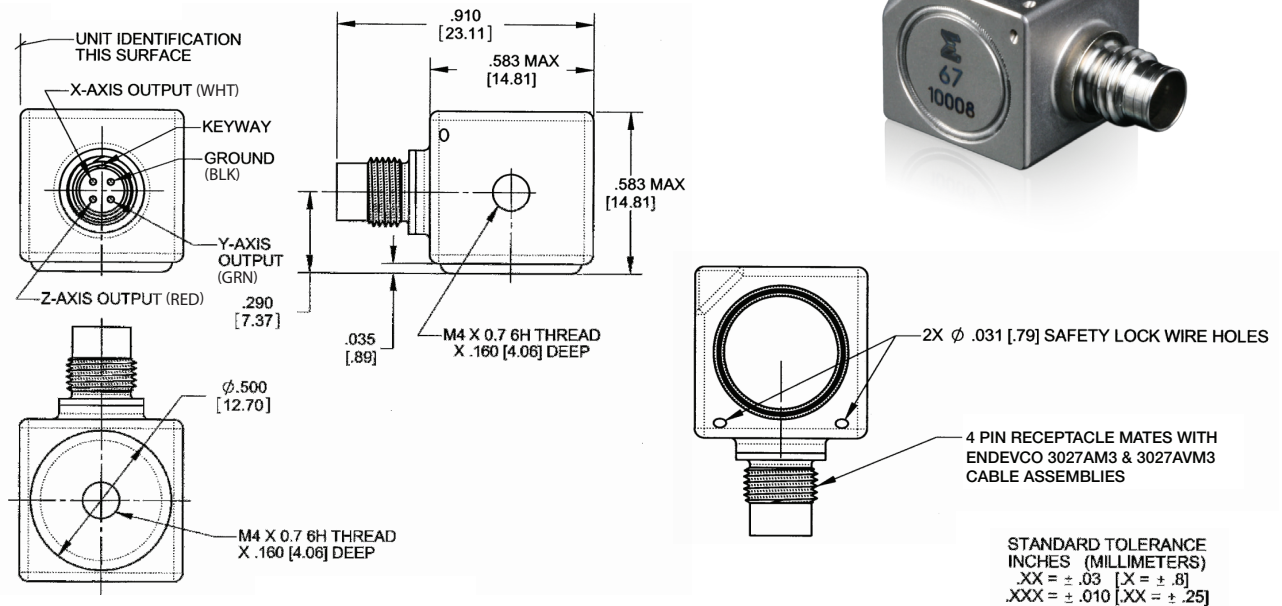


Triaxial IEPE accelerometer

Model 67



Key features

- High temperature operation up to 347°F (175°C)
- High output (100 mV/g)
- Ideal for structural analysis, ESS and NVH
- Overload protected for high shock resistance
- Single connector

Description

Endevco model 67 is a miniature high temperature triaxial accelerometer designed for laboratory, ESS, NVH and other high temperature test environments. The unit features welded titanium construction for low weight and a complete seal against the environment. It provides a high output sensitivity, even up to its maximum operating temperature of 347°F (175°C). With its small size (14.8 mm³) and light weight of less than 14 grams, the model 67 effectively minimizes mass loading effects.

The Model 67 features an annular shear design, which exhibits excellent output sensitivity stability over time. This accelerometer incorporates internal hybrid signal conditioners to achieve a low noise floor. Model 67 was designed for either adhesive mounting or screw mounting using a M4 screw. The model number suffix denotes acceleration sensitivity in mV/g; i.e. 67-100 features sensitivity of 100 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) 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 (m/s ²)	±500 (4900)	±50 (490)
Voltage sensitivity, typical	mV/g (mV / m/s ²)	10 (1.0)	100 (10.2)
Amplitude response			
±5%, X Axis	Hz	0.2 to 6000	0.7 to 6000
±5%, Y, Z Axis	Hz	0.2 to 8000	0.7 to 8000
±1dB, X Axis	Hz	0.15 to 8000	0.5 to 8000
±1dB, Y, Z Axis	Hz	0.15 to 10,000	0.5 to 10,000
Phase response			
< 5°	Hz		5-5000
< 10°	Hz		2-7000
Resonance frequency	Hz		35 000
Transverse sensitivity	%		< 5
Temperature response			See typical curve
At -67°F (-55°C) max/min	%		0/-20
At +347°F (+175°C) max/min	%		0/+30
Amplitude linearity	%		≤ 1
Output characteristics			
Output polarity			Acceleration directed into base produces positive output
DC output bias voltage			
Room temperature, 75°F (23°C)	Vdc		+11.0 to +13.5
-67°F to 347°F (-55°C to +175°C)	Vdc		+6.0 to +16.0
Output impedance 4-10 mA	Ω		< 100
Full scale output voltage	V		±5
Residual noise			
Broadband			
1Hz – 10kHz	µg rms	1400	450
Spectral			
1 Hz	µg/√Hz	350	100
10 Hz	µg/√Hz	100	30
100 Hz	µg/√Hz	40	14
1000 Hz	µg/√Hz	15	4
Grounding	µg/√Hz		Signal ground is connected to case and not isolated from mounting surface
Power requirement			
Supply voltage	Vdc		+24 to +30
Supply current	mA		+2 to +8
Warm-up time (to reach 90% of final bias)	sec		< 10
Environmental characteristics			
Temperature range			-67°F to 347°F (-55°C to +175°C)
Humidity			Hermetically sealed
Sinusoidal vibration limit	g pk		1000
Shock limit [1]	g pk		5000
Base strain sensitivity at 250 µstrain	eq. g/µstrain	0.01	0.001
Thermal transient sensitivity	eq. g/°F	0.07	0.007
Electromagnetic noise, at 100 Gauss	eq. g/Gauss	0.001	0.0002
Physical characteristics			
Dimensions			See outline drawing
Weight	oz (gm)		0.5 (14)
Case material			Titanium
Connector			4 pin side mounted
Mounting [2]			Adhesive or M4 thread
Mounting torque	lbf-in (Nm)		10 (1.13)

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Calibration

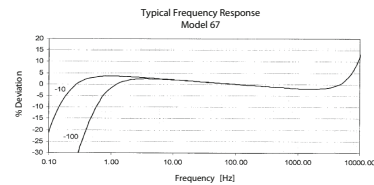
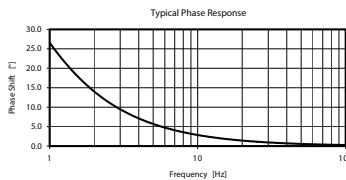
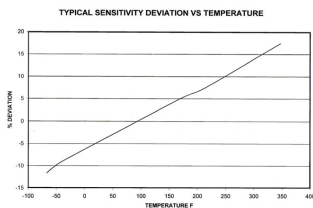
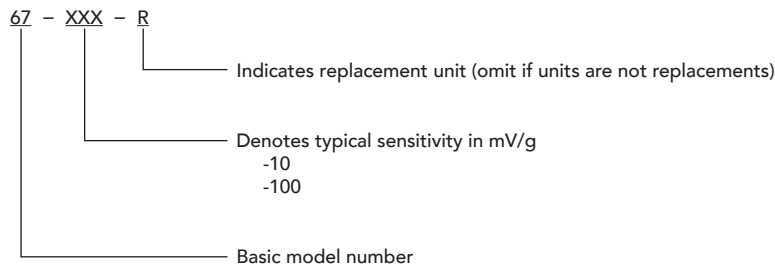
Supplied, each axis:			
Voltage sensitivity	mV/g		
Maximum transverse sensitivity	%		
Frequency response (Y and Z axis)	%	20 Hz to 8000 Hz	
Frequency response (X axis)	%	20 Hz to 6000 Hz	
Bias	Vdc		

Accessories

Options	Description	67-10 / 67-100	67-10-R / 67-100-R
EH783	Socket Head Cap screw, M4 X 5mm	Included	Included
EHM1641	Wrench, hex key, metric	Included	Optional
3027AVM13-84	Extension cable, 200°C, mates with 3027AM3, 7 feet	Included	Optional
3027AM3-36	Triaxial cable, 85°C, 3BNCs at instrumentation end, 3 feet	Included	Optional
133	Signal conditioner	Optional	Optional

Notes

- Shock pulses of short duration may excite sensor resonance.
- Be careful not to apply abusive forces when removing the accelerometer from structure.
- 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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