

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

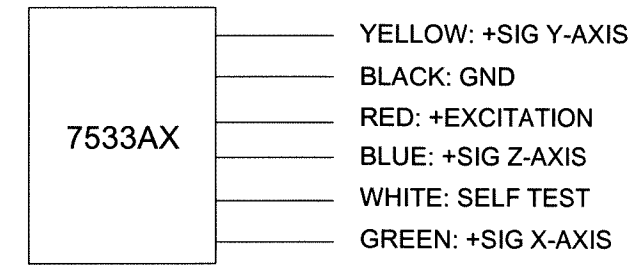
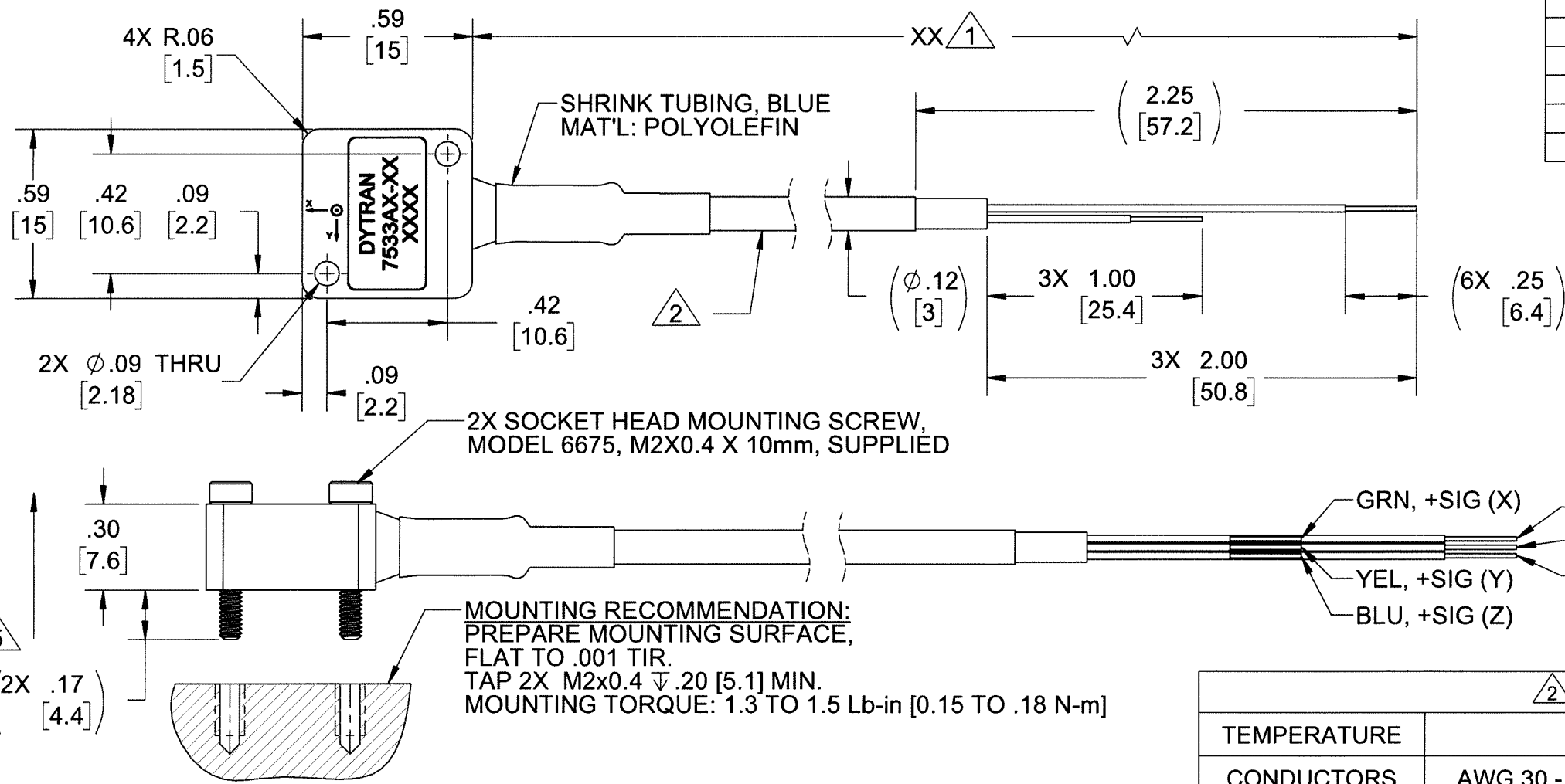
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B

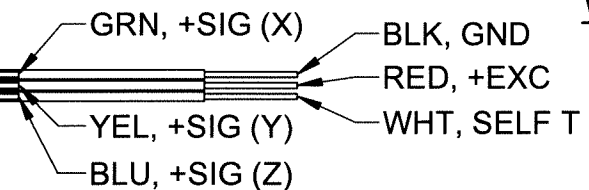
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A

A



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

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

MODEL NUMBER 7533A3	PERFORMANCE SPECIFICATIONS			DOC NO. PS7533A3
	TRIAxIAL , DC ACCELEROMETER			REV D, ECN 15400, 11/08/19



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

PHYSICAL

Weight, Max. (less cable)

Mounting

Cable

Type

Material

Housing

Material

Isolation

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

PERFORMANCE

Sensitivity, +/-10% [1]

Acceleration Range, Min.

Frequency Range, -3dB

X,Y axes

Z-axis

Resonance Frequency

X,Y axes

Z-axis

Linearity [2]

Transverse Sensitivity Max

Spectral Noise

Sensitivity Change Due to Temperature

	ENGLISH		SI	
Sensitivity, +/-10% [1]	174	mV/g	17.7	mV/m/s ²
Acceleration Range, Min.	±5	Gpeak	±49.1	m/s ² peak
Frequency Range, -3dB	0 to 1600	Hz	0 to 1600	Hz
	0 to 550	Hz	0 to 550	Hz
Resonance Frequency	>4.5	kHz	>4.5	kHz
	>2.5	kHz	>2.5	kHz
Linearity [2]	±0.21	%F.S.	±0.21	%F.S.
Transverse Sensitivity Max	5	%	5	%
Spectral 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 Bias Voltage

Output Range

Self-Test Output [3]

X-axis

Y-axis

Z-axis

Turn-On Time

	ENGLISH		SI	
Supply Current	350	µA	350	µA
Supply Voltage Range	4 to 28	VDC	4 to 28	VDC
	100	Ω	100	Ω
Output Bias Voltage	1.3 to 1.7	VDC	1.3 to 1.7	VDC
Output Range	±0.975	VDC	±0.975	VDC
Self-Test Output [3]	-90 to -350	mV	-90 to -350	mV
	+90 to +350	mV	+90 to +350	mV
	+90 to +580	mV	+90 to +580	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)
7533A1	420	±2	250	-40 to 185
7533A2	300	±3	175(x,y); 300(z)	-40 to 185
7533A4	57	±16	300	-40 to 185
7533A5	6.5	±200	2700(x,y); 4300(z)	-40 to 185

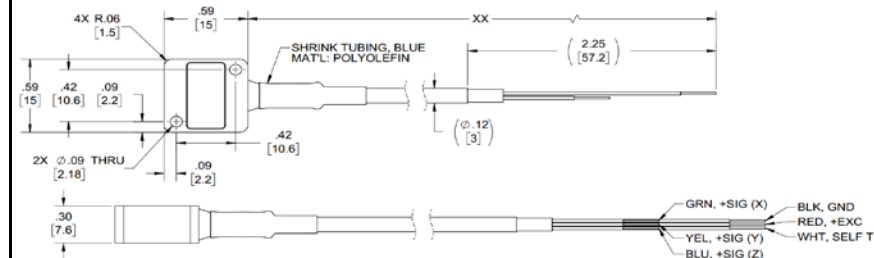
Please, refer to the performance specifications of the products in this family for detailed description

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 the 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.



21592 Marilla Street, Chatsworth, California 91311 Phone: 818.700.7818 Fax:818.700.7880 www.dytran.com For permission to reprint this content, please contact info@dytran.com