

PROPRIETARY AND CONFIDENTIAL

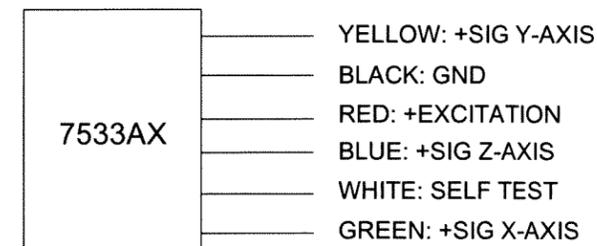
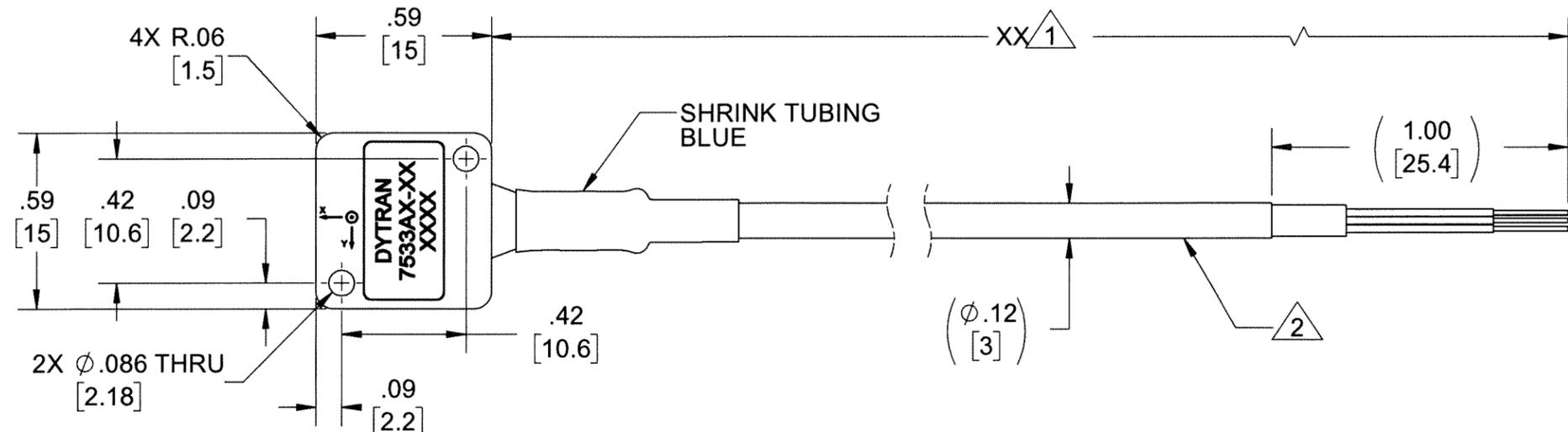
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REVISIONS

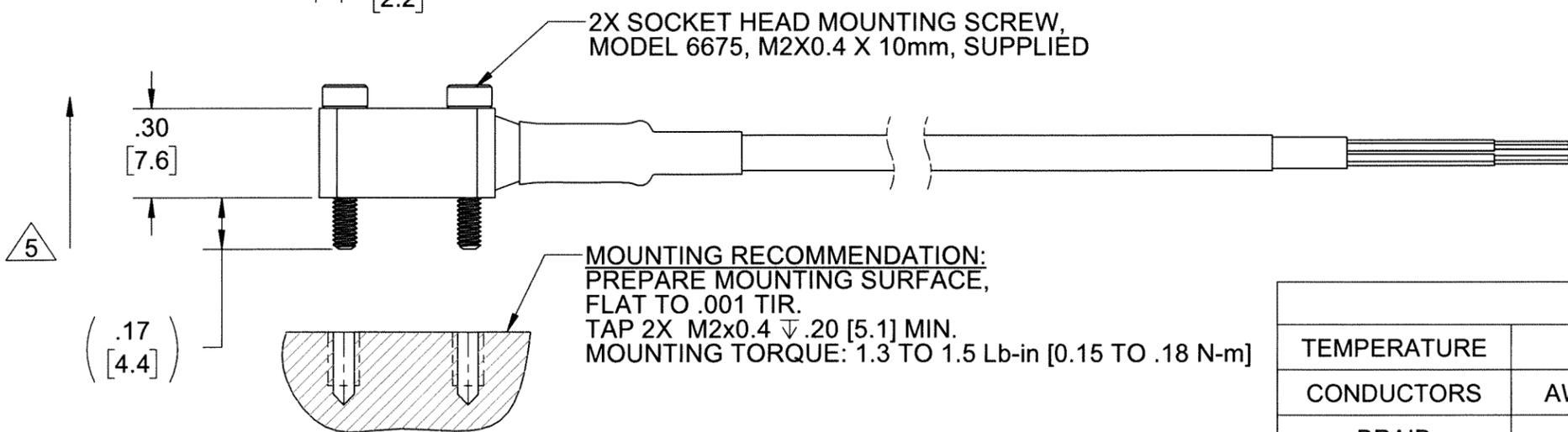
REV.	ECN	DESCRIPTION	BY/DATE	CHK	APPR
B	12745	REVISED MARKING TO DENOTE CABLE MARKING	EM 06/08/16	AS	LN
C	14900	ZONE 4/D: HEADING: IS: SENSITIVITY WAS: SENSITIVITY (±10%)	AM 03/01/19	KG	LN

MODEL	INPUT RANGE	SENSITIVITY
7533A1-XX	±2g	420 mV/g
7533A2-XX	±3g	300 mV/g
7533A3-XX	±5g	174 mV/g
7533A4-XX	±16g	57 mV/g
7533A5-XX	±200g	6.5 mV/g

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



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, φ.118 MAX

6. OPERATING TEMPERATURE: -40°F TO +185°F. (-40 °C TO +85 °C)

5 ARROW INDICATE 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: 7533AX-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:

DECIMALS	METRIC	ANGLES
.XX ±.03	.X ± 0.8	±1°
.XXX ±.010	.XX ±0.25	

APPROVALS

ORIG	LN	DATE
CHK	EP	07/03/13
APP	LN	02/12/16

DO NOT SCALE DRAWING

THIRD ANGLE PROJECTION

DYTRAN INSTRUMENTS, INC. Chatsworth, CA

MASTER ONLY IF IN RED

TITLE: OUTLINE/INSTALLATION DWG, 7533AX SERIES

SIZE	CAGE CODE	DWG NO	REV
B	2W033	127-7533A1-XX	C

SCALE: 2:1 SHEET 1 OF 1

MODEL NUMBER 7533A1	PERFORMANCE SPECIFICATIONS				DOC NO. PS7533A1
	TRIAxIAL , DC ACCELEROMETER				REV C ECN 13570, 07/20/17



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

PHYSICAL

Weight, Max. (less cable)
Mounting
Cable
Housing

Type
Material
Material
Isolation

ENGLISH		SI	
Weight, Max. (less cable)	0.21 oz	6.0	grams
Mounting	2X M2 Screws	2X M2 Screws	
Cable	6-conductor	6-conductor	
	Santoprene	Santoprene	
Housing	Aluminum, Anodized	Aluminum, Anodized	
	Case Isolated	Case Isolated	

PERFORMANCE

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

ENGLISH		SI	
Sensitivity, +/-10% [1]	420 mV/g	42.8	mV/m/s ²
Acceleration Range, Min.	±2 Gpeak	±19.6	m/s ² peak
Frequency Range, -3dB	X,Y axes	0 to 1600 Hz	0 to 1600 Hz
	Z-axis	0 to 550 Hz	0 to 550 Hz
Resonance Frequency	>5.5 kHz	>5.5	kHz
Linearity [2]	±0.21 %F.S.	±0.21	%F.S.
Transverse Sensitivity Max	5 %	5	%
Noise	250 µGrms/√Hz	2453	µm/s ² rms/√Hz
Sensitivity Change Due to Temperature	±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

ENGLISH		SI	
Supply Current	350 µA	350	µA
Supply Voltage Range	4 to 28 VDC	4 to 28	VDC
Output Impedance, Typ.	100 Ω	100	Ω
Output Bias Voltage	X,Y axes	1.3 to 1.7 VDC	1.3 to 1.7 VDC
	Z-axis	1.2 to 1.8 VDC	1.2 to 1.8 VDC
Output Range		±0.95 VDC	±0.95 VDC
	X-axis	-210 to -850 mV	-210 to -850 mV
	Y-axis	+210 to +850 mV	+210 to +850 mV
Self-Test Output [3]	Z-axis	+210 to +1400 mV	+210 to +1400 mV
	Turn-On Time	1 ms	1 ms

ENVIRONMENTAL

Shock Max
Vibration Max
Operating Temperature
Seal

ENGLISH		SI	
Shock Max	10,000 g pk	98100	m/s ²
Vibration Max	5000 g pk	49050	m/s ²
Operating Temperature	-40 to +185 °F	-40 to +85	°C
Seal	Epoxy	Epoxy	

Model	Sensitivity (mV/g)	Range (Gpeak)	Noise(µGrms/sqr(Hz))	Oper. Temp(°F)
7533A2	300	±3	175(x,y); 300(z)	-40 to 185
7533A3	174	±5	250	-40 to 185
7533A4	57	±16	300	-40 to 185
7533A5	6.5	±200	2700(x,y); 4300(z)	-40 to 185

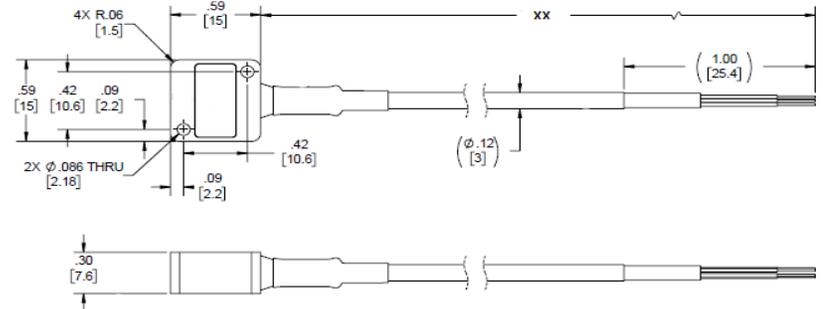
Please, refer to the performance specifications of the products in this family for detailed description

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 127-7533A1-XX for more information.



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