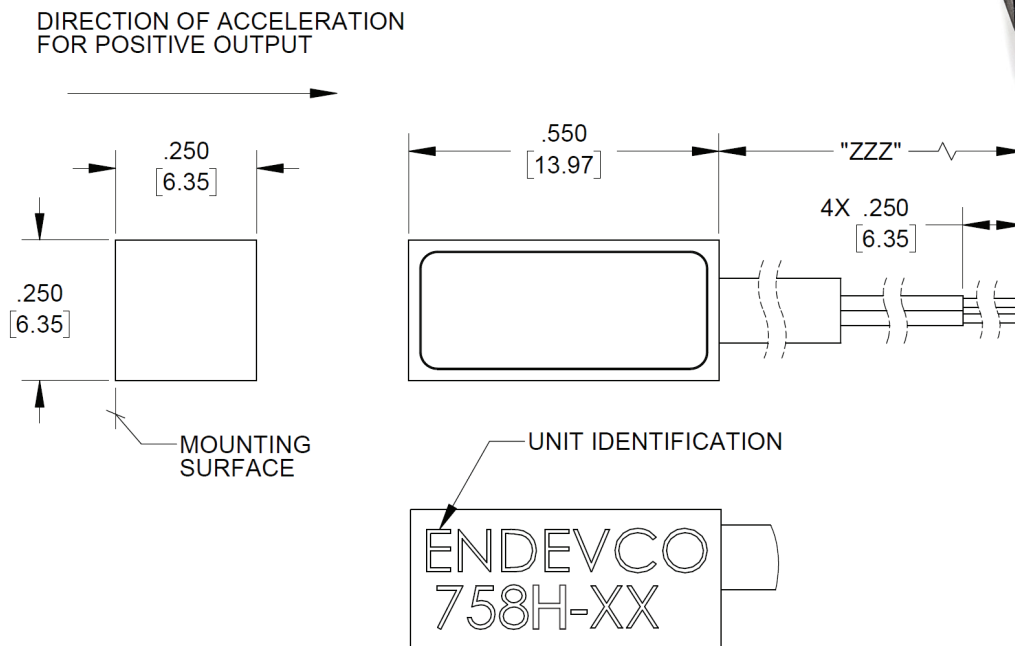
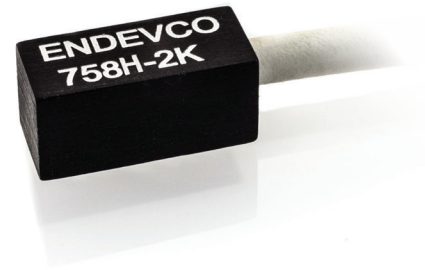


Piezoresistive accelerometer

Model 758H



Key features

- 2,000 g range
- Multi-mode damping
- 600 mV full scale
- Adhesive mount
- Rugged to 10,000 g's

Description

The ENDEVCO® Model 758H is a very low mass accelerometer designed for crash testing and similar applications that require minimal mass loading and broad frequency response.

The Model 758H uses a unique micro-machined, piezoresistive sensor with multi-mode 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 758H comes standard with calibrations performed at 2V, 5V, and 10V excitation.

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

Piezoresistive accelerometer | Model 758H

All specifications assume +75°F (+24°C) and 10 Vdc excitation, unless otherwise specified. Calibration data, traceable to the National Institute of Standards and Technology (NIST), are supplied.

| Specifications | | |
|--|--|---------------------------------------|
| Dynamic characteristics | Units | -2K |
| Range | g | ± 2,000 |
| Sensitivity (Minimum/Nominal/Maximum) | mV/g | .15/.30/.60 |
| | mv/V/g | .015/.030/.060 |
| Frequency response (Ref. to 100 Hz, ± 5% maximum) | Hz | 0 to 4,000 |
| Zero measurand output at any excitation voltage | mV | ±25mV |
| Non-linearity | % | 1 |
| Thermal zero shift | | |
| 0° to 50°C | %FSO/°C | 0.02 |
| 32° to 122°F | %FSO/°F | 0.01 |
| Thermal sensitivity shift | | |
| 0° to 50°C | %/°C | 0.2 |
| 32° to 122°F | %/°F | 0.1 |
| Transverse sensitivity | % | 3 |
| Electrical characteristics | | |
| Excitation voltage | Vdc | 2.0, 5.0, 10.0 |
| Max. Excitation voltage without damage | Vdc | 12.0 |
| Resistance | | |
| Input | Ω | 6,500 ±2,000 |
| Output | Ω | 6,500 ±2,000 |
| Isolation (leads to case or shield) | MΩ | 100 min. at 50 Vdc |
| Physical characteristics | | |
| Case, material | Hard anodized aluminum alloy housing with Stycast fill, color black | |
| Cable, integral | Integral 4 conductor, # 28 AWG Teflon insulated leads, shielded with white polyurethane jacket | |
| Mounting | Adhesive | |
| Weight (excluding cable) | 0.07 oz (2.0 gm); cable 0.2 oz/ft (19 gm/m), typical | |
| Environmental characteristics | | |
| Temperature | | |
| Operating | | - 40°C to + 100°C (- 40°F to + 212°F) |
| <i>Note: Model 758H can operate during excursions down to -55°C (-67°F) with limited lifetime.</i> | | |
| Storage | | Room temperature |
| Acceleration limits (sensitive direction) | | |
| Shock | | 10,000 g |
| Minimum haversine shock pulse duration | | 80 μS |
| Humidity | | IP67 |
| Calibration data | | |
| Sensitivity (10 g, 100 Hz at 2V, 5V and 10V) | | |
| ZMO (at 2V, 5V and 10V) | | |
| Frequency Response (20 to 4,000 Hz, Ref 100 Hz) | | |

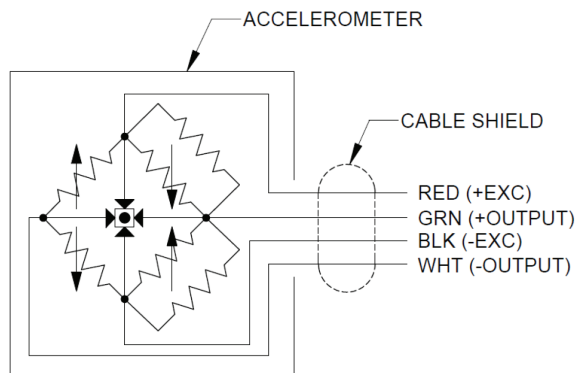
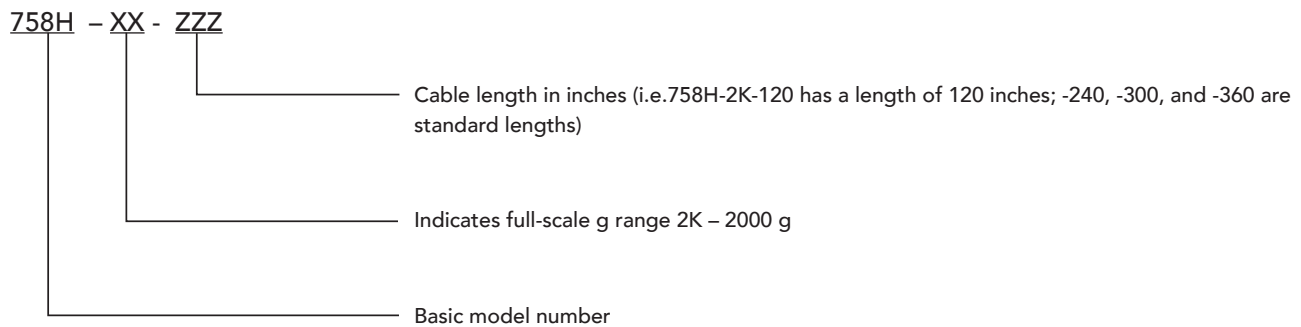
Piezoresistive accelerometer | Model 758H

| Accessories | | |
|-------------|---|----------|
| Options | Description | 758H |
| 4418 | Portable 1 Channel DC Differential Voltage Signal Conditioner | Optional |

Notes

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 definition:



SCHEMATIC

| STANDARD TOLERANCE | |
|--------------------|---------------|
| INCHES | [MILLIMETERS] |
| .XX = ± .02 | [.X = ± .5] |
| .XXX = ± .010 | [.XX = ± .25] |

www.endevco.com | Tel: +1 (866) ENDEVCO [+1 (866) 363-3826] | 10869 NC-903, Halifax, NC 27839 USA



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