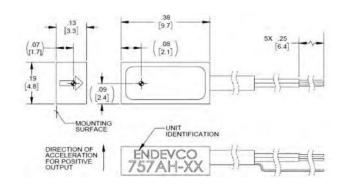
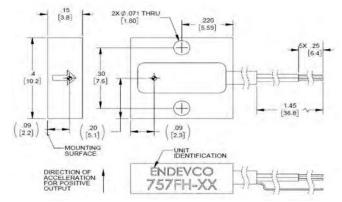
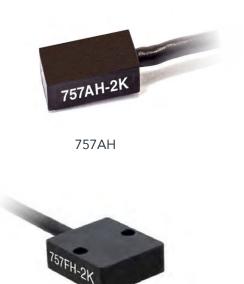


# **Piezoresistive accelerometer** Model 757AH - 757FH







757FH

## **Key features**

- High sensitivity, 0.3 mV/g
- Multi-mode gas damping
- Miniature for tight spaces
- DC response
- Survives up to 10,000 g's shock

The Endevco<sup>®</sup> Model 757AH and 757FH are very low mass accelerometers weighing less than 2 grams. These accelerometers are designed for crash testing and similar applications that require minimal mass loading and broad frequency response.

The Model 757AH and 757FH feature a unique micro-machined, piezoresistive sensor with gas damping. This monolithic sensor incorporates the latest MEMS technology for ruggedness, stability and reliability. The accelerometer has a four active arm, full bridge circuit. Full-scale output is 600 mV nominal with 10 Vdc excitation. With a frequency response extending down to dc (steady state acceleration), this accelerometer is ideal for measuring long duration transient shocks.

The Model 757AH is designed for adhesive mounting for ultimate flexibility when mounting. The Model 757FH is designed for screw mounting with the provided screws.

U.S. Patent 6,988,412 applies.



## Piezoresistive accelerometer Model 757AH - 757FH

All specifications are referenced at +75°F (+24°C) and 10 Vdc, unless otherwise noted. Calibration data, traceable to National Institute of Standards and Technology (NIST), is supplied.

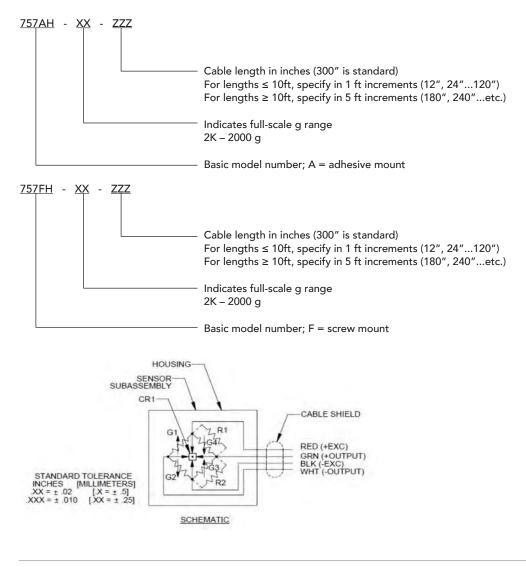
| Specifications Dynamic characteristics Units -2K |         |   |  |  |
|--|---------|---|--|--|
| Dynamic characteristics                          | Units   | -2K   |  |  |
| Range  | g       | ± 2,000   |  |  |
| Sensitivity (at 100Hz and 10g)                   |         |   |  |  |
| Minimum/Nominal/Maximum                          | mV/V/g  | .015 / .030 / .060  |  |  |
| Frequency response (Referenced to 100 Hz)        |         |   |  |  |
| ± 5% maximum                                     | Hz      | 0 to 3,000  |  |  |
| Non-linearity                                    | %       | ±1  |  |  |
| Zero measurand output (max)                      | mV      | ±50   |  |  |
| Transverse sensitivity                           | %       | 3   |  |  |
| Thermal zero shift (typ)                         |         |   |  |  |
| 0° to 50°C                                       | %FSO/°C | 0.02  |  |  |
| 32° to 122°F                                     | %FSO/°F | 0.01  |  |  |
| Thermal sensitivity shift (typ)                  |         |   |  |  |
| 0° to 50°C                                       | %/°C    | 0.2   |  |  |
| 32° to 122°F                                     | %/°F    | 0.1   |  |  |
| Electrical characteristics                       |         |   |  |  |
| Excitation                                       | Vdc     | 2.0, 5.0, 10.0  |  |  |
| Resistance                                       |         |   |  |  |
| Input  | ohms    | 6,500 ±2,000  |  |  |
| Output   | ohms    | 6,500 ±2,000  |  |  |
| Insulation resistance                            | Mohms   | 100 min at 50 Vdc   |  |  |
| Physical characteristics                         |         |   |  |  |
| Case material                                    |         | Anodized aluminum with stycast fill, black                      |  |  |
| Electrical connections                           |         | Integral 4 conductor, # 32 AWG, PVC insulated leads             |  |  |
| Liettical connections                            |         | shielded with black PVC jacket                                  |  |  |
| Mounting   |         | Sherded With Black 1 ve jacket                                  |  |  |
| 757AH  |         | Adhesive  |  |  |
| 757FH  |         | 0 - 80 socket head cap screws                                   |  |  |
|  |         | 2.6 in-lbf (0.29 N.m) recommended/3.0 in-lbf (0.34 N.m) maximum |  |  |
| Weight   |         |   |  |  |
| 757AH  |         | 1.5 gm (0.05 oz); excluding cable                               |  |  |
| 757FH  |         | 2.0 gm (0.07 oz); excluding cable                               |  |  |
| Environmental characteristics                    |         |   |  |  |
| Acceleration limits                              |         |   |  |  |
| Shock (half-sine pulse duration)                 |         | 10,000 g, 80 µsec or longer                                     |  |  |
| Temperature                                      |         |   |  |  |
| Operating  |         | - 40°C to + 100°C (-40°F to + 212°F)                            |  |  |
| Storage  |         | Room temperature  |  |  |
| Humidity   |         | IP67  |  |  |
| Calibration data                                 |         |   |  |  |
| Frequency response                               |         | 10 q, 20 to 3,000, ref 100 Hz                                   |  |  |
| Sensitivity                                      |         | 10 g, 100 Hz at 2, 5 and 10 V                                   |  |  |
|  |         |   |  |  |
| ZMO  |         | At 2, 5 and 10 V  |  |  |

#### Piezoresistive accelerometer Model 757AH - 757FH

| Accessories |   |                     |
|-------------|---|---------------------|
| Product     | Description   | 757AH - 757FH       |
| EH861       | Screw, socket head, 0 - 80 x $\frac{1}{4}$ alloy steel blk oxide (x2) | Included with 757FH |
| EHM35       | Allen wrench, (x1)  | Included with 757FH |
| 7957        | Triaxial mounting block for 757A                                      | Optional            |
| 7953A       | Triaxial mounting block for 757F                                      | Optional            |

1. Maintain high levels of precision and accuracy using Endevco's factory calibration services. Call Endevco's inside sales force at 866-ENDEVCO for recommended intervals, pricing and turn-around time for these services as well as for quotations on our standard products.

#### 2. Model number definitions:



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