

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



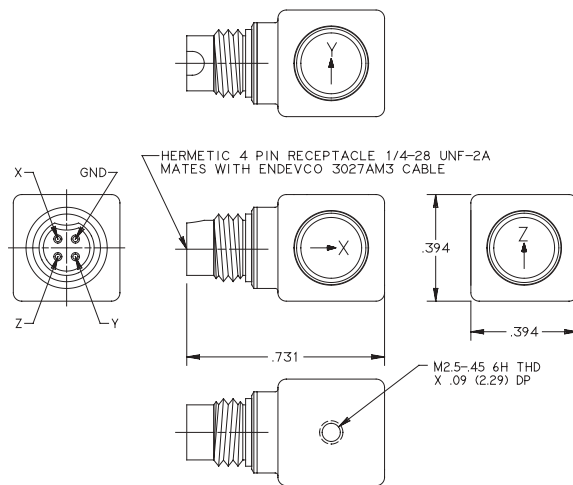
DESCRIPTION

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.

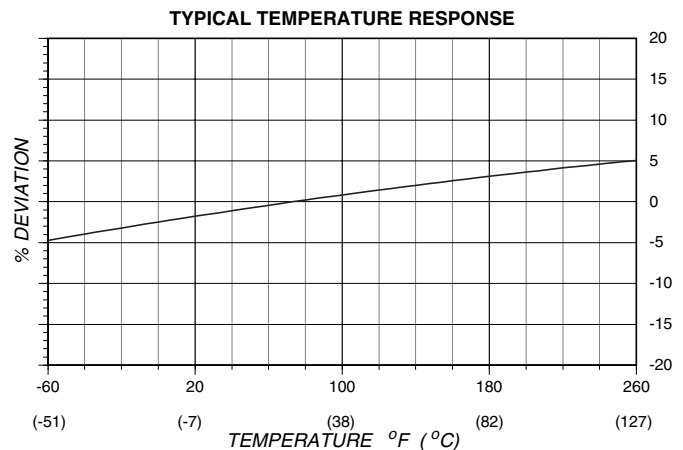
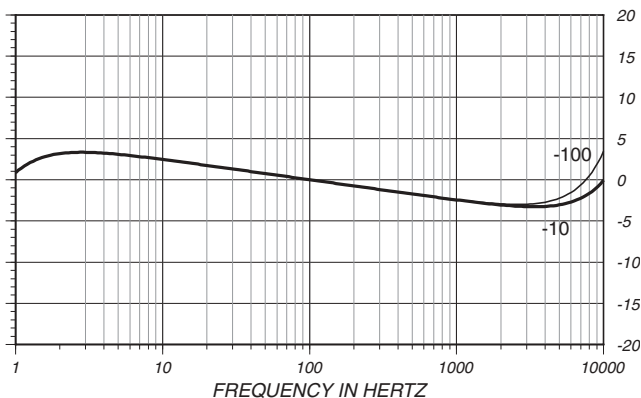
A model number suffix indicates output sensitivity in mV/g; i.e., -100 features 100 mV/g.

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)

BRAVO 65



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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			
±1dB, typical [1]	Hz	0.5 to 10,000	
RESONANCE FREQUENCY	kHz	45	35
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 [3]	Vdc	+11.5 to +13.0	
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 [4]	g pk	10,000	
BASE STRAIN SENSITIVITY	eq. g/μstrain	0.01	
0.001	At 250 μstrain		
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 [5]	Microtech DR-4S-4H		
MOUNTING [6]	Adhesive or 2.5 mm Thread		

CALIBRATION

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

ACCESSORY

Model 3027AM3-120 (10 ft)	TRIAxIAL CABLE, 85°C 3 BNC's at instrumentation end Screw, cap M2.5 x .45 x 6 mm Screw, set M2.5 x .45 x 6 mm
P/N EH755 P/N EH761 Petro Wax	

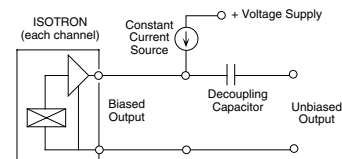
OPTIONAL ACCESSORIES

Model 3027AVM13-120 (10 ft)	TRIAxIAL CABLE, 200°C (Transducer extension cable, mates with Model 3027AM3)
P/N 32227 P/N 31849	Petro Wax DAAK Deluxe Accelerometer Adhesive Kit
65M1 version	Electrical Isolation, Case [2]

NOTES

1. Frequency response calibration on x and y may be limited by the mounting fixture of the calibration system. Actual frequency responses of axis x and y are similar to axis z.
2. Case isolation available as model 65M1-XXX. Must be specified at time of order.
3. +22 Vdc minimum must be available to the accelerometer to ensure full-scale operation at the temperature extremes.

4. Shock pulses of short duration may excite sensor resonance.
5. Microtech DR-4S-4H receptacle mates with Endevco Model 3027AM3 cable assembly.
6. Be careful not to apply abusive forces when removing the accelerometer from structure.
7. 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

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.