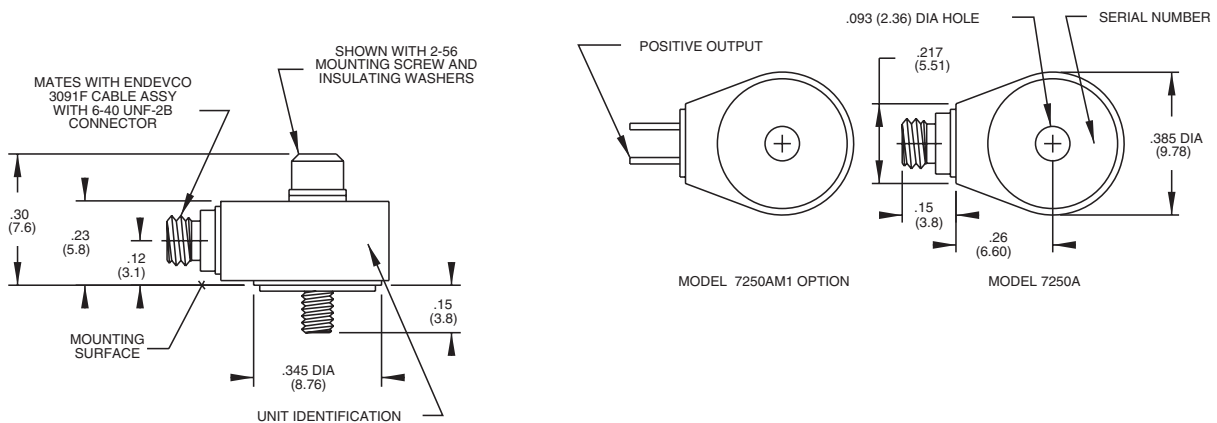


Miniature through hole IEPE accelerometer

Model 7250A/7250AM1



STANDARD TOLERANCE
INCHES (MILLIMETERS)
.XX = +/- .02 (X = +/- .5)
.XXX = +/- .010 (.XX = +/- .25)



Key features

- 360° cable orientation
- Lightweight (1.8 gm)
- Hermetically sealed

Description

The Endevco® model 7250A is a subminiature, piezoelectric accelerometer with integral electronics, designed specifically for measuring vibration on small objects. The unit is hermetically sealed for use in extreme environments and to ensure long term stability. This accelerometer offers high resonance frequency and wide bandwidth, its light weight (1.8 gm) effectively eliminates mass loading effects.

The Model 7250A features an annular shear design, which exhibits excellent output sensitivity stability over time. Signal ground is connected to the outer case of the unit and, when used with the supplied isolated mounting screw/washer, it is electrically isolated from ground. The centrally located mounting bolt permits 360° cable orientation, however, the unit may also be adhesively mounted. A model number suffix indicates acceleration sensitivity in mV/g; i.e., 7250A-10 features output sensitivity of 10 mV/g. A special version, model 7250AM1, is available with solder pins as output terminals instead of the 6-40 UNF connector.

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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.

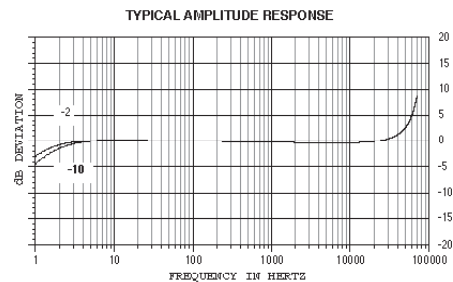
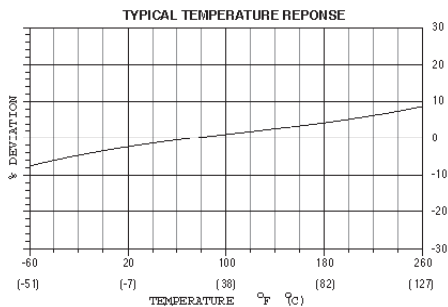
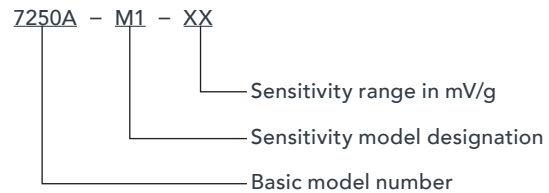
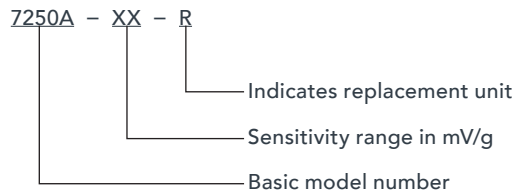
Specifications				
Dynamic characteristics	Units	-2		-10
Range	g	±2500		±500
Voltage sensitivity ±10%	mV/g	2		10
Frequency response		See typical amplitude response		
Resonance frequency	kHz	85		
Amplitude response ±1 dB	Hz	3 to 20 000		4 to 20 000
Temperature response		See typical curve		
Transverse sensitivity	%	≤ 5		
Amplitude linearity	%	1 to full scale		
Output characteristics				
Output polarity		Acceleration directed into base of unit produces positive output		
DC output bias voltage	Vdc	+11.0 to +14.0		
Output impedance	Ω	≤ 200		
Full scale output voltage	V	±5		
Resolution (2 Hz to 20 kHz)	equiv. g rms	0.0035		0.001
Grounding		Signal ground connected to case. Isolation achieved via isolated mounting washer and isolated screw		
Power requirement				
Supply voltage	Vdc	+24 to +28		+18 to +28
Supply current	mA		+2 to +20	
Warm-up time (to 10% of final bias level)	sec		< 3	
Environmental characteristics				
Temperature range		-67°F to +257°F (-55°C to +125°C)		
Humidity		Hermetically sealed		
Sinusoidal vibration limit	g pk	2000		
Shock limit [1]	g pk	10 000		
Base strain sensitivity				
Screw mounted	eq. g pk/μ strain	0.08		
Adhesive mounted	eq. g pk/μ strain	0.0004		
Thermal transient sensitivity	eq. g pk/°F (°C)	0.5 (0.9)		
Electromagnetic sensitivity	eq. g rms/gauss	0.2		
Acoustic sensitivity (at 155 dB SPL)	equiv. g	0.1		
Physical characteristics				
Dimensions		See outline drawing		
Weight				
Without mounting screw	gm (oz)	1.8 (0.06)		
With mounting screw	gm (oz)	2.3 (0.08)		
Case material		Nickel plated aluminum case. Invar 36 support		
Connector		7250A: 6-40, mates with Endevco 3091F 7250AM1: Solder pins 5 (0.57)		
Mounting torque	lbf-in (Nm)	5 (0.57)		
Calibration				
Supplied:				
Sensitivity	mV/g			
Maximum transverse sensitivity	%			
Frequency response	dB	20 Hz to 50 kHz		

Miniature through hole IEPE accelerometer | Model 7250A/7250AM1

Accessories				
Product	Description	7250A	7250AM1	7250A-R
3091F-120	Cable assembly	Included	N/A	Optional
3024-120	Cable assembly, 10-32 plug to pigtail	N/A	Included	N/A
EHM178	Hex wrench	Included	Included	Optional
12746	Insulated mounting screw assembly	Included	Included	Included
EH96	Screw cap, hex socket, 2.56 x 3/8	Optional	Optional	Optional
EHN64	Nut, 2-56	Optional	Optional	Optional
EHW95	Washer	Optional	Optional	Optional
2950M18	Triaxial mounting block	Optional	Optional	Optional
133	Signal conditioner	Optional	Optional	Optional
4416C	Signal conditioner	Optional	Optional	Optional

Notes

- Short duration shock pulses, such as those generated by metal-to-metal impacts, may excite transducer resonance and cause linearity errors. Read TP290 for more details.
- 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 definitions:



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