Piezoelectric Accelerometer

Model 2222C

- Industry Standard
- Light Weight (0.5 gm)
- Adhesive Mounting
- Ground Isolated
- Small Structure Vibration
 Measurement

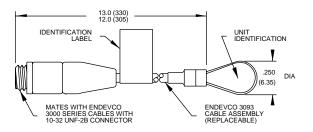


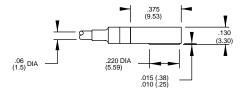
DESCRIPTION

The ENDEVCO[®] Model 2222C is the world's most popular minature piezoelectric accelerometer for vibration measurement on mini-structures and small objects. Its light weight (0.5 gm without the low-noise replaceable cable) effectively minimizes mass loading. The accelerometer is a self-generating device that requires no external power source for operation.

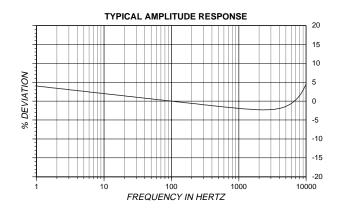
The Model 2222C features ENDEVCO's PIEZITE® Type P-8 crystal element, operating in the radial shear mode. This sensor exhibits excellent output sensitivity stability over time. Signal ground is isolated from the mounting surface of the unit by a hard anodized surface. A specially designed low-noise coaxial cable is supplied for error-free operation. Unit and cable removal tools are included in the package to ensure proper removal in the field.

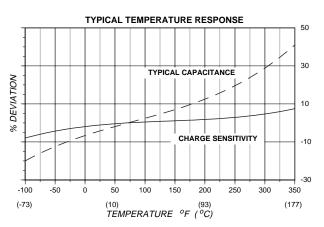
ENDEVCO Signal Conditioner Models 133, 2775A or OASIS 2000 Computer-Controlled System are recommended for use with this high impedance accelerometer.





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













126.63

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SPECIFICATIONS

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.

DYNAMIC CHARACTERISTI	ICS	Units		
CHARGE SENSITIVITY				
TYPICAL		pC/g		1.4
MINIMUM		pC/g		1.0
FREQUENCY RESPONSE		P 9 9		See Typical Amplitude Response
RESONANCE FREQUENCY	,	kHz		32
		KI IZ		52
AMPLITUDE RESPONSE [1]				5 1 40 000
±1dB	_	Hz		.5 to 10 000
TEMPERATURE RESPONSE				See Typical Curve
TRANSVERSE SENSITIVITY	(%		≤5
AMPLITUDE LINEARITY [4]		%		1
Per 200 g, 0 to 2000 g				
ELECTRICAL CHARACTER	ISTICS			
OUTPUT POLARITY				Acceleration directed into the base of the unit
				produces positive output
RESISTANCE		GΩ		≥ 10
ISOLATION		MΩ		≥ 10 ≥ 1 at 100 Vdc
CAPACITANCE		pF		470
		рг		-
GROUNDING				Signal return isolated from mounting surface
ENVIRONMENTAL CHARAC	CTERISTICS			
TEMPERATURE RANGE				-100°F to +350°F (-73°C to +177°C)
HUMIDITY [2]				Sealed by silicone compound
SINUSOIDAL VIBRATION LI	MIT	g pk		1000
SHOCK LIMIT [3]		g pk		10 000
BASE STRAIN SENSITIVITY	/	equiv. g pk/µ strain		0.04
PHYSICAL CHARACTERIST	TICS			
DIMENSIONS				See Outline Drawing
WEIGHT		gm (oz)		0.5 (0.018)
CASE MATERIAL		g (02)		Aluminum, hard anodized
CONNECTOR				3093-12 Cable Assembly
MOUNTING [5]				Adhesive
				Xanoolvo
CALIBRATION				
SUPPLIED:				
CHARGE FREQUENCY RES	SPONSE	%		20 to 10 000 Hz
CHARGE SENSITIVITY		pC/g		
MAXIMUM TRANSVERSE SI	ENSITIVITY	%		
		% kHz		
MOUNTED RESONANCE FR		kHz		
MOUNTED RESONANCE FR				
MOUNTED RESONANCE FF CAPACITANCE		kHz	3 W/r	en exposed to high a and large displacement the cable
MOUNTED RESONANCE FR CAPACITANCE ACCESSORIES	REQUENCY	kHz		en exposed to high g and large displacement, the cable
	REQUENCY	kHz pF	mu	st be tied down as close to the accelerometer as possible to
MOUNTED RESONANCE FF CAPACITANCE ACCESSORIES Model 2943B RE Model 3093-12 (1 ft) CA	REQUENCY MOVAL TOOL BLE ASSEMBLY, Attack	kHz pF	mu pre	st be tied down as close to the accelerometer as possible to vent cable whip and subsequent cable failure.
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Removing cable exposes accelerometer interior to environment. 2. See Piezoelectric Instruction Manual No.101 before replacing cable assembly.

around time for these services as well as for quotations on our standard products.

Continued product improvement necessitates that Endevco reserve the right to modify these specifications without notice. Endevco maintains a program of con-stant 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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