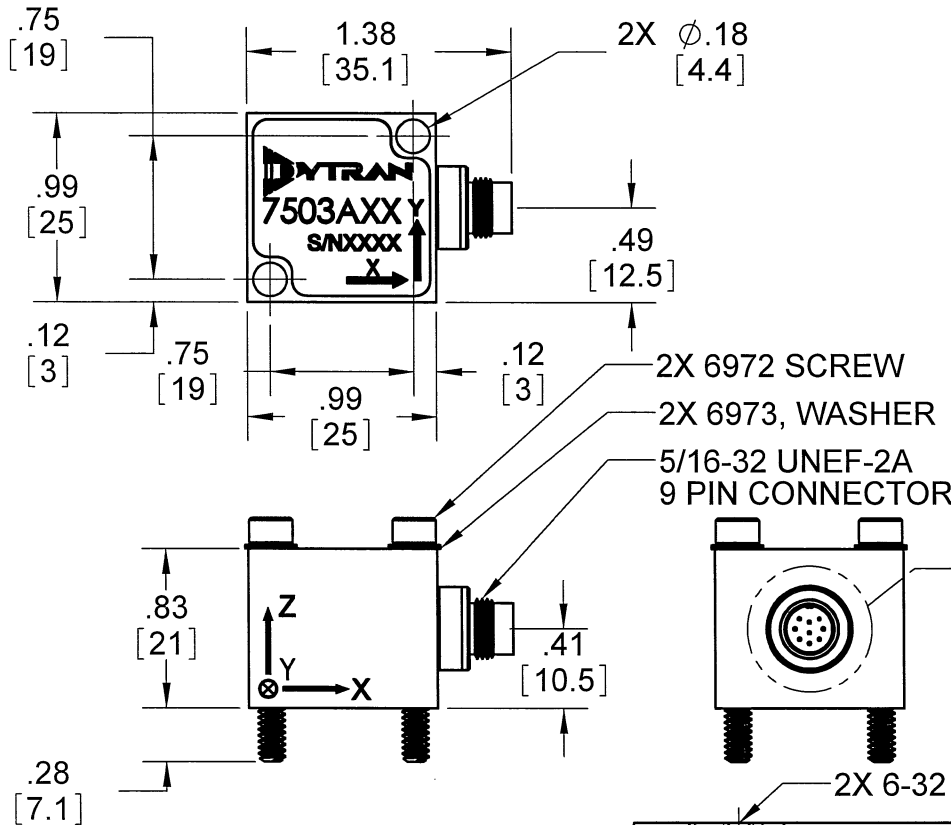


PROPRIETARY AND CONFIDENTIAL

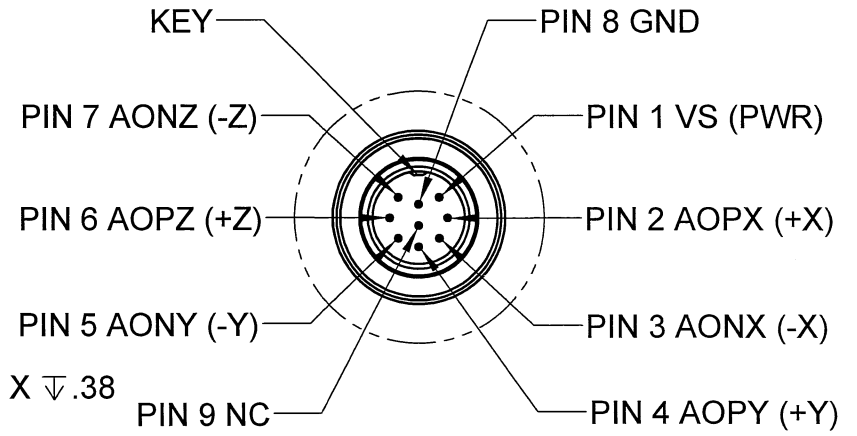
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REVISIONS

| REV | ECN | DESCRIPTION | BY/DATE | CHK | APPR |
|-----|------|-----------------|-------------|--------------------|------|
| A | 6510 | INITIAL RELEASE | RA 08/25/11 | <i>[Signature]</i> | AWS |



| MODEL | RANGE |
|--------|------------|
| 7503A1 | $\pm 2G$ |
| 7503A2 | $\pm 5G$ |
| 7503A3 | $\pm 10G$ |
| 7503A4 | $\pm 25G$ |
| 7503A5 | $\pm 50G$ |
| 7503A6 | $\pm 100G$ |
| 7503A7 | $\pm 200G$ |
| 7503A8 | $\pm 400G$ |



DETAIL A

1. WEIGHT: 25 MAX GRAMS

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. THDS PER MIL-S-7742. DIMENSIONS APPLY AFTER FINISHING. | | UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES. DIMENSIONS IN BRACKETS [] ARE IN MILLIMETERS TOLERANCES ARE: INCHES METRIC ANGLES .XX ± .03 .X ± 0.8 ± 1° .XXX ± .010 .XX ± 0.25 | |
| USED ON | NEXT ASSY | MATERIAL | |
| APPLICATION | | FINISH | |
| THIRD ANGLE PROJECTION USA | | DO NOT SCALE DRAWING | |
| 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. | | 63/ | |

| | | |
|--------------|--------------------|----------|
| CONTRACT NO. | | |
| APPROVALS | | DATE |
| ORIG | RA | 05/03/11 |
| CHK | <i>[Signature]</i> | 9/12/11 |
| APP | AWS | 9/10/11 |
| APP | | |

DYTRAN INSTRUMENTS, INC. Chatsworth, CA

MASTER ONLY IF IN RED

TITLE: **OUTLINE/INSTALLATION DRAWING, TRIAXIAL ACCELEROMETER, 7503A SERIES**

| | | | |
|----------|--------------|------------------|----------|
| SIZE | CAGE CODE | DWG. NO. | REV |
| A | 2W033 | 127-7503A | A |

SCALE: NONE SOLIDWORKS SHEET 1 OF 1

| | | |
|---|----------------------------------|---------------------------|
| Model Number 7503A6 | PERFORMANCE SPECIFICATION | DOC NO PS7503A6 |
| TRIAxIAL VARIABLE CAPACITANCE ACCELEROMETER | | REV A, EGN 6510, 09/01/11 |



- VARIABLE CAPACITANCE TECHNOLOGY
- DIFFERENTIAL MODE
- HERMETICALLY SEALED
- DC RESPONSE

PHYSICAL

| | ENGLISH | | SI | |
|-------------|-----------------|----|-----------------|-------|
| Weight, Max | 1.1 | oz | 30 | grams |
| Connector | 5/16-32 UNEF-2A | | 5/16-32 UNEF-2A | |
| Material | Ti-6Al-4V | | Ti-6Al-4V | |

PERFORMANCE

| | ENGLISH | | SI | |
|-----------------------------------|---------|------------|--------|------------------------|
| Input Range | ± 100 | g | ± 981 | m/s ² |
| Frequency Response (3dB), Nom | 0-2500 | Hz | 0-2500 | Hz |
| Sensitivity Differential, ±5% [1] | 20 | mV/g | 2 | mV/m/s ² |
| Output Noise, Differential, Typ | 150 | µg rms/√Hz | 1472 | µm/s ² /√Hz |
| Non-Linearity, Max [2] | 1 | % F.S | 1 | % F.S |
| Cross Axis Sensitivity, Max | 3 | % | 3 | % |

ENVIRONMENTAL

| | ENGLISH | | SI | |
|------------------------------------|-------------|------------------|--------------|-----------------------|
| Maximum Mechanical Shock (0.1 ms) | ±5000 | gpk | ±49050 | m/s ² peak |
| Bias Temperature Shift, Max [3] | 56 | (ppm of span)/°F | 100 | (ppm of span)/°C |
| Bias Calibration Error, Max | 1.5 | % of span | 1.5 | % of span |
| Operating Temperature Range | -67 to +221 | °F | -55 to +105 | °C |
| Scale Factor Temperature Shift [3] | -83 to +83 | ppm/°F | -150 to +150 | ppm/°C |
| Seal | Hermetic | | Hermetic | |

ELECTRICAL

| | ENGLISH | | SI | |
|---|---------|-------|---------|-------|
| Output Common Mode Voltage, Typ | 2.5 | VDC | 2.5 | VDC |
| Output Impedance, Nom | 1 | Ω | 1 | Ω |
| Operating Voltage | 9 to 26 | VDC | 9 to 26 | VDC |
| Operating Current (AOP & AON open), Max | 30 | mA Dc | 30 | mA Dc |
| Power Supply Rejection Ratio | >65 | dB | >65 | dB |

This family also includes:

| Model | Input Range (g) | Frequency response (Hz) | Sensitivity Differential, ±15% (mV/g) | Max.Shock (0.1ms) | Noise Differential (µg/√Hz) |
|--------|-----------------|-------------------------|---------------------------------------|-------------------|-----------------------------|
| 7503A1 | ±2 | 0-400 | 1,000 | 5000 | 12 |
| 7503A2 | ±5 | 0-600 | 400 | 5000 | 14 |
| 7503A3 | ±10 | 0-1000 | 200 | 5000 | 15 |
| 7503A4 | ±25 | 0-1500 | 80 | 5000 | 38 |
| 7503A5 | ±50 | 0-2000 | 40 | 5000 | 75 |
| 7503A7 | ±200 | 0-3000 | 10 | 5000 | 300 |

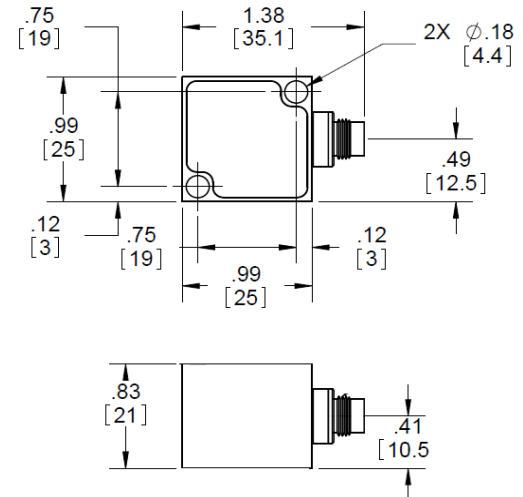
Refer to the performance specifications of the products in this family for detailed description.

Supplied Accessories:

- 1) Accredited calibration certificate (ISO 17025)
- 2) Mounting screw model 6972, qty 2
- 3) Mounting washer model 6973, qty 2

Notes:

- [1] Single ended sensitivity is half of values shown.
- [2] -90% to +90% of Full Scale.
- [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 127-7503A for more information.



21592 Marilla Street, Chatsworth, California 91311 Phone: 818.700.7818 Fax:818.700.7880 www.dytran.com
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