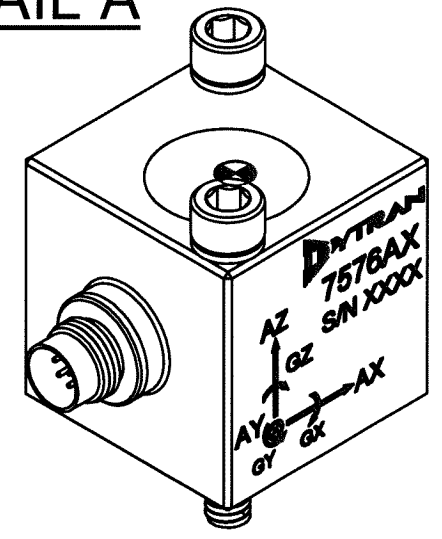
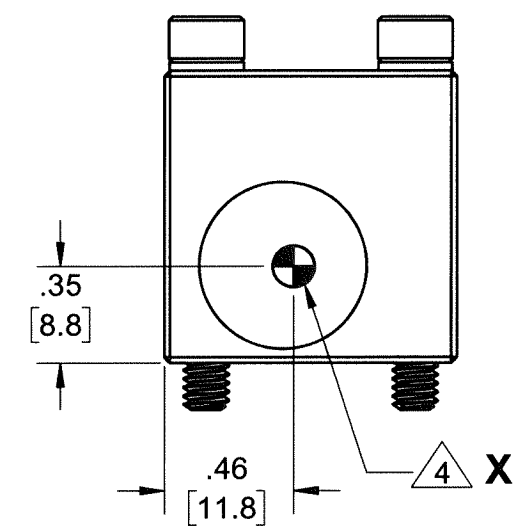
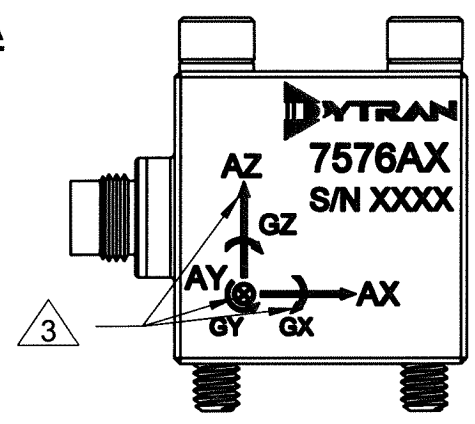
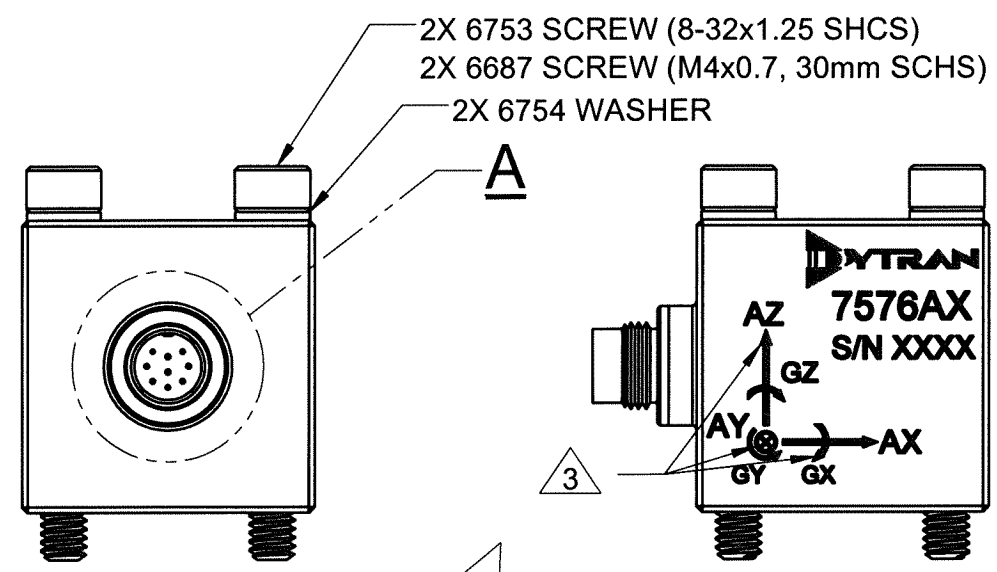
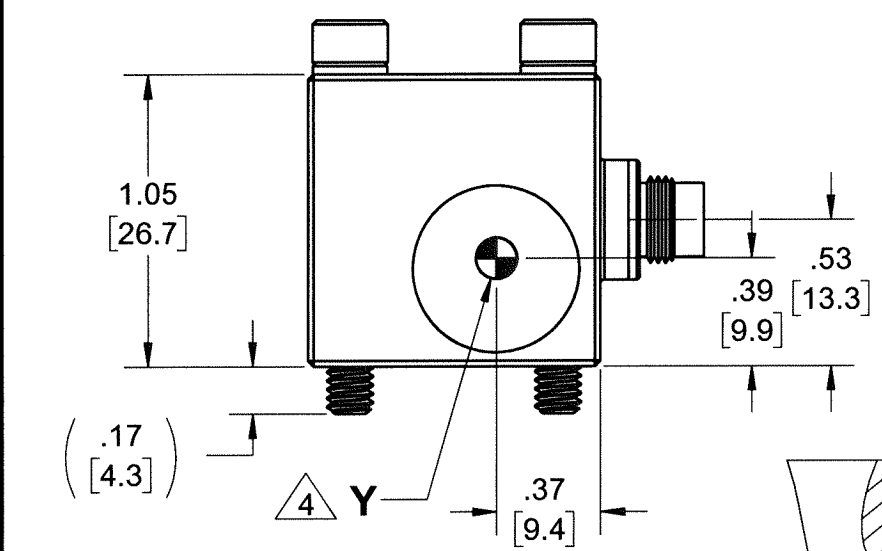
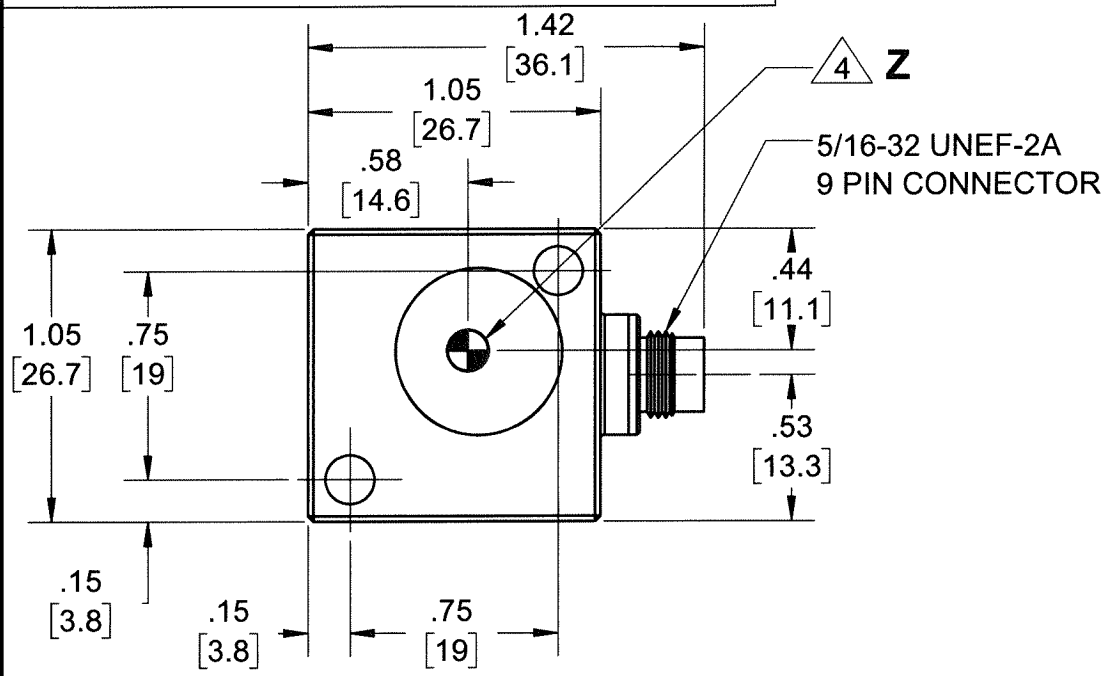
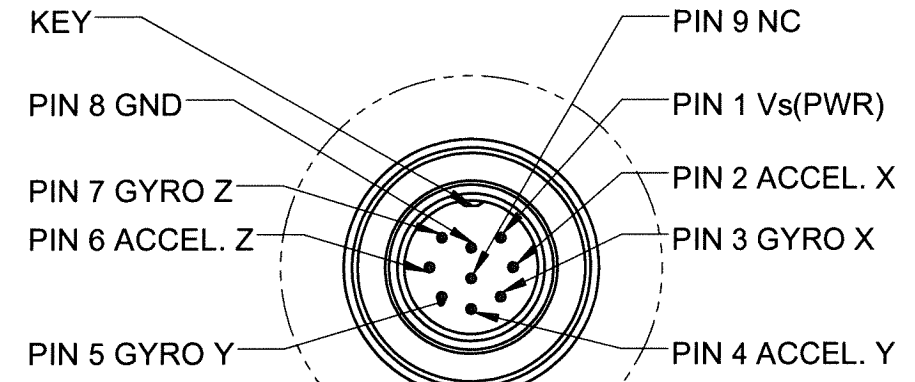


REVISIONS

| 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    |

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

| 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

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.

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

| APPROVALS | DATE     |
|-----------|----------|
| ORIG DV   | 01/18/16 |
| CHK KG    | 03/27/18 |
| APP DV    | 03/28/18 |

DO NOT SCALE DRAWING

THIRD ANGLE PROJECTION USA

UNLESS OTHERWISE SPECIFIED: DIMENSIONS IN BRACKETS [ ] ARE IN MILLIMETERS TOLERANCES ARE:

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

**MASTER ONLY IF IN RED**

TITLE: **OUTLINE/INSTALLATION DRAWING, 7576A SERIES**

|               |                        |                          |              |
|---------------|------------------------|--------------------------|--------------|
| SIZE <b>B</b> | CAGE CODE <b>2W033</b> | DWG NO <b>127-7576A1</b> | REV <b>C</b> |
|---------------|------------------------|--------------------------|--------------|

SCALE: 2:1 SHEET 1 OF 1



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

**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 / 0-1000                     | 470 / 25                             | 6000                 | 0.00004 / 0.04             |
| 7576A3 | ±30 / ±250                  | 0-3000 / 0-2500                     | 78.33/7                              | 6000                 | 0.000089 / 0.06            |
| 7576A4 | ±200 / ±20000               | 0-3800 / 0-2000                     | 11.75 / 0.1                          | 6000                 | 0.0009 / 0.25              |
| 7576A5 | ±2 / ±50                    | 0-1150 / 0-1000                     | 1175 / 25                            | 6000                 | 0.0000088 / 0.04           |
| 7576A6 | ±2 / ±150                   | 0-1150 / 0-3000                     | 1200 / 12.5                          | 6000                 | 0.0000088 / 0.04           |

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] All specifications are at room temperature unless otherwise specified.
- [2] Measured using Earth gravity
- [3] Best fit zero-based line method
- [4] Over the rated temperature range.
- [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 over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts.

**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.

|            |            |            |                        |
|------------|------------|------------|------------------------|
| ±10        | g          | ±98.1      | m/s <sup>2</sup>       |
| 0-600      | Hz         | 0-600      | Hz                     |
| 0-2500     | Hz         | 0-2500     | Hz                     |
| 235        | mV/g       | 24.0       | mV/m/s <sup>2</sup>    |
| 0.00004    | g rms/√ Hz | 0.0004     | 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>       |
| >2.8       | kHz        | >2.8       | 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.

|            |              |            |              |
|------------|--------------|------------|--------------|
| ±150       | °/sec        | ±150       | °/sec        |
| 0-3000     | Hz           | 0-3000     | Hz           |
| 12.5       | mV/°/sec     | 12.5       | 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  
Power Supply Rejection Ratio

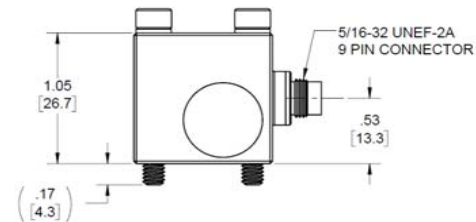
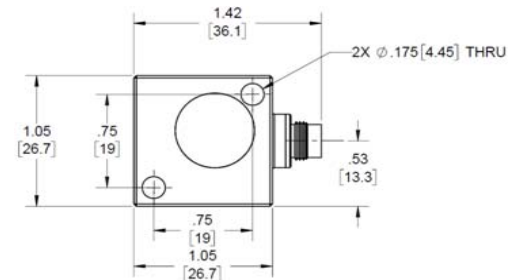
Typical  
Max

|         |       |         |       |
|---------|-------|---------|-------|
| 2       | Ω     | 2       | Ω     |
| 6 to 14 | VDC   | 6 to 14 | VDC   |
| 2.5     | VDC   | 2.5     | VDC   |
| 23      | mA DC | 23      | mA DC |
| 28      | mA DC | 28      | mA DC |
| >65     | dB    | >65     | dB    |

**ENVIRONMENTAL**

Storage Temperature  
Seal

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



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: 818.698.0362 www.dytran.com  
For permission to reprint this content, please contact info@dytran.com