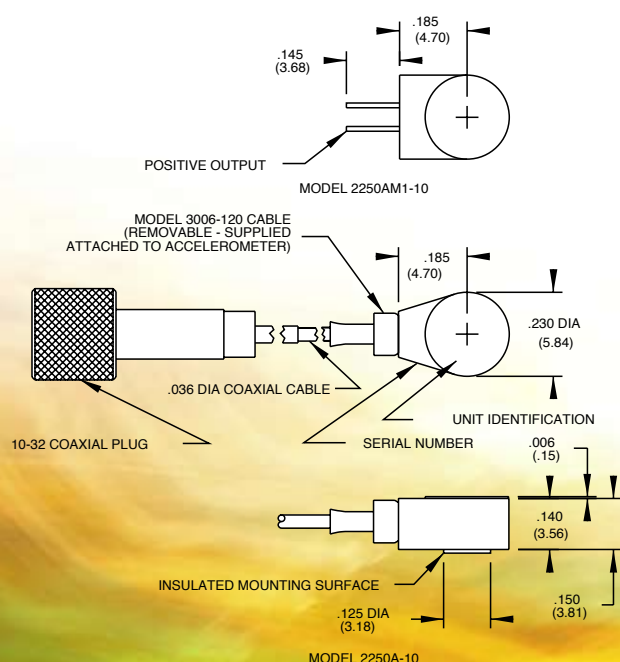
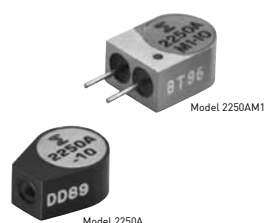


Model 2250A / AM1 -10 Isotron® accelerometer

Features

- Low impedance output
- Adhesive mounting
- Light weight (0.4 gm)
- Wide bandwidth, high S/N
- Flexible cable



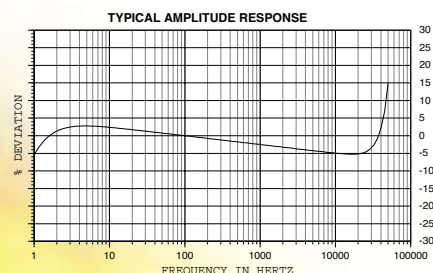
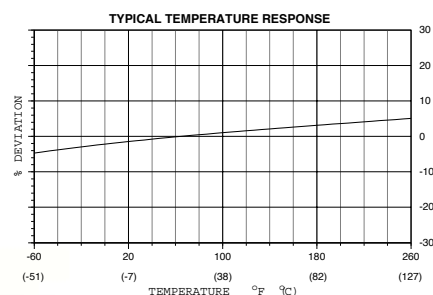
STANDARD TOLERANCE
INCHES (MILLIMETERS)
.XX = +/- .03 (X = +/- .8)
.XXX = +/- .010 (XX = +/- .25)

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 light weight (0.4 gm) effectively eliminates mass loading effects. A field-replaceable miniature cable is supplied with the 2250A-10, and small gage, light weight 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, 133, 2792B, 2793, 2775B or Oasis 2000 computer-controlled system are recommended for use with these accelerometers.



Model 2250A / AM1 -10 Isotron® accelerometer

Endevco

SPECIFICATIONS

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	
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	%	1 to 500 g

OUTPUT CHARACTERISTICS

OUTPUT POLARITY		Acceleration directed into base of unit produces positive output.
DC OUTPUT BIAS VOLTAGE	Vdc	+8.5 to +11.5
OUTPUT IMPEDANCE	Ω	≤ 100
RESIDUAL NOISE	equiv. g rms	0.002
2 Hz to 25 kHz, broadband		
GROUNDING		Signal ground connected to case but isolated from mounting surface.

POWER REQUIREMENT

SUPPLY VOLTAGE	Vdc	+18 to +24
SUPPLY CURRENT	mA	+2 to +10
WARM-UP TIME	sec	< 3
To within 10% of final bias		

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		Anodized aluminum alloy case, beryllium copper lid, alumina mounting surface
CONNECTOR	2250A-10:	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 [1]		Flat surface provided for adhesive mounting

CALIBRATION

SUPPLIED:		
SENSITIVITY	mV/g	
MAXIMUM TRANSVERSE SENSITIVITY	%	
FREQUENCY RESPONSE	%	20Hz to 15 kHz
	dB	15 kHz to 50 kHz

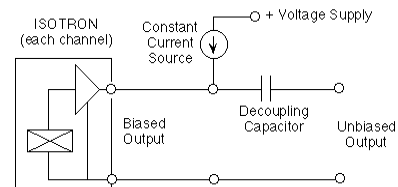
ACCESSORIES

P/N 22114	ACCELEROMETER REMOVAL TOOL & CONNECTOR WRENCH FOR 2250A-10
P/N 24385	ACCELEROMETER REMOVAL TOOL & CONNECTOR WRENCH FOR 2250AM1-10
Model 3006-120 (10 ft)	CABLE ASSEMBLY FOR 2250A-10
Model 3024-120 (10 ft)	CABLE ASSEMBLY FOR 2250AM1-10

- Damage to sensors caused by inappropriate removal procedures are not covered by Endevco's warranty.
- 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.

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.



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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(800) 982-6732 • (949) 493-8181 fax (949) 661-7231 • www.endevco.com • Email: applications@endevco.com

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