

Model Number
7603D2

PERFORMANCE SPECIFICATION
PS7603D2

TRIAXIAL VARIABLE CAPACITANCE ACCELEROMETER

DOC NO
PS7603D2

REV E, ECN 14848, 02/05/19



- VARIABLE CAPACITANCE TECHNOLOGY
- DIFFERENTIAL MODE
- HERMETICALLY SEALED
- DC RESPONSE

| `           |      |                        |    |                        |          |
|-------------|------|------------------------|----|------------------------|----------|
|             |      | ENGLIS                 | Н  | SI                     |          |
| PHYSICAL    |      |                        | ā  |                        | <b>-</b> |
| Weight, Max |      | 1.3                    | oz | 38                     | grams    |
| Connector   | Type | 9-pin, 5/16-32 UNEF-2A |    | 9-pin, 5/16-32 UNEF-2A |          |

Titanium Alloy

MEMS

| Sensing Technology |
|--------------------|
| DEDECORMANCE       |

Material

Input Range Frequency Response (±5%) Frequency Response (±3dB)

Resonant Frequency

Sensitivity Differential, ±5% [1] Output Noise, Differential ,Typ

Non-Linearity, Max [2] Cross Axis Sensitivity, Max

## ENVIRONMENTAL

Maximum Mechanical Shock (0.1 ms) Bias Temperature Shift ,Max [3] Bias Calibration Error, Max

Operating Temperature Range Seal

## ELECTRICAL

Output Common Mode Voltage, ± VDC
Output Impedance,Nom
Operating Voltage [6]
Operating Current (AOP &AON open), Max
Power Supply Rejection Ratio

| ±5      | g            | ±49.1   | m/s <sup>2</sup>             |
|---------|--------------|---------|------------------------------|
| 0 - 200 | Hz           | 0 - 200 | Hz                           |
| 0 - 500 | Hz           | 0 - 500 | Hz                           |
| >3000   | Hz           | >3000   | Hz                           |
| 100     | mV/g         | 10      | mV/m/s <sup>2</sup>          |
| 12      | μ g rms/√ Hz | 118     | $\mu$ m/s <sup>2</sup> /V Hz |
| 0.5     | % F.S        | 0.5     | % F.S                        |
| 3       | %            | 3       | %                            |

Titanium Alloy

MEMS

±19620

200

0.5

-55 to +125

Hermetic

| ±2000       | gpk              |  |
|-------------|------------------|--|
| 111         | (ppm of span)/°F |  |
| 0.5         | % of span        |  |
| -67 to +257 | °F               |  |
| Hermetic    |                  |  |

| [4]       |       |
|-----------|-------|
| 1225      | Ω     |
| ±3 to ±11 | VDC   |
| 35        | mA Do |
| >65       | dB    |

|           | Ī     |
|-----------|-------|
| [4]       |       |
| 1225      | Ω     |
| ±3 to ±11 | VDC   |
| 35        | mA Dc |
| >65       | dB    |

| This family also includes: |                 |                                     |                                      |                   |                                |
|----------------------------|-----------------|-------------------------------------|--------------------------------------|-------------------|--------------------------------|
| Model                      | Input Range (g) | Frequency<br>Response,<br>±3dB (Hz) | Sensitivity Differential, ±5% (mV/a) | Max.Shock (0.1ms) | Noise Differential<br>(μg/VHz) |
| 7603D1                     | ±2              | 0-400                               | 250                                  | 2000              | 7                              |
| 7603D3                     | ±10             | 0-1000                              | 50                                   | 5000              | 18                             |
| 7603D4                     | ±25             | 0-1400                              | 20                                   | 5000              | 25                             |
| 7603D5                     | ±50             | 0-2000                              | 10                                   | 5000              | 50                             |
| 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

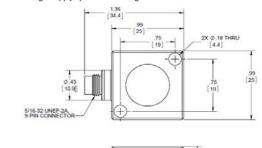
m/s2 peak

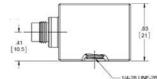
(ppm of span)/°C

% of span

°C

- [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.





Units on the line drawing are in inches. Refer to 127-7603D for more information.

