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 6964AXX CABLE (XX DENOTES LENGTH IN FT)

1. MATERIAL: TITANIUM ALLOY.

NOTES: UNLESS OTHERWISE SPECIFIED

127-7503D
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.001 TIR.
TAP 8-32 UNRC-3B .200 MIN. (OR 2X M4 X 0.7-65 .20 [5.1] MIN.)
RECOMMENDED TORQUE 10-12 LB-IN. (1.12-1.35 N-m).

1/4-28 UNF-2B

(M6 X 1)

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

RECOMMENDED MOUNTING PREPARATION: MODEL 6366
PREPARE MOUNTING SURFACE, Ø 1.25 [31.2] MIN, FLAT TO .001 TIR.
TAP 1/4-28 UNF-2B \( \frac{0.20}{0.05} \) [5.1] MIN. TORQUE TO 12-15 Lb-in.

1/4-28 UNF-2A
Model Number 7503D9

PERFORMANCE SPECIFICATION

TRIAXIAL VARIABLE CAPACITANCE ACCELEROMETER

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 (0.1 ms) g (peak)</th>
<th>Noise Differential (μg/√Hz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7503D1</td>
<td>±2</td>
<td>0-400</td>
<td>2,000</td>
<td>2000</td>
<td>7</td>
</tr>
<tr>
<td>7503D2</td>
<td>±5</td>
<td>0-500</td>
<td>800</td>
<td>2000</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>
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<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>40</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), ±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>120(X&amp;Y), 50(Z)</td>
</tr>
</tbody>
</table>

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 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

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.

ENGLISH   SI

Weight, Max 1.3 oz 38 grams
Connector Type 9-pin, 5/16-32 UNEF-2A 9-pin, 5/16-32 UNEF-2A
Material Titanium Alloy Titanium Alloy
Sensing Technology MEMS MEMS

Frequency Response (±5%) X & Y Axes 0 - 200 Hz 0 - 200 Hz
Z Axis 0 - 500 Hz 0 - 500 Hz
Resonant Frequency >3000 Hz >3000 Hz
Sensitivity Differential, ±5% [1] X & Y Axes 800 mV/g 82 μg/√Hz
Z Axis 160 mV/g 16 μg/√Hz
Output Noise, Differential ,Typ X & Y Axes 12 μg rms/Hz 118 μg/√Hz
Z Axis 25 μg rms/Hz 245 μg/√Hz
Non-Linearity, Max [2] 0.5 % F.S 0.5 % F.S
Cross Axis Sensitivity, Max 3 % 3 %
Scale Factor Calibration Error, Max. 1 % 1 %
Zero Measured Output ±50 mV ±50 mV

Maximum Mechanical Shock (0.1 ms) ±2000 gpk ±19620 m/s² 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 +237 °F -55 to +125 °C
Scale Factor Temperature Shift [3] -111 to +111 ppm/°F -200 to +200 ppm/°C
Seal Hermetic

Output Common Mode Voltage, Typ 2.5 VDC 2.5 VDC
Output Impedance <10K Ω <10K Ω
Operating Voltage +9 to +38 VDC +9 to +36 VDC
Operating Current (AOP &AON open), Max 35 mA Dc 35 mA Dc
Power Supply Rejection Ratio >65 dB >65 dB
Ground Isolation >30 MD >30 MD

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