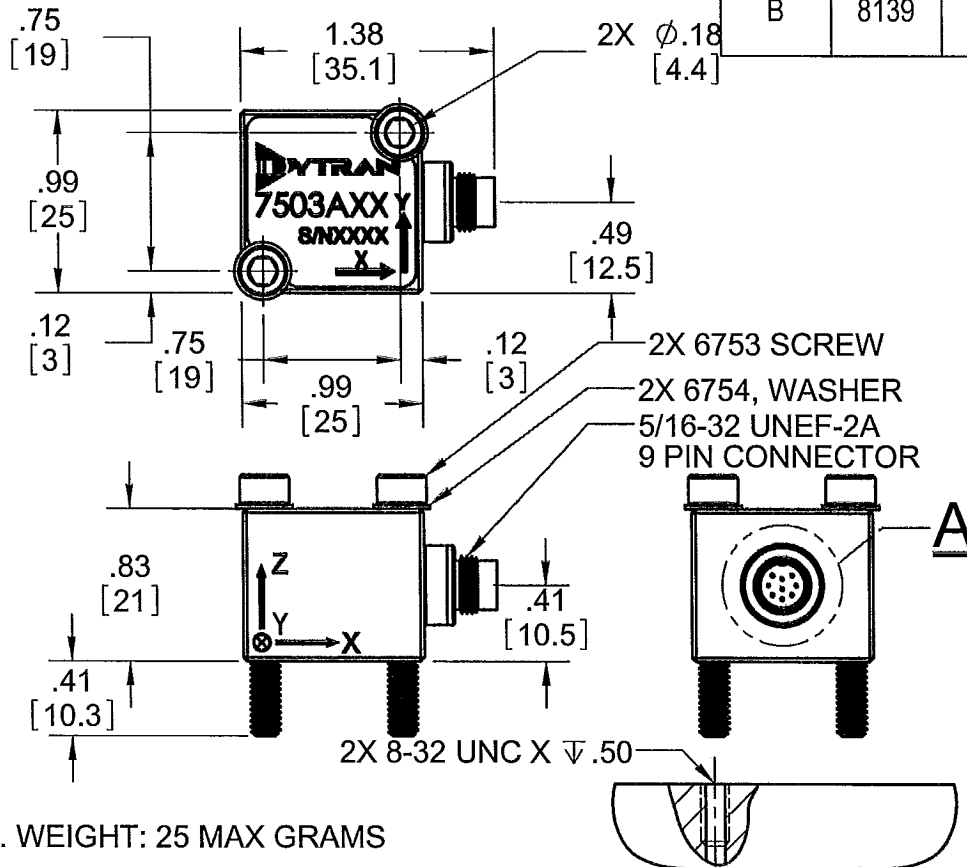


**PROPRIETARY AND CONFIDENTIAL**

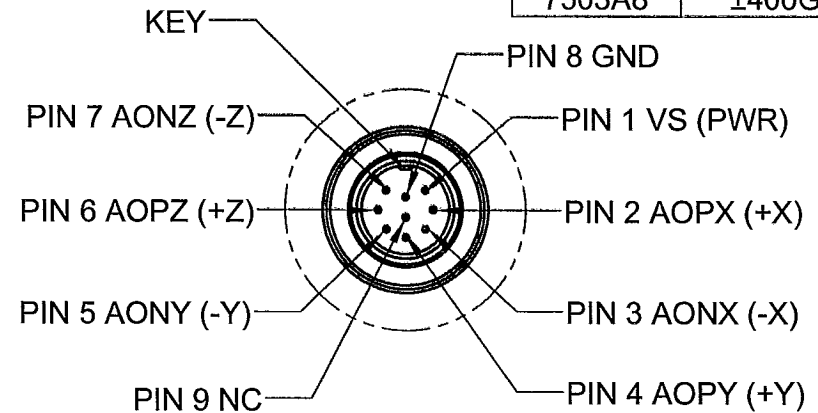
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**REVISIONS**

REV	ECN	DESCRIPTION	BY/DATE	CHK	APPR
A	6510	INITIAL RELEASE	RA 08/25/11	DV	ANS
B	8139	6753 WAS: 6972, 6754 WAS: 6973, 2X 8-32 UNC $\nabla$ .50 WAS: 6-32 UNC X $\nabla$ .38	JS 12/19/11		ANS



MODEL	RANGE
7503A1	$\pm 2G$
7503A2	$\pm 5G$
7503A3	$\pm 10G$
7503A4	$\pm 25G$
7503A5	$\pm 50G$
7503A6	$\pm 100G$
7503A7	$\pm 200G$
7503A8	$\pm 400G$



**DETAIL A**

1. WEIGHT: 25 MAX GRAMS

NOTES: UNLESS OTHERWISE SPECIFIED.

USED ON	NEXT ASSY
APPLICATION	
THIRD ANGLE PROJECTION USA	
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. THDS PER MIL-S-7742. 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: INCHES    METRIC    ANGLES .XX $\pm$ .03    .X $\pm$ 0.8 $\pm 1^\circ$ .XXX $\pm$ .010    .XX $\pm$ 0.25	MATERIAL
	FINISH
DO NOT SCALE DRAWING	

CONTRACT NO.		
APPROVALS		DATE
ORIG	RA	05/03/11
CHK	DV	09/12/11
APP	ANS	09/13/11
APP		

**DYTRAN INSTRUMENTS, INC.** **MASTER ONLY IF IN RED** Chatsworth, CA

TITLE: **OUTLINE/INSTALLATION DRAWING, TRIAXIAL ACCELEROMETER, 7503A SERIES**

SIZE	CAGE CODE	DWG. NO.	REV
<b>A</b>	<b>2W033</b>	<b>127-7503A</b>	<b>B</b>

SCALE: NONE      SOLIDWORKS      SHEET 1 OF 1

<b>Model Number</b> 7503A1	<b>PERFORMANCE SPECIFICATION</b>	<b>DOC NO</b> <b>PS7503A1</b>
	<b>TRIAxIAL VARIABLE CAPACITANCE ACCELEROMETER</b>	REV A, ECN 6510, 09/01/11



- VARIABLE CAPACITANCE TECHNOLOGY
- DIFFERENTIAL MODE
- HERMETICALLY SEALED
- DC RESPONSE

**PHYSICAL**

	ENGLISH		SI	
Weight, Max	0.9	oz	25	grams
Connector	5/16-32 UNEF-2A		5/16-32 UNEF-2A	
Material	Ti-6Al-4V		Ti-6Al-4V	

**PERFORMANCE**

	ENGLISH		SI	
Input Range	±2	g	±19.62	m/s <sup>2</sup>
Frequency Response (3dB), Nom	0 - 400	Hz	0 - 400	Hz
Sensitivity Differential, ±5% [1]	1000	mV/g	102	mV/m/s <sup>2</sup>
Output Noise, Differential, Typ	12	µg rms/√Hz	118	µm/s <sup>2</sup> /√Hz
Non-Linearity, Max [2]	0.5	% F.S	0.5	% F.S
Cross Axis Sensitivity, Max	3	%	3	%

**ENVIRONMENTAL**

	ENGLISH		SI	
Maximum Mechanical Shock (0.1 ms)	±5000	gpk	±49050	m/s <sup>2</sup> peak
Bias Temperature Shift, Max [3]	111	(ppm of span)/°F	200	(ppm of span)/°C
Bias Calibration Error, Max	4	% of span	4	% of span
Operating Temperature Range	-67 to +221	°F	-55 to +105	°C
Scale Factor Temperature Shift [3]	-139 to +83	ppm/°F	-250 to +150	ppm/°C
Seal	Hermetic		Hermetic	

**ELECTRICAL**

	ENGLISH		SI	
Output Common Mode Voltage, Typ	2.5	VDC	2.5	VDC
Output Impedence, Nom	1	Ω	1	Ω
Operating Voltage	9 to 26	VDC	9 to 26	VDC
Operating Current (AOP & AON open), Max	30	mA Dc	30	mA Dc
Power Supply Rejection Ratio	>65	dB	>65	dB

**This family also includes:**

Model	Input Range (g)	Frequency response (Hz)	Sensitivity Differential, ±15% (mV/g)	Max.Shock (0.1ms)	Noise Differential (µg/√Hz)
7503A2	±5	0-600	400	5000	14
7503A3	±10	0-1000	200	5000	15
7503A4	±25	0-1500	80	5000	38
7503A5	±50	0-2000	40	5000	75
7503A6	±100	0-2500	20	5000	150
7503A7	±200	0-3000	10	5000	300

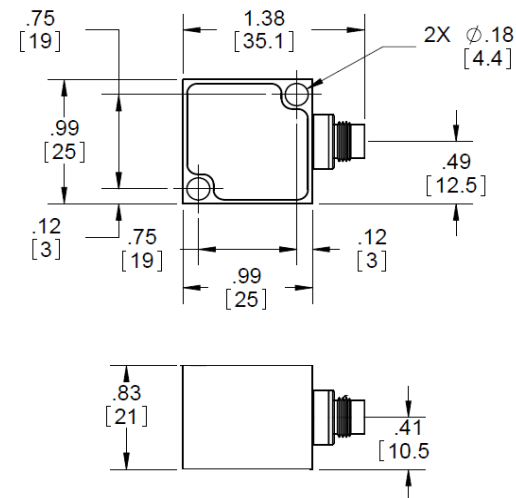
Refer to the performance specifications of the products in this family for detailed description.

**Supplied Accessories:**

- 1) Accredited calibration certificate (ISO 17025)
- 2) Mounting screw model 6972, qty 2
- 3) Mounting washer model 6973, qty 2

**Notes:**

- [1] Single ended sensitivity is half of values shown.
- [2] -90% to +90% of Full Scale.
- [3] Over the rated temperature range.
- [4] In the interest of constant product improvement, we reserve the right to change specifications without notice.



Units on the line drawing are in inches. Refer to 127-7503A for more information.



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