

ISOTRON® Accelerometer

ENDEVCO
MODEL
65-10
-100

MODEL 65

- **Triaxial, Low-Impedance Output**
- **Small Size (10-mm cube, 5 gram)**
- **High Output (100 mV/g), High Resolution (Mili-g)**
- **Ideal for Structural Analysis**
- **Shock-Proof, Overload-Protected**
- **Single Connector, Flexible Cable**



Actual size

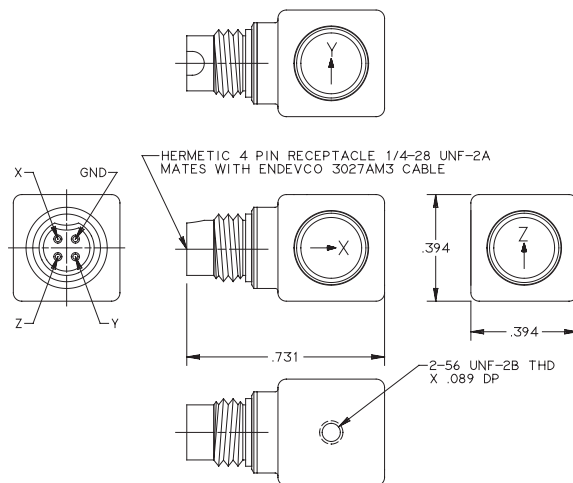
DESCRIPTION

The high sensitivity and high resolution of Endevco's Model 65 distinguish this triaxial accelerometer from comparable products. The ENDEVCO® Model 65 is packaged in a 10-mm cube of welded titanium construction. Interface to the Model 65 is via a Microtech 4-pin connector. Temporary petro-wax adhesive and a ten-foot cable assembly with BNC connectors are provided as standard accessories.

The Model 65's excellent frequency response, both amplitude and phase, provide the user with a triaxial accelerometer ideally suited for structural and component testing, drop tests and general laboratory vibration work. 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.

A model number suffix indicates output sensitivity in mV/g; i.e., -100 features 100 mV/g.

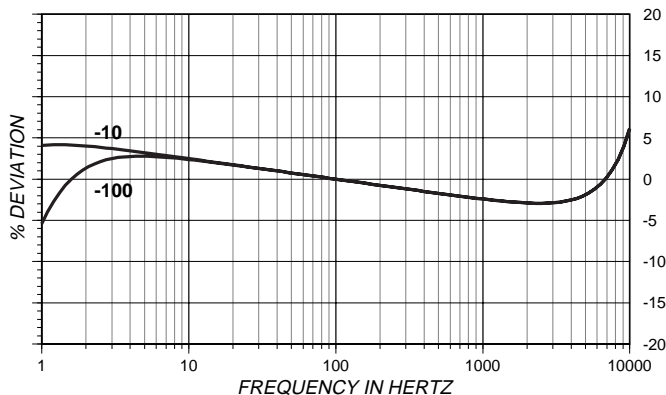
Endevco Signal Conditioner Models 133, 2792B, 2793 or 4416B are recommended for use with this accelerometer.



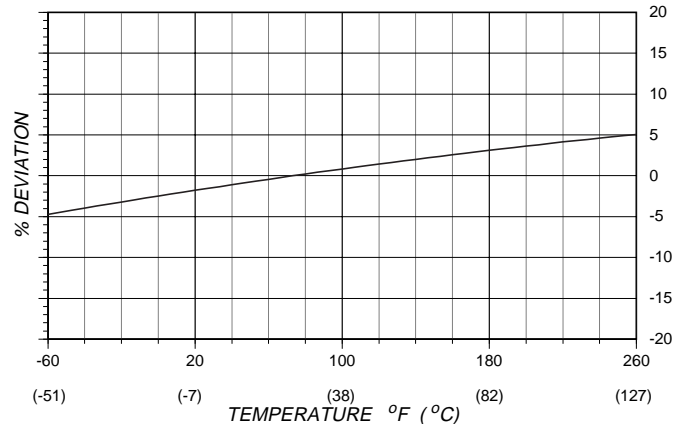
STANDARD INCHES	TOLERANCE (MILLIMETERS)
.XX = ± .03	(X ± .8)
.XXX = ± .010	(XX ± .25)

BRAND 65

TYPICAL AMPLITUDE RESPONSE



TYPICAL TEMPERATURE RESPONSE



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SPECIFICATIONS (EACH AXIS)

The following performance specifications conform to ISA-RP-37.2 (1964) and are typical values, referenced at +75°F (+24°C), 4 mA, and 100 Hz, unless otherwise noted. Calibration data, traceable to National Institute of Standards and Technology (NIST), is supplied.

DYNAMIC CHARACTERISTICS	Units	-10	-100
RANGE	g	+500	+50
VOLTAGE SENSITIVITY, Typical	mV/g	10	100
FREQUENCY RESPONSE		See Typical Curves	
AMPLITUDE RESPONSE			
± 5%	Hz	1 to 10,000 (z-axis)	
	Hz	1 to 6,000 (x,y)	
±1dB, typical	Hz	0.5 to 10,000 (all axes)	
RESONANCE FREQUENCY	kHz	34	
TRANSVERSE SENSITIVITY [1]	%	≤ 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	+11.5 to +12.5	
OUTPUT IMPEDANCE	Ω	≤ 100	
FULL SCALE OUTPUT VOLTAGE		± 5	
RESOLUTION (2 Hz to 10 kHz broadband)	g rms	0.0008	0.0004
GROUNDING	Signal ground is connected to the case		

POWER REQUIREMENT

COMPLIANCE VOLTAGE	Vdc	+ 22 to + 30	
SUPPLY CURRENT	mA	+ 2 to + 20	
WARM-UP TIME (to reach 90% of final bias)	sec	< 20	

ENVIRONMENTAL CHARACTERISTICS

TEMPERATURE RANGE	- 67°F to + 257°F (- 55°C to + 125°C)		
HUMIDITY	Welded Construction		
SINUSOIDAL VIBRATION LIMIT	g	± 2,000	
SHOCK LIMIT [3]	g pk	10,000	
BASE STRAIN SENSITIVITY At 250 µstrain	eq. g/µstrain	0.01	0.001
THERMAL TRANSIENT SENSITIVITY	eq. g /°F (°C)	0.1 (0.2)	0.01 (0.02)

PHYSICAL CHARACTERISTICS

DIMENSIONS	See Outline Drawing		
WEIGHT	gm (oz)	5 (0.17)	
CASE MATERIAL	Titanium, CP		
CONNECTOR [4]	Microtech DR-4S-4H		
MOUNTING [5]	Adhesive or 2-56 Thread		

CALIBRATION

SUPPLIED, EACH AXIS			
VOLTAGE SENSITIVITY	mV/g		
MAXIMUM TRANSVERSE SENSITIVITY	%		
FREQUENCY RESPONSE	%	20 Hz to 10 kHz	

ACCESSORY

Model 3027AM3 (10 ft) TRIAXIAL CABLE, 85°C
3 BNC's at instrumentation end

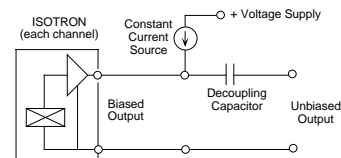
Petro Wax

OPTIONAL ACCESSORIES

Model 3027AM4-120 (10 ft) TRIAXIAL CABLE, 125°C
(Transducer extension cable, mates with Model 3027AM3)

Model 32227 Petro Wax
Model 31849 DAAK Deluxe Accelerometer Adhesive Kit

- Maintain high levels of precision and accuracy using Endevco's factory calibration services. Call Endevco's inside sales force at 800-982-6732 for recommended intervals, pricing and turn-around time for these services as well as for quotations on our standard products.



Model 133, 3-Channel
Signal Conditioner

NOTES

- 3% Maximum Transverse sensitivity available upon request.
- +22 Vdc minimum must be available to the accelerometer to ensure full-scale operation at the temperature extremes.
- Shock pulses of short duration may excite sensor resonance.
- Microtech DR-4S-4H receptacle mates with Endevco Model 3027AM3 cable assembly.
- Be careful not to apply abusive forces when removing the accelerometer from structure.

Continued product improvement necessitates that Endevco reserve the right to modify these specifications without notice. Endevco maintains a program of constant surveillance over all products to ensure a high level of reliability. This program includes attention to reliability factors during product design, the support of stringent Quality Control requirements, and compulsory corrective action procedures. These measures, together with conservative specifications have made the name Endevco synonymous with reliability.

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