

PROPRIETARY AND CONFIDENTIAL

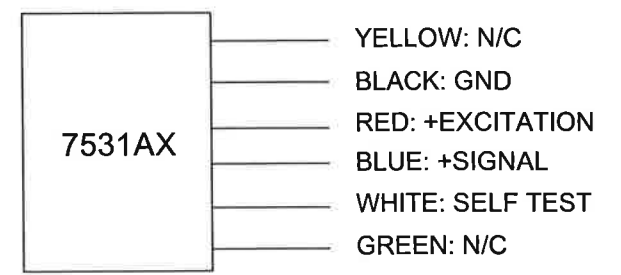
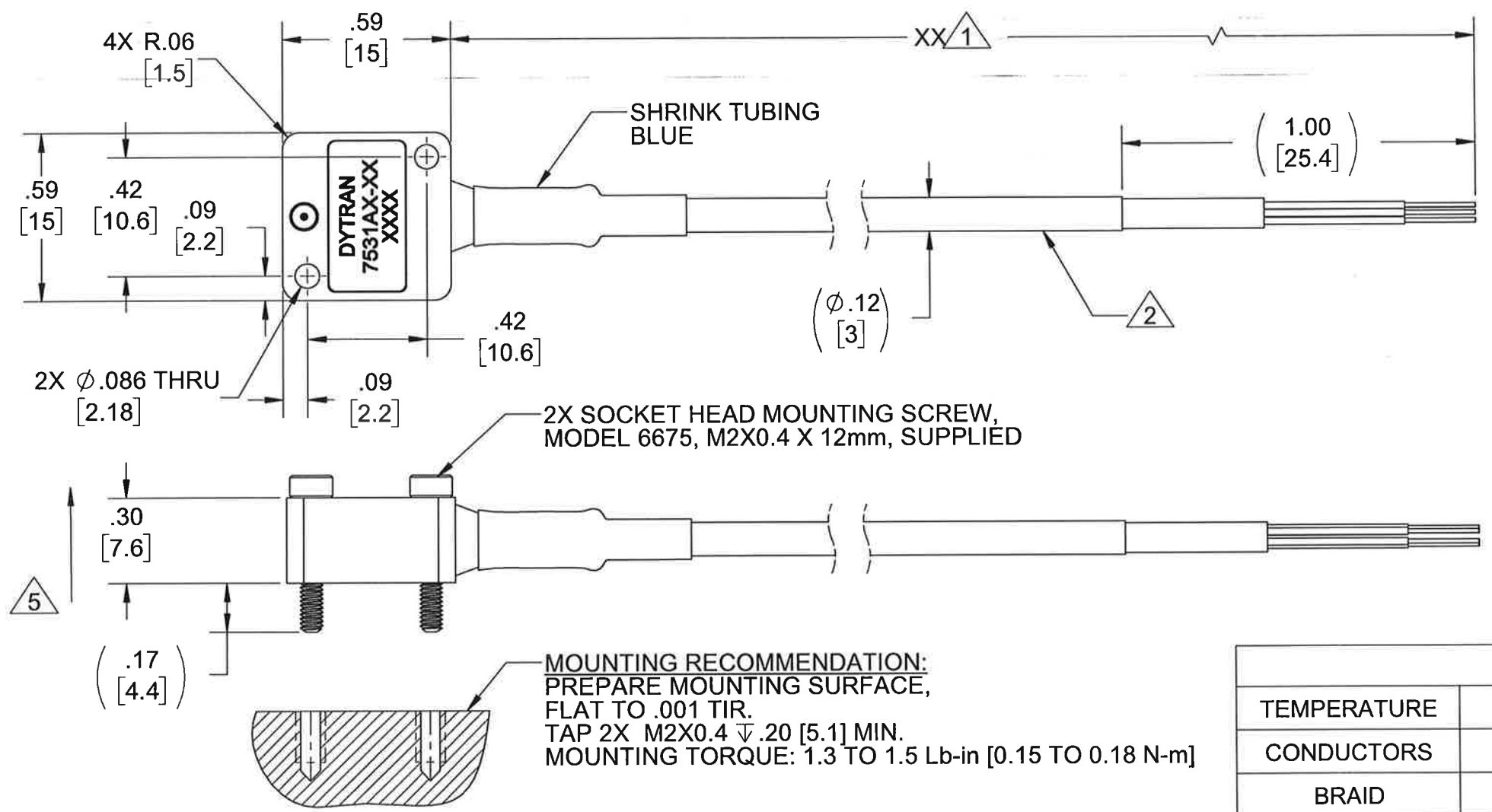
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REVISIONS

REV.	ECN	DESCRIPTION	BY/DATE	CHK	APPR
B	12745	REVISED MARKING TO DENOTE CABLE LENGTH	EM 06/08/16	AS	W

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

CABLE LENGTH TOLERANCE			
ENGLISH		[METRIC]	
≤ 1 FT	+1/ -0 IN	≤ 0.3 m	+25mm -0mm
>1 FT - 5 FT	+2/ -0 IN	.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

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

- 6. OPERATING TEMPERATURE: -40°F TO +185°F. (-40°C TO +85°C)
- 5. ARROW INDICATES DIRECTION OF ACCELERATION FOR POSITIVE OUTPUT
- 4. WEIGHT: 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.

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 ± 0.8	$\pm 1^\circ$
.XXX $\pm .010$.XX ± 0.25	

APPROVALS

ORIG	LN	DATE
		07/03/13
CHK	EP	02/19/16
APP	LN	02/18/16

DO NOT SCALE DRAWING

THIRD ANGLE PROJECTION USA

MASTER ONLY IF IN RED

DYTRAN INSTRUMENTS, INC. Chatsworth, CA

TITLE: OUTLINE/INSTALLATION DWG, 7531AX SERIES

SIZE	CAGE CODE	DWG NO	REV
B	2W033	127-7531A1-XX	B

SCALE: 2:1 SHEET 1 OF 1

MODEL NUMBER 7531A2	PERFORMANCE SPECIFICATIONS			DOC NO. PS7531A2
	SINGLE AXIS, DC ACCELEROMETER			REV B ECN 12745, 06/08/16



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

PHYSICAL

Weight, Max. (less cable)
Mounting
Cable
Type
Material
Housing
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

300	mV/g	30.6	mV/m/s ²
±3	Gpeak	±29.4	m/s ² peak
0 to 1600	Hz	0 to 1600	Hz
>5.5	kHz	>5.5	kHz
±0.3	%F.S.	±0.3	%F.S.
5	%	5	%
300	µGrms/√Hz	2943	µm/s ² 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

175	µA	175	µA
4 to 28	VDC	4 to 28	VDC
100	Ω	100	Ω
1.35 to 1.65	VDC	1.35 to 1.65	VDC
±1.0	VDC	±1.0	VDC
+150 to -600	mV	+150 to -600	mV
1	ms	1	ms

ENVIRONMENTAL

Shock Max
Vibration Max
Operating Temperature
Seal

10,000	g pk	98100	m/s ²
5000	g pk	49050	m/s ²
-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
7531A3	174	±5	250	-40 to 185
7531A4	57	±16	300	-40 to 185
7531A5	6.5	±200	2700	-40 to 185

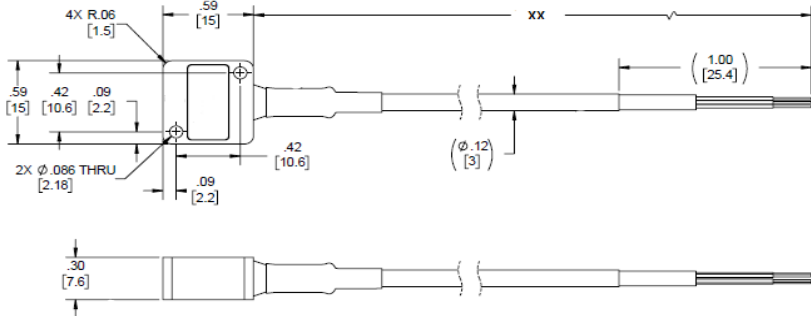
Please, refer to the performance specifications of the products in this family for detailed description

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



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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