ENDEVCO MODEL 7265AM3

Piezoresistive Accelerometer

SPECIFICATIONS—continued

PERFORMANCE CHARACTERISTICS

	Units	7265AM3
TRANSVERSE SENSITIVITY [1]	% Max	2
ZERO MEASURAND OUTPUT	mV Max	±25
THERMAL ZERO SHIFT From 0°F to 150°F (-18°C to +66°C)	mV Max	±25
THERMAL SENSITIVITY SHIFT At 0°F and 150°F (-18°C and +66°C)	% Typ	-5
WARM-UP TIME	Minutes Max	2

ELECTRICAL

EXCITATION [2] [3]	10.0 Vdc, 15 Vdc maximum
INPUT RESISTANCE [2] [4]	700 ohms
OUTPUT RESISTANCE [2] [4]	850 ohms
FIXED RESISTORS	500 ohms ±1%
INSULATION RESISTANCE	100 megohms minimum at 100 Vdc; between sensors, cable shield and housing

PHYSICAL

CASE, MATERIAL	Anodized aluminum alloy
ELECTRICAL, CONNECTIONS	ENDEVCO Model 3022B-120 (supplied)
IDENTIFICATION	Manufacturer's logo, model number and serial number
MOUNTING/TORQUE	Slots for two 2-56 mounting screws/5 lbf-in (0.6 Nm)
WEIGHT	3 grams (cable weighs 9 grams/meter)

ENVIRONMENTAL

ACCELERATION LIMITS (in any direction) [5]	
Static	5000 g
Sinusoidal Vibration	1000 g pk below 4000 Hz
Shock (half-sine pulse)	5000 g, 200 µsec or longer
TEMPERATURE	
Operating	0°F to 150°F (-18°C to +66°C)
Storage	-65°F to +200°F (-54°C to +93°C)
HUMIDITY	Unaffected. Unit is hermetically sealed
ALTITUDE	Unaffected

CALIBRATION DATA SUPPLIED

SENSITIVITY (at 100 Hz and 10 g pk)	mV/g
FREQUENCY RESPONSE	20 Hz to 4000 Hz, % deviation reference 100 Hz; dB plot continued through resonance frequency
ZERO MEASURAND OUTPUT	mV
MAXIMUM TRANSVERSE SENSITIVITY	% of sensitivity
MOUNTED RESONANCE FREQUENCY	Hz
INPUT AND OUTPUT RESISTANCE	Ohms

ACCESSORIES

EHM178	HEX WRENCH 5/64 INCH
EHW200	(2) SIZE 2 FLAT WASHERS
EH3	(2) 2-56 X 1/4 INCH SOCKET HEAD CAP SCREWS
3022B-120	CABLE ASSEMBLY

OPTIONAL ACCESSORIES

3022B-XXX	CABLE ASSEMBLY (XXX IDENTIFIES CABLE LENGTH IN INCHES)
3023B-XXX	CABLE ASSEMBLY (XXX IDENTIFIES CABLE LENGTH IN INCHES)
7955M1	TRIAXIAL MOUNTING BLOCK

NOTES

1. 1% transverse sensitivity available as "T" option.
2. Other excitation voltages may be used to 15.0 Vdc. Specify at time of order to obtain a more accurate calibration.
3. Rated excitation is 10.0 Vdc. The strain gage elements have a positive temperature coefficient of resistance of approximately 0.5% per °F. Power supply current regulating capability should be carefully considered when operating at low temperature extremes, especially when exciting more than one transducer from a single supply.
4. Measured at approximately 1 Vdc. Bridge resistance increases with applied voltage due to heat dissipation in the strain gage elements.
5. The safety sleeve should be kept on the unit when not in use to prevent possible handling damage.

NOTE: Tighter specifications available on special order.

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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Piezoresistive Accelerometer

ENDEVCO MODEL 7265AM3

Model 7265AM3

- **Small Size**
- **2000 g Full Scale**
- **Detachable Cable**
- **DC Response**
- **Undamped**



Actual size

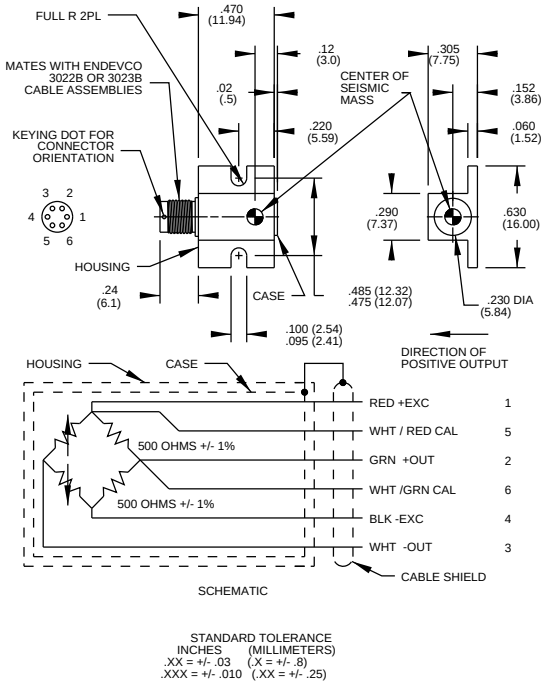
DESCRIPTION

The ENDEVCO® Model 7265AM3 is a low mass, undamped piezoresistive accelerometer designed with a miniature receptacle to allow for detachment of the 3022B or 3023B cable assembly. This accelerometer is designed specifically for the automotive crash testing industry and meets SAEJ211 specifications for anthropomorphic dummy instrumentation.

The 7265AM3 utilizes two of ENDEVCO's PIEZITE® P-11 silicon gages and two fixed resistors in a full bridge circuit. Provision is made for shunt calibration in a six-wire system.

The 7265AM3 has a sensitivity of 0.25 mV/g and a full scale output of 500 mV with 10 Vdc excitation. Full scale acceleration range for the unit is ±2000 g. This unit is available with increased performance providing for 1% transverse sensitivity ("T" option) on special order.

ENDEVCO Model 136 Three-Channel System, Model 4430A or Model 68207 BCAS™ Computer Controlled System are recommended as signal conditioner and power supply.



SPECIFICATIONS

PERFORMANCE CHARACTERISTICS: All values are typical at 75°F (+24°C) and 10 Vdc excitation unless otherwise specified. Calibration data, traceable to the National Institute of Standards (NIST), is supplied.

	Units	Model 7265AM3
RANGE	g pk	±2000
SENSITIVITY (at 100 Hz)	mV/g Typ	0.25
	(Min)	(0.15)
FREQUENCY RESPONSE (±5% max, ref. 100 Hz)	Hz	0 to 4000
MOUNTED RESONANCE FREQUENCY	Hz Typ	20 000
	(Min)	(16 000)
DAMPING RATIO		0.005
NON-LINEARITY AND HYSTERESIS (% of reading, to full range)	% Max	±2