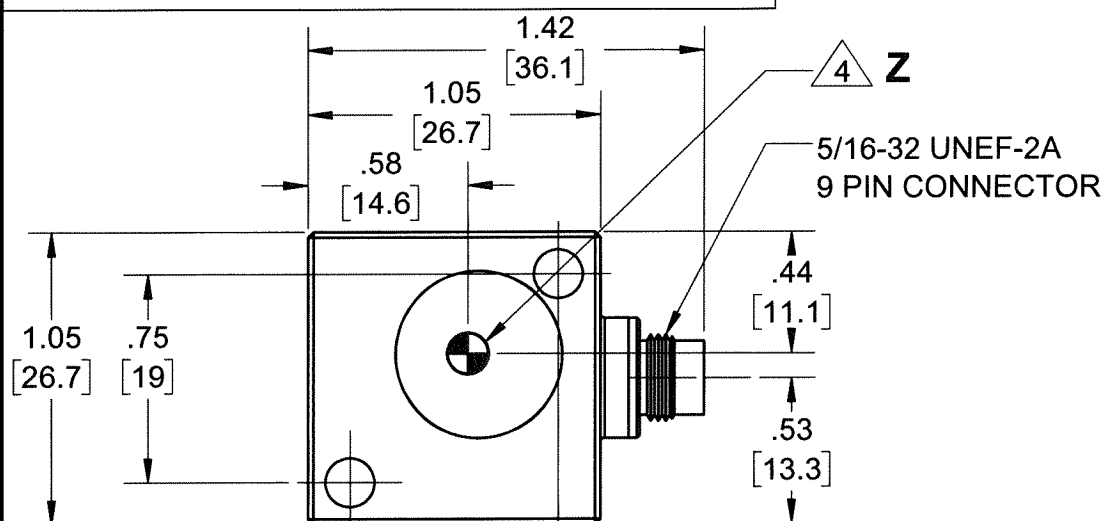


PROPRIETARY AND CONFIDENTIAL

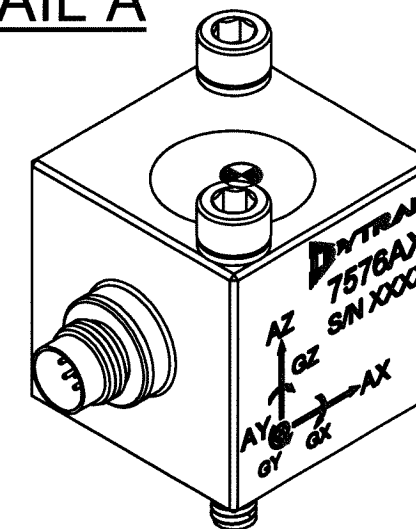
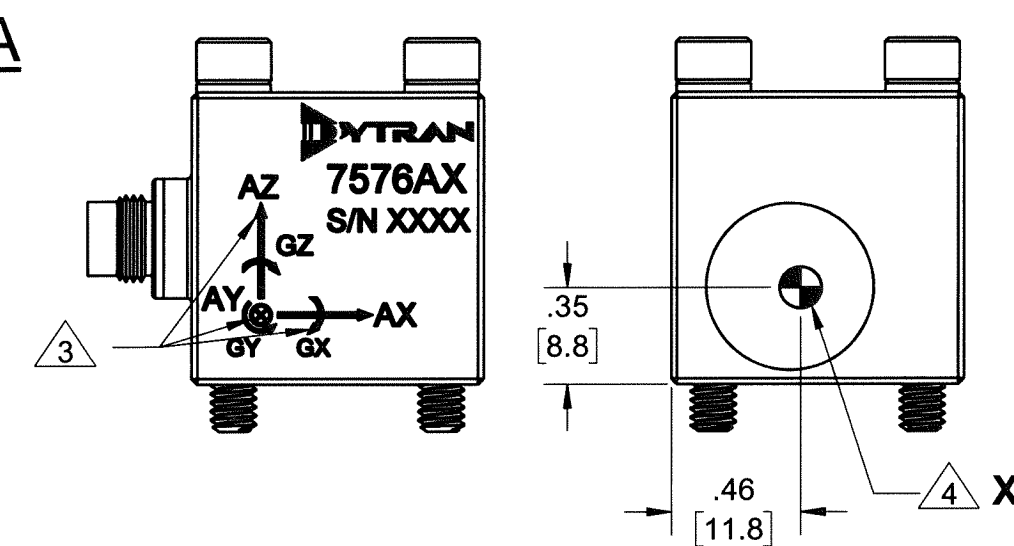
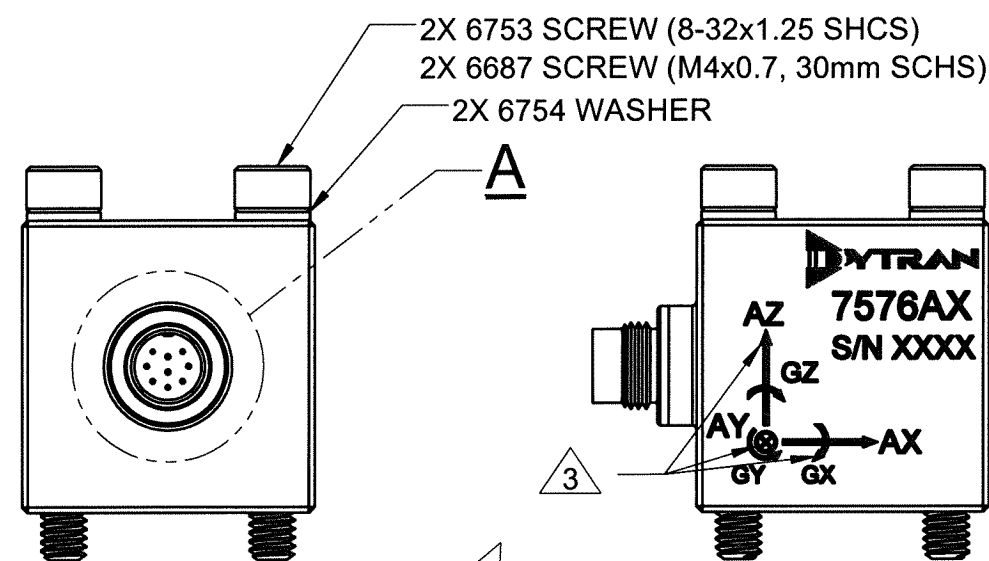
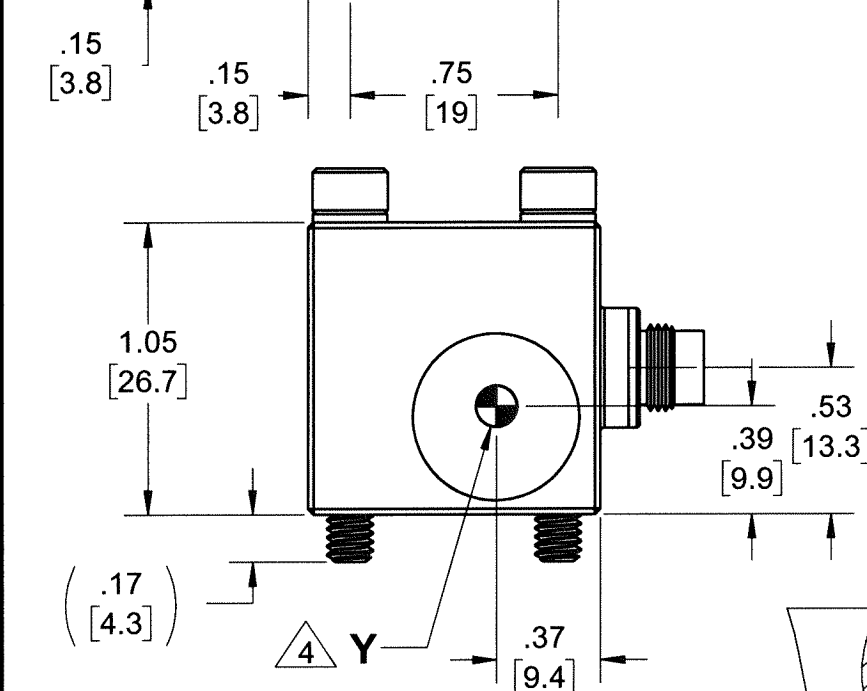
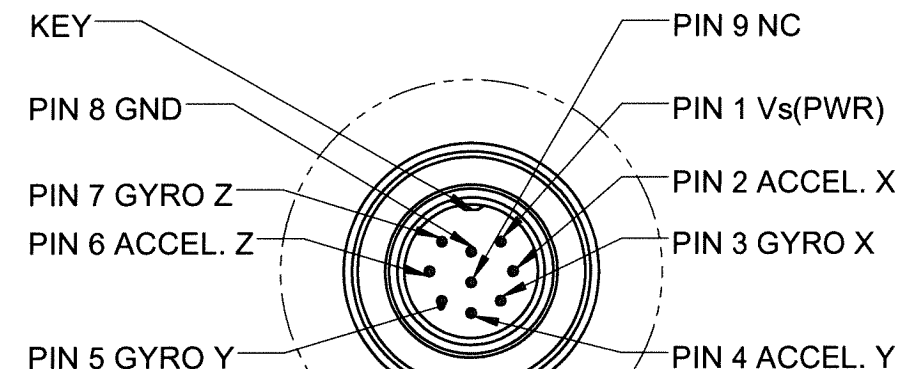
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DYTRAN INSTRUMENTS INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF DYTRAN INSTRUMENTS INC. IS PROHIBITED

REVISIONS

REV	ECN	DESCRIPTION	BY/DATE	CHK	APPR
B	14121	ADDED 7576A6 TO VARIATION TABLE.	NDC 03/22/18	KG	DV
C	14221	SEE ECN	EM 05/29/18	MH	W



MODEL	GYRO RANGE	ACCELEROMETER RANGE
7576A1	±50°/sec	±5G
7576A2	±150°/sec	±10G
7576A3	±250°/sec	±30G
7576A4	±20,000°/sec	±200G
7576A5	±50°/sec	±2G
7576A6	±150°/sec	±2G



RECOMMENDED MOUNTING PREPARATION:  
 PREPARE FLAT MOUNTING SURFACE,  $\phi$  1.50 [ $\phi$  38.1] MIN, FLAT TO .001 TIR.  
 TAP 2X 8-32 UNC-2B  $\nabla$  .45 [11.4] MIN. (OR 2X M4x0.7  $\nabla$  .45 [11.4] MIN.)  
 TORQUE TO 10-12 Lb-in. [1.12 - 1.35 N-m]

5 MATES WITH DYTRAN CABLES: - 6964AXX (9-PIN TO FLYING LEADS)  
 - 6445AXX (9-PIN TO 7 BNC PLUGS)  
 (XX DENOTES LENGTH IN FEET)

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

3 ARROWS INDICATE GYROSCOPIC & ACCELERATION DIRECTIONS FOR POSITIVE OUTPUT

2. MATERIAL: TITANIUM ALLOY

1. WEIGHT: 25 GRAMS, MAX.

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 IN BRACKETS [ ] ARE IN MILLIMETERS TOLERANCES ARE:</small>				<b>MASTER ONLY IF IN RED</b> Chatsworth, CA	
	<small>DECIMALS .XX ±.03 .XXX ±.010</small>	<small>METRIC X ± 0.8 .XX ± 0.25</small>	<small>ANGLES ±1°</small>			
	<small>APPROVALS</small>	<small>DATE</small>	<small>TITLE:</small>			
	<small>ORIG DV</small>	<small>01/18/16</small>	<b>OUTLINE/INSTALLATION DRAWING, 7576A SERIES</b>			
<small>CHK KG</small>	<small>03/27/18</small>	<small>APP DV</small>	<small>03/28/18</small>	<small>SIZE B</small>	<small>CAGE CODE 2W033</small>	<small>DWG NO 127-7576A1</small>
<small>DO NOT SCALE DRAWING</small>		<small>SCALE: 2:1</small>	<small>REV C</small>	<small>SHEET 1 OF 1</small>		

<b>Model Number</b> 7576A5	<b>PERFORMANCE SPECIFICATION</b>	<b>DOC NO</b> PS7576A5
<b>6DOF VIBRATION SENSOR</b>		REV B, ECN 14119, 03/22/18



- VARIABLE CAPACITANCE TECHNOLOGY
- 6 DEGREES OF FREEDOM MEASUREMENTS
- HERMETICALLY SEALED
- DC RESPONSE
- INTERNATIONAL TRAFFIC IN ARMS REGULATION (ITAR) FREE

**PHYSICAL**  
Weight, Max  
Connector  
Material

ENGLISH		SI	
1.9	oz	55	grams
5/16-32 UNEF-2A		5/16-32 UNEF-2A	
Ti-6Al-4V		Ti-6Al-4V	

**ACCELEROMETER PERFORMANCE**

Input Range  
Frequency Response (±5%)  
Frequency Response (±3dB)  
Scale Factor, Nom. [1]  
Output Noise, Typ  
Non-Linearity, Typ. [2]  
Temperature Range  
Scale Factor Temperature Coefficient [3]  
Axis misalignment, Max.  
Shock Survivability  
Resonant Frequency  
Cross Axis Sensitivity, Max.

±2	g	±19.6	m/s <sup>2</sup>
0-700	Hz	0-700	Hz
0-1150	Hz	0-1150	Hz
1175	mV/g	119.8	mV/m/s <sup>2</sup>
0.0000088	g rms/√ Hz	0.00009	m/s <sup>2</sup> /√ Hz
0.2	% F.S	0.2	% F.S
-67 to 257	°F	-55 to 125	°C
67	ppm/°F	120	ppm/°C
10	mrad	10	mrad
6000	g	58860	m/s <sup>2</sup>
1.2	kHz	1.2	kHz
5	%	5	%

**GYRO PERFORMANCE**

Input Range  
Frequency Response  
Sensitivity ±10% [1]  
Rate noise density, Typ.  
Non-Linearity, Typ [2]  
Temperature Range  
Resonant Frequency  
Cross Axis Sensitivity, Max.

±50	°/sec	±50	°/sec
1-1000	Hz	1-1000	Hz
25	mV/°/sec	25	mV/°/sec
0.04	(°/sec)/√ Hz	0.04	(°/sec)/√ Hz
0.2	% F.S	0.2	% F.S
-40 to 221	°F	-40 to 105	°C
14.5	kHz	14.5	kHz
5	%	5	%

**ELECTRICAL**

Output Impedance, Nom  
Operating Voltage  
Output Bias Voltage ±0.5 VDC  
Operating Current, Typ  
Power Supply Rejection Ratio

2	Ω	2	Ω
6 to 14	VDC	6 to 14	VDC
2.5	VDC	2.5	VDC
12	mA DC	12	mA DC
>65	dB	>65	dB

**ENVIRONMENTAL**

Storage Temperature  
Seal

-67 to 257	°F	-55 to 125	°C
Hermetic		Hermetic	

**This family also includes:**

Model	Input Range (EU) Accel/Gyro	Frequency response (Hz) Accel./Gyro	Sensitivity, ±10% (mV/EU) Accel./Gyro	Max.Shock (0.1ms), g	Noise (EU/√Hz) Accel./Gyro
7576A1	±5 / ±50	0-1300 / 1-1000	470 / 25	6000	0.00019 / 0.04
7576A2	±10 / ±150	0-2500 / 1-3000	235 / 12.5	6000	0.00004 / 0.04
7576A3	±30 / ±250	0-3000 / 0.01-2500	78.33 / 7	6000	0.000089 / 0.06
7576A4	±200 / ±20000	0-3800 / 0-2000	11.75 / 0.1	6000	0.0009 / 0.25

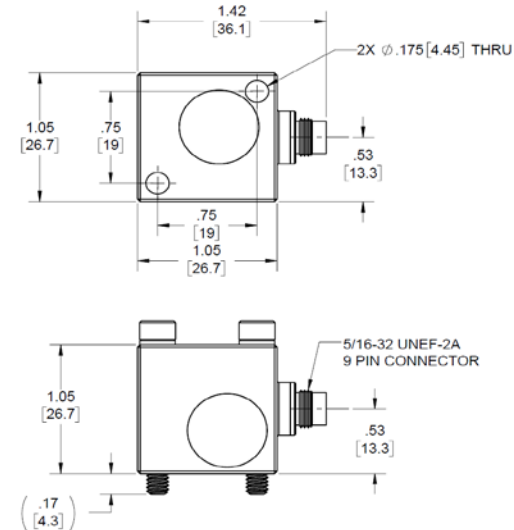
Refer to the performance specifications of the products in this family for detailed description.

**Supplied Accessories:**

- 1) Accredited calibration certificate (ISO 17025)
- 2) Mounting screw model 6753, 8-32 UNF-2A, qty 2
- 3) Mounting washer model 6754, qty 2
- 4) Mounting screw model 6687, M4 X 0.7, qty 2

**Notes:**

- [1] Measured using Earth gravity
- [2] Best fit zero based line method
- [3] Over the rated temperature range.
- [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. Refer to 127-7576A1 for more information.



21592 Marilla Street, Chatsworth, California 91311 Phone: 818.700.7818 Fax: 818.700.7880 www.dytran.com  
For permission to reprint this content, please contact info@dytran.com