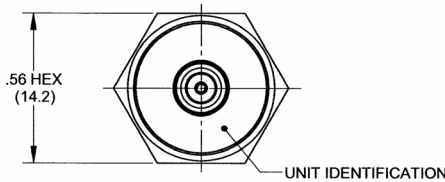
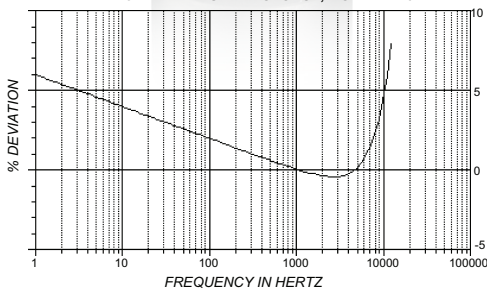


Piezoelectric accelerometer

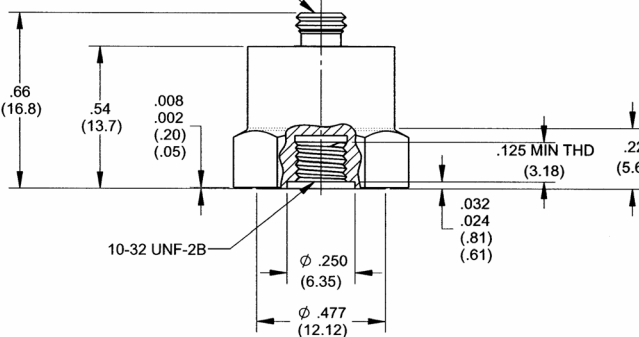
Model 2225



TYPICAL AMPLITUDE RESPONSE, MODEL 2225

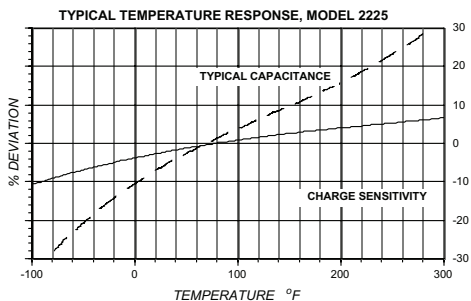


MATES WITH ENDEVCO 3000 SERIES CABLES WITH 10-32 UNF-2B CONNECTOR



STANDARD TOLERANCE
INCHES (MILLIMETERS)
XX = ± .02 (X = ± .5)
.XXX = ± .010 (.XX = ± .25)

SOL



Key features

- High-g shock
- Industry standard
- Rugged - requires no external power
- Annular shear
- Shock measurements on test articles and structures

The Endevco® model 2225 is a lightweight piezoelectric accelerometers designed specifically for measuring high-g shock on structures and test articles. This sensor is the industry standard for shock accelerometers. The model 2225 features a 10-32 threaded hole. The accelerometer is a self-generating device that requires no external power source for operation.

Model 2225 features Endevco's Piezite® type P-10, operating in annular shear mode. These specially designed crystals exhibit low base strain sensitivity, high resonance frequency, and excellent output stability over time. Signal ground is connected to the outer case of the unit. The accelerometer features a 10-32 top connector and requires a low-noise coaxial cable for error-free operation.

Endevco signal conditioner 2771C, 2775B, 6634C or Oasis 2000 (4990A-X with cards 428 and/or 433) are recommended for use with these high impedance accelerometers.

Piezoelectric accelerometer

Model 2225

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 characteristics	Units	2225
Charge sensitivity		
Typical	pC/g	0.75
Minimum	pC/g	0.60
Frequency response		See typical amplitude response
Resonance frequency [1]	kHz	100
Amplitude response		
±10%	Hz	1 to 10 000
±1 dB (ref)	Hz	1 to 10 000
Temperature response		
-67°F (-55°C) max/min	%	-15/0
+350°F (+177°C) max/min	%	+25/0
Transverse sensitivity	%	≤ 5
Amplitude linearity [2]	%	0.5 per 1000 g, 0 to 20 000 g
Electrical characteristics		
Output polarity		Acceleration directed into base produces positive output
Resistance	Ω	≥ 10
at 350°F (+177°C)	Ω	≥ 1
Grounding		Signal return connected to case
Capacitance	pF	800
Environmental characteristics		
Temperature range		-67°F to +350°F [-55°C to +177°C]
Humidity		Epoxy sealed, non-hermetic
Sinusoidal vibration limit	g pk	10 000
Shock range [3]	g pk	20 000
Base strain sensitivity	equiv. g pk/μ strain	0.03
Thermal transient sensitivity	equiv. g pk/°F [l/°C]	0.005 [0.009]
Physical characteristics		
Dimensions		See outline drawing
Weight	gm (oz)	13 [0.46]
Case material		Stainless steel
Connector		Coaxial, 10-32 thread, mates with Endevco 3000 series cables
Mounting torque	lbf-in (Nm)	18 [2]
Calibration		
Supplied:		
Frequency response	%	20 Hz to 10 000 Hz
	dB	10 000 to 50 000 Hz
Charge sensitivity	pC/g	
Maximum transverse sensitivity	%	
Capacitance	pF	

Piezoelectric accelerometer

Model 2225

Accessories

Product	Description	2225
3090C-120	Cable assembly, 10 ft	Included
2981-12	Mounting stud, 10-32, Hex I.D.	Included
EHM464	Wrench, hex key	Included
2981-3	Stud, 10-32 adapter	Optional
2982-1	Mounting stud 10-32 to 6-32 adapter	Optional
EJ3	Connector	Optional
2771C	In-line charge convertor	Optional
2775B	Signal conditioner	Optional
6634C	Signal conditioner	Optional
4990A-X	Oasis 2000 computer-controlled system with cards 428 and/or 433	Optional

Notes:

1. Minor resonances between 30 kHz and 80 kHz exist.
2. Low-end response of the transducer is a function of its associated electronics.
3. Short duration shock pulses, such as those generated by metal-to-metal impacts, may excite transducer resonance and cause linearity errors. See TP290 for more details.
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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