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.

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

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

2. WEIGHT: 38 GRAMS, MAX.

1. MATERIAL: TITANIUM ALLOY.

NOTES: UNLESS OTHERWISE SPECIFIED

UNLESS OTHERWISE SPECIFIED:
- INTERNET GM & TOL PER AME, FAN-84; 1996
- COUNTERSUNK INTERNAL THD DRILL
- KEY TO SNAKE DOA
- CHAM EDGE FINDS 45° TO MINOR OAL, THRU LENGTH AND SPINDLE ARE FOR MACHINING, ANGULAR DIMENSIONS APPLY AFTER FINISHING.

REVISIONS

REV. DATE CHK APPL

DRAWING

UNLESS OTHERWISE SPECIFIED:
- REMOVE BURRS.
- COUNTERSINK INTERNAL THDS 90’ TO MAJOR DIA.
- CHAM ELONGATION AND SPINDLE ARE FOR MACHINING, ANGULAR DIMENSIONS APPLY AFTER FINISHING.
- ALL MACHINED SURFACES, TOTAL RUNOUT WITHIN .005.
- TOTAL RUNOUT WITHIN .005.
- MACHINED FILLET RADS .015 TO .020.
- MACHINED IN RT.AXIS (X) TO .000.
- MACHINED IN RT.AXIS (Y) TO .000.
- MACHINED IN RT.AXIS (Z) TO .000.
- MACHINED IN RT.AXIS (X) TO .000.
- MACHINED IN RT.AXIS (Y) TO .000.
- MACHINED IN RT.AXIS (Z) TO .000.
- METRIC .5X, .8X, 1.0X.
- DECIMALS .001.
- UNLESS OTHERWISE SPECIFIED:
- DO NOT SCALE DRAWING
- APPROVALS

MASTER

OUTLINE/INSTALLATION DWG,
TRIAXIAL DC ACCELEROMETER,
7503D SERIES

DRAWER

CAGE CODE

DWG NO

REV

SIZE

2W033

DWG NO

127-7503D

REV

1

12/01/14

02/12/15

02/16/15

12-7503D

1

1 OF

2
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 UNRc-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)

(M6 X 1)

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

RECOMMENDED MOUNTING PREPARATION: MODEL 6691
PREPARE MOUNTING SURFACE, Ǿ 1.25 [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

PREPARE MOUNTING SURFACE, Ǿ 1.25 [31.2] MIN. FLAT TO .001 TIR.
TAP 1/4-28 UNF-2B .200 [5.1] MIN. TORQUE TO 12-15 Lb-in.
PERFORMANCE SPECIFICATION

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>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>
</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), ±25(Z)</td>
<td>0-500(X&amp;Y), 0-1400(Z)</td>
<td>800(X&amp;Y), 1600(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), 800(Z)</td>
<td>2000</td>
<td>12(X&amp;Y), 50(Z)</td>
</tr>
</tbody>
</table>

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

PHYSICAL

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, B-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.

ENVIRONMENTAL

Maximum Mechanical Shock (0.1 ms) ±5000 gpk ±49050 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 +257 °F -55 to +125 °C
Scale Factor Temperature Shift [3] -111 to +111 ppm/F 200 to +200 ppm/°C
Seal Hermetic Hermetic

ELECTRICAL

Output Common Mode Voltage, Typ 2.5 VDC 2.5 VDC
Output Impedance <10k Ω <10k Ω
Operating Voltage +9 to +36 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 MO >30 MO

2152 Marilla Street, Chatsworth, California 91311 Phone: 818.700.7818 Fax:818.700.7880 www.dytran.com
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