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| MODEL | INPUT RANGE |
|--------|-------------|
| 7603D1 | ±2g |
| 7603D2 | ±5g |
| 7603D3 | ±10g |
| 7603D4 | ±25g |
| 7603D5 | ±50g |
| 7603D6 | ±100g |
| 7603D7 | ±200g |
| 7603D8 | ±400g |

DWG NO: 127-7603D SH 1 REV B

REVISIONS

| REV. | ECN | DESCRIPTION | BY/DATE | CHK | APPR |
|------|-------|-----------------------------------|-----------------|-----|------|
| A | 13625 | INITIAL RELEASE. REVISED PIN OUT. | NDC 08/03/17 | LN | AS |
| B | 13709 | 69034A16 WAS: 6753A1 | RA, 09/07/17 | MJ | LW |

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DWG NO

127-7603D

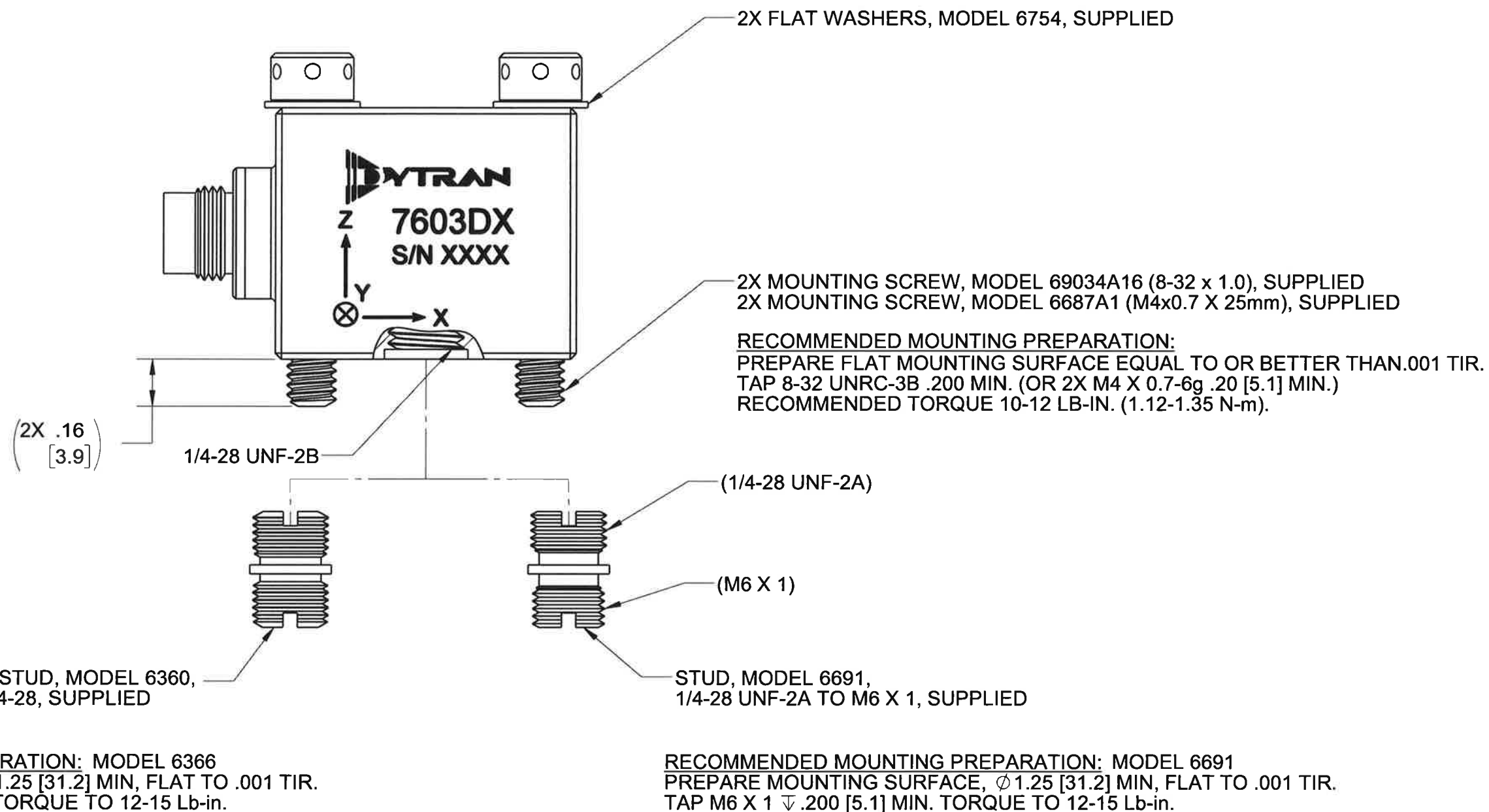
SH 2

REV B

2

1

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TITLE: OUTLINE/INSTALLATION DWG,
TRIAxIAL DC ACCELEROMETER,
7603D SERIES

| | | | |
|------------------|---------------------------|----------------------------|-----------------|
| SIZE B | CAGE CODE 2W033 | DWG NO 127-7603D | REV B |
|------------------|---------------------------|----------------------------|-----------------|


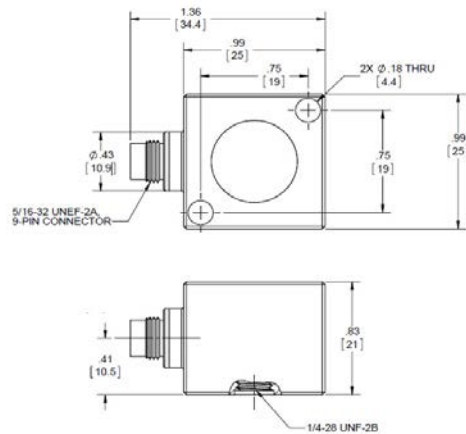
| | |
|------------|--------------|
| SCALE: 2:1 | SHEET 2 OF 2 |
|------------|--------------|

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| Model Number 7603D5 | | PERFORMANCE SPECIFICATION | | | | DOC NO PS7603D5 | |
|--|--|---|-----------------|---|--|----------------------------|---|
| | | TRIAXIAL VARIABLE CAPACITANCE ACCELEROMETER | | | | REV E, ECN 14848, 02/05/19 | |
|  | | <ul style="list-style-type: none">• VARIABLE CAPACITANCE TECHNOLOGY• DIFFERENTIAL MODE• HERMETICALLY SEALED• DC RESPONSE | | | | | |
| | | This family also includes: | | | | | |
| | | Model | Input Range (g) | Frequency Response, $\pm 3\text{dB}$ (Hz) | Sensitivity Differential, $\pm 5\%$ (mV/g) | Max.Shock (0.1ms) | Noise Differential ($\mu\text{g}/\text{VHz}$) |
| | | 7603D1 | ± 2 | 0-400 | 250 | 2000 | 7 |
| | | 7603D2 | ± 5 | 0-500 | 100 | 5000 | 12 |
| | | 7603D3 | ± 10 | 0-1000 | 50 | 5000 | 18 |
| | | 7603D4 | ± 25 | 0-1400 | 20 | 5000 | 25 |
| | | 7603D6 | ± 100 | 0-2500 | 5 | 5000 | 100 |
| | | 7603D7 | ± 200 | 0-3000 | 2.5 | 5000 | 200 |
| | | 7603D8 | ± 400 | 0-4000 | 1.25 | 5000 | 400 |
| Refer to the performance specifications of the products in this family for detailed description. | | | | | | | |
| Supplied Accessories: | | | | | | | |
| 1) Accredited calibration certificate (ISO 17025) | | | | | | | |
| 2) Mounting stud, Model 6360, 1/4-28 UNF-2A, Qty 1 | | | | | | | |
| 3) Mounting stud, Model 6691, 1/4-28 UNF-2A to M6 X 1, Qty 1 | | | | | | | |
| 4) Mounting screws, Model 69034A16, 8-32 x 1.0, Qty. 2 | | | | | | | |
| 5) Mounting screws, Model 6687A1, M4x0.7 x 25mm, Qty. 2 | | | | | | | |
| 6) Flat washers, Model 6754, Qty. 2 | | | | | | | |
| Notes: | | | | | | | |
| [1] Single ended sensitivity is half of values shown. (Ref. at 100 Hz) | | | | | | | |
| [2] -90% to +90% of Full Scale. | | | | | | | |
| [3] Over the rated temperature range. | | | | | | | |
| [4] Bias voltage equal to $(+v - (-v)) / 2$ | | | | | | | |
| [5] In the interest of constant product improvement, we reserve the right to change specifications without notice. | | | | | | | |
| [6] +6.0 to +22.0 VDC in single supply operation with V- grounded. | | | | | | | |
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| Units on the line drawing are in inches. Refer to 127-7603D for more information. | | | | | | | |

| | | | | | |
|---|------------------------|-------------------------------|------------------------|-------------------------------|--|
| PHYSICAL | | ENGLISH | | SI | |
| Weight, Max | 1.3 | oz | 38 | grams | |
| Connector | 9-pin, 5/16-32 UNEF-2A | | 9-pin, 5/16-32 UNEF-2A | | |
| Material | Titanium Alloy | | Titanium Alloy | | |
| Sensing Technology | MEMS | | MEMS | | |
| PERFORMANCE | | | | | |
| Input Range | ± 50 | g | ± 490.5 | m/s^2 | |
| Frequency Response ($\pm 5\%$) | 0 - 1200 | Hz | 0 - 1200 | Hz | |
| Frequency Response ($\pm 3\text{dB}$) | 0 - 2000 | Hz | 0 - 2000 | Hz | |
| Resonant Frequency | >3000 | Hz | >3000 | Hz | |
| Sensitivity Differential, $\pm 5\%$ [1] | 10 | mV/g | 1.0 | mV/m/s^2 | |
| Output Noise, Differential, Typ | 50 | $\mu\text{g rms}/\text{V Hz}$ | 491 | $\mu\text{m/s}^2/\text{V Hz}$ | |
| Non-Linearity, Max [2] | 0.5 | % F.S | 0.5 | % F.S | |
| Cross Axis Sensitivity, Max | 3 | % | 3 | % | |
| ENVIRONMENTAL | | | | | |
| Maximum Mechanical Shock (0.1 ms) | ± 5000 | gpk | ± 49050 | m/s^2 peak | |
| Bias Temperature Shift, Max [3] | 111 | (ppm of span)/°F | 200 | (ppm of span)/°C | |
| Bias Calibration Error, Max | 0.5 | % of span | 0.5 | % of span | |
| Operating Temperature Range | -67 to +257 | °F | -55 to +125 | °C | |
| Seal | Hermetic | | Hermetic | | |
| ELECTRICAL | | | | | |
| Output Common Mode Voltage, \pm VDC | [4] | | [4] | | |
| Output Impedance, Nom | 1225 | Ω | 1225 | Ω | |
| Operating Voltage [6] | ± 3 to ± 11 | VDC | ± 3 to ± 11 | VDC | |
| Operating Current (AOP & AON open), Max | 35 | mA Dc | 35 | mA Dc | |
| Power Supply Rejection Ratio | >65 | dB | >65 | dB | |



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