

Model 65 Isotron[®] accelerometer

Features

- 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

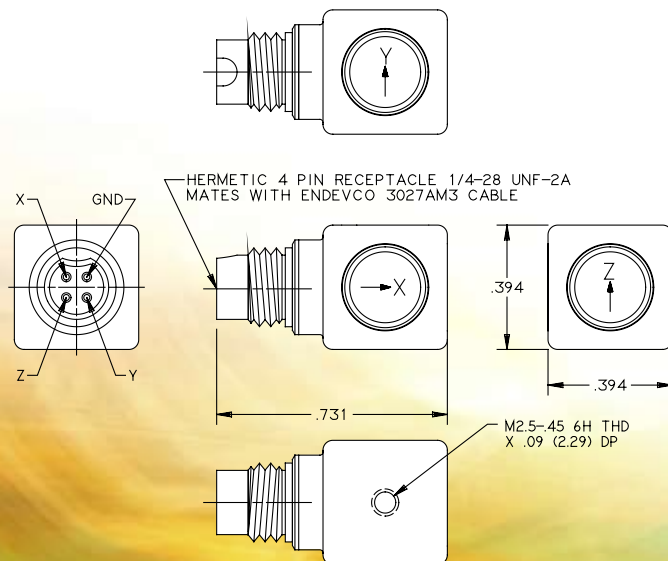


Description

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.

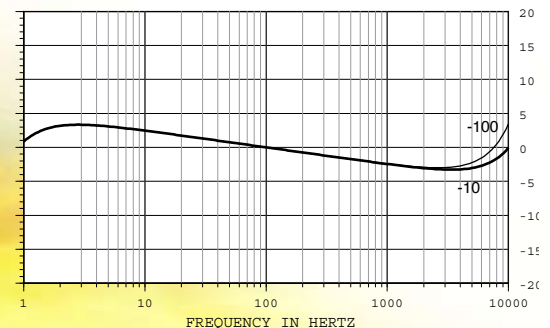
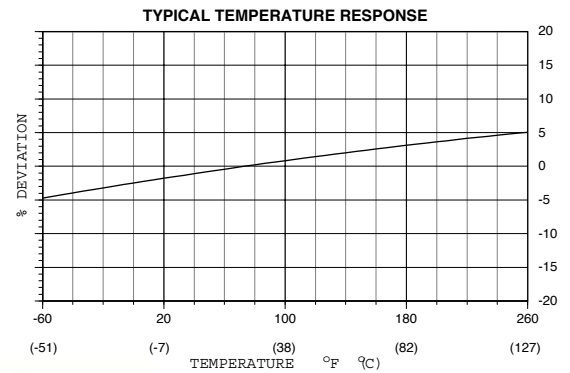
The Model 65's excellent frequency response, both amplitude and phase, provide the user with a triaxial accelerometer ideally suited for structural and component testing, drop tests and general laboratory vibration work. The reduced size of this accelerometer enables the test engineer or technician to 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 TOLERANCE	
INCHES	(MILLIMETERS)
.XX = ± .03	(X ± .8)
.XXX = ± .010	(XX = ± .25)

BRAVO-65



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Endevco

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	0.4 to 10,000	1.5 to 6,000
RESONANCE FREQUENCY	Hz	60,000	45,000
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 [3]	Vdc	+12.3 to +13.5	
OUTPUT IMPEDANCE	Ω	≤ 100	
FULL SCALE OUTPUT VOLTAGE	Vpk	± 5	
RESOLUTION (2 Hz to 10 kHz broadband)	g rms	0.0006	0.0004
GROUNDING	Signal ground is connected to the case		

POWER REQUIREMENT

COMPLIANCE VOLTAGE	Vdc	+ 23 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 pk	±500	±200
SHOCK LIMIT [4]	g pk	10,000	
BASE STRAIN SENSITIVITY	eq. g/μstrain	<0.001	<0.001
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, commercially pure		
CONNECTOR [5]	4 pin Microtech style side mounted		
MOUNTING [6]	Adhesive or m2.5 thread		

CALIBRATION

SUPPLIED, EACH AXIS			
VOLTAGE SENSITIVITY	mV/g		
MAXIMUM TRANSVERSE SENSITIVITY	%		
FREQUENCY RESPONSE	Hz	20 to 6000	

INCLUDED ACCESSORIES

Model 3027AM3-120 (10 ft)	TRIAXIAL CABLE, 85°C 3 BNC's at instrumentation end Screw, cap M2.5 x .45 x 6 mm
P/N EH755	Screw, set M2.5 x .45 x 6 mm
P/N EH761	Petro Wax
P/N 32227	

OPTIONAL ACCESSORIES

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

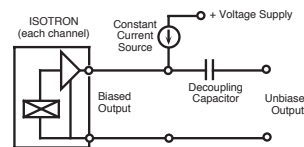
NOTES

- 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.
- Case isolation available as model 65M1-XXX. Must be specified at time of order.
- +22 Vdc minimum must be available to the accelerometer to ensure full-scale operation at the temperature extremes.

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