

PERFORMANCE SPECIFICATION  
 TRIAXIAL ACCELEROMETER  
 (Model 7270A-Z- EE-XXX)

| Document Number | Rev | Date     | Entered by | Description of Change  | Change Accountable Engineer | ECO   |
|-----------------|-----|----------|------------|--|-----------------------------|-------|
| 79805           | NR  | 10/21/24 | NAD        | Initial Release of Performance Specification, Triaxial Accelerometer, Model 7270A-Z-EE-XXX | JKN                         | 55270 |

 1.0 **DESCRIPTION**

The ENDEVCO® Model 7270A-Z is a dummy transducer designed for system noise monitoring. The original silicon sensor of the 7270A has been replaced by four 500Ω silicon dioxide thin film resistors arranged in a full bridge configuration. The transducer produces practically no output under various environmental conditions.

 2.0 **PERFORMANCE**

|     |   |   |
|-----|---|---|
| 2.1 | ACCELERATION SENSITIVITY                | 10 mV max. @ 200, 000g  |
| 2.2 | OVERRANGE ACCELERATION LIMIT            | 200,000g  |
| 2.3 | ZEROSHIFT DUE TO HALF-SINE ACCELERATION | .5 mV max.  |
| 2.4 | ZERO MEASURAND OUTPUT                   | ±100 mV max.  |
| 2.5 | TRANSVERSE SENSITIVITY                  | 10 mV max. @ 200,000g   |
| 2.6 | THERMAL ZEROSHIFT                       | ±50mV maximum, -30°F to +150°F (-34°C to +66°C) relative to +75°F (+24°C) |
| 2.7 | ZEROSHIFT DUE TO MOUNTING TORQUE        | ±1 mV maximum, 0 to 8 lbf-in.   |

 3.0 **ELECTRICAL**

|     |                       |  |
|-----|-----------------------|--|
| 3.1 | EXCITATION            | 10.00 Vdc, 12 Vdc max.   |
| 3.2 | RESISTANCE            | 500 ±50Ω   |
| 3.3 | INSULATION RESISTANCE | 100 mΩ minimum at 100 Vdc between the sensor (all leads tied together) and cable shield or case. |

 4.0 **PHYSICAL**

|     |                        |  |
|-----|------------------------|--|
| 4.1 | CASE MATERIAL          | 17-4 PH CRES   |
| 4.2 | WEIGHT EXCLUDING CABLE | 1.5 grams  |
| 4.3 | IDENTIFICATION         | Serial Number on side of unit; Red "ENDEVCO 7270A-Z" label on lid. |

- 4.4 MOUNTING
  - (2) 4-40 high strength screws (supplied)
  - (2) No. 4 washers (supplied)
  - Recommended mounting torque, 8 ±2 lbf-l (0.9 N-m)
  
- 5.0 **ENVIRONMENTAL**
- 5.1 TEMPERATURE
  - Operating: -67°F to +150°F (-55°C to +66°C)
  - Non-operating: -67°F to +250°F (-55°C to +121°C)
- 5.2 SHOCK LIMITS (in any direction)
  - Half-sine pulse at full scale range. Pulse duration should be the greater of 20 microseconds or five periods of the resonant frequency.
- 5.3 HUMIDITY
  - Epoxied sealed
- 5.4 BASE STRAIN SENSITIVITY
  - Typically less than 0.1 mV for 250 microstrain when tested per ISA 37.2, para 6.5.

6.0 **ACCESSORIES** (Supplied)

- 6.1
  - (2) washers Endevco P/N EHW265
  - (2) screws, 4-40 Allenoy Steel Endevco P/N EH137
  - or equivalent Socket Head Cap 1/4" long.

7.0 **CALIBRATION**

Each unit is tested for output at 10,000 g ±20% at room temperature in the sensitive axis. The output of the unit due to shock must not exceed 0.5 mV with 10.0 Vdc excitation.

8.0 **MODEL NUMBER DEFINITION**

