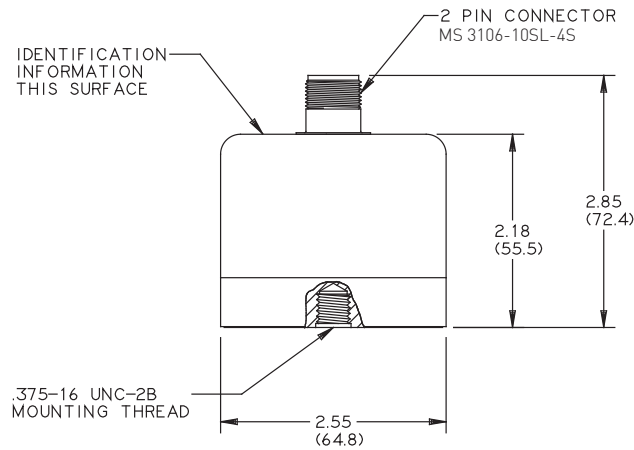


Piezoelectric accelerometer

Model 86



STANDARD TOLERANCE
INCHES (MILLIMETERS)

.XX = ± .03	(.X = ± .8)
.XXX = ± .010	(.XX = ± .25)

BRAVO-ROCKER

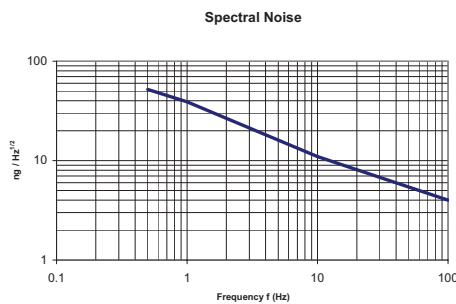
Key features

- Ultra low-noise
- Near-DC response, flat to 0.01 Hz
- Output sensitivity, 10 volt per g
- Overload protected to 250 g's
- Low impedance output (<10Ω)
- Ideal for floor isolation testing, photolithography applications, and high accuracy manufacturing environments.

The Endeveco® model 86 is a piezoelectric accelerometer with integral electronics, designed specifically for measuring ultra-low level, seismic events and low frequency vibration on structures and objects. The unit is hermetically sealed against environmental contamination, features a 10 V/g sensitivity, state-of-the-art signal-to-noise ratio, and near-DC frequency response.

The model 86 incorporates an advanced ultra low-noise hybrid circuit operating in a constant current mode. A simple two-wire system transmits its low-impedance voltage output and the required power. Signal ground is isolated from the outer case and mounting surface to prevent ground loops. A specially designed low-noise cable assembly is provided as a standard accessory.

Model 86 features a sensitivity of 10 V/g.



Our measurement product competencies:

Piezoelectric accelerometers | Piezoresistive accelerometers | [Isotron accelerometers](#) | Variable capacitance accelerometers | Pressure transducers | Acoustic sensors | Electronic instruments | Calibration systems | Shakers | Modal hammers | Cable assemblies

Piezoelectric accelerometer

Model 86

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	86
Range	g pk	±0.5
Voltage sensitivity, ±10%	V/g	10
Frequency response (ref @ 20 Hz)	Typical	
Resonance frequency (typical)	Hz	370
Amplitude response		
±1 dB	Hz	0.005 to 100
±3 dB	Hz	0.003 to 200
Transverse sensitivity	%	≤ 1
Temperature response	%	±5 from -10°C to 100°C
Amplitude non-linearity, to full scale	%	±1
Output characteristics		
Output polarity		Acceleration directed into base produces positive output
DC output bias voltage	Vdc	+9 to +13 @ 75°F (24°C)
Output impedance	Ω	≤ 10
Full scale output voltage	V	±5
Residual noise		
broadband, 0.1 Hz to 1 k Hz, typical	equiv. ng rms	100
spectral, 0.5 Hz	equiv. ng/√Hz	52
spectral, 1 Hz	equiv. ng/√Hz	39
spectral, 10 Hz	equiv. ng/√Hz	11
spectral, 100 Hz	equiv. ng/√Hz	4
Grounding		Signal ground electrically isolated from case (>50MΩ)
Power requirement		
Supply voltage	Vdc	+24 to +30
Supply current	mA	+2 to +10
Warm-up time	minutes	4
Environmental characteristics		
Temperature range	°F (°C)	4°F to +212°F (-20°C to +100°C)
Humidity		Hermetically sealed
Base strain sensitivity at 250 μstrain	eq. g/μstrain	0.0001
Sinusoidal vibration limit	g pk	10
Shock limit	g pk	250
Physical characteristics		
Dimensions		See outline drawing
Weight	gm (lb)	771 (1.70)
Case material		Stainless Steel
Connector		Top mounted 2-pin MS 3106-10SL-4S
Calibration		
Supplied:		
Voltage sensitivity @ 10 Hz	V/g	
Maximum transverse sensitivity	%	
Frequency response	%	1 Hz to 100 Hz

Endevco®

Piezoelectric accelerometer

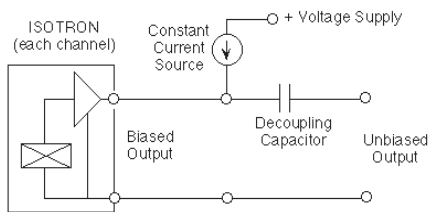
Model 86

Accessories

Product	Description	86
6923M9-120	Cable assembly (located in the bottom of accelerometer case)	Included
41018	Mounting, .375-16 UNC 28 thread, in base of unit	Included

Notes

1. Maintain high levels of precision and accuracy using Meggitt's factory calibration services. Call Meggitt'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.



Contact

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