

PERFORMANCE SPECIFICATION
 ACCELEROMETER
 (Model 7262A-XX-ZZZ)

Document Number	Rev	Date	Entered by	Description of Change	Change Accountable Engineer	ECO
79879	NR	5/8/25	NAD	Initial Release	JKN	55645

1.0 DESCRIPTION

The Endevco® Model 7262A is a family of rugged damped piezoresistive accelerometers designed for high amplitude acceleration, vibration, and shock applications. The Model 7262A features minimal mass loading, broad frequency response, and minimum zero shift during a shock event.

The Model 7262A uses a unique micro-machined, piezoresistive sensor with gas damping to attenuate resonant amplitudes, and mechanical stops to reduce breakage under overload conditions. The monolithic sensor incorporates the latest MEMS technology for ruggedness, stability, and reliability. The accelerometer features a four-active arm bridge circuit, with temperature compensation electronics for stable performance over a wide range of temperatures.

Included in the accelerometer is a signal conditioner allowing the device to operate with any excitation voltage from 6V to 18V while maintaining identical performance. The accelerometer provides differential or single-ended output. The $\pm 2V$ differential output is DC coupled at a DC bias of approximately 2.5V. The single-ended output is 0.5V to 4.5V with 2.5V bias voltage.

U.S. Patent 6,988,412 applies to this unit.

2.0 PERFORMANCE

(At 10 Vdc excitation and room temperature, unless otherwise specified.)

		Units	
2.1	RANGE		
	-100	g	100
	-500	g	500
	-1000	g	1000
2.2	SENSITIVITY		
	-100, Minimum/Nominal/Maximum	mV/g	4 / 5 / 6
	-500, Minimum/Nominal/Maximum	mV/g	1.6 / 2.0 / 2.4
	-1000, Minimum/Nominal/Maximum	mV/g	0.8 / 1.0 / 1.2
2.3	FREQUENCY RESPONSE (Referenced to 100 Hz)	$\pm 5\%$ maximum, 0 – 2000 Hz	
2.4	ZERO MEASURAND OUTPUT at any excitation voltage	mV	± 50 maximum
2.5	TRANSVERSE SENSITIVITY		
	typical	%	3

2.6	WARM-UP TIME (to within 1% FSO of final output value)	ms	100
	Note: The 7262A output will continue to marginally stabilize and settle after this warmup time for 2 minutes, typical.		
2.7	NON-LINEARITY, typical	%	2
3.0	<u>ELECTRICAL</u>		
3.1	EXCITATION	Vdc	6.0 to 18.0
3.2	OUTPUT IMPEDANCE, maximum	Ω	200
3.3	INSULATION RESISTANCE, minimum 20 Vdc between case and shorted leads		1 MΩ
3.4	OUTPUT	Pseudo-differential. White lead has constant output bias of 2.5 Vdc. Green lead output is 2.5 ± 2.0 Vdc under acceleration.	
3.5	CURRENT DRAIN, max	mA	5
4.0	<u>PHYSICAL</u>	See Outline Drawing	
4.1	HOUSING MATERIAL	Anodized Aluminum Alloy	
4.2	WEIGHT	6 grams	
4.3	IDENTIFICATION	Endevco Sigma, Model Number, Serial Number	
4.4	MOUNTING/TORQUE	(2) 2-56 screws (supplied); recommended mounting torque 6 ± 1 lbf-in (0.7 ± 0.1 N-m)	
4.5	CABLE	Integral 4-Conductor, #32 AWG PFA-insulated leads, shielded, silicone rubber jacket.	
5.0	<u>ENVIRONMENTAL</u>		
5.1	TEMPERATURE		
	Operating	-65°F to +250°F (-54°C to +121°C)	
	Non-Operating	-65°F to +250°F (-54°C to +121°C)	
5.2	HUMIDITY	Epoxy sealed; IP67	
5.3	ACCELERATION LIMITS (any direction)		
	Shock	10,000g	
5.4	ESD Sensitivity	Meets Class 3B (> 8000 Volts) per JEDEC JS001	
5.5	MOUNTING STRAIN SENSITIVITY	TBD	

6.0 CALIBRATION DATA SUPPLIED
(At room temperature and 10 Vdc excitation)

Sensitivity (10g, 100Hz)
ZMO
Frequency Response (20 to 2,000 Hz, Reference 100Hz)

7.0 ACCESSORIES

- 7.1** (2) 2-56 socket head cap screws
 (2) Flat washers, size 2
 (1) 5/64" Allen wrench

8.0 MODEL NUMBER DEFINITION

7262A - XX - ZZZ

