

Piezoresistive accelerometer Model 2262B







UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:			
DIMENSIONS IN INCHES	DIMENSIONS IN MILLIMETERS [IN BRACKETS]		
DECIMALS XX ±.03 XXX ±.010	DECIMALS X ± 0.8 XX ± 0.25		
ANGLES ± 2 DEGREES	ANGLES ± 2 DEGREES		
FILLETS AND RADII .003005	FILLETS AND RADII 0.07 - 0.13		

Key features

High sensitivity

Rugged to 10,000 g shocks

Multi-mode damping

DC response and wide bandwidth

Description

The Endevco Model 2262B Piezoresistive Accelerometers are rugged, gas damped transducers designed for shock environments. 2262B utilizes a unique and advanced multimode damped silicon MEMS sensor for exceptional bandwidth with no significant resonance response up to 40 kHz. With a frequency response extending down to DC, this accelerometer is ideal for measuring long duration transient shocks. The hermetically sealed stainless steel package includes an integral hermetic 4-pin receptacle that mates with our 3915 detachable shielded cable assembly that is specifically designed for high shock environments, sold separately.

2262B comes standard with an A2LA accredited frequency response calibration at 10V with sensitivity and ZMO provided.

US patent 6,988,412 applies.



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All specifications are referenced at +75°F (+24°C) and 10 VDC, unless otherwise noted. Calibration data traceable to National Institute of Standards and Technology (NIST) is supplied.

Specifications					
Dynamic characteristics	Units	-1000	-2000	-6000	
Range	g	±1000	±2000	±6000	
Sensitivity (at 100Hz and 10g)	mV/g typ (min)	0.45 (0.35)	0.30 (0.15)	0.015 (0.008)	
Frequency Response					
±5% maximum	Hz	0 to 3000	0 to 3000	0 to 3000 (±1dB)	
<+3dB	Hz	Up to 40,000	Up to 40,000	Up to 40,000	
Non-linearity	%FSO	±3	±3	±3	
Zero Measurand Output	mV max	±25	±25	±75	
Transverse Sensitivity	%	3	3	3	
Resonance Frequency [1][2]	Hz	25,000	25,000	100,000	
Thermal Zero shift					
-18° to +93°C	%FSO/°C	0.04	0.04	0.04	
0° to +200°F	%FSO/°F	0.02	0.02	0.02	
Thermal Sensitivity Shift					
-18° to +93°C	%/°C	-0.2	-0.2	-0.2	
0° to +200°F	%/°F	-0.1	-0.1	-0.1	
Electrical characteristics					
Warm-up Time	2 minutes				
Excitation	10 VDC				
Input Resistance	6500 ohms ±2000				
Output Resistance	6500 ohms ±2000				
Insulation Resistance	100 Mohms min @ 50 VDC				
Residual Noise [3]	<10 µV RMS				
Physical characteristics					
Case, material	304L CRES Stainless Steel				
Electrical, connections	4-pin 1/4-28 connector; Mating cable Model 3915 (purchased separately) is a 4-conductor, 28 AWG, low noise, shielded silicon jacketed cable				
Mounting	۔ Provision for 10-32 UNF x 1/8" stud, recommended mountina toraue 18 lbf-in (2 N-m)				
Weight	22 grams				
Environmental					
Acceleration limits (in any direction)					
Shock (half-sine pulse duration)	10.000 a. 80 usec or longer				
Temperature					
Operating	-55° to +125°C (-67° to +	257°F)			
Storage	-55° to +125°C (-67° to +257°F)				
Humidity	Hermetically sealed				
Calibration					
Each sensor includes an ISO 17025 calibration w Sensitivity (ref 10g, 100Hz) @ 10 VDC ZMO @ 10 VDC Frequency Response (20 to 5000Hz, ref 100Hz)	vith the below information:				

Input and Output Resistance

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Accessories			
Options	Description	2262B	
2981-12	10-32 mounting stud	Included	
3915/XXX	Mating cable assembly	Optional	

Notes

[1] The primary resonance (25kHz) and the secondary resonance (36kHz) of 2262B-1000 and 2262B-2000 are both heavily damped. Using our proprietary multi-mode damping technique, these resonance peaks are completely suppressed or minimized to a significant degree, leaving the sensor virtually resonance free in practice. See the chart below for typical frequency response.

[2] 2262A-6000 has light damping to supress resonance. It achieves flat frequency response due to high natural frequency, as opposed to heavy damping.

[3] Theoretical noise floor measured using a low-noise Op-amp. In practice, noise performance is dominated by the characteristics of the interfacing bridge amplifier.

[4] Maintain high levels of precision and accuracy using Endevco's factory calibration services. Call Endevco's inside sales force at 866-ENDEVCO for recommended intervals, pricing and turn-around time for these services as well as for quotations on our standard products.

Model number definition:



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