

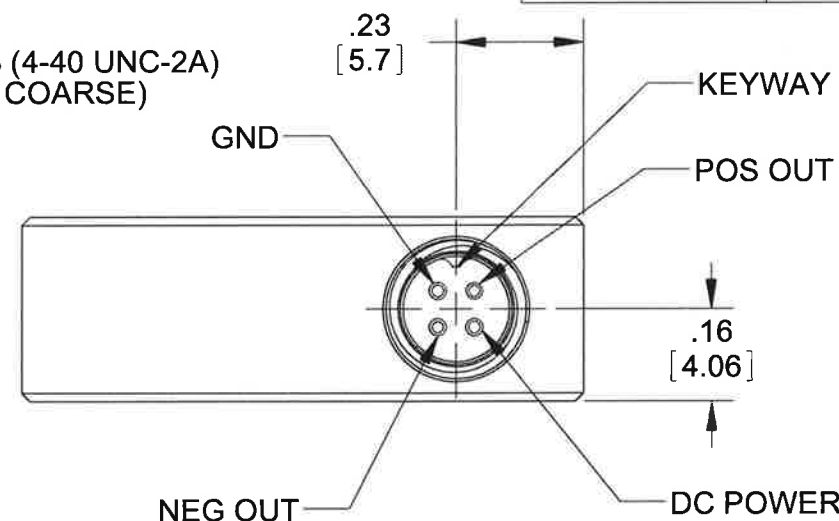
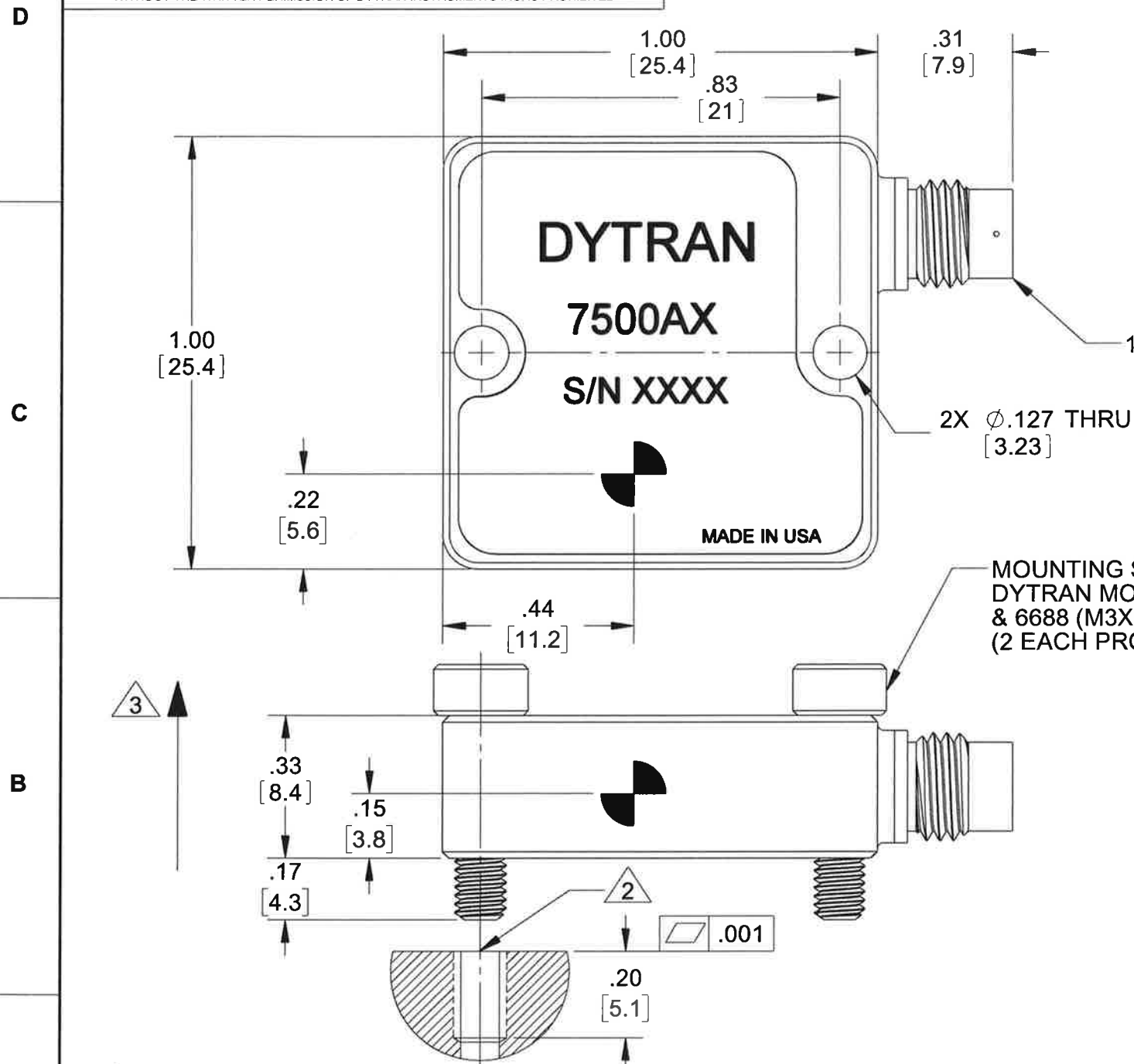
PROPRIETARY AND CONFIDENTIAL

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REVISIONS

REV.	ECN	DESCRIPTION	BY/DATE	CHK	APPR
B	5839	.31 WAS: .24	JS 03/12/09	RA	DV
C	8563	ADDED "MADE IN USA" MARKING	JS 04/27/12	LN	DV
D	9573	ADDED MOUNTING SCREW DYTRAN MODEL 6868 (2 PROVIDED)	RA, 02/08/13	LN	DV
E	11218	ADDED NOTE 2 & 2X 6688 M3 SCREW	EC 08/08/14	JS	EP
F	13122	ADDED: NOTE 3; AND ZONE B4 DRAWING REFERENCE	LA 12/02/16	RA	LN
G	13283	ZONE C4 ADDED: .22 [5.6], ZONE B4 ADDED: .44 [11.2] & .15 [3.8]	LA 02/20/17	RA	LN

MODEL NO.	REV	ECN	DATE	RANGE
7500A1	G	13283	02/20/17	2g
7500A2	G	13283	02/20/17	5g
7500A3	G	13283	02/20/17	10g
7500A4	G	13283	02/20/17	25g
7500A5	G	13283	02/20/17	50g
7500A6	G	13283	02/20/17	100g
7500A7	G	13283	02/20/17	200g
7500A8	G	13283	02/20/17	400g



3 ARROW INDICATES DIRECTION FOR POSITIVE OUTPUT.

2 MOUNTING RECOMMENDATIONS: PREPARE A SURFACE TO A FLATNESS EQUAL OR BETTER THAN .0001 TIR. TAP 4-40 UNC-2B ∇.200 MIN. OR TAP M3X.5 ISO 6H COARSE ∇5.1 MIN. RECOMMENDED TORQUE 10-12 LB-IN.

1. DIMENSIONS IN BRACKETS [X.XX] ARE IN MILLIMETERS.

NOTES: UNLESS OTHERWISE SPECIFIED

<small>UNLESS OTHERWISE SPECIFIED: INTERPRET DIM &amp; 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.</small>	<small>UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES. DIMENSIONS IN BRACKETS [ ] ARE IN MILLIMETERS TOLERANCES ARE:</small>				<b>TITLE: OUTLINE/INSTALLATION DRAWING, VARIABLE CAPACITANCE ACCELEROMETER</b>																		
	<small>DECIMALS .XX ±.03 .XXX ±.010</small>	<small>METRIC .X ±0.8 .XX ±0.25</small>					<small>ANGLES ±1°</small>																
	<table border="1"> <tr><th colspan="2">APPROVALS</th><th>DATE</th></tr> <tr><td>ORIG</td><td>TMD</td><td>8/16/06</td></tr> <tr><td>CHK</td><td>CES</td><td>05/23/07</td></tr> <tr><td>APP</td><td>CES</td><td>05/23/07</td></tr> </table>	APPROVALS		DATE	ORIG	TMD	8/16/06	CHK	CES	05/23/07	APP	CES	05/23/07	<table border="1"> <tr><th>SIZE</th><th>CAGE CODE</th><th>DWG NO</th><th>REV</th></tr> <tr><td>B</td><td>2W033</td><td>127-7500A</td><td>G</td></tr> </table>		SIZE	CAGE CODE	DWG NO	REV	B	2W033	127-7500A	G
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SIZE	CAGE CODE	DWG NO	REV																				
B	2W033	127-7500A	G																				
<small>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.</small>	<small>DO NOT SCALE DRAWING</small>		<small>SCALE: 4:1</small>	<small>SHEET 1 OF 1</small>																			

Model Number  
7500A2

## PERFORMANCE SPECIFICATION

DOC NO  
PS7500A2

### VARIABLE CAPACITANCE ACCELEROMETER

REV E, ECN 14006, 02/02/18



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

	ENGLISH		SI	
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#### PHYSICAL

Weight, Max  
Connector Type  
Mounting Thru Holes  
Material

0.46	oz	13	grams
4-PIN, 1/4-28 UNF-2A		4-PIN, 1/4-28 UNF-2A	
2 X Ø.13		2 X Ø.13	
Titanium Alloy		Titanium Alloy	

#### PERFORMANCE

Input Range  
Frequency Response (±3dB)  
Resonant Frequency  
Sensitivity Differential, ±10% [1]  
Output Noise, Differential, Typ.  
Non-Linearity, Max. [3]  
Transverse Sensitivity, Max.  
Scale Factor Calibration Error, Max.

±5	g	±49.1	m/s <sup>2</sup>
0 - 400	Hz	0 - 400	Hz
>1500	Hz	>1500	Hz
400	mV/g	40.8	mV/m/s <sup>2</sup>
12	µg rms/√ Hz	118	µm/s <sup>2</sup> /√ Hz
0.5	% Span	0.5	% Span
3	%	3	%
1	%	1	%

#### ENVIRONMENTAL

Maximum Mechanical Shock  
Bias Temperature Shift, Max. [2]  
Bias Calibration Error  
Operating Temperature Range  
Scale Factor Temperature Shift [2]  
Seal

2000	gpk	19620	m/s <sup>2</sup> peak
111	(ppm of span)/°F	200	(ppm of span)/°C
0.5	% of span	0.5	% of span
-67 to +257	°F	-55 to +125	°C
-111 to +111	ppm/°F	-200 to +200	ppm/°C
Hermetic		Hermetic	

#### ELECTRICAL

Output Common Mode Voltage, Typ.  
Output Impedance, Nom.  
Operating Voltage  
Operating Current (AOP & AON open)  
Power Supply Rejection Ratio  
Ground Isolation

2.45	VDC	2.45	VDC
1	Ω	1	Ω
+9 to +32	VDC	+9 to +32	VDC
12 to 14	mA DC	12 to 14	mA DC
>65	dB	>65	dB
>30	MΩ	>30	MΩ

#### This family also includes:

Model	Input Range (g)	Frequency response (Hz)	Sensitivity Differential, ±10% (mV/g)	Max.Shock (gpk)	Noise Differential (µg rms/√Hz)
7500A1	± 2	0-300	1,000	2000	7
7500A3	± 10	0-600	200	5000	18
7500A4	± 25	0-900	80	5000	25
7500A5	± 50	0-1200	40	5000	50
7500A6	± 100	0-1400	20	5000	100
7500A7	± 200	0-1750	10	5000	200
7500A8	± 400	0-2000	5	5000	400

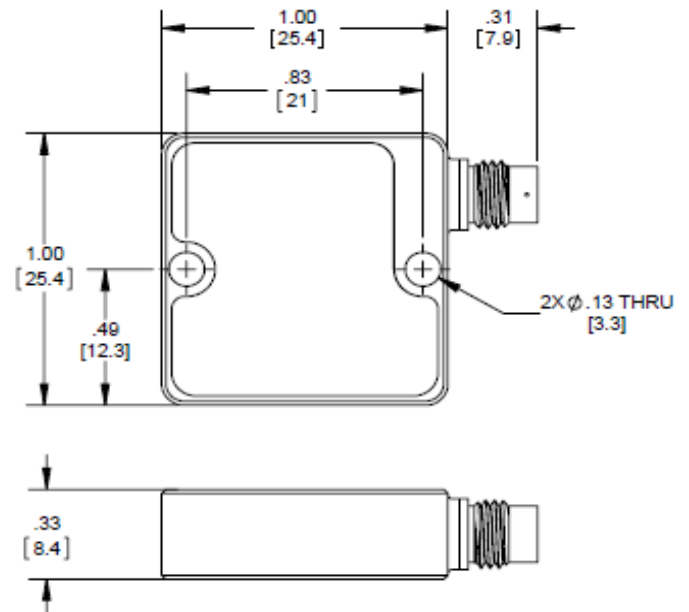
Refer to the performance specifications of the products in this family for detailed description.

#### Supplied Accessories:

- 1) Accredited calibration certificate (ISO 17025)
- 2) Two mounting screws model # 6868 (SHCS, 4-40 X .50)
- 3) Two mounting screws model # 6688 (SHCS, M3 X 0.5 MM)

#### Notes:

- [1] Single ended sensitivity is half of values shown.
- [2] Over the rated temperature range.
- [3] -90% to +90% of Full Scale.
- [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, dimensions in brackets [] are in millimeters. Refer to 127-7500A for more information.



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