

Model 65HT Isotron[®] accelerometer

Features

- **NEW!** 65HT-10-R available as replacement sensor
- Shock-proof, overload-protected
- Automotive test cell
- Aerospace test chambers
- Triaxial, low-impedance output
- Small size (10-mm cube, 5 gram)
- Rated for continuous use up to +175°C (350°F)

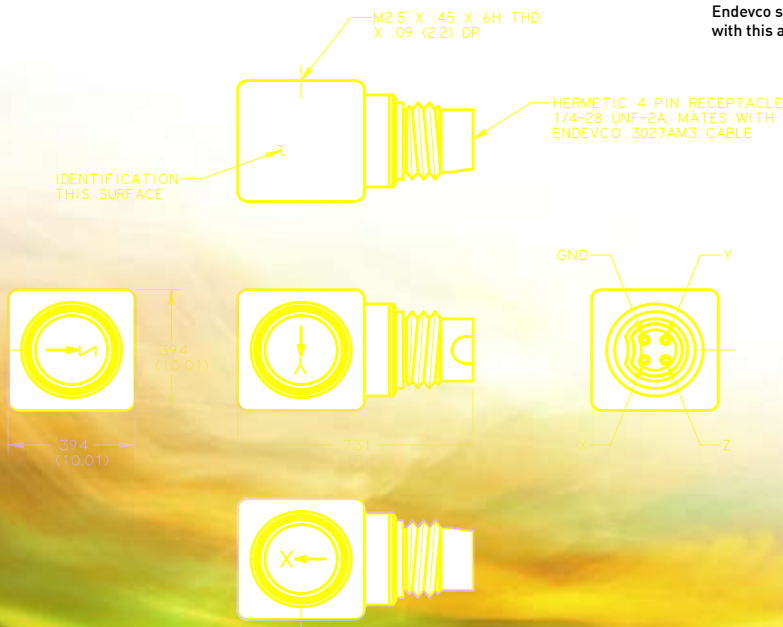


Description

The extended temperature capability (+175°C) and high resolution of Endevco's model 65HT triaxial accelerometer distinguish it from competitor offerings. The Endevco[®] model 65HT is packaged in a 10-mm cube of welded titanium construction. Interface to the model 65HT is via a hermetically sealed 4-pin connector. Using the latest technology in high temperature components and processes, the micro-electronic circuits are designed and built specifically to continuously operate at +175°C. It is supplied with high temperature cable assemblies as a standard accessory.

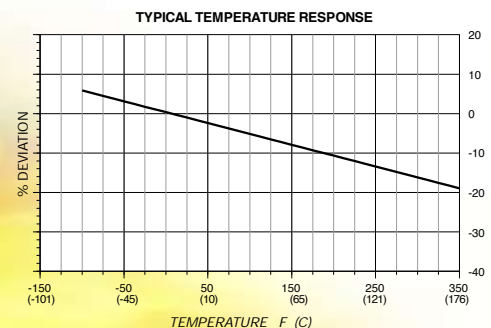
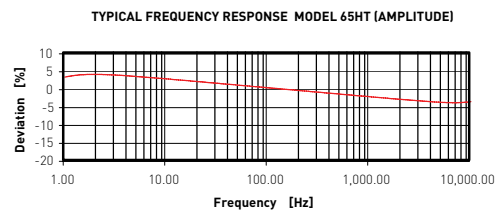
The model 65HT's excellent frequency responses, both amplitude and phase, provide the user with a triaxial accelerometer ideally suited for structural and component testing in automotive test cells, environmental test chambers, ESS and general laboratory applications. The reduced size of this accelerometer enables the test engineer or technician to measure the accelerations of three orthogonal axes of vibration simultaneously on lightweight structures.

Endevco signal conditioner models 133, 2792B, 2793 or Oasis are recommended for use with this accelerometer.



STANDARD TOLERANCE
INCHES (MILLIMETERS)
XX = ± .03 (X = ± .8)
XXX = ± .010 (XX = ± .25)

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Specifications

The following performance specifications conform to ISA-RP-37.2 (1964) and are typical values, referenced at +75° F (+24° C) and 100Hz, unless otherwise noted. Calibration data, traceable to National Institute of Standards and Technology (NIST), is supplied.

Dynamic characteristics

| | Units | -05 | -1 | -10 |
|------------------------------|-------|--------------------------------|-------|------|
| Range | g | ±10 000 | ±5000 | ±500 |
| Voltage sensitivity, typical | mV/g | 0.5 | 1 | 10 |
| Frequency response | | See typical amplitude response | | |
| Amplitude response | | | | |
| ±5% | Hz | 5 to 6000 (z-axis) | | |
| | Hz | 5 to 6000 (x,y-axis) | | |
| ±1 dB typical | Hz | 3 to 8000 (all axes) | | |
| Resonance frequency | Hz | 40 000 | | |
| Transverse sensitivity | % | < 5 | | |
| Temperature response | | See typical curve | | |
| Amplitude non-linearity | % | < 1 | | |

Output characteristics

| | | | | |
|---------------------------------------|--------|--|--------|--------|
| Output polarity | | See arrows on outline drawing | | |
| DC output bias voltage [2] | Vdc | +10.0 to +13.0@room temperature (8 to 16 over temp. range) | | |
| Output impedance 3ma to 4ma | | < 100 | | |
| Full scale output voltage | Vpk | ±5 | | |
| Resolution (2 Hz to 10 kHz broadband) | µg rms | ≤ 8000 | ≤ 1000 | ≤ 1400 |
| Grounding | | Signal ground connected to case | | |

Power requirement

| | | |
|---|-----|------------|
| Compliance voltage | Vdc | +23 to +30 |
| Supply current [1] | mA | +1 to +4 |
| Warm-up time (to reach 90% of final bias) | sec | < 2 |

Environmental characteristics

| | | | | |
|----------------------------|------|---|-------|-------------------|
| Temperature range | | -65° F to +350° F (-55° C to +175° C) | | |
| Humidity | | Hermetically sealed welded construction | | |
| Sinusoidal vibration limit | g pk | ±10 000 | ±5000 | ±5000 |
| Shock limit [3] | g pk | | | Sh>> B3> limit β] |

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