

PROPRIETARY AND CONFIDENTIAL

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REVISIONS

REV.	ECN	DESCRIPTION	BY/DATE	CHK	APPR
C	14900	ZONE 4/D: HEADING: IS: SENSITIVITY WAS: SENSITIVITY (±10%)	AM 03/01/19	KG	LN
D	15400	REVISED CABLE ASSY	KG 11/11/19	AM	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

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%

D

D

C

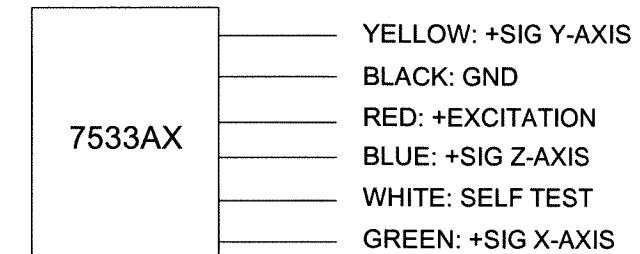
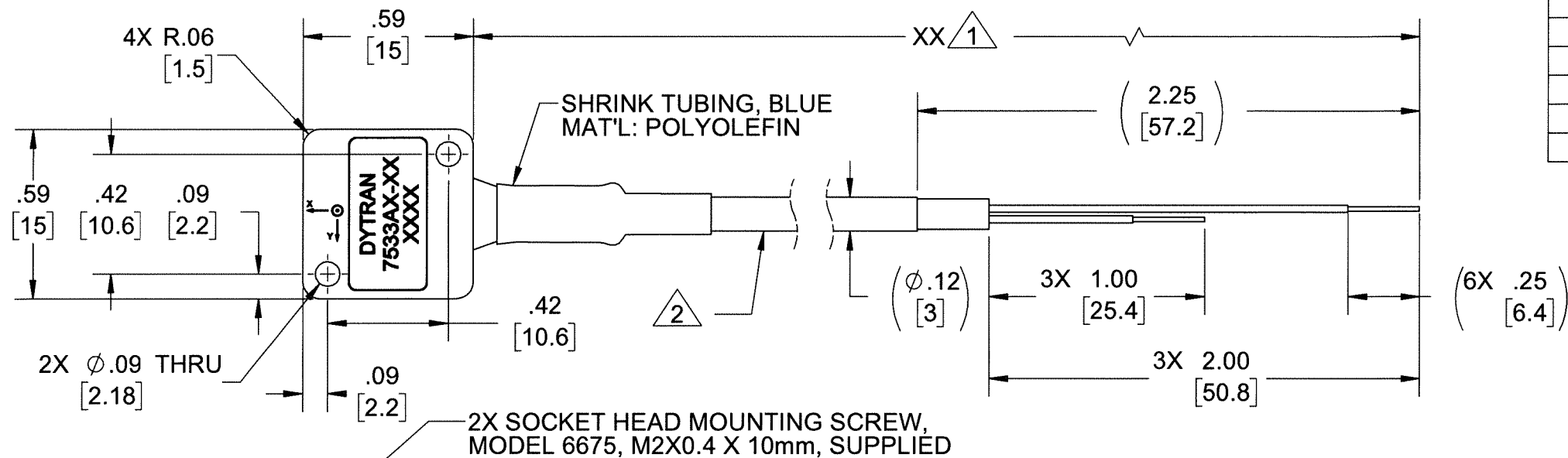
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B

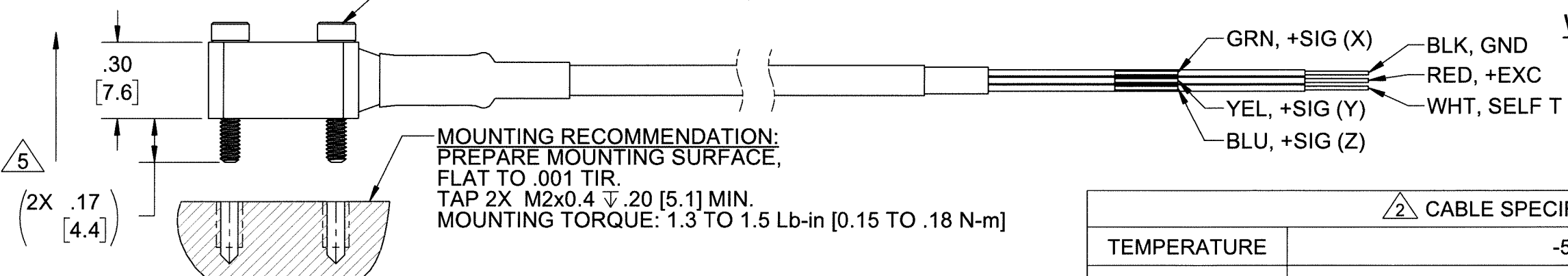
B

A

A



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

- 6. OPERATING TEMPERATURE: -40°F TO +185°F. (-40°C TO +85°C)
  - 5. ARROW INDICATE 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: 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	CHK	APP	DATE
LN	EP	LN	07/03/13
			02/12/16
			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	D

SCALE: 2:1 SHEET 1 OF 1

<b>MODEL NUMBER</b> 7533A2	<b>PERFORMANCE SPECIFICATIONS</b>			<b>DOC NO.</b> PS7533A2
	<b>TRIAxIAL, DC ACCELEROMETER</b>			REV D ECN 15400, 11/11/19



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

**PHYSICAL**

Weight, Max. (less cable)  
Mounting  
Cable  
Housing

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

**PERFORMANCE**

		ENGLISH		SI
Sensitivity, +/-10% [1]		300	mV/g	30.6
Acceleration Range, Min.		±3	Gpeak	±29.4
Frequency Range, -3dB	X,Y axes	0 to 1600	Hz	0 to 1600
	Z-axis	0 to 550	Hz	0 to 550
Resonance Frequency		>5.5	kHz	>5.5
Linearity [2]		±0.3	%F.S.	±0.3
Transverse Sensitivity Max		5	%	5
Spectral Noise	X,Y axes	175	µGrms/√Hz	1717
	Z-axis	300	µGrms/√Hz	2943
Sensitivity Change Due to Temperature		0.006	%/°F	0.01

**ELECTRICAL**

		ENGLISH		SI
Supply Current		300	µA	300
Supply Voltage Range		4 to 28	VDC	4 to 28
Output impedance, Typ.		100	Ω	100
Output Bias Voltage	X,Y axes	1.35 to 1.65	VDC	1.3 to 1.7
	Z-axis	1.2 to 1.8	VDC	1.2 to 1.8
Output Range		±1.0	VDC	±1.0
Self-Test Output [3]	X-axis	-150 to -600	mV	-210 to -850
	Y-axis	+150 to +600	mV	+210 to +850
	Z-axis	+150 to +1000	mV	+210 to +1400
Turn-On Time		1	ms	1

**ENVIRONMENTAL**

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

Model	Sensitivity (mV/g)	Range (Gpeak)	Noise(µGrms/sqr(Hz))	Oper. Temp(°F)
7533A1	420	±2	250	-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

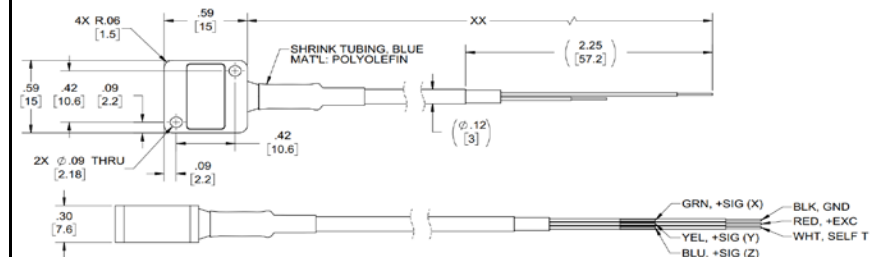
Please, refer to the performance specifications of the products in this family for detailed description

**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
- [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 127-7533A1-XX for more information.



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