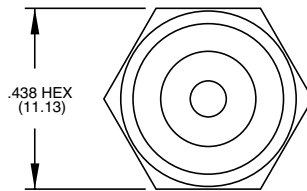
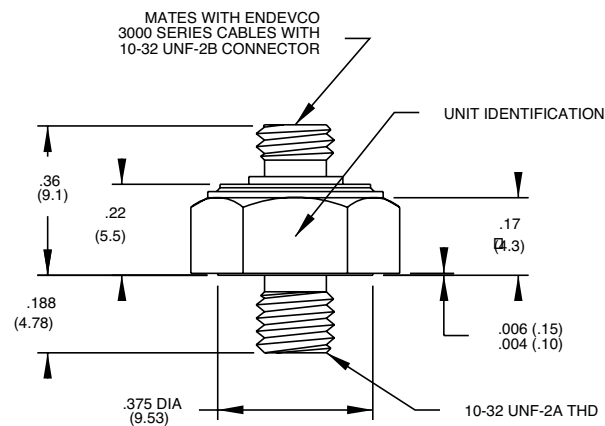
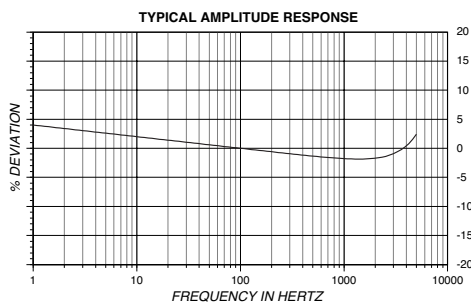
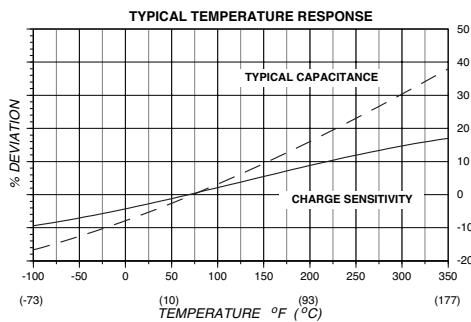


Piezoelectric accelerometer Model 2229C



Key features

- Ground isolated
- Top connector
- Stud mounted
- Requires no external power
- Vibration measurement on small structures



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

The Endevco® model 2229C is a miniature, stud mounted piezoelectric accelerometer designed specifically for vibration measurement on small structures and objects. The transducer features a top-mounted 10-32 receptacle for installation convenience in tight space. Its light weight [4.9 gm] effectively minimizes mass loading. The accelerometer is a self-generating device that requires no external power source for operation.

The model 2229C features Endevco's Piezite® type P-8 crystal element, operating in annular shear mode. This device exhibits excellent output sensitivity stability over time. Signal ground is isolated from the mounting surface of the unit. A low-noise, flexible, coaxial cable is supplied for error-free operation.

Endevco signal conditioner models 133, 2771C, 2775B or Oasis 2000 computer-controlled system are recommended for use with this high impedance accelerometer.

Piezoelectric accelerometer

Model 2229C

Specifications

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

Dynamic characteristics	Units	Value
Charge sensitivity		
Typical	pC/g	2.8
Minimum	pC/g	2.2
Frequency response		See typical amplitude response
Resonance frequency	kHz	21 (typical)
Amplitude response [1]		
±5%	Hz	1 to 5000
±1 dB	Hz	.5 to 7000
Temperature response		See typical curve
Transverse sensitivity	%	≤ 5
Amplitude linearity	%	1
Per 500 g, 0 to 2000 g		
Electrical characteristics		
Output polarity		Acceleration directed into base produces positive output
Resistance	GΩ	≥ 10
Isolation	MΩ	10
Capacitance	pF	400
Grounding		Signal return is isolated from case
Environmental characteristics		
Temperature range		-67°F to +350°F (-55°C to +177°C)
Humidity		Epoxy sealed, non-hermetic
Sinusoidal vibration limit	g pk	1000
Shock limit [2]	g pk	2000
Base strain sensitivity	equiv. g pk/μ strain	0.0005
Thermal transient sensitivity	equiv. g/°F (1/°C)	0.004 (0.007)
Electromagnetic sensitivity	equiv. g/ rms/gauss	0.001
Physical characteristics		
Dimensions		See outline drawing
Weight	oz (gm)	0.17 (4.9)
Case material		Stainless steel
Connector		Coaxial, 10-32 thread. Mates with Endevco 3060D cable
Mounting torque	lbf-in (Nm)	18 (2)
Calibration		
Supplied:		
Charge sensitivity	pC/g	
Capacitance	pF	
Maximum transverse sensitivity	%	
Frequency response	%	20 Hz to 5000 Hz
	dB	5 kHz to 30 kHz

Piezoelectric accelerometer Model 2229C

Accessories:

Product	Description	2229C
3060D-120	Cable assembly, 10 ft	Included
2771C	In-line charge connector	Optional
133	Signal conditioner	Optional
2775B	Signal conditioner	Optional
4990A-X	OASIS 2000 computer-controlled system	Optional

Notes:

1. Low-end response of the transducer is a function of its associated electronics.
2. Short duration shock pulses, such as those generated by metal-to-metal impacts, may excite transducer resonance and cause linearity errors. Request the TP290 for more details.
3. Flexible cable, such as the supplied 3060D, should be used to minimize cable-strain errors.
4. 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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