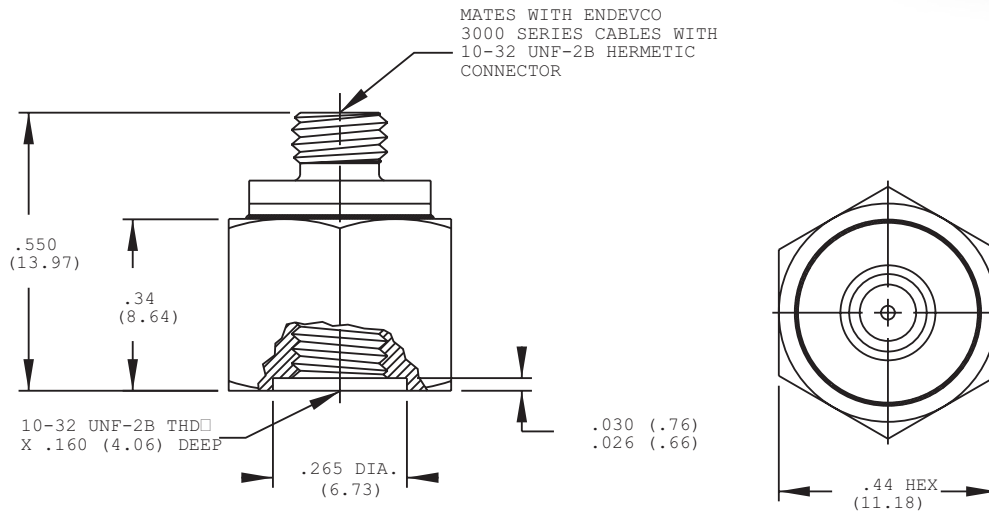


IEPE accelerometer

Model 256HX



Key features

- Light weight (4 gm)
- Hermetically sealed
- Stud mount capability for vibration measurements on small structure vibration

Description

The Endevco® model 256HX is a small piezoelectric accelerometer with integral electronics, designed specifically for making modal and other vibration measurements on small structures. The transducer is designed for stud mounting and its case ground is isolated from the mounting surface. The hermetically sealed top connector and welded housing provide long-term reliability even in harsh environments. Its light weight (4 gm) effectively minimizes mass loading effects.

The model 256HX features an annular shear design, which exhibits excellent output sensitivity stability over time. This accelerometer uses a built-in low noise microelectronic amplifier which transmits its low impedance voltage output through the same two-wire cable that supplies the required constant current power. A model suffix indicates output sensitivity in mV/g, i.e., 256HX-10 features output sensitivity of 10 mV/g.

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The following performance specifications conform to ISA-RP-37.2 (1964) and are typical values, referenced at +75°F (+24°C), 24 Vdc supply, 4 mA, and 100 Hz, unless otherwise noted. Calibration data, traceable to National Institute of Standards and Technology (NIST), is supplied.

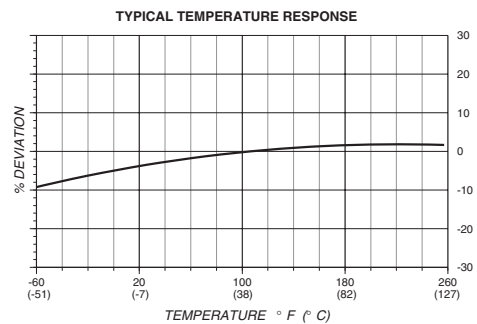
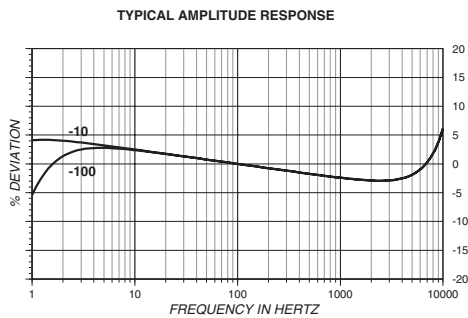
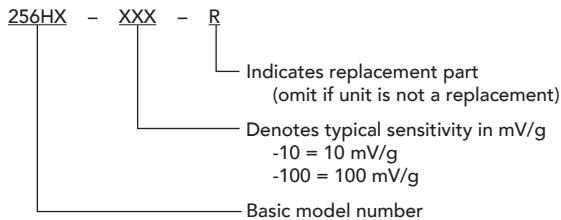
Specifications			
Dynamic characteristics	Units	-10	-100
Range	g	±500	±50
Voltage sensitivity (±10%)	mV/g	10	100
Frequency response		See typical amplitude response	
Resonance frequency (typical)	kHz	25	
Amplitude response (±10 %)	Hz	1 to 10 000	
Temperature response		See typical curve	
-67°F (-55°C) max	%	-15	
+257°F (+125°C) max	%	+5	
Transverse sensitivity	%	≤ 5	
Amplitude linearity	%	≤ +1 to full scale	
Output characteristics			
Output polarity		Acceleration directed into the base produces positive output	
DC output bias voltage typical	Vdc	+12.3 to +13.5	
-67°F to 257°F (-55°C to 125°C)	Vdc	+7.0 to +16.0	
Output impedance	Ω	≤ 200	
Full scale output voltage	V	±5	
Residual noise (0.5 Hz to 10 kHz, broadband)			
typical	equiv. g rms	0.001	0.0003
maximum	equiv. g rms	≤ 0.002	≤ 0.0005
Overload recovery	µsec	≤ 45	
Grounding		Signal ground connects to case, and isolated from outer housing	
Power requirement			
Supply voltage	Vdc	+23 to +30	
Supply current	mA	+2 to +20	
Warm-up time (to within 10% of final bias)	sec	8	
Stray voltage output (with 10 V rms at 100 Hz applied to the mounting surface)	equiv. g	≤ 0.001	
Environmental characteristics			
Temperature range		-67°F to +257°F (-55°C to +125°C)	
Humidity		Hermetically sealed	
Sinusoidal vibration limit	g	1000	
Shock limit	g	2000	
Base strain sensitivity	equiv. g / µ strain	0.0008	
Thermal transient sensitivity	equiv. g / °F (°C)	0.5 (0.9)	
Electromagnetic sensitivity	equiv. g rms / gauss	0.0001	
Physical characteristics			
Dimensions		See outline drawing	
Weight	oz (gm)	0.14 (4.0)	
Case material		Titanium alloy connector, stainless steel inner housing, anodized aluminum outer case	
Connector		Coaxial, 10-32 thread mates with Endevco 3000 series cable	
Mounting		Internal 10-32 UNF-2B for stud mounting	
Maximum mounting torque	lbf-in (Nm)	12 (1.4)	
Calibration			
Supplied:			
Sensitivity	mV/g		
Maximum transverse sensitivity	%		
Frequency response	%	20 Hz to 10 kHz	
	db	10 kHz to 40 kHz	

IEPE accelerometer | Model 256HX

Accessories				
Options	Description	256HX-10,-100	256HX-10-R, 256HX-100-R	
2981-12	Mounting stud, 10-32, Hex ID	Included	Included	
EHM464	Wrench, Hex key	Included	Optional	
3061A-120	Cable assembly, 10 ft	Included	Optional	
2981-3	Stud,10-32 adapter	Optional	Optional	
133	3 Channel Signal conditioner	Optional	Optional	
4416C	1 Channel Signal conditioner	Optional	Optional	

Notes

- 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.
- Model number definition:



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