

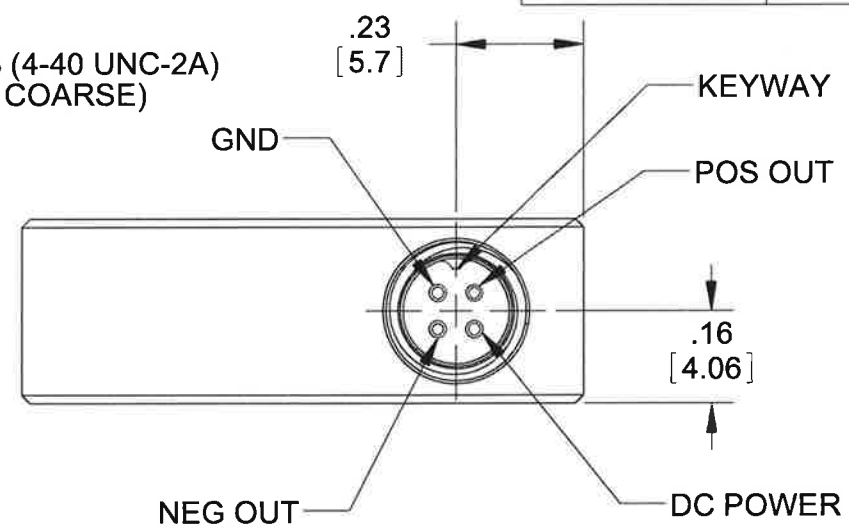
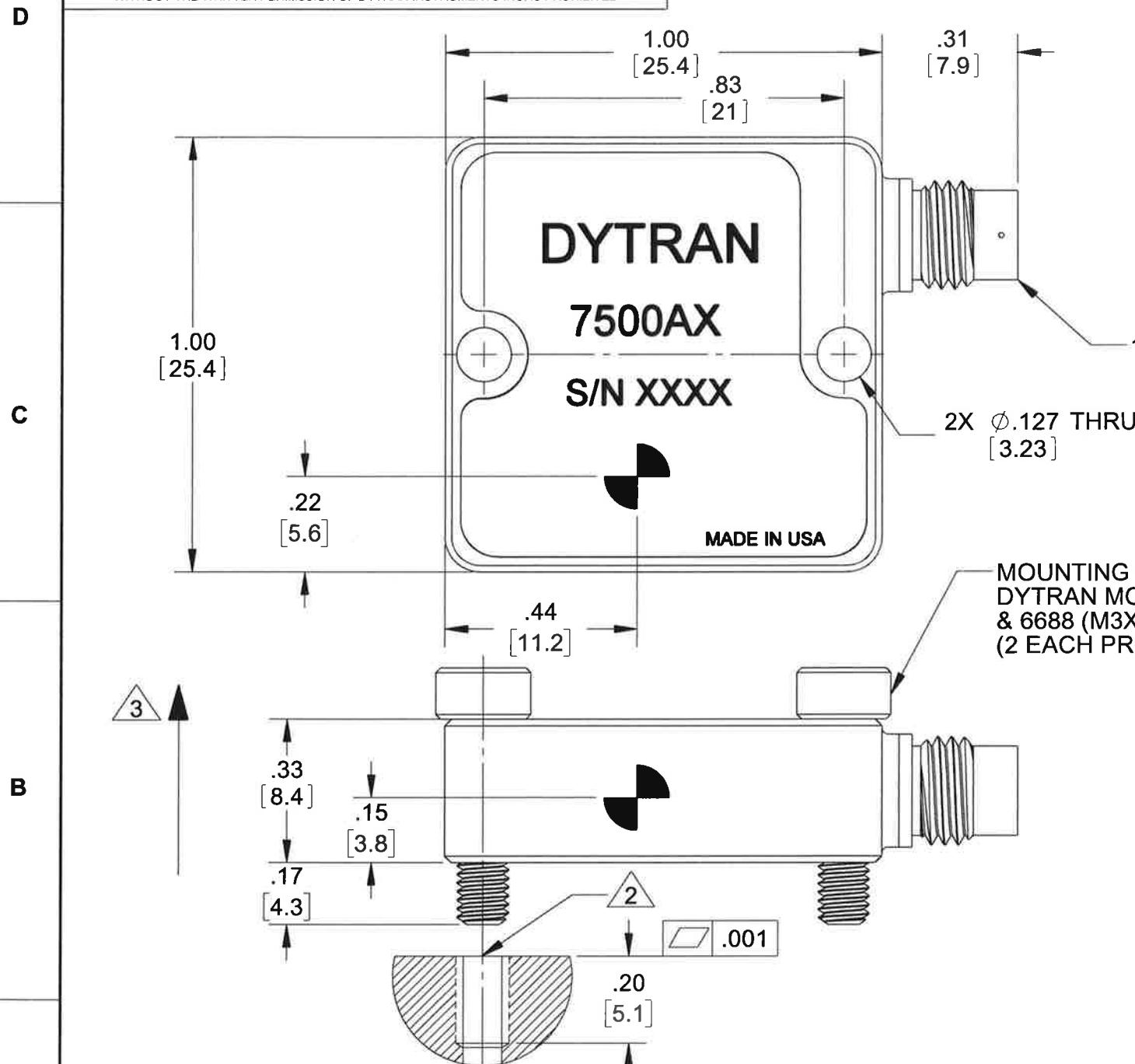
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REVISIONS

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

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.

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:

DECIMALS	METRIC	ANGLES
.XX ±.03	.X ± 0.8	±1°
.XXX ±.010	.XX ±0.25	

APPROVALS		DATE
ORIG	TMD	8/16/06
CHK	CES	05/23/07
APP	CES	05/23/07

DO NOT SCALE DRAWING

THIRD ANGLE PROJECTION USA

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

TITLE: **OUTLINE/INSTALLATION DRAWING, VARIABLE CAPACITANCE ACCELEROMETER**

SIZE	CAGE CODE	DWG NO	REV
B	2W033	127-7500A	G

SCALE: 4:1 SHEET 1 OF 1

Model Number
7500A1

PERFORMANCE SPECIFICATION

DOC NO
PS7500A1

VARIABLE CAPACITANCE ACCELEROMETER

REV E, ECN 14006, 02/02/18



- 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 ²
Frequency Response (±3dB)	0 - 300	Hz	0 - 300	Hz
Resonant Frequency	>1100	Hz	>1100	Hz
Sensitivity Differential, ±10% [1]	1,000	mV/g	101.9	mV/m/s ²
Output Noise, Differential, Typ.	7	µg rms/√ Hz	69	µm/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
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 ² peak
Bias Temperature Shift, Max. [2]	111	(ppm of span)/°F	200	(ppm of span)/°C
Bias Calibration Error	0.5	% of span	4	% of span
Operating Temperature Range	-67 to +257	°F	-55 to +125	°C
Scale Factor Temperature Shift [2]	-111 to +111	ppm/°F	-200 to +200	ppm/°C
Seal	Hermetic		Hermetic	

ELECTRICAL

Output Common Mode Voltage, Typ.
Output Impedence, 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 Impedence, 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	0-400	400	2000	12
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

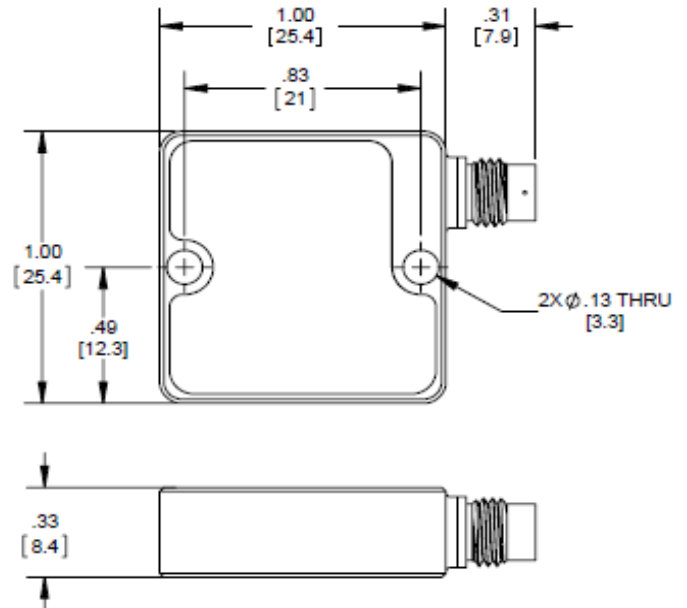
Refer to the performance specifications of the products in this family for detailed description.

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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