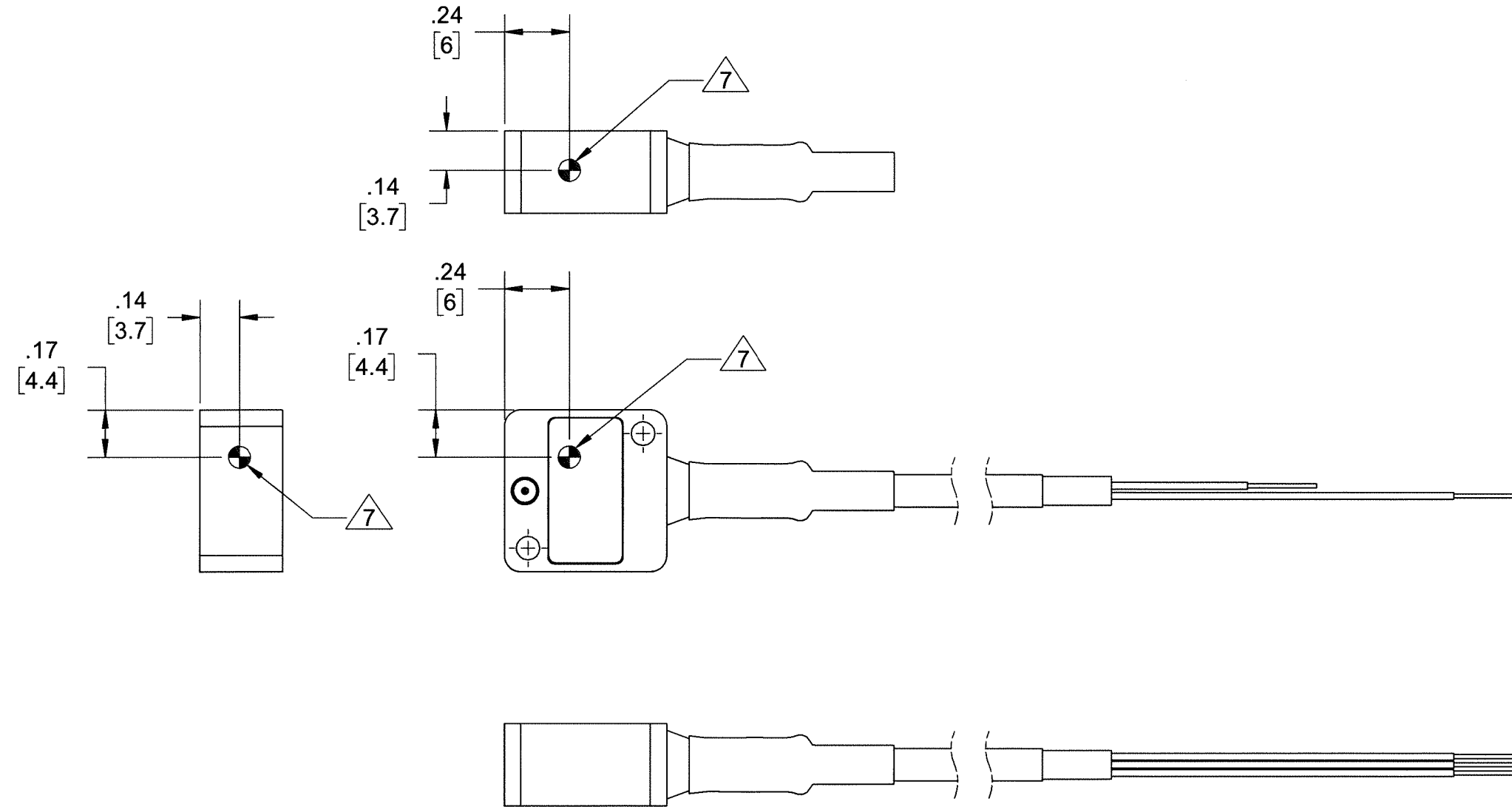
C

B

B

A

A



SENSOR LOCATIONS 7

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

<b>MODEL NUMBER</b> <b>7531A3</b>	<b>PERFORMANCE SPECIFICATIONS</b>			<b>DOC NO.</b> <b>PS7531A3</b>
	<b>SINGLE AXIS, DC ACCELEROMETER</b>			REV C ECN 15400, 11/11/19



- **LOW COST**
- **WIDE SUPPLY VOLTAGE RANGE**
- **LOW CURRENT CONSUMPTION**

**PHYSICAL**

Weight, Max. (less cable)  
Mounting  
Cable  
Housing

Type  
Material  
Material  
Isolation

ENGLISH		SI	
0.21	oz	6.0	grams
2X M2 Screws		2X M2 Screws	
6-conductor		6-conductor	
Santoprene		Santoprene	
Aluminum, Anodized		Aluminum, Anodized	
Case Isolated		Case Isolated	

**PERFORMANCE**

Sensitivity, +/-10% [1]  
Acceleration Range  
Frequency Range, -3dB  
Resonance Frequency  
Linearity [2]  
Transverse Sensitivity Max  
Spectral Noise  
Sensitivity Change Due to Temperature

174	mV/g	17.7	mV/m/s <sup>2</sup>
±5	Gpeak	±49.1	m/s <sup>2</sup> peak
0 to 1600	Hz	0 to 1600	Hz
>5.5	kHz	>5.5	kHz
± 0.21	%F.S.	± 0.21	%F.S.
5	%	5	%
250	µGrms/√Hz	2453	µm/s <sup>2</sup> rms/√Hz
±0.006	%/°F	±0.01	%/°C

**ELECTRICAL**

Supply Current  
Supply Voltage Range  
Output Impedance, Typ.  
Output Bias Voltage  
Output Range  
Self-Test Output [3]  
Turn-On Time

350	µA	350	µA
4 to 28	VDC	4 to 28	VDC
100	Ω	100	Ω
1.3 to 1.7	VDC	1.3 to 1.7	VDC
±0.975	VDC	±0.975	VDC
-90 to -350	mV	-90 to -350	mV
1	ms	1	ms

**ENVIRONMENTAL**

Shock Max  
Vibration Max  
Operating Temperature  
Seal

10,000	g pk	98100	m/s <sup>2</sup>
5000	g pk	49050	m/s <sup>2</sup>
-40 to +185	°F	-40 to +85	°C
Epoxy		Epoxy	

Model	Sensitivity (mV/g)	Range (Gpeak)	Noise(µGrms/sqr(Hz))	Oper. Temp(°F)
7531A1	420	±2	250	-40 to 185
7531A2	300	±3	175	-40 to 185
7531A4	57	±16	300	-40 to 185
7531A5	6.5	±200	2700	-40 to 185

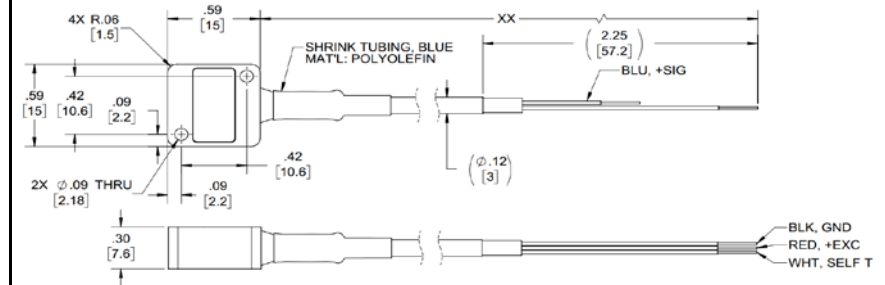
Please, refer to the performance specifications of the products in this family for detailed description

**Supplied Accessories:**

- 1) Accredited calibration certificate (ISO 17025)
- 2) Mounting Screw, Model 6675, M2x0.4 x 12mm, qty. 2

**Notes:**

- [1] Measured at 100 Hz, 5 Grms per ISA RP 37.2
- [2] Linearity is % of specified full scale (or any less full-scale range), zero-based best fit straight line method.
- [3] Refer to the Operating Guide for instructions on how to use Self-Test feature
- [4] In the interest of constant product improvement, we reserve the rights to change specifications without notice. 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 overtime. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts.



Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-7531A1-XX for more information.



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