Y50AT *Isolated tri-axial IEPE accelerometer*

CALTROP INSTRUMENTS
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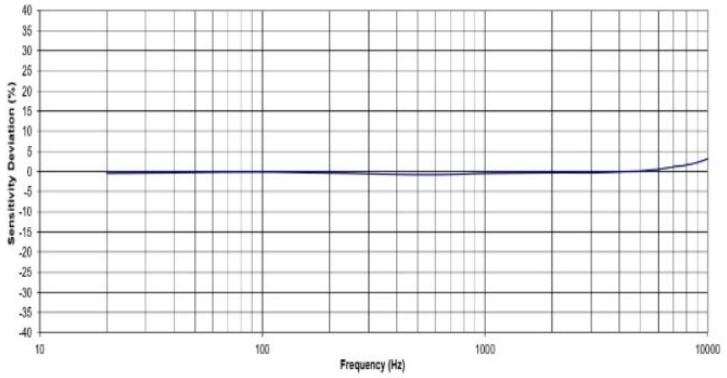
Model Y50AT is an IEPE triaxial accelerometer designed for industrial applications. The accelerometer uses shear piezo electronical element which provides a wide operating frequency range. The IEPE sensor combines outstanding crystals and low noise integral microelectronics to achieve very low sensitivity variation over the operating temperature range, compared to other sensing element designs. The shear element technology also ensures high immunity to base strain errors. The accelerometer uses a housing isolated construction and integral cable assembly for lower mass and wider frequency operation. Excellent frequency response, both amplitude and phase, provide the user with a triaxial accelerometer ideally suited for structural and machine monitoring, drop tests and general laboratory vibration work. The thin configuration of this accelerometer enables the test engineer or technician to measure the accelerations of three orthogonal axes of vibration simultaneously on compact structures. All variations provide reliable measurements and long-term stability.

Features:

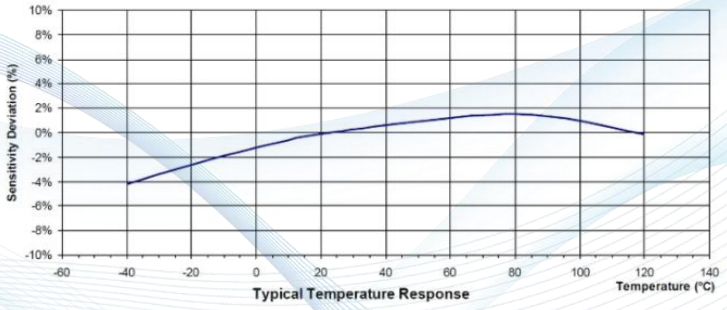
- Tri-axial measurement
- Flexible cable exit
- Adhesive or screw mounting
- Hermetic sealed
- Annular shear mode
- Wide frequency response
- Mounting ground isolated



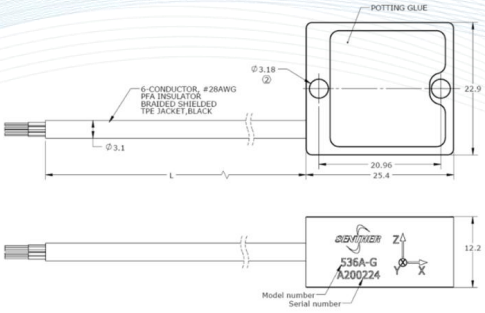
Typical Frequency Response

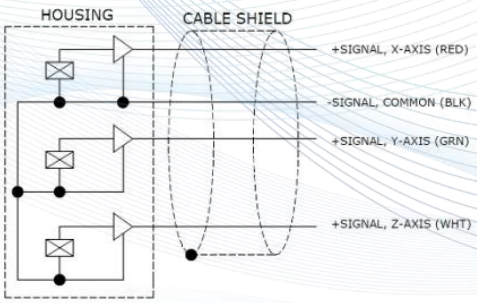
Application:

- Embedded monitoring
- Shock recorder
- Modal analysis
- Machine monitoring



Typical Temperature Response





Specification：

Dynamic Performance	Unit							
Measurement Range	g	10-LF	20	50	100	200	250	500
Sensitivity ±10%	mV/g	500	250	100	50	25	20	10
Frequency Range ±10%	Hz	5～5000	2.5～6000	1～7000	1～8000	1～8000	1～8000	1~9000
Frequency Range ±3dB	Hz	3～7000	2～8000	0.4~10000	0.4~10000	0.4~11000	0.4~11000	0.4~12000
Resonant Frequency	kHz	38						
Transverse Sensitivity	%	<5						
Non-Linearity	% FSO	±1						
Shock Limit	g	5000						
Environmental Parameters								
Temperature Sensitivity Coefficient -55～+125℃	%/℃	±10						
Operating And Storage Temperature	℃	-40~125						
Bias Voltage	Vdc	8～12						
Bias Voltage (-55℃~125℃)	Vdc	6～13						
Electrical Characteristics								
Output Impedance	Ω	<100						
Insulation Resistance	MΩ	>100						
Excitation Voltage	Vdc	18～30						
Excitation Current	mA	2～10						
Physical Properties								
Weight (Cable Not Included)	Grams	20						
Mounting Torque	lb-in (N-m)	6 (0.7)						
Housing Material	Black Anodized Aluminum Alloy							
Humidity	Epoxy Sealed							
Sensing Element	Piezo Ceramic							

Random Accessories		
HS029	M3x16.0 Cup Socket Head Screw And Washer	2pcs Included
HS027	#4-40x3/4" Cup Socket Head Screw And Washer	Optional
AM003	3 Channels IEPE Signal Conditioner	Optional
AM004	Portable Vibration Analyzer	Optional
AM005	8 Channels Data Acquisition System	Optional

Ordering information：

Y50AT	LF	ZZZ
Range 0010=10g 0020=20g 0050=50g 0100=100g 0200=200g 0250=250g 0500=500g	LF=Low frequency Response	
Output Method A=IEPE Output		

E.G：

Y50AT-50

Model Y50AT, 0050, Connector, No Options

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