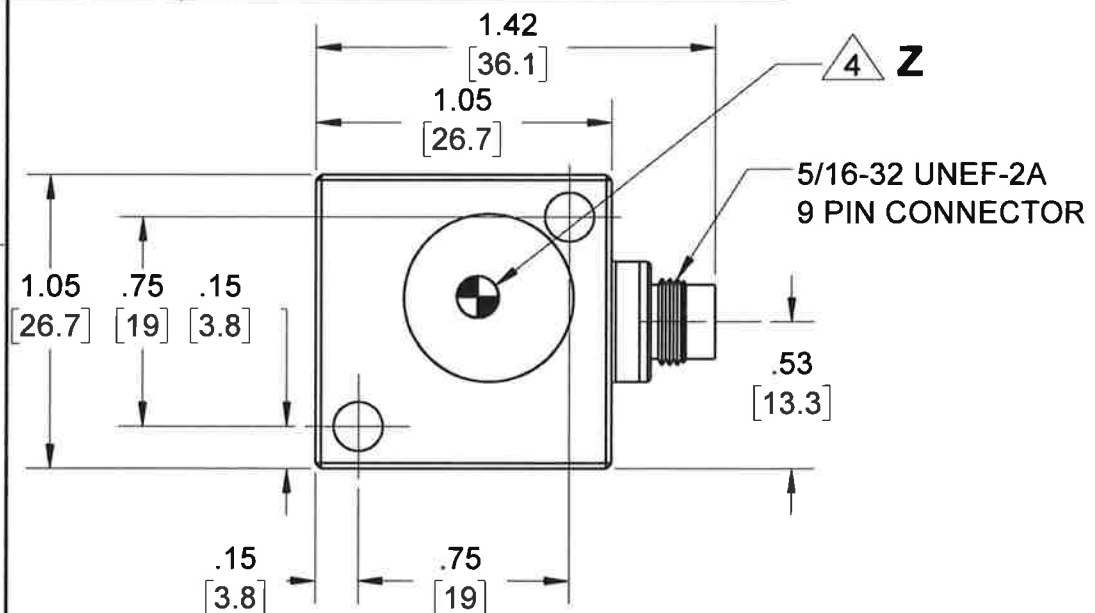


**PROPRIETARY AND CONFIDENTIAL**

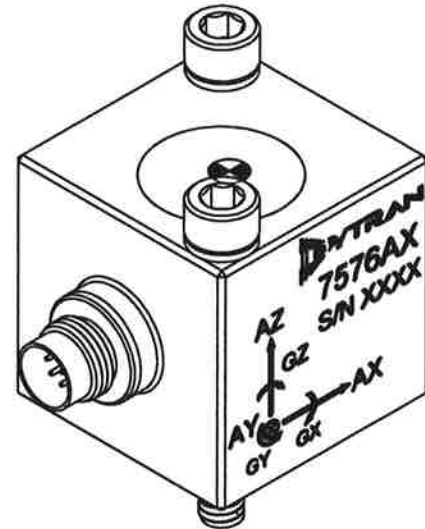
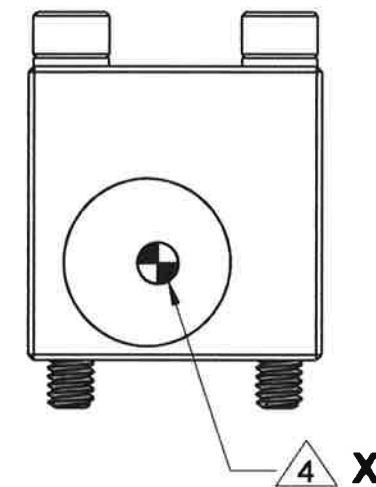
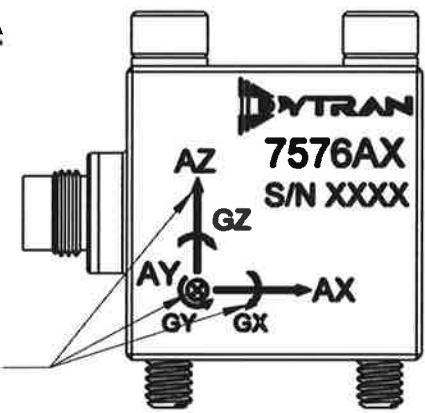
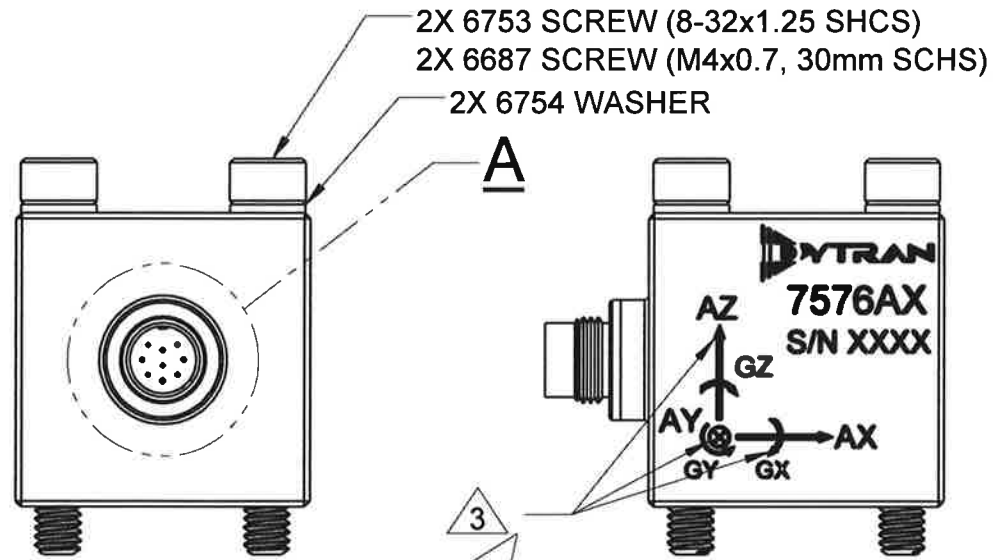
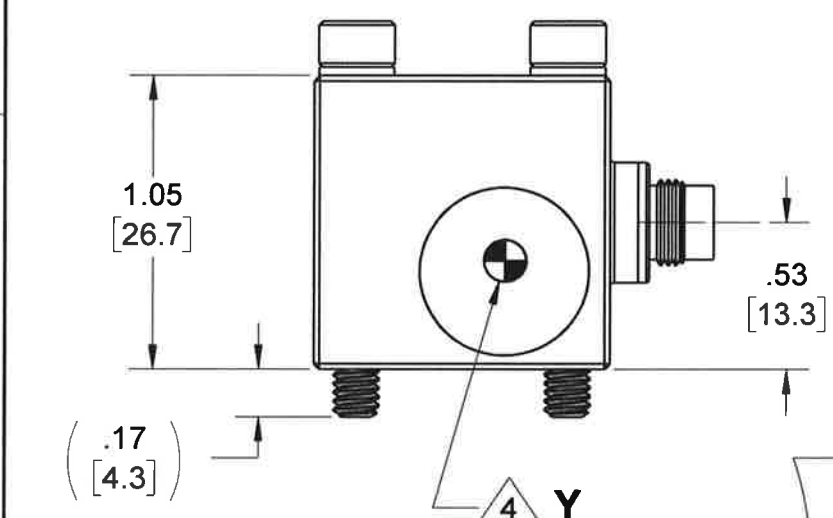
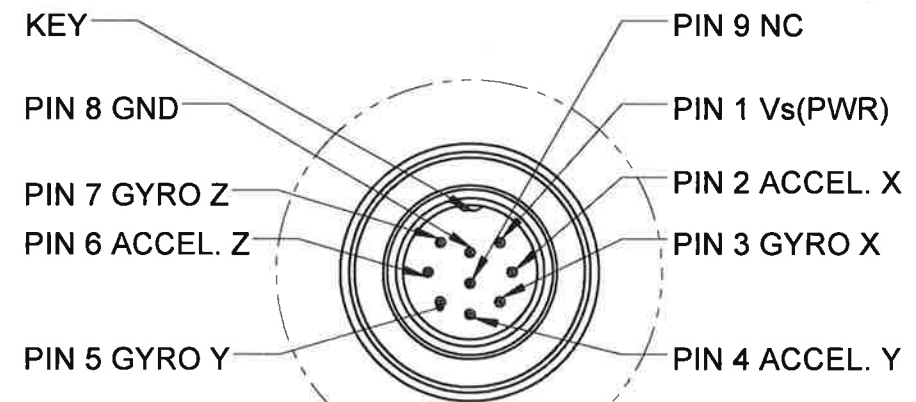
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**REVISIONS**

REV	ECN	DESCRIPTION	BY/DATE	CHK	APPR
A	13585	INITIAL RELEASE SAME AS REV X2	NDC 07/18/17	AS	EP



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



**RECOMMENDED MOUNTING PREPARATION:**  
 PREPARE FLAT MOUNTING SURFACE,  $\phi 1.50$  [ $\phi 38.1$ ] MIN, FLAT TO .001 TIR.  
 TAP 2X 8-32 UNC-2B  $\downarrow .45$  [11.4] MIN. (OR 2X M4x0.7  $\downarrow .45$  [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 ARE IN INCHES.          DIMENSIONS IN BRACKETS [ ] ARE IN MILLIMETERS TOLERANCES ARE:</small>				
	<small>DECIMALS .XX ±.03 .XXX ±.010</small>	<small>METRIC .X ±.08 .XX ±0.25</small>	<small>ANGLES ±1°</small>	<small>Chatsworth, CA</small>	
	<b>APPROVALS</b>		<b>DATE</b>		<b>TITLE:</b> <b>OUTLINE/INSTALLATION DRAWING, 7576A SERIES</b>
	<small>ORIG</small> DV	<small>DATE</small> 1/18/16		<small>SIZE</small> B	
<small>CHK</small> AS	<small>DATE</small> 7/22/17		<small>DWG NO</small> 127-7576A1		
<small>APP</small> EP	<small>DATE</small> 8/1/17			<small>SCALE:</small> 2:1	<small>SHEET 1 OF</small> 1
<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>			

<b>Model Number</b> 7576A5	<b>PERFORMANCE SPECIFICATION</b>	<b>DOC NO</b> PS7576A5
<b>6DOF VIBRATION SENSOR</b>		REV A, ECN 13585, 07/27/17



- 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
1250	mV/g	127	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	500 / 25	6000	0.000019 / 0.04
7576A2	±10 / ±150	0-2500 / 1-3000	250 / 12.5	6000	0.00004 / 0.04
7576A3	±30 / ±250	0-3000 / 0.01-2500	83.3 / 7	6000	0.000089 / 0.06
7576A4	±200 / ±20000	0-3800 / 0-2000	12.5 / 0.1	6000	0.0009 / 0.25

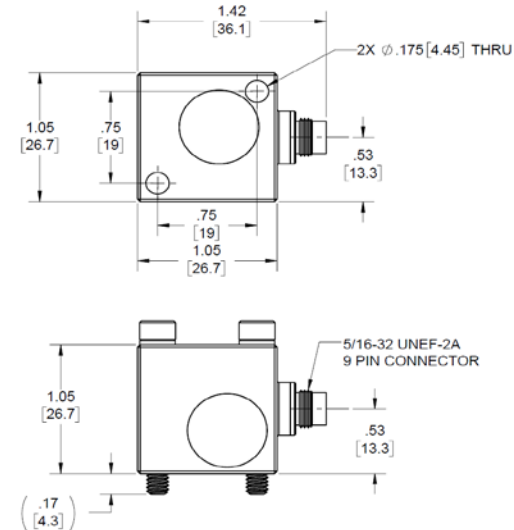
Refer to the performance specifications of the products in this family for detailed description.

**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.



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