

PROPRIETARY AND CONFIDENTIAL

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MODEL	INPUT RANGE
7563A1	±2g
7563A2	±50g
7563A3	±100g
7563A4	±400g

REVISIONS					
REV.	ECN	DESCRIPTION	BY/DATE	CHK	APPR
B	12797	ZONE 2C: 2X Ø.180 THRU WAS: 2X Ø.195 THRU ZONE 3D: 1.000±.005 WAS: 1.00	LN 07/05/16	DV	AS
C	13409	SEE ECN	EP 04/07/17	MH	AS

D

D

C

C

B

B

A

A

CONNECTOR, 4-PIN,  
GLENAIR P/N : 805-006-13Z1 8-4PA

MASTER  
KEYWAY

PIN 1  
COMMON  
POWER (+)

PIN 2  
Y-AXIS (2)  
OUTPUT  
(GND)

PIN 4  
X-AXIS (1)  
OUTPUT  
(GND)

PIN 3  
Z-AXIS (3)  
OUTPUT  
(GND)

.5000-.1P-.3L-TS-2A  
THREAD

1/4-28 UNF-2B

3X Ø.047  
LOCKWIRE HOLES

.48  
[12.1]

.46  
[11.7]

.48  
[12.1]

.83  
[21]

1.000±.005  
[25.40±0.13]

.99  
[25]

.73 MAX  
[18.5 MAX]

.14  
[3.5]

2X Ø.180 THRU  
[4.57]

.14  
[3.5]

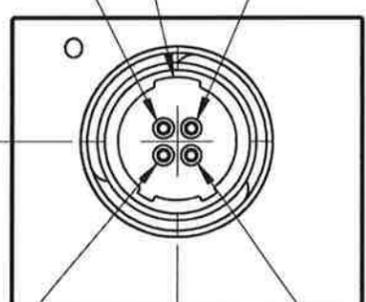
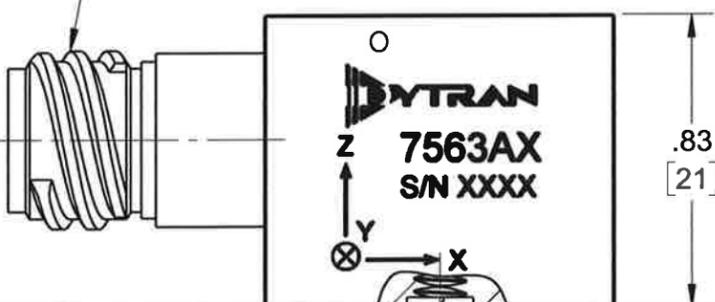
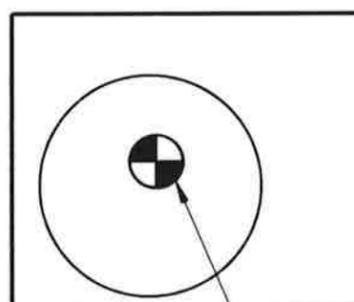
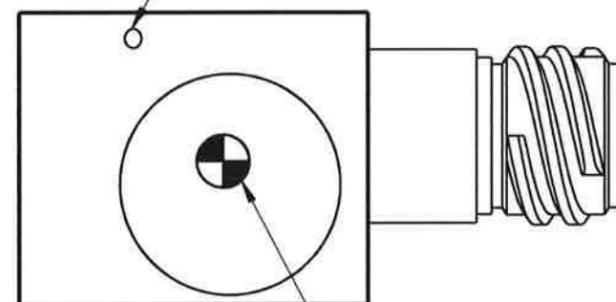
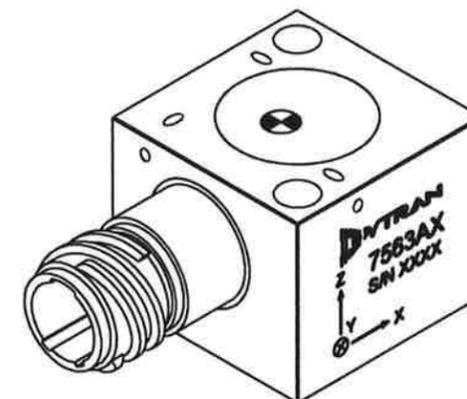
.707  
[17.96]

.99  
[25]

.707  
[17.96]

4 X

4 Y



5. MINOR VOIDS, SCARS, SCRATCHES AND MOUNTING BLEMISH/WITNESS MARKS ON EXTERIOR SURFACES ARE ALLOWED DUE TO RESTRAINING AND HANDLING DURING TESTING, TRANSPORT OR PROCESSING. THESE APPEAR AS INDICATORS THAT DO NOT AFFECT FORM, FIT OR FUNCTION AS INTENDED BY DESIGN OR APPLICATION

4 MARKING DENOTES LOCATION OF SENSING ELEMENT'S CENTER OF MASS

3 MATES WITH GLENAIR P/N: 805-001-16Z1 8-4SA AND 805-002-16Z1 8-4SA

2. WEIGHT: 85 GRAMS, MAX.

1. MATERIAL: 300 SERIES STAINLESS STEEL

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	LN	09/29/15
CHK	EP	06/28/16
APP	DV	06/28/16

DO NOT SCALE DRAWING

**DYTRAN**  
INSTRUMENTS, INC. Chatsworth, CA

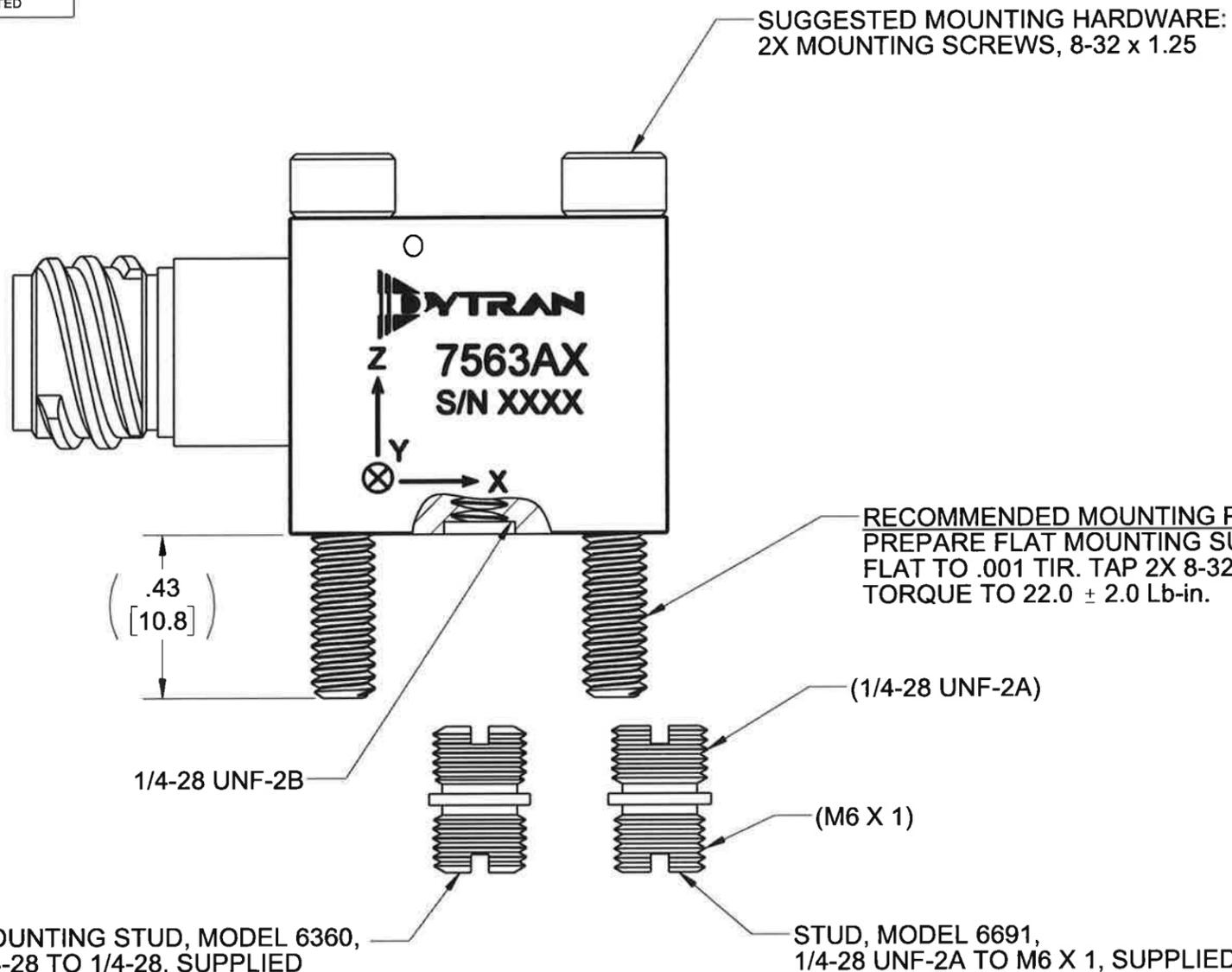
TITLE: **OUTLINE/INSTALLATION DWG,  
TRIAxIAL CVLD ACCEL, 7563A  
SERIES**

SIZE	CAGE CODE	DWG NO	REV
<b>B</b>	<b>2W033</b>	<b>127-7563A1</b>	<b>C</b>

SCALE: 2:1 SHEET 1 OF 2

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SUGGESTED MOUNTING HARDWARE:  
2X MOUNTING SCREWS, 8-32 x 1.25

RECOMMENDED MOUNTING PREPARATION:  
PREPARE FLAT MOUNTING SURFACE, 1.05 [26.7] x 1.05 [26.7] MIN,  
FLAT TO .001 TIR. TAP 2X 8-32 UNF-2B  $\nabla$ .30 [7.6] MIN.  
TORQUE TO 22.0  $\pm$  2.0 Lb-in.

.43  
[10.8]

1/4-28 UNF-2B

(1/4-28 UNF-2A)

(M6 X 1)

MOUNTING STUD, MODEL 6360,  
1/4-28 TO 1/4-28, SUPPLIED

STUD, MODEL 6691,  
1/4-28 UNF-2A TO M6 X 1, SUPPLIED

RECOMMENDED MOUNTING PREPARATION:  
PREPARE FLAT MOUNTING SURFACE, 1.00 [25.4] x 1.00 [25.4] MIN,  
FLAT TO .001 TIR. TAP 1/4-28 UNF-2B  $\nabla$ .200 [5.1] MIN.  
TORQUE TO 12-15 Lb-in.

RECOMMENDED MOUNTING PREPARATION:  
PREPARE FLAT MOUNTING SURFACE, 1.00 [25.4] x 1.00 [25.4] MIN,  
FLAT TO .001 TIR. TAP M6 X 1  $\nabla$ .200 [5.1] MIN.  
TORQUE TO 12-15 Lb-in.



For further information or pricing, please contact us:

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<b>MASTER</b> ONLY IF IN RED			
DYTRAN INSTRUMENTS, INC. Chatsworth, CA			
TITLE: OUTLINE/INSTALLATION DWG, TRIAxIAL CVLD ACCEL, 7563A SERIES			
SIZE <b>B</b>	CAGE CODE 2W033	DWG NO 127-7563A1	REV <b>C</b>
SCALE: 2:1		SHEET 2 OF 2	

Model Number 7563A1	<b>PERFORMANCE SPECIFICATIONS</b>			DOC NO PS7563A1
	VARIABLE CAPACITANCE TRIAXIAL ACCELEROMETER			REV E, ECN 15853, 03/25/20



- VARIABLE CAPACITANCE ACCELEROMETER
- CURRENT OUTPUT
- HERMETICALLY SEALED
- DC RESPONSE
- 4-20 mA LOOP COMPATIBLE

**PHYSICAL**

Weight, Max	Type		
Connector [1]	Thru Holes		
Mounting	Tapped hole		
Material			

ENGLISH		SI	
3.0	oz	85	grams
Receptacle, 4-pin		Receptacle, 4-pin	
2 X Ø.180"		2 X Ø 4.57mm	
1/4-28 UNF-2B		1/4-28 UNF-2B	
300 Series S.S.		300 Series S.S.	

**PERFORMANCE**

Input Range	±2	g	±19.6	m/s <sup>2</sup>
Frequency Response (-3dB), ± 50Hz [4]	0-400	Hz	0-400	Hz
Sensitivity Differential, ±10%	2,500	µA/g	255	µA/m/s <sup>2</sup>
Output Noise, Differential, Typ	5	µ g rms/√ Hz	49	µ m/s <sup>2</sup> /√ Hz
Non-Linearity, Max [2]	0.5	% F.S	0.5	% F.S
Transverse Sensitivity, Max	4	%	4	%
Scale Factor Calibration Error, Max	2	%	2	%

**ENVIRONMENTAL**

Maximum Mechanical Shock	2000	gpk	19620	m/s <sup>2</sup> peak
Bias Temperature Shift ,Max [3]	111	(ppm of span)/°F	200	(ppm of span)/°C
Bias Calibration Error	1.5	% of span	1.5	% of span
Operating Temperature Range	-55 to +257	°F	-48 to +125	°C
Scale Factor Temperature Shift [3]	-111 to 0	ppm/°F	-200 to 0	ppm/°C
Seal	Hermetic		Hermetic	

**ELECTRICAL**

Bias Current	14-15	mA	14-15	mA
Output Impedance, Nom	400	Ω	400	Ω
Operating Voltage	10-36	VDC	10-36	VDC
Operating Voltage Rise Time	< 2	ms	< 2	ms
Full Scale Output	±5	mA	±5	mA
Power Supply Rejection Ratio	>65	dB	>65	dB

**This family also includes:**

Model	Input Range (g)	Frequency response (Hz)	Sensitivity Differential, ±10% (µA/g)	Max.Shock (gpk)	Noise Differential (µg rms/√Hz)
7563A2	± 50	0-2000	100	5000	50
7563A3	± 100	0-2500	50	5000	100
7563A4	± 400	0-2500	12.5	5000	600

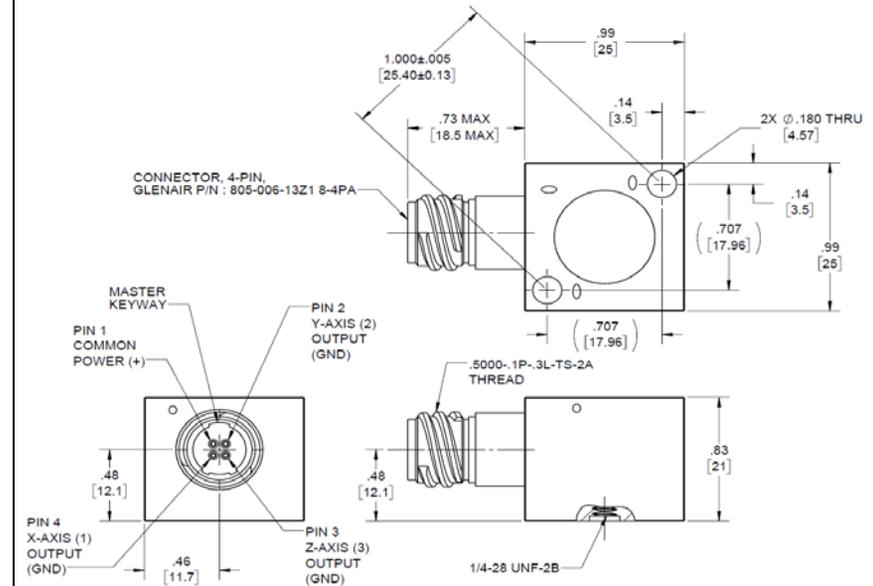
Refer to the performance specifications of the products in this family for detailed description.

**Supplied Accessories:**

- 1) Accredited calibration certificate (ISO 17025)
- 2) Model 6360 mounting stud, 1/4-28 to 1/4-28 . Qty. 1
- 3) Model 6691 mounting stud, 1/4-28 to M6x1 . Qty. 1

**Notes:**

- [1] Glenair P/N 805-006-13Z1 8-4PA. Mates with 805-001-16Z1 8-4SA and 805-002-16Z1 8-4SA
  - [2] -90% to +90% of Full Scale.
  - [3] Over the rated temperature range.
  - [4] When measured with 25 ohm sense resistor.
  - [5] 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 127-7563A1 for more information.



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