



Key features

- Light weight (0.2 gm)
- Flexible cable
- Low impedance output
- Excellent for printed circuit board and disk drive testing

Description

The Endevco® model 25A is an extremely small, adhesive mounted piezoelectric accelerometer with integral electronics, designed specifically for measuring vibration on very small objects. The unit weighs only 0.2 gm, reducing unwanted mass loading effects. The unit comes with two pre-installed fine gage (34 AWG) wires as output leads. These leads can be easily repaired in the field, or a new lead assembly may be reinstalled at the factory. A heavier gage (28 AWG) cable is also provided for extension purpose. The model 25A is ideal for measuring vibration in scaled models, small electronic components, and biomedical research. An optional triaxial mounting block (model 2950M16) is available for setting up three-axis measurement. If a detachable coaxial cable, which can be replaced by the user in the field, is desired, model 25B is available.

The model 25A features a shear mode design, which provides excellent protection from base strain and temperature transients. The internal electronics inside the accelerometer converts high impedance input into low impedance voltage output through the same cable that supplies the required 4 mA constant current power. Signal ground is isolated from the mounting surface of the unit by a hard anodized surface. A removal tool is included for proper removal in the field.



Miniature IEPE accelerometer | Model 25A

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.

Range g ±740 Voltage sensitivity mV/g 5 Typical mV/g 4 Minimum mV/g 5 Frequency response See typical amplitude response 5 Resonance frequency Hz 50 Minimum Hz 50 Minimum Hz 4 and Minimum Hz 50 Amplitude insponse 5 5000 ±1 dB Hz 1 to 12 000 Tansverse sensitivity % < 5 to fall scatu Output characteristics See typical curve 5 Output planewity % < 5 to fall scatu Output planewity % < 5 to fall scatu Output planewity % < 5 to fall scatu DC output bias voltage Vdc + 5 to fall scatu Output dingednee Q + 5 to fall scatu Power requirement Signal ground isolated from mounting surface Supply current [1] mA + 3.5 to +4.5 Vidage Vdc + 18 to +24 Vammup time to 2 do 7 fr to +257 fr (55°C to +125°C) Shock link (surviva) g pk 2000 Souch (sensitivity + 140 dB SPL equiv. g rms 0.002	Dynamic characteristics	Units	
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		-	
			20 Hz to 12 kHz
		,5	

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Accessories			
Product	Description	25A	
3024-120	Twisted Pair cable assembly, 10-32 plug to pigtail, 10 feet [4]	Included	
31275	Removal tool	Included	
32279	Mounting wax	Included	
2950M16	Triaxial mounting block	Optional	
4416C	Signal conditioner	Optional	

Notes

- 1. Excessive current supply may cause permanent damage to accelerometer.
- 2. Short duration shock pulses, such as those generated by metal-to-metal impacts, may excite transducer resonance and cause linearity errors. See Tech Paper 290 for more details.
- 3. Depending on the dynamic and environmental requirements, 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. When removing an epoxy mounted accelerometer, first soften the epoxy with an appropriate solvent, then twist the unit off with the supplied removal tool. Failure to heed this caution may cause permanent damage to the transducer, which is not covered under warranty.
- 4. Small gage wires are soldered to the terminals at the factory. They are to be spliced together with the supplied cable assembly in the field for extension purpose.
- 5. 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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