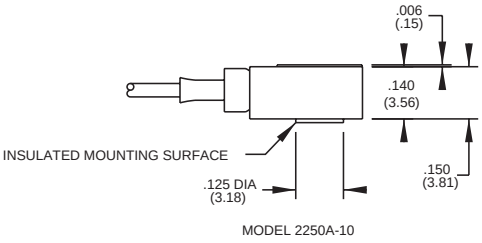
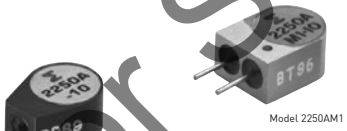
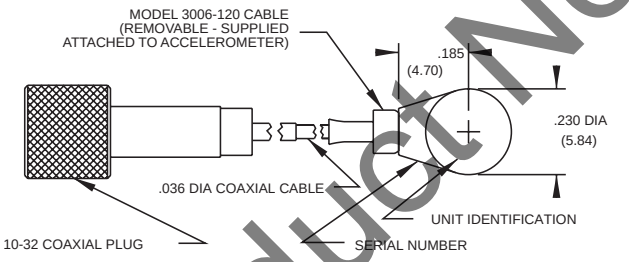
ENDEVCO
AN AMPHENOL COMPANY

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.

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

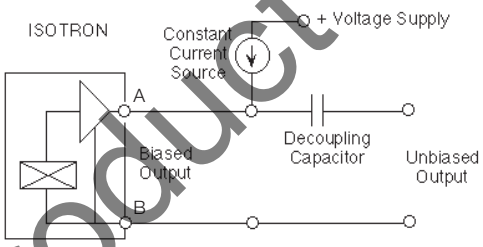
Dynamic characteristics	Units	
Range	g	±500
Voltage sensitivity	mV/g	10
±5%		
Frequency response		See typical amplitude response
Resonance frequency	kHz	80
Amplitude response		
±1dB	Hz	2 to 15 000
Temperature response		See typical curve
Transverse sensitivity	%	≤ 5
Amplitude linearity [4]	%	1 to 500 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

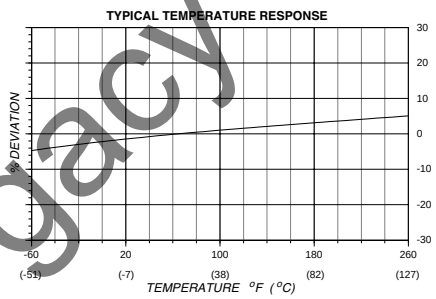
Accessories			
Options	**Description**	**A-10/AM1-10**	**A-10-R/AM1-10-R**
22114	Accel. removal tool & connectory wrench for 2250A-10	Included A-10	Optional
24385	Accel. removal tool & connectory wrench for 2250AM1-10	Included AM1-10	Optional
3006-120 (10ft)	Cable assembly for 2250A-10	Included A-10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

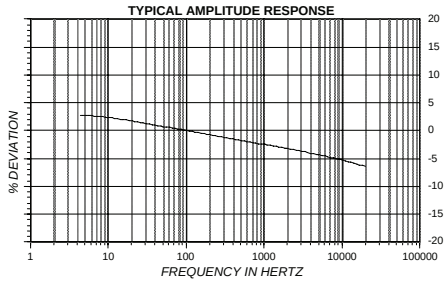
Notes

1. 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.

2. 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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