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).

2. WEIGHT: 38 GRAMS, MAX.

1. MATERIAL: TITANIUM ALLOY.

NOTES: UNLESS OTHERWISE SPECIFIED.
2X FLAT WASHERS, MODEL 6754, SUPPLIED

2X MOUNTING SCREW, MODEL 6753A1 (8-32 x 1.0), SUPPLIED
2X MOUNTING SCREW, MODEL 6687A1 (M4 x 0.7 x 25mm), SUPPLIED

RECOMMENDED MOUNTING PREPARATION:
PREPARE FLAT MOUNTING SURFACE EQUAL TO OR BETTER THAN .001 TIR.
PREPARE MOUNTING SURFACE Ø1.25 [31.2] MIN. FLAT TO .001 TIR.

1/4-28 UNF-2B

(1/4-28 UNF-2A)

(M6 X 1)

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

RECOMMENDED MOUNTING PREPARATION: MODEL 6691
PREPARE MOUNTING SURFACE Ø1.25 [31.2] MIN. FLAT TO .001 TIR.
TAP M6 X 1 .200 [5.1] MIN. TORQUE TO 12-15 lb-in.

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

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PERFORMANCE SPECIFICATION

TRIAXIAL VARIABLE CAPACITANCE ACCELEROMETER

Model Number
7503D1

This family also includes:

• VARIABLE CAPACITANCE TECHNOLOGY
• ± 4V DIFFERENTIAL OUTPUT
• HERMETICALLY SEALED
• DC RESPONSE

<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>
</tr>
</thead>
<tbody>
<tr>
<td>7503D2</td>
<td>±5</td>
<td>0-500</td>
<td>800</td>
<td>200</td>
<td>12</td>
</tr>
<tr>
<td>7503D3</td>
<td>±10</td>
<td>0-1000</td>
<td>400</td>
<td>5000</td>
<td>18</td>
</tr>
<tr>
<td>7503D4</td>
<td>±25</td>
<td>0-1400</td>
<td>160</td>
<td>5000</td>
<td>25</td>
</tr>
<tr>
<td>7503D5</td>
<td>±50</td>
<td>0-2000</td>
<td>80</td>
<td>5000</td>
<td>50</td>
</tr>
<tr>
<td>7503D6</td>
<td>±100</td>
<td>0-2500</td>
<td>20</td>
<td>5000</td>
<td>100</td>
</tr>
<tr>
<td>7503D7</td>
<td>±200</td>
<td>0-3000</td>
<td>20</td>
<td>5000</td>
<td>200</td>
</tr>
<tr>
<td>7503D8</td>
<td>±400</td>
<td>0-4000</td>
<td>10</td>
<td>5000</td>
<td>400</td>
</tr>
<tr>
<td>7503D9</td>
<td>±5(X&amp;Y), ±25(Z)</td>
<td>0-500(X&amp;Y), 0-1400(Z)</td>
<td>800(X&amp;Y), 160(Z)</td>
<td>2000</td>
<td>12(X&amp;Y), 25(Z)</td>
</tr>
<tr>
<td>7503D10</td>
<td>±5(X&amp;Y), ±50(Z)</td>
<td>0-500(X&amp;Y), 0-2000(Z)</td>
<td>800(X&amp;Y), 80(Z)</td>
<td>2000</td>
<td>12(X&amp;Y), 50(Z)</td>
</tr>
</tbody>
</table>

PHYSICAL

Weight, Max
1.3 oz

Connector Type
9-pin, 5/16-32 UNEF-2A

Material
Titanium Alloy

Sensing Technology
MEMS

PERFORMANCE

Input Range
±2 g

Frequency Response (±5%)
0 - 200 Hz
0 - 400 Hz
>3000 Hz

Resonant Frequency
>3000 Hz

Sensitivity Differential, ±5% [1]
2000 mV/g

Output Noise, Differential, Typ
7 µg rms/√Hz

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 [3]
111 ppm of span/°F

Bias Calib. Error, Max
0.5 % of span

Operating Temperature Range
-67 to +257 °F

Scale Factor Temperature Shift [3]
-111 to +111 ppm/°F

Seal
Hermetic

ELECTRICAL

Output Common Mode Voltage, Typ
2.5 VDC

Output Impedance
<10K Ω

Operating Voltage
+9 to +36 VDC

Operating Current (AOP & AON open), Max
35 mA Dc

Power Supply Rejection Ratio
>25 dB

Ground Isolation
>30 MD

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] In the interest of constant product improvement, we reserve the right to change specifications without notice.

For more information, refer to the performance specifications of the products in this family.

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 6753A1, 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

Units on the line drawing are in inches. Refer to 127-7503D for more information.