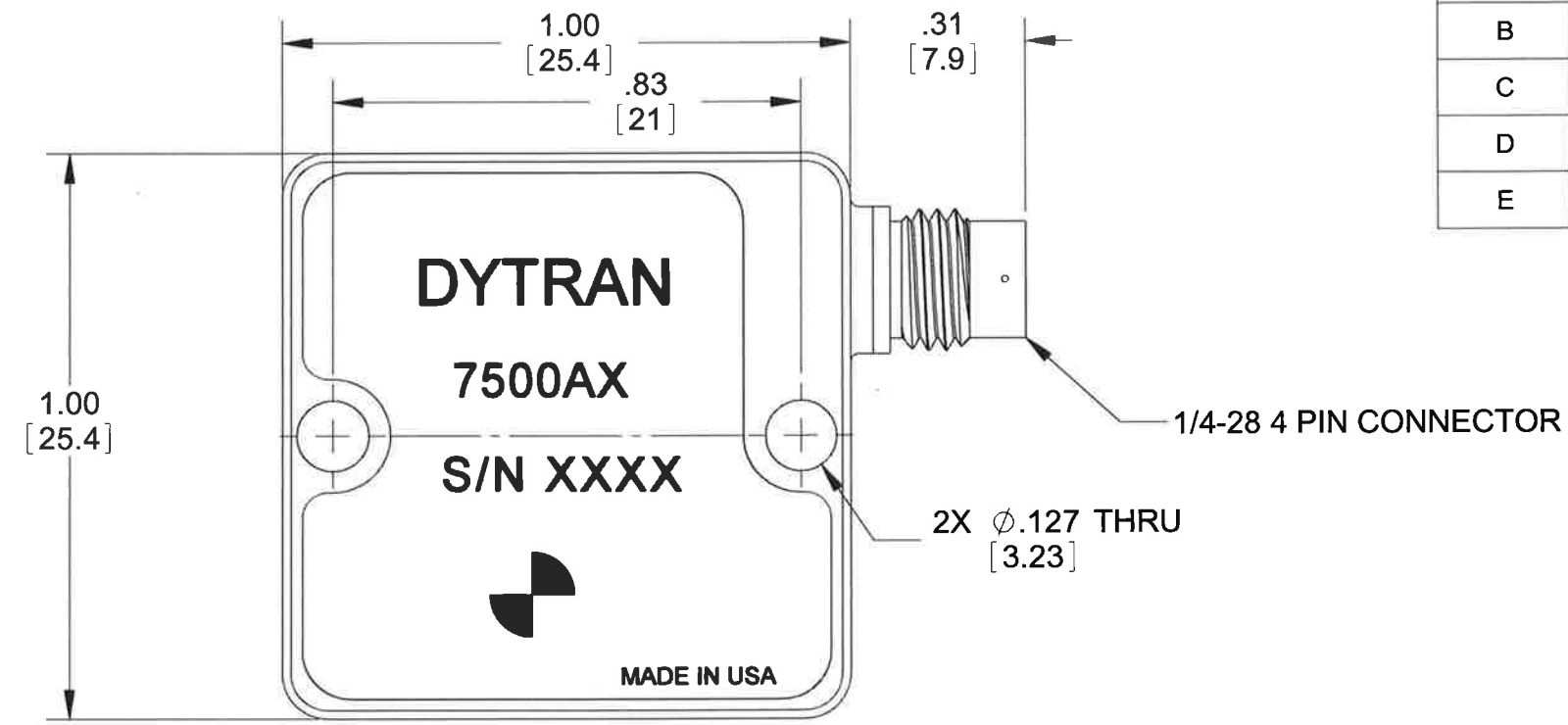
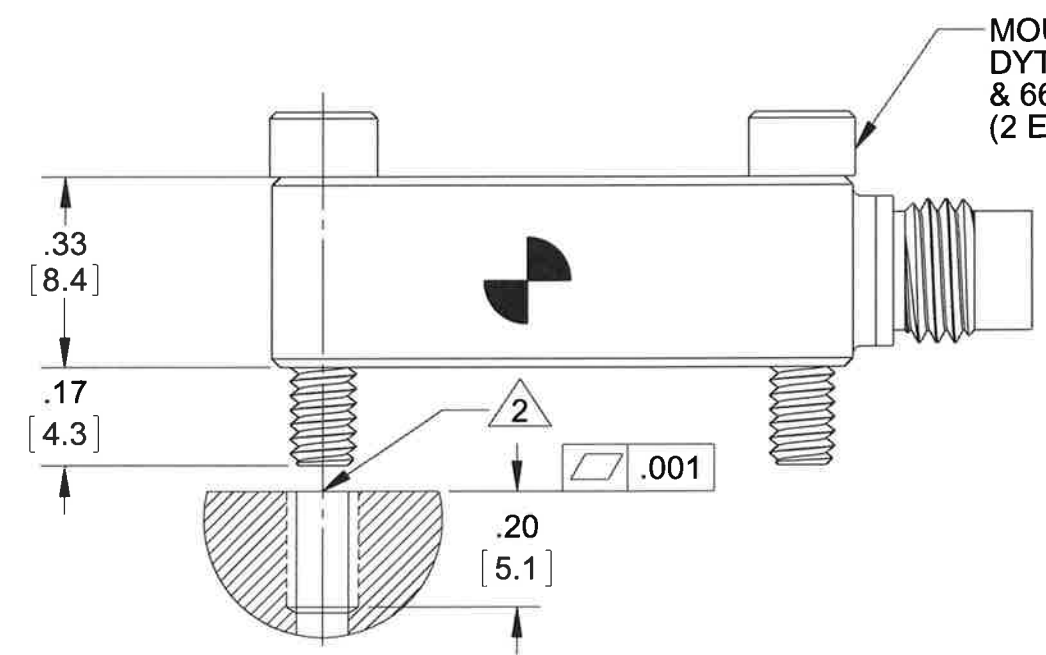


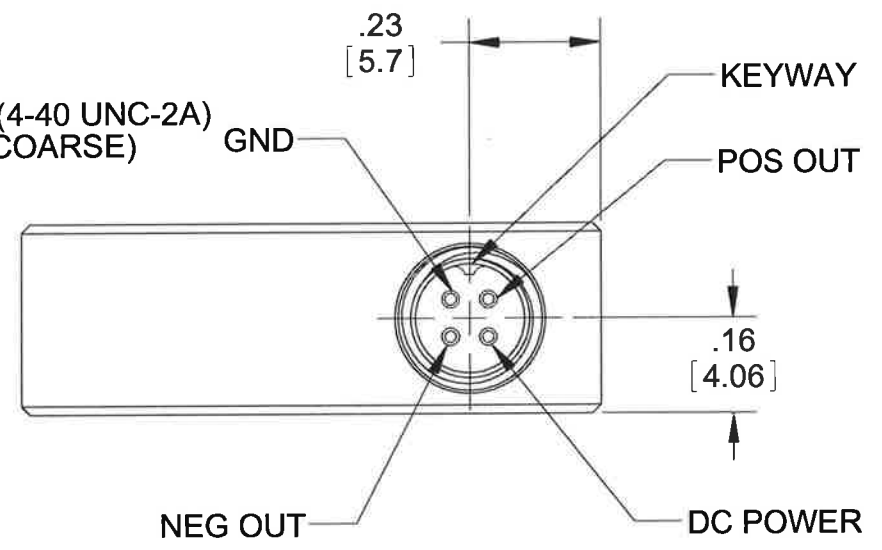
REVISIONS					
REV.	ECN	DESCRIPTION	BY/DATE	CHK	APPR
B	5839	.31 WAS: .24	JS 03/12/09	RA	DV
C	8563	ADDED "MADE IN USA" MARKING	JS 04/27/12	LN	DV
D	9573	ADDED MOUNTING SCREW DYTRAN MODEL 6868 (2 PROVIDED)	RA, 02/08/13	LN	DV
E	11218	ADDED NOTE $\triangle 2$ & 2X 6688 M3 SCREW	EC 08/08/14	JS	ep



MODEL NO.	REV	ECN	RANGE
7500A1	E	11218	2g
7500A2	E	11218	5g
7500A3	E	11218	10g
7500A4	E	11218	25g
7500A5	E	11218	50g
7500A6	E	11218	100g
7500A7	E	11218	200g
7500A8	E	11218	400g



MOUNTING SCREW  
DYTRAN MODEL 6868 (4-40 UNC-2A)  
& 6688 (M3X.5 ISO 6H COARSE)  
(2 EACH PROVIDED)



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

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

DRILL HOLE SIZE	TOLERANCE	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.
.0135 THRU .125	+0.04 / -0.01	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.
.1260 THRU .250	+0.05 / -0.01	
.2510 THRU .500	+0.06 / -0.01	
.5010 THRU .750	+0.08 / -0.01	
.7510 THRU 1.000	+0.10 / -0.01	
1.001 THRU 2.000	+0.12 / -0.01	

THIRD ANGLE PROJECTION  
USA

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES. TOLERANCES ARE: DECIMALS .XX ± .010 .XXX ± .005 ANGLES ± 1°	CONTRACT NO.	
MATERIAL: TITANIUM	APPROVALS	DATE
FINISH:	ORIG	TMD
	CHK	CES
	APP	CES
	APP	DV
DO NOT SCALE DRAWING		

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

TITLE: **OUTLINE/INSTALLATION DRAWING,  
VARIABLE CAPACITANCE  
ACCELEROMETER MODEL 7500A**

SIZE <b>B</b>	CAGE CODE <b>2W033</b>	DWG NO <b>127-7500A</b>	REV <b>E</b>
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SCALE: 4:1      SOLIDWORKS      SHEET 1 of 1

Model Number  
7500A1

## PERFORMANCE SPECIFICATION

DOC NO  
PS7500A1

### VARIABLE CAPACITANCE ACCELEROMETER

REV C, ECN 12401, 03/14/16



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

#### PHYSICAL

Weight, Max  
Connector Type  
Mounting Thru Holes  
Material

	ENGLISH		SI	
Weight, Max	0.46	oz	13	grams
Connector Type	4-PIN, 1/4-28 UNF-2A		4-PIN, 1/4-28 UNF-2A	
Mounting Thru Holes	2 X Ø.13		2 X Ø.13	
Material	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.

	ENGLISH		SI	
Input Range	±2	g	±19.62	m/s <sup>2</sup>
Frequency Response (±3dB)	0 - 400	Hz	0 - 400	Hz
Resonant Frequency	>1100	Hz	>1100	Hz
Sensitivity Differential, ±10% [1]	1,000	mV/g	101.9	mV/m/s <sup>2</sup>
Output Noise, Differential, Typ.	8	µg rms/√Hz	78	µm/s <sup>2</sup> /√Hz
Non-Linearity, Max. [3]	0.5	% Span	0.5	% Span
Transverse Sensitivity, Max.	2	%	2	%
Scale Factor Calibration Error, Max.	2	%	2	%

#### ENVIRONMENTAL

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

	ENGLISH		SI	
Maximum Mechanical Shock	2000	gpk	19620	m/s <sup>2</sup> peak
Bias Temperature Shift, Max. [2]	111	(ppm of span)/°F	200	(ppm of span)/°C
Bias Calibration Error	4	% of span	4	% of span
Operating Temperature Range	-67 to +257	°F	-55 to +125	°C
Scale Factor Temperature Shift [2]	-138.9 to +83.3	ppm/°F	-250 to +150	ppm/°C
Seal	Hermetic		Hermetic	

#### ELECTRICAL

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

	ENGLISH		SI	
Output Common Mode Voltage, Typ.	2.45	VDC	2.45	VDC
Output Impedance, Nom.	1	Ω	1	Ω
Operating Voltage	+9 to +32	VDC	+9 to +32	VDC
Operating Current (AOP & AON open)	12 to 14	mA DC	12 to 14	mA DC
Power Supply Rejection Ratio	>65	dB	>65	dB
Ground Isolation	>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)
7500A2	± 5	0-600	400	2000	9
7500A3	± 10	0-1000	200	2000	10
7500A4	± 25	0-1500	80	2000	25
7500A5	± 50	0-2000	40	2000	50
7500A6	± 100	0-2500	20	2000	100
7500A7	± 200	0-2500	10	2000	200
7500A8	± 400	0-2500	5	2000	400

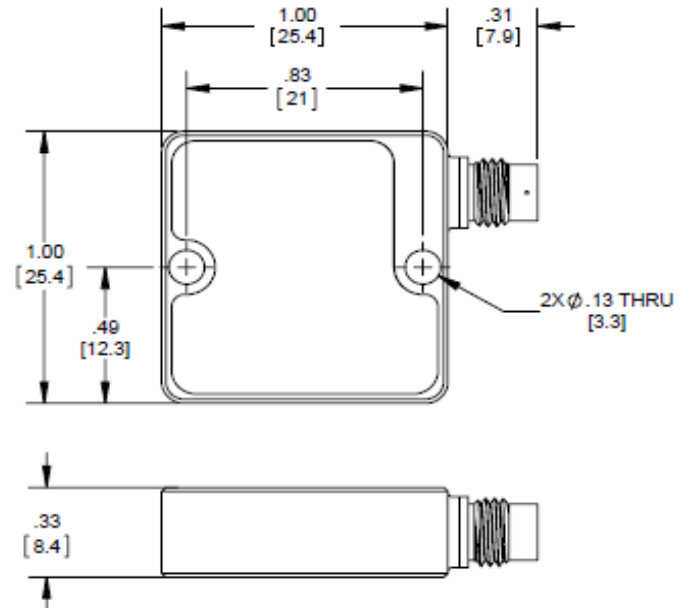
Refer to the performance specifications of the products in this family for detailed description.

#### Supplied Accessories:

- 1) Accredited calibration certificate (ISO 17025)
- 2) Two mounting screws model # 6868

#### 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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