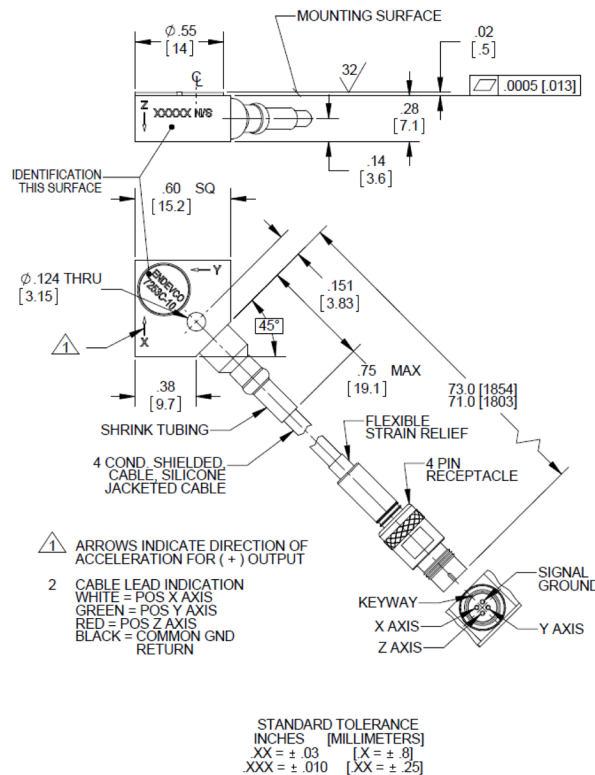


Isotron® accelerometer

Model 7253C



Key features

- Triaxial Isoton accelerometer
- 360° cable orientation
- Low profile
- Light weight (3.6 gm)
- Signal ground isolated from mounting surface

Endevco model 7253C is a small, triaxial piezoelectric accelerometer with integral electronics, designed specifically for measuring vibration in three orthogonal axes on mini-structures and small objects. This accelerometer offers a high resonance frequency and wide bandwidth and its light weight (3.6 gm) practically eliminates mass loading effects. Model 7253C features both adhesive and bolt down capabilities.

7253C features Endevco's Piezite® type P-8 crystal elements, operating in annular shear mode, which exhibits excellent output sensitivity stability over time. Each axis of the accelerometer incorporates a low noise internal hybrid signal conditioner in a two-wire system, which transmits its low impedance voltage output through the same cable that supplies the constant current power. Signal ground is isolated from the mounting surface.

Endevco signal conditioner models 4416C or 133 are recommended for use with this accelerometer.

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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	-10
Range	g	±500
Voltage sensitivity		
±5%	mV/g	10
Resonance frequency	kHz	80
Amplitude response		
±1 dB	Hz	2 to 15 000
±5%	Hz	4 to 10 000
Transverse sensitivity	%	≤5
Amplitude linearity	%	1 at 500 g
Output characteristics		
Output polarity		Acceleration applied in the direction of the arrow on the unit produces positive output
DC output bias	Vdc	+8.5 to +11.5
Output impedance	Ω	≤200
Residual noise		
2 Hz to 25 kHz, broadband, typical	equiv. g rms	0.002
Grounding		Signal ground connected to case but isolated from mounting surface
Power Supply		
Supply voltage	Vdc	+18 to +24
Supply current	mA	+2 to +10
Full scale output voltage	V	±5
Warm up time	sec	<3
to within 10% of final bias		
Environmental characteristics		
Temperature range	°F (°C)	-67 to +257 (-55 to +125)
Humidity		Epoxy sealed, non-hermetic
Sinusoidal vibration limit	g pk	1000
Shock limit	g pk	2000
Base strain sensitivity	equiv. g pk/μ strain	0.001 (x and y axis), 0.02 (z axis)
Thermal transient sensitivity	equiv. g pk/°F	0.001
Electromagnetic sensitivity	equiv. g rms/gauss	0.005
Physical characteristics		
Dimensions		See outline drawing
Weight, without cable	gm (oz)	3.6 (0.13)
Case material		Anodized aluminum alloy case
Connector		4-pin, Microtech
Mounting torque	lbf-in (Nm)	8 (0.9)
Calibration		
Supplied		
Sensitivity	mV/g	
Maximum transverse sensitivity	%	
Frequency response	%	20 Hz to 10 kHz

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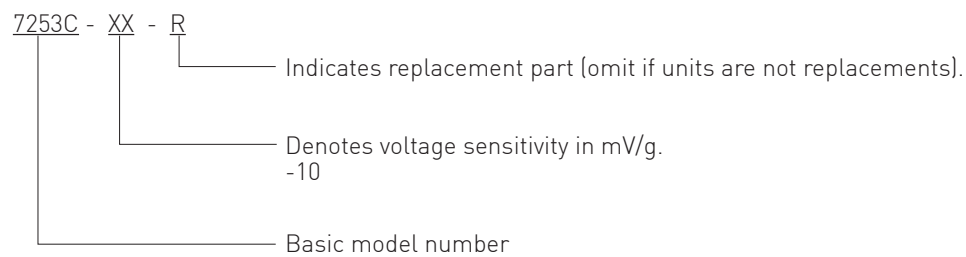
Accessories

Product	Description	7253C-10	7253C-10-R
3027AM3-120	Triaxial cable, 85°C, 3 BNC's at instrumentation end	Included	Optional
32279	Mounting wax	Optional	Optional
EH102	Mounting screw, 4-40 X 1/2"	Included	Included
34549	Washer, anodized	Included	Included
EHM464	Hex wrench	Included	Optional

Notes

1. 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.
2. 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 definition



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