5. MINOR VOIDS, SCARS, SCRATCHES AND MOUNTING BLEMISH/WITNESS MARKS ON EXTERIOR SURFACES ARE ALLOWED DUE TO Restraining and HANDLING DURING TESTING, TRANSPORT OR PROCESSING. THESE APPEAR AS INDICATORS THAT DO NOT AFFECT FORM, FIT OR FUNCTION AS INTENDED BY DESIGN OR APPLICATION.

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

MATES WITH DYTRAN 6964XXX CABLE (XX DENOTES LENGTH IN FT)

1. MATERIAL: TITANIUM ALLOY.

NOTES: UNLESS OTHERWISE SPECIFIED.

UNLESS OTHERWISE SPECIFIED:
- INTERMETAL & TOOLS: Per AMS 4920 & AMS 4930.
- CENTERING, INTERNAL THRUST & SCREW MOUNTS: CHAMFER 45° TO MIN. 0.003" THICKNESS AND CLEARANCES ARE FOR ATHER(push-in)
- ALL MACHINED SURFACES. TOTAL ROUND-OUT WITHIN 0.001" AND LIGHT MILLING. MILLING SYMBOLS PER AMS 4920.

ABBREVIATIONS FOR MIL-STD-12:
- METRIC: X = .05, X = 1.0, X = 5.0, X = 25.0.
- ANGLES: \( \pm \) 1°, \( \pm \) 2°, \( \pm \) 3°.

UNLESS OTHERWISE SPECIFIED:
- VDEW-2A, g-PIN CONNECTOR
- PIN 1 (V+)
- PIN 2 (X+)
- PIN 3 (Y+)
- PIN 4 (+Y)
- PIN 5 (-Y)
- PIN 6 (+Z)
- PIN 7 (-Z)
- PIN 8 (V-)
- PIN 9 (NC)

SEE SHEET 2 FOR MOUNTING PREPARATION.
2X FLAT WASHERS, MODEL 6754, SUPPLIED

2X MOUNTING SCREW, MODEL 6753A1 (8-32 x 1.0), SUPPLIED
2X MOUNTING SCREW, MODEL 6687A1 (M4x0.7 x 25mm), SUPPLIED

RECOMMENDED MOUNTING PREPARATION:
PREPARE FLAT MOUNTING SURFACE EQUAL TO OR BETTER THAN 0.001 TIR.
TAP 8-32 UNC-3B .200 MIN. (OR 2X M4 X 0.7-6s .20 [5.1] MIN.)
RECOMMENDED TORQUE 10-12 LB-IN. (1.12-1.35 N-m).

1/4-28 UNF-2B

(1/4-28 UNF-2A)

MOUNTING STUD, MODEL 6360,
1/4-28 TO 1/4-28, SUPPLIED

STUD, MODEL 6691,
1/4-28 UNF-2A TO M6 X 1, SUPPLIED

RECOMMENDED MOUNTING PREPARATION: MODEL 6366
PREPARE MOUNTING SURFACE, Φ 1.25 [31.2] MIN. FLAT TO .001 TIR.
TAP 1/4-28 UNF-2B r .200 [5.1] MIN. TORQUE TO 12-15 Lb-in.

RECOMMENDED MOUNTING PREPARATION: MODEL 6691
PREPARE MOUNTING SURFACE, Φ 1.25 [31.2] MIN. FLAT TO .001 TIR.
TAP M6 X 1 r .200 [5.1] MIN. TORQUE TO 12-15 Lb-in.
### PERFORMANCE SPECIFICATION

**TRIAXIAL VARIABLE CAPACITANCE ACCELEROMETER**

**VARIABLE CAPACITANCE TECHNOLOGY**

- ±4V DIFFERENTIAL OUTPUT
- HERMETICALLY SEALED
- DC RESPONSE

<table>
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<tr>
<th>Model Number</th>
<th>DOC NO</th>
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<tr>
<td>7503D8</td>
<td>P57503D8</td>
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This family also includes:

<table>
<thead>
<tr>
<th>Model</th>
<th>Input Range (g)</th>
<th>Frequency Response, ±3dB (Hz)</th>
<th>Sensitivity Differential, ±5% (mV/g)</th>
<th>Max Shock (0.1ms) g (peak)</th>
<th>Noise Differential (μg/Hz)</th>
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<tr>
<td>7503D1</td>
<td>±2</td>
<td>0-400</td>
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<td>7503D2</td>
<td>±5</td>
<td>0-800</td>
<td>800</td>
<td>2000</td>
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<tr>
<td>7503D3</td>
<td>±10</td>
<td>0-1000</td>
<td>400</td>
<td>2000</td>
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<tr>
<td>7503D4</td>
<td>±25</td>
<td>0-1500</td>
<td>160</td>
<td>2000</td>
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<td>7503D5</td>
<td>±50</td>
<td>0-2700</td>
<td>80</td>
<td>2000</td>
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<td>7503D6</td>
<td>±120</td>
<td>0-2500</td>
<td>40</td>
<td>2000</td>
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<td>7503D7</td>
<td>±200</td>
<td>0-5000</td>
<td>20</td>
<td>2000</td>
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<td>7503D9</td>
<td>±5(X&amp;Y), ±25(Z)</td>
<td>0-800(X&amp;Y), 0-1500(Z)</td>
<td>800(X&amp;Y), 160(Z)</td>
<td>2000</td>
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<tr>
<td>7503D10</td>
<td>±5(X&amp;Y), ±50(Z)</td>
<td>0-800(X&amp;Y), 0-2700(Z)</td>
<td>800(X&amp;Y), 80(Z)</td>
<td>2000</td>
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</table>

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

**PHYSICAL**

**Supplied Accessories:**

- Accredited calibration certificate (ISO 17025)
- Mounting stud, Model 6360, 1/4-28 UNF-2A, Qty 1
- Mounting stud, Model 6691, 1/4-28 UNF-2A to M6 X 1, Qty 1
- Mounting screws, Model 6753A1, 8-32 x 1.0, Qty. 2
- Mounting screws, Model 6687A1, M4x0.7 x 25mm, Qty. 2
- Flat washers, Model 6754, Qty. 2

**ENGLISH**

<table>
<thead>
<tr>
<th>Weight, Max</th>
<th>oz</th>
<th>grams</th>
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**SI**

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<tr>
<th>Weight, Max</th>
<th>g</th>
<th>m/s²</th>
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<td>3924</td>
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</tbody>
</table>

- Connector Type: 9-pin, 5/16-32 UNEF-2A
- Material: Titanium Alloy
- Sensing Technology: MEMS

**PERFORMANCE**

- Input Range: ±400 g
- Frequency Response (±5%) 0 - 1600 Hz
- Resonant Frequency > 3000 Hz
- Sensitivity Differential, ±5% 10 mV/g
- Output Noise, Differential, Typ 3.924 μg/m/s²
- Non-Linearity, Max 0.5 %
- Cross Axis Sensitivity, Max 3 %
- Scale Factor Calibration Error, Max. 1 %
- Zero Measured Output ±50 mV

**ENVIRONMENTAL**

- Maximum Mechanical Shock (0.1 ms) ±2000 gpk
- Bias Temperature Shift, Max (ppm of span)/°F 111
- Bias Calibration Error, Max 0.5 %
- Operating Temperature Range [-67 to +257] °F
- Scale Factor Temperature Shift, Max (ppm/°F) 111
- Seal Hermetic

**ELECTRICAL**

- Output Common Mode Voltage, Typ 2.5 VDC
- Output Impedance <10K Ω
- Operating Voltage +6 to +33 VDC
- Operating Current (AOP & AON open, Max) 35 mA DC
- Power Supply Rejection Ratio >65 dB
- Ground Isolation >30 MΩ

**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. Limit operating voltage to +24VDC when temperature is greater than 240°F (115°C).

**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 may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts.