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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

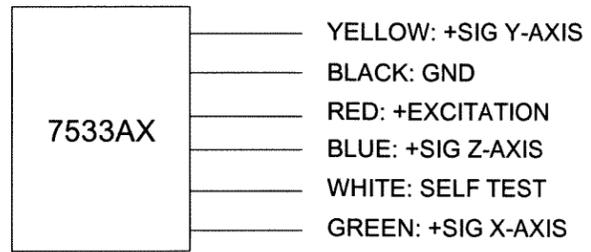
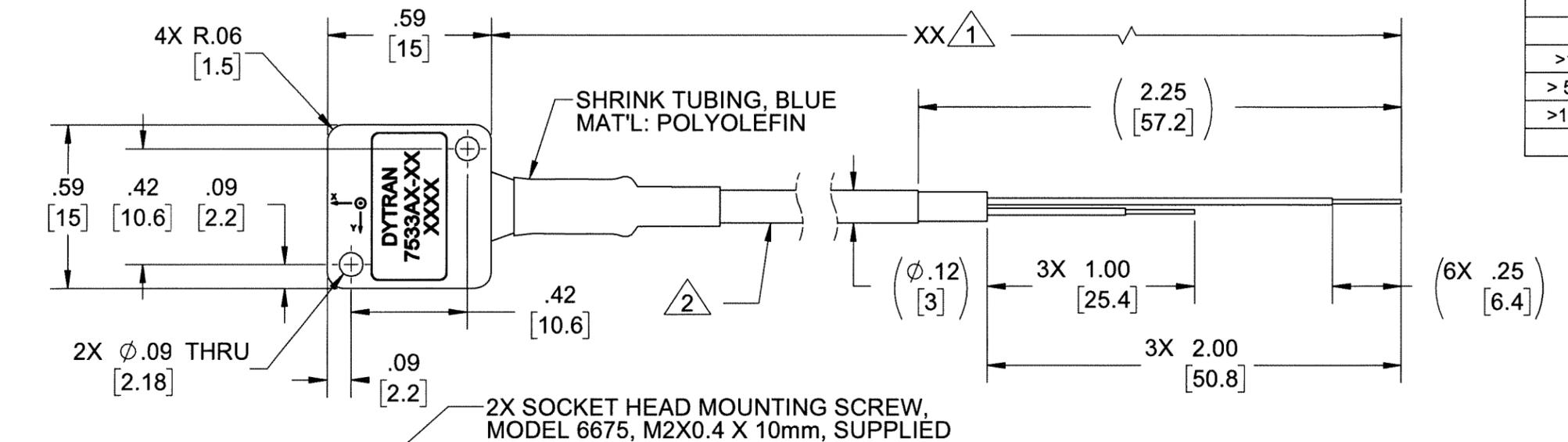


For further information or pricing, please contact us:

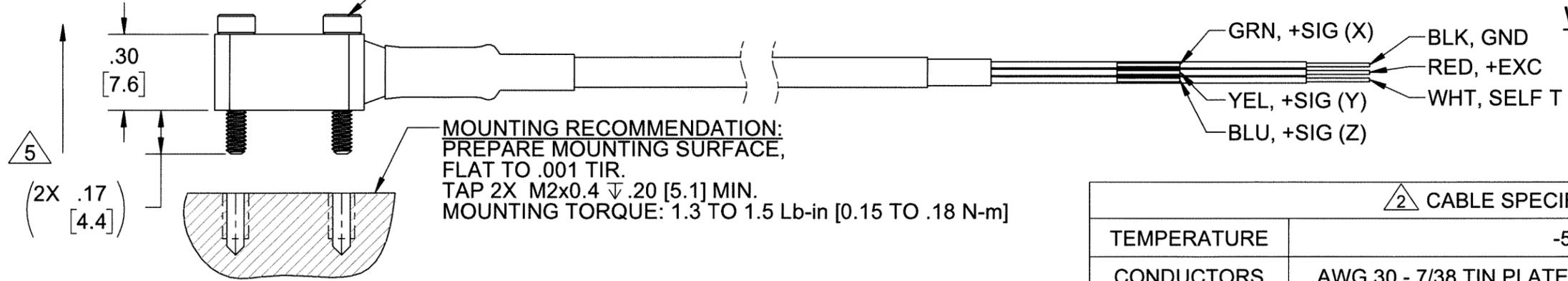
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1 CABLE LENGTH TOLERANCE			
ENGLISH		[METRIC]	
≤1FT	+1/ -0 IN	≤0.3m	+25mm -0mm
>1 FT - 5 FT	+2/ -0 IN	.0.3 m-1.5m	+50mm -0mm
> 5 FT - 10 FT	+4/ -0 IN	>1.5m-3m	+100mm -0mm
>10 FT - 25FT	+6 / -0 IN	>3m-7.5m	+150mm -0mm
>25 FT	+5% / -0%	>7.5m	+5%/-0%



WIRING DIAGRAM



MOUNTING RECOMMENDATION:  
 PREPARE MOUNTING SURFACE,  
 FLAT TO .001 TIR.  
 TAP 2X M2x0.4 ∇.20 [5.1] MIN.  
 MOUNTING TORQUE: 1.3 TO 1.5 Lb-in [0.15 TO .18 N-m]

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 LN 07/03/13, CHK EP 02/12/16, APP LN 02/12/16

DATE: 07/03/13, 02/12/16, 02/12/16

DO NOT SCALE DRAWING

THIRD ANGLE PROJECTION USA

DYTRAN INSTRUMENTS, INC. Chatsworth, CA

MASTER ONLY IF IN RED

TITLE: OUTLINE/INSTALLATION DWG, 7533AX SERIES

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

SCALE: 2:1, SHEET 1 OF 1

<b>MODEL NUMBER</b> <b>7533A1</b>	<b>PERFORMANCE SPECIFICATIONS</b>			<b>DOC NO.</b> <b>PS7533A1</b>
	<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

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 <sup>2</sup>
Acceleration Range, Min.	±2 Gpeak	±19.6	m/s <sup>2</sup> peak
Frequency Range, -3dB	0 to 1600 Hz	0 to 1600	Hz
	X, Y axes		
	Z-axis		
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 <sup>2</sup> 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	1.3 to 1.7 VDC	1.3 to 1.7	VDC
	X, Y axes		
	Z-axis		
Output Range	±0.95 VDC	±0.95	VDC
Self-Test Output [3]	-210 to -850 mV	-210 to -850	mV
	X-axis		
	Y-axis		
	Z-axis		
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 <sup>4</sup>
Vibration Max	5000 g pk	49050	m/s <sup>2</sup>
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

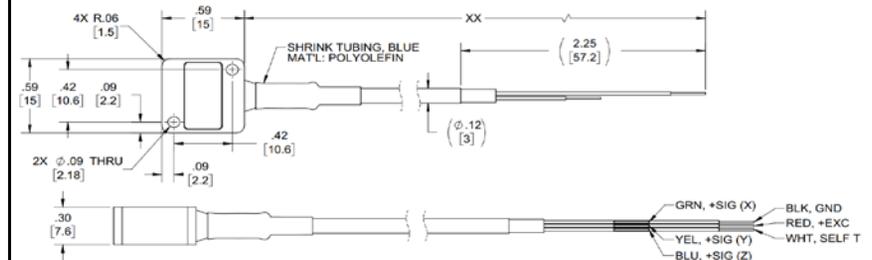
Please, refer to the performance specifications of the products in this family for detailed description

**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
- [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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