

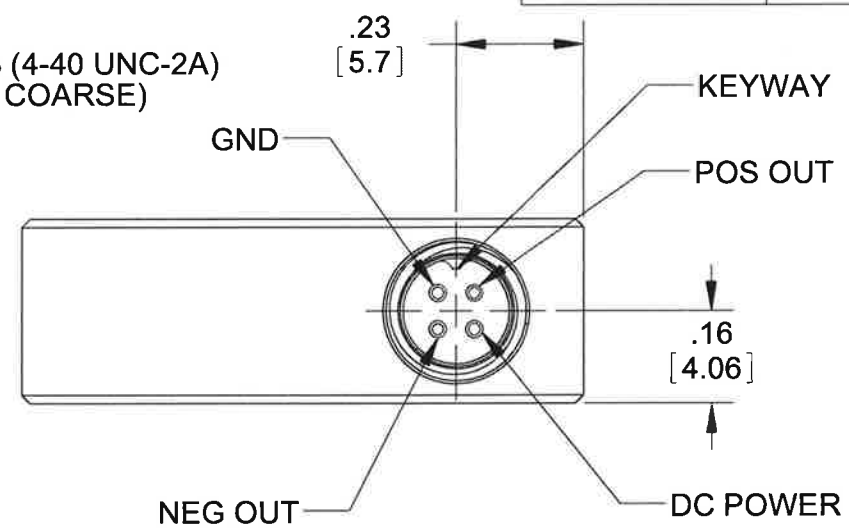
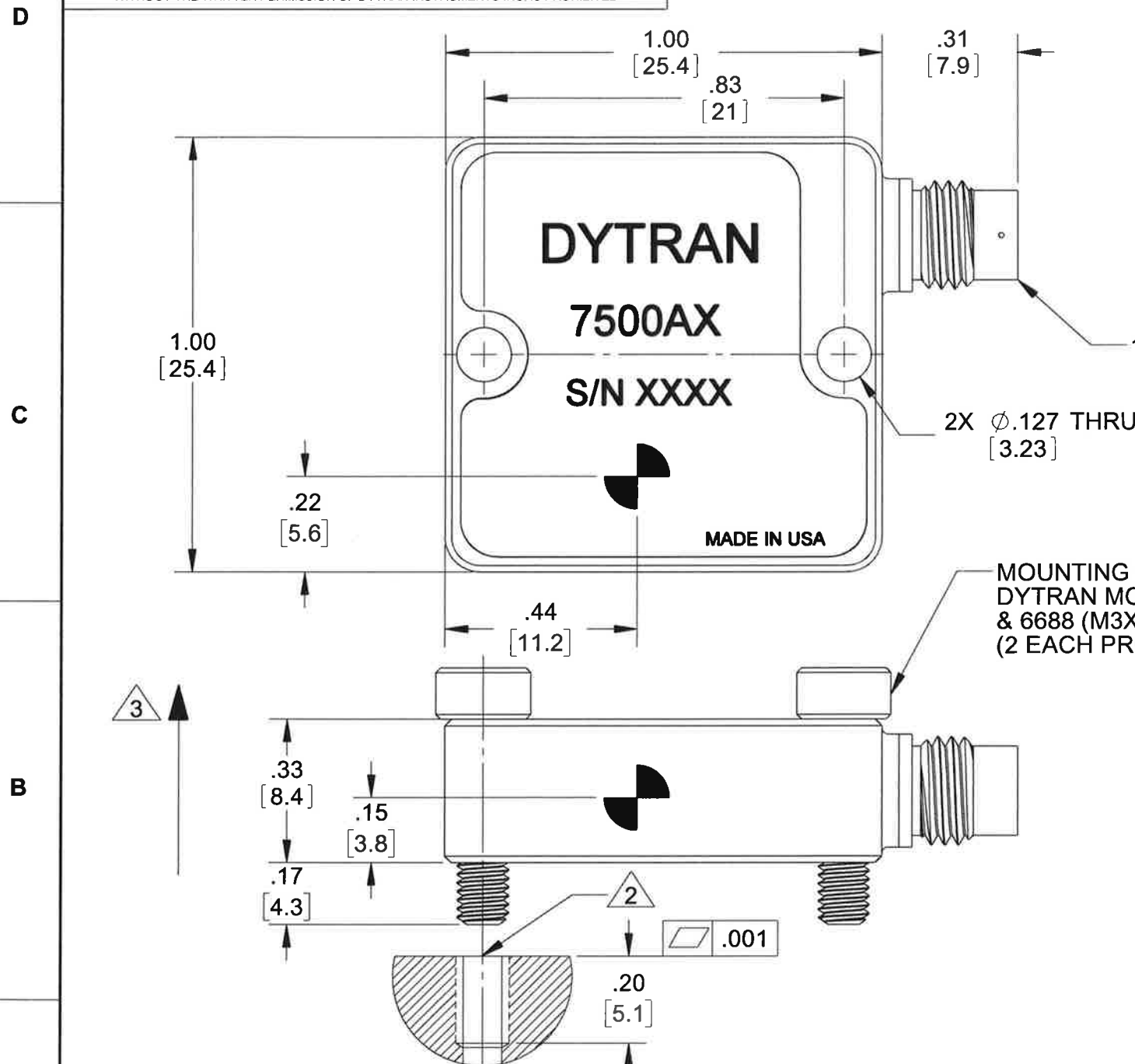
PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DYTRAN INSTRUMENTS INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF DYTRAN INSTRUMENTS INC. IS PROHIBITED

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 & 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>				TITLE: OUTLINE/INSTALLATION DRAWING, VARIABLE CAPACITANCE ACCELEROMETER																		
	<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
	APPROVALS		DATE																				
ORIG	TMD	8/16/06																					
CHK	CES	05/23/07																					
APP	CES	05/23/07																					
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>																			



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

	ENGLISH		SI	
PHYSICAL				
Weight, Max	0.46	oz	13	grams
Connector	4-PIN, 1/4-28 UNF-2A		4-PIN, 1/4-28 UNF-2A	
Mounting	2 X Ø.13		2 X Ø.13	
Material	Titanium Alloy		Titanium Alloy	
PERFORMANCE				
Input Range	±25	g	±245.3	m/s ²
Frequency Response (±5%)	0 - 500		0 - 500	
Frequency Response (±3dB)	0 - 1400		0 - 1400	
Resonant Frequency	>2700		>2700	
Sensitivity Differential, ±10% [1]	80	mV/g	8.2	mV/m/s ²
Output Noise, Differential, Typ.	25	µ g rms/√ Hz	245	µ m/s ² /√ Hz
Non-Linearity, Max. [3]	0.5	% Span	0.5	% Span
Transverse Sensitivity, Max.	3	%	3	%
Scale Factor Calibration Error, Max.	1	%	1	%
ENVIRONMENTAL				
Maximum Mechanical Shock	5000	gpk	49050	m/s ² peak
Bias Temperature Shift, Max. [2]	111	(ppm of span)/°F	200	(ppm of span)/°C
Bias Calibration Error	0.5	% of span	0.5	% of span
Operating Temperature Range	-67 to +257		-55 to +125	
Scale Factor Temperature Shift [2]	-111 to +111		-200 to +200	
Seal	Hermetic		Hermetic	
ELECTRICAL				
Output Common Mode Voltage, Typ.	2.45	VDC	2.45	VDC
Output Impedance, Nom.	1	Ω	1	Ω
Operating Voltage	+9 to +32		+9 to +32	
Operating Current (AOP & AON open)	<12		mA DC	
Power Supply Rejection Ratio	>65		dB	
Ground Isolation	>30		MΩ	

This family also includes:

Model	Input Range (g)	Frequency Response, ±3dB (Hz)	Sensitivity Differential, ±10% (mV/g)	Max. Shock (gpk)	Noise Differential (µg rms/√Hz)
7500A1	± 2	0-400	1,000	2000	7
7500A2	± 5	0-500	400	2000	12
7500A3	± 10	0-1000	200	5000	18
7500A5	± 50	0-2000	40	5000	50
7500A6	± 100	0-2500	20	5000	100
7500A7	± 200	0-3000	10	5000	200
7500A8	± 400	0-4000	5	5000	400

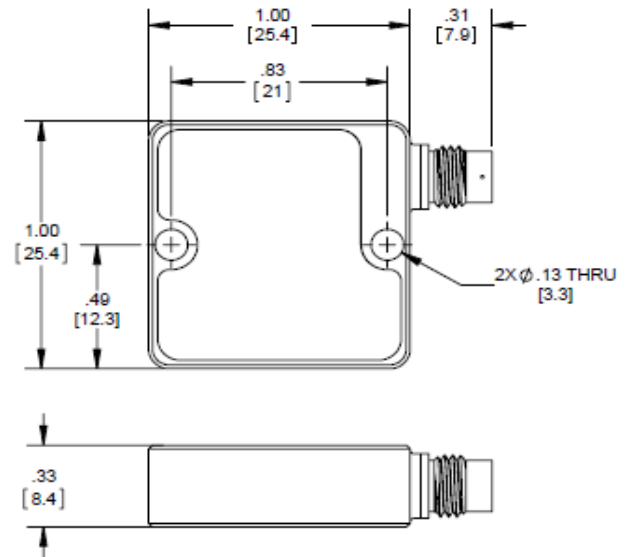
Refer to the performance specifications of the products in this family for detailed description.

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. □
- 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, dimensions in brackets [] are in millimeters. Refer to 127-7500A for more information.

