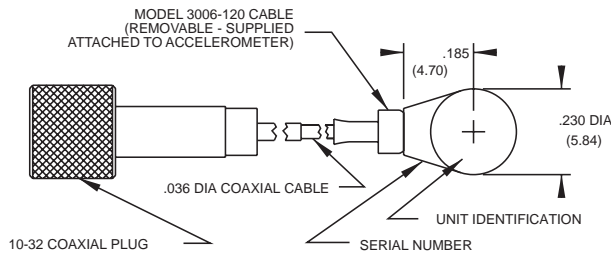
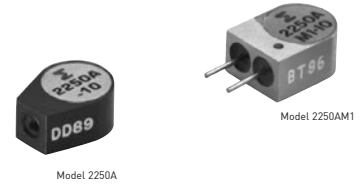
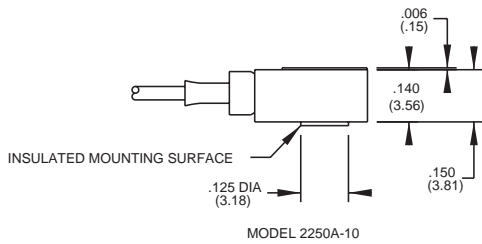


# Isotron® accelerometer

## Model 2250A / AM1-10



STANDARD TOLERANCE  
INCHES (MILLIMETERS)  
.XX = +/- .03 (X = +/- .8)  
.XXX = +/- .010 (XX = +/- .25)

### Key features

- NEW! 2250A-10-R and 2250AM1-10-R are available as replacement sensors
- Low impedance output
- Adhesive mounting
- Lightweight (0.4 gm)
- Wide bandwidth, high S/N
- Flexible cable

### Description

The Endevco® model's 2250A/AM1 are extremely small, adhesive mounting piezoelectric accelerometers with integral electronics, designed specifically for measuring vibration on mini-structures and small objects. These accelerometers offer high resonance frequency and wide bandwidth, their lightweight (0.4 gm) effectively eliminates mass loading effects. A field-replaceable miniature cable is supplied with the 2250A-10, and small gage, lightweight hook-up wires are supplied with the 2250AM1-10.

Models 2250A/AM1 feature Endevco's Piezite® type P-8 crystal element, operating in annular shear mode, which exhibits excellent output sensitivity stability over time. These accelerometers incorporate an internal hybrid signal conditioner in a two-wire system, which transmits its low impedance voltage output through the same cable that supplies the constant current power. Signal ground is isolated from the mounting surface by a ceramic mounting base. A tool is included in the package to ensure proper removal of the accelerometer from its mounting surface.

Endevco signal conditioner Models 4416B, 2792B, 2793, 2775B or Oasis 2000 computer-controlled system are recommended for use with these accelerometers.

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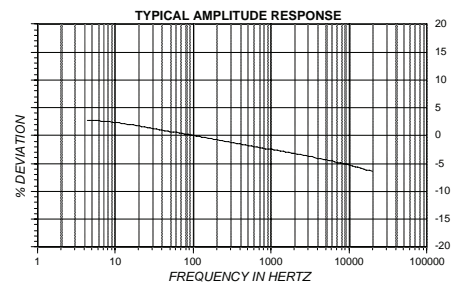
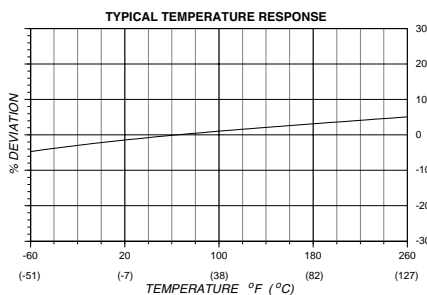
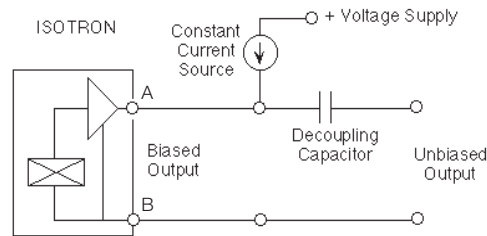
The following performance specifications conform to ISA-RP-37.2 (1964) and are typical values, referenced at +75°F (+24°C) and 100 Hz, unless otherwise noted. Calibration data, traceable to National Institute of Standards and Technology (NIST), is supplied.

Specifications		
Dynamic characteristics	Units	
Range	g	±500
Voltage sensitivity	mV/g	10
±5%		
Frequency response		See typical amplitude response
Resonance frequency	kHz	80
Amplitude response		
±1dB	Hz	2 to 15 000
Temperature response		See typical curve
Transverse sensitivity	%	≤ 5
Amplitude linearity [4]	%	1 to 500 g
Output characteristics		
Output polarity		Acceleration directed into the base of unit produces positive output
Compliance voltage	Vdc	18 to 30
Supply current	mA	2 to 20
DC output bias voltage	Vdc	6.5 to 12.5
Output impedance	Ω	≤ 100
Residual noise	equiv. g rms	0.0015
2 Hz to 25 kHz, broadband		
Grounding		Signal ground connected to case but isolated from mounting surface
Environmental characteristics		
Temperature range		-67°F to +257°F (-55°C to +125°C)
Humidity		Epoxy sealed, non-hermetic
Sinusoidal vibration limit	g pk	1000
Shock limit	g pk	2000
Base strain sensitivity	equiv. g pk/μ strain	0.0004
Thermal transient sensitivity	equiv. g pk/F° (°C)	0.1 (0.18)
Electromagnetic sensitivity	equiv. g rms/gauss	0.0001
Physical characteristics		
Dimensions		See outline drawing
Weight	gm (oz)	0.4 (0.01)
Case material	2250A-10:	Anodized aluminum alloy case, beryllium copper lid, alumina mounting surface
Connector		1.2 UNM threads. Recommended connector torque, 0.8 lbf-in (0.09 Nm) or finger tight using wrench.
	2250AM1-10:	Solder terminal, "+" denoted by red dot.
Mounting		Flat surface provided for adhesive mounting
Calibration data		
Supplied:		
Sensitivity	mV/g	
Maximum transverse sensitivity	%	
Frequency response	%	20 Hz to 15 kHz
	dB	15 kHz to 50 kHz

Accessories			
Options	Description	A-10/AM1-10	A-10-R/AM1-10-R
22114	Accel. removal tool & connectory wrench for 2250A-10	Included A-10	Optional
24385	Accel. removal tool & connectory wrench for 2250AM1-10	Included AM1-10	Optional
3006-120 (10ft)	Cable assembly for 2250A-10	Included A-10	Optional
3024-120	Cable assembly for 2250AM1-10	Included AM1-10	Optional
32279	Mounting wax	Included	Optional

## Notes

- Adhesives such as petro-wax, hot-melt glue, and cyanoacrylate epoxy (super glue) may be used to mount the accelerometer temporarily to the test structure. An adhesive mounting kit (P/N 31849) is available as an option from Endevco. To remove an epoxy-mounted accelerometer, first soften the epoxy with an appropriate solvent and then twist the unit off with the supplied removal wrench.
- 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.



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