Model 2228C
Piezoelectric accelerometer

MEGGiTT
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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), 4 mA and 100 Hz, unless otherwise noted. Calibration data, traceable to National Institute of Standards and Technology (NIST), is supplied

Dynamic characteristics	Units	
Charge sensitivity		
Typical	pC/g	2.8
Minimum	pC/g	2.2
Frequency response		See typical amplitude response
Resonance frequency	kHz	21
Amplitude response [1]		
±5%	Hz	1 to 4000
±1 dB (ref)	Hz	0.1 to 6000
Temperature response		See typical curve
at -67°F (-55°C) max/min	%	-12 / 0
at +350°F (+177°C) max/min	Hz	20 / 0
Transverse sensitivity	%	≤5
Amplitude linearity	%	1
Per 500g, 0 to 2000 g		

Electrical characteristics		
Output polarity		Acceleration applied in the direction of the axis arrow produces positive output
Resistance	GΩ	≥10
Resistance at +350°F (+177°C)	GΩ	≥5
Isolation	MΩ	≥10
Signal ground to each signal ground and to mounting surface		
Capacitance	pF	400
Grounding		Each sensor is isolated from the anodized aluminum 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
Salt spray		Will meet ML-E-5272C, para 4.6.1 when used with sealed connector
Electromagnetic sensitivity	equiv. g rms/gauss	0.01

Physical characteristics		
Dimensions		See outline drawing
Weight	gm (oz)	15 (0.53)
Case material		Aluminum alloy case, hard adonized, nickel alloy sensors
Connector		Mates with Endevco 3060 series cable
Mounting torque	lbf-in (Nm)	8 (1)

Calibration		
Supplied:		
Charge sensitivity	pC/g	
Capacitance	pF	
Maximum transverse sensitivity	%	
Charge frequency response	%	20 to 4000 Hz
	dB	thru resonance (Z axis only)

Accessories

Product	Description	2228C	2228C-R
3060D-120 [3]	Cable assembly, three each [3], 10 ft	Included	Optional
EH156	4-40 x 5/8 socket head cap screws two each	Included	Included
EHW53	No. 4 flat washer, two each	Included	Included
EHM464	Hex wrench	Included	Optional
2771C	In-line charge convertor	Optional	Optional
133	Signal conditioner	Optional	Optional
2775B	Signal conditioner	Optional	Optional
4990A-1	OASIS 2000 computer-controlled system	Optional	Optional
6634C	Signal conditioner	Optional	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. Read TP290 for more details.
3. Flexible cable, such as the supplied 3060D, should be used to minimize cable-strain errors.
4. 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. Damage to sensors caused by inappropriate removal procedures are not covered by Endevco's warranty.
5. Maintain high levels of precision and accuracy using Endevco's factory calibration services. Call Endevco's inside sales force at 800-982-6732 for recommended intervals, pricing and turn-around time for these services as well as for quotations on our standard products.

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